

UNCLASSIFIED

**Department of Defense  
Fiscal Year (FY) 2016 President's Budget Submission**

February 2015



**Army**

*Justification Book of  
Procurement of Ammunition, Army*

UNCLASSIFIED



The following Justification Books were prepared at a cost of \$1,187,353.84: Aircraft (ACFT), Missile (MSLS), Weapons & Tracked Combat Vehicles (WTCV), Ammunition (AMMO), Other Procurement Army (OPA) 1 - Tactical & Support Vehicles, Other Procurement Army (OPA) 2 - Communications & Electronics, Other Procurement Army (OPA) 3 & 4 - Other Support Equipment & Spares, Research, Development, Test and Evaluation (RDTE) for: Budget Activity 1, Budget Activity 2, Budget Activity 3, Budget Activity 4, Budget Activity 5A, Budget Activity 5B, Budget Activity 6, and Budget Activity 7.

# PROCUREMENT OF AMMUNITION ARMY

## Appropriation Language

For construction, procurement, production, modification, and modernization of ammunition, and accessories therefore; specialized equipment and training devices; expansion of public and private plants, including ammunition facilities, authorized by Sec 2854 of Title 10, United States Code, and land necessary therefore, for the foregoing purposes, and such lands and interest therein, may be acquired, and construction prosecuted thereon prior to approval of title; and procurement and installation of equipment, appliances, and machine tools in public and private plants; reserve plant and Government and contractor-owned equipment layaway; and other expenses necessary for the foregoing purposes, Base \$1,233,378 and OCO \$192,040 to remain available for obligation until September 30, 2018.

TABLE OF CONTENTS

	<b>PAGE</b>
<b>SUMMARY BY APPROPRIATION</b>	<b>2</b>
<b>SUMMARY BY ACTIVITY:</b>	
<b>Procurement of Ammunition, Army</b>	<b>3</b>
ACTIVITY: 01 Ammunition	4
ACTIVITY: 02 Ammunition production base support	7
<b>NOMENCLATURE INDEX</b>	<b>8</b>
<b>SSN INDEX</b>	<b>9</b>

\*\*\*UNCLASSIFIED \*\*\*  
DEPARTMENT OF THE ARMY  
FY 2015 PROCUREMENT PROGRAM  
President's Budget 2016

**APPROPRIATION SUMMARY**

**APPROPRIATION**

Procurement of Ammunition, Army

**TOTAL PROCUREMENT PROGRAM**

**DOLLARS IN THOUSANDS**

<u>FY 2014</u>	<u>FY 2015</u>	<u>FY 2016</u>	<u>FY 2016 OCO</u>	<u>FY 2016 TOTAL</u>	<u>PAGE</u>
1,598,967	1,156,382	1,233,378	192,041	1,425,419	3
<b>1,598,967</b>	<b>1,156,382</b>	<b>1,233,378</b>	<b>192,041</b>	<b>1,425,419</b>	

\*\*\*UNCLASSIFIED \*\*\*  
DEPARTMENT OF THE ARMY  
FY 2015 PROCUREMENT PROGRAM  
President's Budget 2016

APPROPRIATION Procurement of Ammunition, Army		DOLLARS IN THOUSANDS				
ACTIVITY	FY 2014	FY 2015	FY 2016	FY 2016 OCO	FY 2016 TOTAL	PAGE
01 Ammunition	1,153,601	891,905	894,850	192,041	1,086,891	4
02 Ammunition production base support	445,366	264,477	338,528	0	338,528	7
<b>APPROPRIATION TOTALS</b>	<b>1,598,967</b>	<b>1,156,382</b>	<b>1,233,378</b>	<b>192,041</b>	<b>1,425,419</b>	

\*\*\*UNCLASSIFIED \*\*\*  
DEPARTMENT OF THE ARMY  
FY 2015 PROCUREMENT PROGRAM  
President's Budget 2016

EXHIBIT P-1  
DATE: 05-Jan-2015 04:54

APPROPRIATION Procurement of Ammunition, Army ACTIVITY

01 Ammunition

LINE NO	ITEM NOMENCLATURE	ID	FY 2014		FY 2015		FY 2016		FY 2016 OCO		FY 2016 TOTAL	
			QTY	COST	QTY	COST	QTY	COST	QTY	COST	QTY	COST
<i>Small/Medium Cal Ammunition</i>												
1	CTG, 5.56MM, All Types (E00700)	A		73,254		34,943		43,489				43,489
2	CTG, 7.62MM, All Types (E02000)	A		53,571		12,418		40,715				40,715
3	CTG, Handgun, All Types (EA3000)	A		11,358		9,655		7,753				7,753
4	CTG, .50 Cal, All Types (E08000)	A		58,351		29,304		24,728		4,000		28,728
5	CTG, 25MM, All Types (E08200)	A		6,197		8,181		8,305				8,305
6	CTG, 30MM, ALL TYPES (ER8120)	A		110,033		87,667		34,330				34,330
7	CTG, 40MM, All Types (ER8001)	A		55,780		40,904		79,972				79,972
	<i>SUB-ACTIVITY TOTAL</i>			<u>368,544</u>		<u>223,072</u>		<u>239,292</u>		<u>4,000</u>		<u>243,292</u>
<i>Mortar Ammunition</i>												
8	60MM Mortar, All Types (E89600)			51,629		46,742		42,898		11,700		54,598
9	81MM Mortar, All Types (E76000)			24,656		42,433		43,500		4,000		47,500
10	120MM Mortar, All Types (E25500)	B		60,780		39,365		64,372		7,000		71,372
	<i>SUB-ACTIVITY TOTAL</i>			<u>137,065</u>		<u>128,540</u>		<u>150,770</u>		<u>22,700</u>		<u>173,470</u>
<i>Tank Ammunition</i>												
11	Cartridges, Tank, 105MM And 120MM, All Types (E22203)	A		121,550		101,900		105,541				105,541
	<i>SUB-ACTIVITY TOTAL</i>			<u>121,550</u>		<u>101,900</u>		<u>105,541</u>				<u>105,541</u>
<i>Artillery Ammunition</i>												
12	Artillery Cartridges, 75MM & 105MM, All Types (E15101)	A		51,225		47,455		57,756		5,000		62,756
13	ARTILLERY PROJECTILE, 155MM, ALL TYPES (E89500)			47,902		62,023		77,995		10,000		87,995
14	Proj 155mm Extended Range M982 (E80100)	B		77,326		35,672		45,518				45,518
15	Artillery Propellants, Fuzes and Primers, All (E27501)	A		35,205		78,010		78,024		2,000		80,024
	<i>SUB-ACTIVITY TOTAL</i>			<u>211,658</u>		<u>223,160</u>		<u>259,293</u>		<u>17,000</u>		<u>276,293</u>
<i>Rockets</i>												
16	Shoulder Launched Munitions, All Types (EA4000)	A		1,012		945		7,500				7,500
17	Rocket, Hydra 70, All Types (E37300)	A		165,476		94,191		33,653		136,341		169,994

\*\*\* UNCLASSIFIED \*\*\*

EXHIBIT P-1  
4



\*\*\*UNCLASSIFIED \*\*\*  
DEPARTMENT OF THE ARMY  
FY 2015 PROCUREMENT PROGRAM  
President's Budget 2016

EXHIBIT P-1  
DATE: 05-Jan-2015 04:54

APPROPRIATION Procurement of Ammunition, Army ACTIVITY

01 Ammunition

LINE NO	ITEM NOMENCLATURE	ID	FY 2014		FY 2015		FY 2016		FY 2016 OCO		FY 2016 TOTAL	
			QTY	COST	QTY	COST	QTY	COST	QTY	COST	QTY	COST
	<i>SUB-ACTIVITY TOTAL</i>			166,488		95,136		41,153		136,341		177,494
	<i>Other Ammunition</i>											
18	CAD/PAD, All Types (E61000)	A		5,614		5,430		5,639				5,639
19	Demolition Munitions, All Types (E55400)	A		28,074		25,899		9,751		4,000		13,751
20	Grenades, All Types (E34000)	B		36,242		23,751		19,993				19,993
21	Signals, All Types (E46900)	A		15,609		12,082		9,761		8,000		17,761
22	Simulators, All Types (E51200)	A		5,228		11,638		9,749				9,749
	<i>SUB-ACTIVITY TOTAL</i>			90,767		78,800		54,893		12,000		66,893
	<i>Miscellaneous</i>											
23	Ammo Components, All Types (EB0016)	A		11,700		3,594		3,521				3,521
24	Non-Lethal Ammunition, All Types (E91901)	A		7,366				1,700				1,700
25	Items Less Than \$5 Million (AMMO) (EA0055)	A		12,423		8,337		6,181				6,181
26	Ammunition Peculiar Equipment (EA0575)	A		11,604		14,906		17,811				17,811
27	First Destination Transportation (AMMO) (EA0550)	A		14,328		14,349		14,695				14,695
28	Closeout Liabilities (EA8500)			108		111						
	<i>SUB-ACTIVITY TOTAL</i>			57,529		41,297		43,908				43,908
	<b>ACTIVITY TOTAL</b>			<b>1,153,601</b>		<b>891,905</b>		<b>894,850</b>		<b>192,041</b>		<b>1,086,891</b>

\*\*\*UNCLASSIFIED \*\*\*  
DEPARTMENT OF THE ARMY  
FY 2015 PROCUREMENT PROGRAM  
President's Budget 2016

EXHIBIT P-1  
DATE: 05-Jan-2015 04:54

**APPROPRIATION Procurement of Ammunition, Army ACTIVITY**

02 Ammunition production base support

LINE NO	ITEM NOMENCLATURE	ID	FY 2014		FY 2015		FY 2016		FY 2016 OCO		FY 2016 TOTAL	
			QTY	COST	QTY	COST	QTY	COST	QTY	COST	QTY	COST
	<i>Production Base Support</i>											
29	Provision of Industrial Facilities (EP1000)			242,326		148,092		221,703				221,703
30	Conventional Munitions Demilitarization (EP1700)			199,604		113,881		113,250				113,250
31	ARMS Initiative (EP2500)			3,436		2,504		3,575				3,575
	<i>SUB-ACTIVITY TOTAL</i>			<u>445,366</u>		<u>264,477</u>		<u>338,528</u>				<u>338,528</u>
	<b>ACTIVITY TOTAL</b>			<u>445,366</u>		<u>264,477</u>		<u>338,528</u>				<u>338,528</u>
<b>APPROPRIATION TOTAL</b>				<u>1,598,967</u>		<u>1,156,382</u>		<u>1,233,378</u>		<u>192,041</u>		<u>1,425,419</u>

\*\*\*UNCLASSIFIED \*\*\*  
DEPARTMENT OF THE ARMY  
FY 2015 PROCUREMENT PROGRAM  
President's Budget 2016

EXHIBIT P-1  
DATE: 05-Jan-2015 04:54

**NOMENCLATURE INDEX**

<b>SSN</b>	<b>LINE</b>	<b>PAGE</b>	<b>NOMENCLATURE</b>
E25500	10	4	120MM MORTAR, ALL TYPES (E25500)
E89600	8	4	60MM MORTAR, ALL TYPES (E89600)
E76000	9	4	81MM MORTAR, ALL TYPES (E76000)
EB0016	23	5	AMMO COMPONENTS, ALL TYPES (EB0016)
EA0575	26	5	AMMUNITION PECULIAR EQUIPMENT (EA0575)
EP2500	31	7	ARMS INITIATIVE (EP2500)
E15101	12	4	ARTILLERY CARTRIDGES, 75MM & 105MM, ALL TYPES (E15101)
E89500	13	4	ARTILLERY PROJECTILE, 155MM, ALL TYPES (E89500)
E27501	15	5	ARTILLERY PROPELLANTS, FUZES AND PRIMERS, ALL (E27501)
E61000	18	5	CAD/PAD, ALL TYPES (E61000)
E22203	11	4	CARTRIDGES, TANK, 105MM AND 120MM, ALL TYPES (E22203)
EA8500	28	6	CLOSEOUT LIABILITIES (EA8500)
EP1700	30	7	CONVENTIONAL MUNITIONS DEMILITARIZATION (EP1700)
E08000	4	4	CTG, .50 CAL, ALL TYPES (E08000)
E08200	5	4	CTG, 25MM, ALL TYPES (E08200)
ER8120	6	4	CTG, 30MM, ALL TYPES (ER8120)
ER8001	7	4	CTG, 40MM, ALL TYPES (ER8001)
E00700	1	4	CTG, 5.56MM, ALL TYPES (E00700)
E02000	2	4	CTG, 7.62MM, ALL TYPES (E02000)
EA3000	3	4	CTG, HANDGUN, ALL TYPES (EA3000)
E55400	19	5	DEMOLITION MUNITIONS, ALL TYPES (E55400)
EA0550	27	6	FIRST DESTINATION TRANSPORTATION (AMMO) (EA0550)
E34000	20	5	GRENADES, ALL TYPES (E34000)
EA0055	25	5	ITEMS LESS THAN \$5 MILLION (AMMO) (EA0055)
E91901	24	5	NON-LETHAL AMMUNITION, ALL TYPES (E91901)
E80100	14	5	PROJ 155MM EXTENDED RANGE M982 (E80100)
EP1000	29	7	PROVISION OF INDUSTRIAL FACILITIES (EP1000)
E37300	17	5	ROCKET, HYDRA 70, ALL TYPES (E37300)
EA4000	16	5	SHOULDER LAUNCHED MUNITIONS, ALL TYPES (EA4000)
E46900	21	5	SIGNALS, ALL TYPES (E46900)
E51200	22	5	SIMULATORS, ALL TYPES (E51200)

\*\*\*UNCLASSIFIED \*\*\*  
 DEPARTMENT OF THE ARMY  
 FY 2015 PROCUREMENT PROGRAM  
 President's Budget 2016

EXHIBIT P-1  
 DATE: 05-Jan-2015 04:54

**SSN INDEX**

SSN	LINE	PAGE	NOMENCLATURE
E00700	1	4	CTG, 5.56MM, ALL TYPES (E00700)
E02000	2	4	CTG, 7.62MM, ALL TYPES (E02000)
E08000	4	4	CTG, .50 CAL, ALL TYPES (E08000)
E08200	5	4	CTG, 25MM, ALL TYPES (E08200)
E15101	12	4	ARTILLERY CARTRIDGES, 75MM & 105MM, ALL TYPES (E15101)
E22203	11	4	CARTRIDGES, TANK, 105MM AND 120MM, ALL TYPES (E22203)
E25500	10	4	120MM MORTAR, ALL TYPES (E25500)
E27501	15	5	ARTILLERY PROPELLANTS, FUZES AND PRIMERS, ALL (E27501)
E34000	20	5	GRENADES, ALL TYPES (E34000)
E37300	17	5	ROCKET, HYDRA 70, ALL TYPES (E37300)
E46900	21	5	SIGNALS, ALL TYPES (E46900)
E51200	22	5	SIMULATORS, ALL TYPES (E51200)
E55400	19	5	DEMOLITION MUNITIONS, ALL TYPES (E55400)
E61000	18	5	CAD/PAD, ALL TYPES (E61000)
E76000	9	4	81MM MORTAR, ALL TYPES (E76000)
E80100	14	5	PROJ 155MM EXTENDED RANGE M982 (E80100)
E89500	13	4	ARTILLERY PROJECTILE, 155MM, ALL TYPES (E89500)
E89600	8	4	60MM MORTAR, ALL TYPES (E89600)
E91901	24	5	NON-LETHAL AMMUNITION, ALL TYPES (E91901)
EA0055	25	5	ITEMS LESS THAN \$5 MILLION (AMMO) (EA0055)
EA0550	27	6	FIRST DESTINATION TRANSPORTATION (AMMO) (EA0550)
EA0575	26	5	AMMUNITION PECULIAR EQUIPMENT (EA0575)
EA3000	3	4	CTG, HANDGUN, ALL TYPES (EA3000)
EA4000	16	5	SHOULDER LAUNCHED MUNITIONS, ALL TYPES (EA4000)
EA8500	28	6	CLOSEOUT LIABILITIES (EA8500)
EB0016	23	5	AMMO COMPONENTS, ALL TYPES (EB0016)
EP1000	29	7	PROVISION OF INDUSTRIAL FACILITIES (EP1000)
EP1700	30	7	CONVENTIONAL MUNITIONS DEMILITARIZATION (EP1700)
EP2500	31	7	ARMS INITIATIVE (EP2500)
ER8001	7	4	CTG, 40MM, ALL TYPES (ER8001)
ER8120	6	4	CTG, 30MM, ALL TYPES (ER8120)

**UNCLASSIFIED**

Army • President's Budget Submission FY 2016 • Procurement

**Table of Contents**

**Line Item Table of Contents (by Appropriation then Line Number)..... ii**  
**Line Item Table of Contents (Alphabetically by Line Item Title)..... v**  
**Exhibit P-40s..... 1**

**UNCLASSIFIED**

Army • President's Budget Submission FY 2016 • Procurement

**Line Item Table of Contents (by Appropriation then Line Number)**

***Appropriation 2034A: Procurement of Ammunition, Army***

<b>Line #</b>	<b>BA</b>	<b>BSA</b>	<b>Line Item Number</b>	<b>Line Item Title</b>	<b>Page</b>
1	01	30	E00700	CTG, 5.56MM, All Types.....	1
2	01	30	E02000	CTG, 7.62MM, All Types.....	34
3	01	30	EA3000	CTG, Handgun, All Types.....	49
4	01	30	E08000	CTG, .50 Cal, All Types.....	59
5	01	30	E08200	CTG, 25MM, All Types.....	76
6	01	30	ER8120	CTG, 30MM, ALL TYPES.....	85
7	01	30	ER8001	CTG, 40MM, All Types.....	100
8	01	33	E89600	60MM Mortar, All Types.....	122
9	01	33	E76000	81MM Mortar, All Types.....	154
10	01	33	E25500	120MM Mortar, All Types.....	194
11	01	35	E22203	Cartridges, Tank, 105MM And 120MM, All Types.....	221
12	01	37	E15101	Artillery Cartridges, 75MM & 105MM, All Types.....	243
13	01	37	E89500	ARTILLERY PROJECTILE, 155MM, ALL TYPES.....	251
14	01	37	E80100	Proj 155mm Extended Range M982.....	291
15	01	37	E27501	Artillery Propellants, Fuzes and Primers, All.....	298
16	01	45	EA4000	Shoulder Launched Munitions, All Types.....	319

**UNCLASSIFIED**

**UNCLASSIFIED**

Army • President's Budget Submission FY 2016 • Procurement

***Appropriation 2034A: Procurement of Ammunition, Army***

---

<b>Line #</b>	<b>BA</b>	<b>BSA</b>	<b>Line Item Number</b>	<b>Line Item Title</b>	<b>Page</b>
17	01	45	E37300	Rocket, Hydra 70, All Types.....	324
18	01	47	E61000	CAD/PAD, All Types.....	360
19	01	47	E55400	Demolition Munitions, All Types.....	363
20	01	47	E34000	Grenades, All Types.....	388
21	01	47	E46900	Signals, All Types.....	404
22	01	47	E51200	Simulators, All Types.....	414
23	01	50	EB0016	Ammo Components, All Types.....	417
24	01	50	E91901	Non-Lethal Ammunition, All Types.....	420
25	01	50	EA0055	Items Less Than \$5 Million (AMMO).....	428
26	01	50	EA0575	Ammunition Peculiar Equipment.....	432
27	01	50	EA0550	First Destination Transportation (AMMO).....	434
28	01	50	EA8500	Closeout Liabilities.....	435

***Appropriation 2034A: Procurement of Ammunition, Army***

---

<b>Line #</b>	<b>BA</b>	<b>BSA</b>	<b>Line Item Number</b>	<b>Line Item Title</b>	<b>Page</b>
29	02	10	EP1000	Provision of Industrial Facilities.....	438

**UNCLASSIFIED**

**UNCLASSIFIED**

Army • President's Budget Submission FY 2016 • Procurement

***Appropriation 2034A: Procurement of Ammunition, Army***

---

<b>Line #</b>	<b>BA</b>	<b>BSA</b>	<b>Line Item Number</b>	<b>Line Item Title</b>	<b>Page</b>
30	02	10	EP1700	Conventional Munitions Demilitarization.....	534
31	02	10	EP2500	ARMS Initiative.....	541

**UNCLASSIFIED**



**UNCLASSIFIED**

Army • President's Budget Submission FY 2016 • Procurement

**Line Item Table of Contents (Alphabetically by Line Item Title)**

<b>Line Item Title</b>	<b>Line Item Number</b>	<b>Line #</b>	<b>BA</b>	<b>BSA</b>	<b>Page</b>
120MM Mortar, All Types	E25500	10	01	33.....	194
60MM Mortar, All Types	E89600	8	01	33.....	122
81MM Mortar, All Types	E76000	9	01	33.....	154
ARMS Initiative	EP2500	31	02	10.....	541
ARTILLERY PROJECTILE, 155MM, ALL TYPES	E89500	13	01	37.....	251
Ammo Components, All Types	EB0016	23	01	50.....	417
Ammunition Peculiar Equipment	EA0575	26	01	50.....	432
Artillery Cartridges, 75MM & 105MM, All Types	E15101	12	01	37.....	243
Artillery Propellants, Fuzes and Primers, All	E27501	15	01	37.....	298
CAD/PAD, All Types	E61000	18	01	47.....	360
CTG, .50 Cal, All Types	E08000	4	01	30.....	59
CTG, 25MM, All Types	E08200	5	01	30.....	76
CTG, 30MM, ALL TYPES	ER8120	6	01	30.....	85
CTG, 40MM, All Types	ER8001	7	01	30.....	100
CTG, 5.56MM, All Types	E00700	1	01	30.....	1
CTG, 7.62MM, All Types	E02000	2	01	30.....	34
CTG, Handgun, All Types	EA3000	3	01	30.....	49

**UNCLASSIFIED**

**UNCLASSIFIED**

Army • President's Budget Submission FY 2016 • Procurement

<b>Line Item Title</b>	<b>Line Item Number</b>	<b>Line #</b>	<b>BA</b>	<b>BSA</b>	<b>Page</b>
Cartridges, Tank, 105MM And 120MM, All Types	E22203	11	01	35.....	221
Closeout Liabilities	EA8500	28	01	50.....	435
Conventional Munitions Demilitarization	EP1700	30	02	10.....	534
Demolition Munitions, All Types	E55400	19	01	47.....	363
First Destination Transportation (AMMO)	EA0550	27	01	50.....	434
Grenades, All Types	E34000	20	01	47.....	388
Items Less Than \$5 Million (AMMO)	EA0055	25	01	50.....	428
Non-Lethal Ammunition, All Types	E91901	24	01	50.....	420
Proj 155mm Extended Range M982	E80100	14	01	37.....	291
Provision of Industrial Facilities	EP1000	29	02	10.....	438
Rocket, Hydra 70, All Types	E37300	17	01	45.....	324
Shoulder Launched Munitions, All Types	EA4000	16	01	45.....	319
Signals, All Types	E46900	21	01	47.....	404
Simulators, All Types	E51200	22	01	47.....	414

**UNCLASSIFIED**

**Exhibit P-40, Budget Line Item Justification:** PB 2016 Army **Date:** February 2015

**Appropriation / Budget Activity / Budget Sub Activity:**  
 2034A: Procurement of Ammunition, Army / BA 01: Ammunition / BSA 30: Small/  
 Medium Cal Ammunition **P-1 Line Item Number / Title:**  
 E00700 / CTG, 5.56MM, All Types

ID Code (A=Service Ready, B=Not Service Ready) :		Program Elements for Code B Items:					Other Related Program Elements:					
Resource Summary	Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	To Complete	Total
Procurement Quantity (Units in Each)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (\$ in Millions)	2,376.374	73.254	34.943	43.489	-	43.489	44.094	44.976	45.725	46.402	-	2,709.257
Less PY Advance Procurement (\$ in Millions)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P1) (\$ in Millions)	2,376.374	73.254	34.943	43.489	-	43.489	44.094	44.976	45.725	46.402	-	2,709.257
Plus CY Advance Procurement (\$ in Millions)	-	-	-	-	-	-	-	-	-	-	-	-
<b>Total Obligation Authority (\$ in Millions)</b>	<b>2,376.374</b>	<b>73.254</b>	<b>34.943</b>	<b>43.489</b>	<b>-</b>	<b>43.489</b>	<b>44.094</b>	<b>44.976</b>	<b>45.725</b>	<b>46.402</b>	<b>-</b>	<b>2,709.257</b>

*(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)*

Initial Spares (\$ in Millions)	-	-	-	-	-	-	-	-	-	-	-	-
Flyaway Unit Cost (\$ in Dollars)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (\$ in Dollars)	-	-	-	-	-	-	-	-	-	-	-	-

**Description:**

This budget line includes 5.56MM ALL TYPES.

(E01000) 5.56mm High Pressure Test (HPT) round is used for proofing 5.56mm weapon barrels. The cartridge case is stannic stained (silver). This round is required for testing the 5.56mm M16 and M4 family of weapons during manufacturing, test or repair. This item is Code A, approved for service use.

(E01100) 5.56mm, M200 Blank Cartridge is used for training and ceremonial purposes without blank firing adapter (BFA) and in M16A2/A4 Series Rifles and M4 Carbine fitted with BFA. This item is Code A, approved for service use.

(E01101) 5.56mm Blank M200 Linked cartridge consists of a brass cartridge case with primer and propellant sealed with a rosette crimp. This cartridge is used in the M249 Squad Automatic Weapon (SAW) Machine Gun and it is designed to simulate firing during training exercises. The M27 metallic link is merely a scaled-down version of the highly successful 7.62mm M13 one-piece link. The cartridges are packed in various configurations 1) 200 round link belts, 4 belts per M2A1 or PA108 Can and 1600 rounds per wire bound. 2) 200 round SAW MAG, 2 MAGs per M2A1 and 800 rounds per wire bound. This item is Code A, approved for service use.

(E04601) 5.56mm, M855 Ball has a bullet with a conical steel insert and a lead antimony alloy cylindrical core in a copper alloy jacket. The cartridge is used in M16A2/A4 Rifles, M4 Carbine and M249 Machine Gun. This item is Code A, approved for service use.

(E04607) 5.56mm M855A1 Ball Cartridges and M856A1 Tracer Cartridges are linked in a 4-Ball/1-Tracer configuration with the M27 link for use in the M249 Machine Gun. The M855A1 Ball Cartridge has a steel penetrator and non-lead slug surrounded by a copper jacket. The M856A1 Tracer Cartridge is lead free and provides a visible red light signature through its trajectory. This item is Code A, approved for service use.

(E04608) 5.56mm M856A1 Tracer Bullet is lead free and provides a visible red light signature through its trajectory. The bullet is used in M16 and M4 Rifles/Carbines. This item is Code A, approved for service use.

(E95400) 5.56mm, M855A1 Ball Cartridge has a steel penetrator and a non-lead slug in a copper alloy jacket. The cartridge is used in M16A2/A4 Rifles and M4 Carbine. This item is Code A, approved for service use.

**UNCLASSIFIED**

<b>Exhibit P-40, Budget Line Item Justification:</b> PB 2016 Army		<b>Date:</b> February 2015
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2034A: Procurement of Ammunition, Army / BA 01: Ammunition / BSA 30: Small/ Medium Cal Ammunition		<b>P-1 Line Item Number / Title:</b> E00700 / CTG, 5.56MM, All Types
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) :	<b>Program Elements for Code B Items:</b>	<b>Other Related Program Elements:</b>
<p>(E95700) 5.56mm, M855A1 Ball Cartridge has steel penetrator and a non-lead slug in a copper alloy jacket. The cartridge is intended for use in M16 A2/A4 Rifles and M4 Carbine. This cartridge is commercial pack. This item is Code A, approved for service use.</p> <p>(E96110) 5.56mm, Marking Blue M1042 is used for force-on-force training engagements. The cartridge can be fired with the existing M4 Carbine and M16A2/A3/A4 Rifles with the use of a conversion bolt. The projectile leaves a mark upon impact (similar to paintball), thus enabling after action evaluation of training scenarios. However, it differs from paintball in that it is a full complete cartridge with projectile and cartridge case containing a propulsion system for a low velocity launch. This item is Code A, approved for service use.</p> <p>(E96111) 5.56mm, Marking Red, M1042 is used for force-on-force training engagements. The cartridge can be fired with the existing M4 Carbine and M16A2/A3/A4 Rifles with the use of a conversion bolt. The projectile leaves a mark upon impact (similar to paintball), thus enabling after action evaluation of training scenarios. However, it differs from paintball in that it is a full complete cartridge with projectile and cartridge case containing a propulsion system for a low velocity launch. This item is Code A, approved for service use.</p> <p>(E96120) 5.56mm, Marking Blue, M1071 is used for force-on-force training engagements. The cartridge can be fired with the existing M249 Squad Automatic Weapon with the use of the conversion kit. The projectile leaves a mark upon impact (similar to paintball), thus enabling after action evaluation of training scenarios. However, it differs from paintball in that it is a full complete cartridge with projectile and cartridge case containing a propulsion system for a low velocity launch. This item is Code A, approved for service use.</p> <p>(E96121) 5.56mm, Marking Red, M1071 is used for force-on-force training engagements. The cartridge can be fired with the existing M249 Squad Automatic Weapon with the use of the conversion kit. The projectile leaves a mark upon impact (similar to paintball), thus enabling after action evaluation of training scenarios. However, it differs from paintball in that it is a full complete cartridge with projectile and cartridge case containing a propulsion system for a low velocity launch. This item is Code A, approved for service use.</p> <p>(E96125) 5.56mm Short Range Training M1037 clipped round will be used in live fire training scenarios. The M1037 clipped round permits training in adjacent training areas due to its reduced Surface Danger Zone (SDZ) and can be fired with existing M4 weapons. This round is used for Military Operations/Urban Terrain (MOUT) operational training. This item is Code A, approved for service use.</p> <p>(E96126) 5.56mm Short Range Training Ammunition (SRTA) M1037 linked round will be used in live fire training scenarios. The M1037 Linked round permits training in adjacent training areas due to its reduced Surface Danger Zone (SDZ) and can be fired with the existing M249 family of weapons. This item is Code A, approved for service use.</p>		

**UNCLASSIFIED**

**Exhibit P-40, Budget Line Item Justification:** PB 2016 Army **Date:** February 2015

**Appropriation / Budget Activity / Budget Sub Activity:**  
2034A: Procurement of Ammunition, Army / BA 01: Ammunition / BSA 30: Small/  
Medium Cal Ammunition **P-1 Line Item Number / Title:**  
E00700 / CTG, 5.56MM, All Types

ID Code (A=Service Ready, B=Not Service Ready) :			Program Elements for Code B Items:			Other Related Program Elements:		
Exhibits Schedule			Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total
Title*	Exhibits	ID CD	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)
E01000 / CTG 5.56MM TEST HIGH PRES M197	P-40a	A	1,035,156 / 1.325	- / -	547,376 / 0.414	- / -	- / -	- / -
E01101 / CTG 5.56MM BLANK M200 LINKED F/SAW	P-40a	A	776,862K / 201.984	- / -	14,377,823 / 3.380	10,101,146 / 2.340	- / -	10,101,146 / 2.340
E04601 / CTG 5.56MM BALL M855 F/M16A2	P-40a	A	2,568,190K / 744.775	- / 0.109	- / -	- / -	- / -	- / -
E04608 / CTG, 5.56MM TRACER M856A1 SINGLE ROUND	P-40a	A	11,396,153 / 5.926	5,317,622 / 2.133	2,463,058 / 1.149	1,893,107 / 0.860	- / -	1,893,107 / 0.860
E96111 / CTG, 5.56MM MARKING, M1042 (RED)	P-40a	A	12,735,227 / 11.207	472,710 / 0.490	474,933 / 0.371	223,882 / 0.183	- / -	223,882 / 0.183
E96120 / CTG, 5.56MM MARKING LINKED, M1071 (BLUE) F/SAW	P-40a	A	2,308,000 / 3.462	26,768 / 0.032	30,534 / 0.020	46,628 / 0.042	- / -	46,628 / 0.042
E96121 / CTG, 5.56MM MARKING LINKED, M1071 (RED) F/SAW	P-40a	A	3,414,606 / 3.039	219,341 / 0.169	- / -	- / -	- / -	- / -
E96125 / Ctg, 5.56mm, Short Range Training, M1037, sngl rd	P-40a	A	- / -	- / -	90,310 / 0.148	902,175 / 1.205	- / -	902,175 / 1.205
E96126 / Ctg, 5.56mm, Short Range Training, M1037 Linked	P-40a	A	1,018,438 / 4.695	- / -	- / -	879,533 / 1.100	- / -	879,533 / 1.100
E01100 / CTG 5.56MM BLANK M200 [A080]	P-5, P-5a, P-21	A	4,613,609K / 507.497	81,144,376 / 12.115	17,031,887 / 3.123	28,154,401 / 4.632	- / -	28,154,401 / 4.632
E04607 / CTG, 5.56MM 4 BALL M855A1 EPR /1 TR M856A1 LINKED [AB73]	P-5, P-5a, P-21	A	71,556,097 / 29.338	33,589,342 / 14.337	10,073,478 / 4.316	16,053,557 / 6.625	- / -	16,053,557 / 6.625
E95400 / CTG 5.56MM, BALL M855A1 EPR, CLIPPED MIL PACK [AB57]	P-5, P-5a, P-21	A	925,121K / 749.348	44,501,818 / 34.964	14,639,218 / 8.603	18,063,813 / 9.002	- / -	18,063,813 / 9.002
E95700 / CTG, 5.56MM, BALL M855A1, CLIPPED BULK PACK [AB58]	P-5, P-5a, P-21	A	253,173K / 93.674	5,960,328 / 3.905	40,311,293 / 12.660	56,724,108 / 17.500	- / -	56,724,108 / 17.500
E96110 / CTG, 5.56MM MARKING, M1042 (BLUE) [AB09]	P-5, P-5a, P-21	A	30,680,000 / 20.104	6,728,792 / 5.000	971,772 / 0.759	- / -	- / -	- / -
<b>Total Gross/Weapon System Cost</b>			<b>- / 2,376.374</b>	<b>- / 73.254</b>	<b>- / 34.943</b>	<b>- / 43.489</b>	<b>- / -</b>	<b>- / 43.489</b>

\*Title represents 1) the Number / Title for Items; 2) the Number / Title [DODIC] for Ammunition; and/or 3) the Number / Title (Modification Type) for Modifications.

Note: Totals in this Exhibit P-40 set may not be exact or add due to rounding.

**Justification:**

FY 2016 Base Budget supports critical Army Title 10 war reserve/operational, training, and test requirements IAW DoD Instruction 3000.04 (Munitions Requirements Process) and AR 5-13 (Total Army Munitions Requirements Process and Prioritization System). War reserve requirements support OSD-approved Combatant Commander Operational Plans, Homeland Defense, and other OSD-directed missions. Training requirements support individual and collective training of Active and Reserve Component forces at Army schools, home station, and the combined training centers. Test requirements support the development, fielding, safety, and quality assurance of Army munitions and equipment throughout their life-cycle.

In accordance with Section 1815 of the FY 2008 National Defense Authorization Act (P.L. 110-181), this item is necessary for use by the active and reserve components of the Armed Forces for homeland defense missions, domestic emergency responses, and providing military support to civil authorities.

(E01000) 5.56MM High Pressure Test (HPT) round is a testing round used exclusively for acceptance testing of 5.56mm barrels. The procurement supports annual testing requirements and builds a depot level in accordance with the Army's procurement goals.

(E01100) 5.56mm, M200 Blank Cartridge is a training unique item not used in combat. The FY 2016 request supports annual training and builds a depot level in accordance with the Army's procurement goals. FY 2016 Base Procurement dollars in the amount of \$4.632 million supports the procurement of 28.154 million of the M200 Blank Cartridges.

(E01101) 5.56mm, M200 Blank Linked F/SAW is a training unique item. The FY 2016 request supports annual training and builds a depot level in accordance with the Army's procurement goals. FY 2016 Base Procurement dollars in the amount of \$2.340 million supports the procurement of 10.101 million of the M200 Blank Linked Cartridges.

**UNCLASSIFIED**

<b>Exhibit P-40, Budget Line Item Justification:</b> PB 2016 Army		<b>Date:</b> February 2015
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2034A: Procurement of Ammunition, Army / BA 01: Ammunition / BSA 30: Small/ Medium Cal Ammunition		<b>P-1 Line Item Number / Title:</b> E00700 / CTG, 5.56MM, All Types
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) :	<b>Program Elements for Code B Items:</b>	<b>Other Related Program Elements:</b>
<p>(E04601) 5.56mm, M855 Ball Cartridge is a training standard item used in training and combat. The procurement supports annual training and builds a war reserve inventory in accordance with the Army's procurement goals.</p> <p>(E04607) 5.56mm M855A1 Ball and M856A1 Tracer Cartridges are training standard items used in both training and combat. The FY 2016 request supports annual training and builds a war reserve inventory in accordance with the Army's procurement goals. FY 2016 Base Procurement dollars in the amount of \$6.652 million supports the procurement of 16.054 million of the CTG 5.56MM M855A1 Ball and M856A1 Tracer Cartridges.</p> <p>(E04608) 5.56mm M856A1 Tracer Bullet is lead free and is a training standard item used in training and combat. The FY 2016 request supports annual training and builds a war reserve inventory in accordance with the Army's procurement goals. FY 2016 Base Procurement dollars in the amount of \$.860 million supports the procurement of 1.893 million of the CTG 5.56MM M856A1 Tracer Bullet.</p> <p>(E95400) 5.56mm, M855A1 Ball Cartridge is a training standard item used in training and combat. The FY 2016 request supports annual training and builds a war reserve inventory in accordance with the Army's procurement goals. FY 2016 Base Procurement dollars in the amount of \$9.002 million supports the procurement of 18.064 million of the CTG 5.56MM M855A1 Ball Cartridges.</p> <p>(E95700) 5.56mm, M855A1 Ball Cartridge is a training unique item not used in combat. The FY 2016 request supports annual training and builds a depot level in accordance with the Army's procurement goals. FY 2016 Base Procurement dollars in the amount of \$17.500 million supports the procurement of 56.724 million of the M855A1 Ball Cartridges.</p> <p>(E96110/E96111) 5.56mm, Marking Blue/Marking Red, M1042 are training unique items not used in combat. The FY 2016 request supports annual training and builds a depot level in accordance with the Army's procurement goals. FY 2016 Base Procurement dollars in the amount \$.183 million supports the procurement of .224 million of the Marking Red, M1042 Cartridges.</p> <p>(E96120/E96121) 5.56mm, Marking Blue/Marking Red, M1071 are training unique items not used in combat. The FY 2016 request supports annual training and builds a depot level in accordance with the Army's procurement goals. FY 2016 Base Procurement dollars in the amount of \$.042 million supports the procurement of .047 million of the Marking Blue M1071 Cartridges.</p> <p>(E96125) 5.56mm Short Range Training Ammunition (SRTA) M1037 clipped rounds is training unique not used in combat. The FY 2016 request supports annual training and builds a depot level in accordance with the Army's procurement goals. FY 2016 Base Procurement dollars in the amount of \$1.205 million supports the procurement of .902 million of the SRTA M1037 Cartridges.</p> <p>(E96126) M1037 5.56mm Short Range Training Ammunition (SRTA) linked round is a training unique item not used in combat. The FY 2016 request supports annual training and builds a depot level in accordance with the Army's procurement goals. FY 2016 Base Procurement dollars in the amount of \$1.100 million supports the procurement of .880 million of the SRTA M1037 Cartridges.</p>		

**UNCLASSIFIED**

<b>Exhibit P-40a, Budget Item Justification For Aggregated Items: PB 2016 Army</b>															<b>Date:</b> February 2015				
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2034A / 01 / 30										<b>P-1 Line Item Number / Title:</b> E00700 / CTG, 5.56MM, All Types					<b>Aggregated Items Title:</b> Various				

Note: Subtotals or Totals in this Exhibit P-40a may not be exact or add, due to rounding.

Item Number / Title [DODIC]	ID CD	MDAP/MAIS Code	Prior Years			FY 2014			FY 2015			FY 2016 Base			FY 2016 OCO			FY 2016 Total		
			Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)
<b>CTG 5.56MM TEST HIGH PRES M197</b>																				
E01000 / CTG 5.56MM TEST HIGH PRES M197	A		1.28	1,035,156	1.325	-	-	-	0.76	547,376	0.414	-	-	-	-	-	-	-	-	-
E01101 / CTG 5.56MM BLANK M200 LINKED F/SAW	A		0.26	776,862K	201.984	-	-	-	0.24	14,377,823	3.380	0.23	10,101,146	2.340	-	-	-	0.23	10,101,146	2.340
E04601 / CTG 5.56MM BALL M855 F/M16A2	A		0.29	2,568,190K	744.775	-	-	0.109	-	-	-	-	-	-	-	-	-	-	-	-
E04608 / CTG, 5.56MM TRACER M856A1 SINGLE ROUND	A		0.52	11,396,153	5.926	0.40	5,317,622	2.133	0.47	2,463,058	1.149	0.45	1,893,107	0.860	-	-	-	0.45	1,893,107	0.860
E96111 / CTG, 5.56MM MARKING, M1042 (RED)	A		0.88	12,735,227	11.207	1.04	472,710	0.490	0.78	474,933	0.371	0.82	223,882	0.183	-	-	-	0.82	223,882	0.183
E96120 / CTG, 5.56MM MARKING LINKED, M1071 (BLUE) F/SAW	A		1.50	2,308,000	3.462	1.20	26,768	0.032	0.66	30,534	0.020	0.90	46,628	0.042	-	-	-	0.90	46,628	0.042
E96121 / CTG, 5.56MM MARKING LINKED, M1071 (RED) F/SAW	A		0.89	3,414,606	3.039	0.77	219,341	0.169	-	-	-	-	-	-	-	-	-	-	-	-
E96125 / Ctg, 5.56mm, Short Range Training, M1037, sngl rd	A		-	-	-	-	-	-	1.64	90,310	0.148	1.34	902,175	1.205	-	-	-	1.34	902,175	1.205
E96126 / Ctg, 5.56mm, Short Range Training, M1037 Linked	A		4.61	1,018,438	4.695	-	-	-	-	-	-	1.25	879,533	1.100	-	-	-	1.25	879,533	1.100
<i>Subtotal: CTG 5.56MM TEST HIGH PRES M197</i>			-	-	976.413	-	-	2.933	-	-	5.482	-	-	5.730	-	-	-	-	-	5.730
<b>Total</b>			-	-	<b>976.413</b>	-	-	<b>2.933</b>	-	-	<b>5.482</b>	-	-	<b>5.730</b>	-	-	-	-	-	<b>5.730</b>

**UNCLASSIFIED**

<b>Exhibit P-5, Cost Analysis: PB 2016 Army</b>		<b>Date:</b> February 2015
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2034A / 01 / 30		<b>P-1 Line Item Number / Title:</b> E00700 / CTG, 5.56MM, All Types
		<b>Item Number / Title [DODIC]:</b> E01100 / CTG 5.56MM BLANK M200 [A080]

<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : A	<b>MDAP/MAIS Code:</b>
---	------------------------

Resource Summary	Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total
Procurement Quantity ( <i>Units in Each</i> )	4,613,609K	81,144,376	17,031,887	28,154,401	-	28,154,401
Gross/Weapon System Cost ( <i>\$ in Millions</i> )	507.497	12.115	3.123	4.632	-	4.632
Less PY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-
Net Procurement (P1) ( <i>\$ in Millions</i> )	507.497	12.115	3.123	4.632	-	4.632
Plus CY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-
<b>Total Obligation Authority</b> ( <i>\$ in Millions</i> )	<b>507.497</b>	<b>12.115</b>	<b>3.123</b>	<b>4.632</b>	<b>-</b>	<b>4.632</b>

*(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)*

Initial Spares ( <i>\$ in Millions</i> )	-	-	-	-	-	-
Gross/Weapon System Unit Cost ( <i>\$ in Dollars</i> )	0.11	0.15	0.18	0.16	-	0.16

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or add, due to rounding.

Cost Elements	Prior Years			FY 2014			FY 2015			FY 2016 Base			FY 2016 OCO			FY 2016 Total		
	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)
Hardware Cost																		
Recurring Cost																		
LOAD, ASSEMBLE, PACK (LAP) <sup>(†)</sup>	-	-	-	0.13	81,144,376	10.549	0.14	17,031,887	2.384	0.14	28,154,401	3.942	-	-	-	0.14	28,154,401	3.942
BOX METAL M2A2 <sup>(†)</sup>	-	-	-	10.87	72,218	0.785	13.21	15,158	0.200	12.49	25,057	0.313	-	-	-	12.49	25,057	0.313
<i>Subtotal: Recurring Cost</i>	-	-	-	-	-	11.334	-	-	2.585	-	-	4.255	-	-	-	-	-	4.255
<i>Subtotal: Hardware Cost</i>	-	-	-	-	-	11.334	-	-	2.585	-	-	4.255	-	-	-	-	-	4.255
Support Cost																		
PRODUCTION ENGINEERING	-	-	507.497	-	-	0.693	-	-	0.394	-	-	0.377	-	-	-	-	-	0.377
QUALITY ASSURANCE	-	-	-	-	-	0.008	-	-	0.011	-	-	-	-	-	-	-	-	-
ACCEPTANCE TESTING	-	-	-	-	-	0.080	-	-	0.134	-	-	-	-	-	-	-	-	-
<i>Subtotal: Support Cost</i>	-	-	507.497	-	-	0.781	-	-	0.539	-	-	0.377	-	-	-	-	-	0.377
<b>Gross/Weapon System Cost</b>	<b>0.11</b>	<b>4,613,609K</b>	<b>507.497</b>	<b>0.15</b>	<b>81,144,376</b>	<b>12.115</b>	<b>0.18</b>	<b>17,031,887</b>	<b>3.123</b>	<b>0.16</b>	<b>28,154,401</b>	<b>4.632</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>0.16</b>	<b>28,154,401</b>	<b>4.632</b>

(†) indicates the presence of a P-5a



**UNCLASSIFIED**

<b>Exhibit P-5a, Procurement History and Planning:</b> PB 2016 Army							<b>Date:</b> February 2015					
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2034A / 01 / 30			<b>P-1 Line Item Number / Title:</b> E00700 / CTG, 5.56MM, All Types				<b>Item Number / Title [DODIC]:</b> E01100 / CTG 5.56MM BLANK M200 [A080]					

Cost Elements	O C O	FY	Contractor and Location	Method/Type or Funding Vehicle	Location of PCO	Award Date	Date of First Delivery	Qty <i>(Each)</i>	Unit Cost <i>(\$)</i>	Specs Avail Now?	Date Revision Available	RFP Issue Date
LOAD, ASSEMBLE, PACK (LAP) <sup>(†)</sup>		2014	ALLIANT TECHSYSTEMS (LCAAP) / INDEPENDENCE, MO	C / FFP	ROCK ISLAND ARSENAL, IL	Mar 2014	Oct 2014	81,144,376	0.13	Y		
LOAD, ASSEMBLE, PACK (LAP) <sup>(†)</sup>		2015	ALLIANT TECHSYSTEMS (LCAAP) / INDEPENDENCE, MO	C / FFP	ROCK ISLAND ARSENAL, IL	Mar 2015	Oct 2015	17,031,887	0.14	Y		
LOAD, ASSEMBLE, PACK (LAP) <sup>(†)</sup>		2016	ALLIANT TECHSYSTEMS (LCAAP) / INDEPENDENCE, MO	C / FFP	ROCK ISLAND ARSENAL, IL	Mar 2016	Oct 2016	28,154,401	0.14	Y		
BOX METAL M2A2		2014	BWAY CORPORATION / ATLANTA, GA	C / FFP	ROCK ISLAND ARSENAL, IL	Mar 2014	May 2014	72,218	10.87	Y		
BOX METAL M2A2		2015	BWAY CORPORATION / ATLANTA, GA	C / FFP	ROCK ISLAND ARSENAL, IL	May 2015	Jul 2015	15,158	13.21	Y		
BOX METAL M2A2		2016	BWAY CORPORATION / ATLANTA, GA	C / FFP	ROCK ISLAND ARSENAL, IL	May 2016	Jul 2016	25,057	12.49	Y		

<sup>(†)</sup> indicates the presence of a P-21

**Remarks:**  
FY 2014, FY 2015 AND FY 2016 LAP IS A DELIVERY ORDER TO THE EXISTING CONTRACT AWARDED IN FY 2012. FY 2014, BOX METAL M2A2 IS AN AVERAGE UNIT COST.

TYPE CLASSIFICATION DATE: Prior to 1977

**UNCLASSIFIED**

<b>Exhibit P-21, Production Schedule:</b> PB 2016 Army														<b>Date:</b> February 2015											
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2034A / 01 / 30						<b>P-1 Line Item Number / Title:</b> E00700 / CTG, 5.56MM, All Types												<b>Item Number / Title [DODIC]:</b> E01100 / CTG 5.56MM BLANK M200 [A080]							

Cost Elements <i>(Units in Millions (* = &lt; 500 units))</i>						Fiscal Year 2014												Fiscal Year 2015													
O C C O	M F R #	FY	SERVICE	PROC QTY	ACCEP T P R I O R T O 1 O C T 2 0 1 3	BAL D U E A S O F 1 O C T	Calendar Year 2014												Calendar Year 2015												
							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	B A L
LOAD, ASSEMBLE, PACK (LAP)																															
1		2014	ARMY	81.144	-	81.144																									
1		2014	MC (‡)	10.829	-	10.829																									
1		2014	AF (‡)	6.968	-	6.968																									
1		2014	<b>Total</b>	<b>98.942</b>	-	<b>98.942</b>																									
1		2015	ARMY	17.032	-	17.032																									
1		2015	MC (‡)	5.935	-	5.935																									
1		2015	<b>Total</b>	<b>22.967</b>	-	<b>22.967</b>																									
1		2016	ARMY	28.154	-	28.154																									
1		2016	NSOF (‡)	3.762	-	3.762																									
1		2016	<b>Total</b>	<b>31.916</b>	-	<b>31.916</b>																									
							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	B A L

**UNCLASSIFIED**

<b>Exhibit P-21, Production Schedule:</b> PB 2016 Army		<b>Date:</b> February 2015
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2034A / 01 / 30		<b>P-1 Line Item Number / Title:</b> E00700 / CTG, 5.56MM, All Types
		<b>Item Number / Title [DODIC]:</b> E01100 / CTG 5.56MM BLANK M200 [A080]

Cost Elements <i>(Units in Millions (* = &lt; 500 units))</i>					Fiscal Year 2016													Fiscal Year 2017														
O C O	M F R #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2015	BAL DUE AS OF 1 OCT	Calendar Year 2016													Calendar Year 2017												B A L
							O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P		
LOAD, ASSEMBLE, PACK (LAP)																																
1	2014	ARMY		81.144	81.144	-																							-			
1	2014	MC (†)		10.829	10.829	-																							-			
1	2014	AF (†)		6.968	6.968	-																							-			
<b>1</b>	<b>2014</b>	<b>Total</b>		<b>98.942</b>	<b>98.942</b>	<b>-</b>																							<b>-</b>			
1	2015	ARMY		17.032	-	17.032	1.419	1.419	1.419	1.419	1.419	1.419	1.419	1.419	1.419	1.419	1.419	1.419	1.419	1.419	1.419	1.419	1.419	1.419	1.419	1.419	1.419	1.419	-			
1	2015	MC (†)		5.935	-	5.935	.495	.495	.495	.495	.495	.495	.495	.495	.495	.495	.495	.495	.495	.495	.495	.495	.495	.495	.495	.495	.495	.495	-			
<b>1</b>	<b>2015</b>	<b>Total</b>		<b>22.967</b>	<b>-</b>	<b>22.967</b>	<b>1.914</b>	<b>1.914</b>	<b>1.914</b>	<b>1.914</b>	<b>1.914</b>	<b>1.914</b>	<b>1.914</b>	<b>1.914</b>	<b>1.914</b>	<b>1.914</b>	<b>1.914</b>	<b>1.914</b>	<b>1.914</b>	<b>1.914</b>	<b>1.914</b>	<b>1.914</b>	<b>1.914</b>	<b>1.914</b>	<b>1.914</b>	<b>1.914</b>	<b>1.914</b>	<b>-</b>				
1	2016	ARMY		28.154	-	28.154												2.346	2.346	2.346	2.346	2.346	2.346	2.346	2.346	2.346	2.346	2.346	-			
1	2016	NSOF (†)		3.762	-	3.762												.314	.314	.314	.314	.314	.314	.314	.314	.314	.314	.314	-			
<b>1</b>	<b>2016</b>	<b>Total</b>		<b>31.916</b>	<b>-</b>	<b>31.916</b>												<b>2.660</b>	<b>2.660</b>	<b>2.660</b>	<b>2.660</b>	<b>2.660</b>	<b>2.660</b>	<b>2.660</b>	<b>2.660</b>	<b>2.660</b>	<b>2.660</b>	<b>2.660</b>	<b>-</b>			
							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	B A L	

**UNCLASSIFIED**

<b>Exhibit P-21, Production Schedule:</b> PB 2016 Army							<b>Date:</b> February 2015					
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2034A / 01 / 30				<b>P-1 Line Item Number / Title:</b> E00700 / CTG, 5.56MM, All Types				<b>Item Number / Title [DODIC]:</b> E01100 / CTG 5.56MM BLANK M200 [A080]				
		<b>Production Rates (Each / Month)</b>			<b>Procurement Leadtime (Months)</b>							
<b>MFR Ref #</b>	<b>MFR Name - Location</b>	<b>MSR For 2016</b>	<b>1-8-5 For 2016</b>	<b>MAX For 2016</b>	<b>Initial</b>			<b>Reorder</b>				
					<b>ALT Prior to Oct 1</b>	<b>ALT After Oct 1</b>	<b>Mfg PLT</b>	<b>Total After Oct 1</b>	<b>ALT Prior to Oct 1</b>	<b>ALT After Oct 1</b>	<b>Mfg PLT</b>	<b>Total After Oct 1</b>
1	ALLIANT TECHSYSTEMS (LCAAP) - INDEPENDENCE, MO	2,280	13,700,000	41,000,000	6	6	7	13	6	6	7	13

(±) Delivery rows marked with this symbol indicate that they are funded through a separate Line Item. See the respective components' exhibits for details, including the full delivery schedule.

"A" in the Delivery Schedule indicates the Contract Award Date.

Note: Due to space limitations, quantities in the Exhibit P-21 delivery calendar are truncated and rounded based on the maximum quantity in the calendar as follows. If the maximum quantity is less than or equal to than 9,999, all quantities are shown as each. If the maximum quantity is between 10,000 and 999,999 all quantities are shown in thousands. If the maximum quantity is between 1,000,000 and 999,999,999 all quantities are shown in millions (rounded to the nearest thousand). If the maximum quantity is equal or greater than 1,000,000,000 all quantities are shown in billions (rounded to the nearest million).

**UNCLASSIFIED**

<b>Exhibit P-5, Cost Analysis: PB 2016 Army</b>		<b>Date:</b> February 2015
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2034A / 01 / 30	<b>P-1 Line Item Number / Title:</b> E00700 / CTG, 5.56MM, All Types	<b>Item Number / Title [DODIC]:</b> E04607 / CTG, 5.56MM 4 BALL M855A1 EPR /1 TR M856A1 LINKED [AB73]

<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : A	<b>MDAP/MAIS Code:</b>
---	------------------------

<b>Resource Summary</b>	<b>Prior Years</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016 Base</b>	<b>FY 2016 OCO</b>	<b>FY 2016 Total</b>
Procurement Quantity ( <i>Units in Each</i> )	71,556,097	33,589,342	10,073,478	16,053,557	-	16,053,557
Gross/Weapon System Cost ( <i>\$ in Millions</i> )	29.338	14.337	4.316	6.625	-	6.625
Less PY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-
Net Procurement (P1) ( <i>\$ in Millions</i> )	29.338	14.337	4.316	6.625	-	6.625
Plus CY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-
<b>Total Obligation Authority</b> ( <i>\$ in Millions</i> )	<b>29.338</b>	<b>14.337</b>	<b>4.316</b>	<b>6.625</b>	<b>-</b>	<b>6.625</b>

*(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)*

Initial Spares ( <i>\$ in Millions</i> )	-	-	-	-	-	-
Gross/Weapon System Unit Cost ( <i>\$ in Dollars</i> )	0.41	0.43	0.43	0.41	-	0.41

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or add, due to rounding.

<b>Cost Elements</b>	<b>Prior Years</b>			<b>FY 2014</b>			<b>FY 2015</b>			<b>FY 2016 Base</b>			<b>FY 2016 OCO</b>			<b>FY 2016 Total</b>		
	<b>Unit Cost</b> (\$)	<b>Qty</b> (Each)	<b>Total Cost</b> (\$ M)	<b>Unit Cost</b> (\$)	<b>Qty</b> (Each)	<b>Total Cost</b> (\$ M)	<b>Unit Cost</b> (\$)	<b>Qty</b> (Each)	<b>Total Cost</b> (\$ M)	<b>Unit Cost</b> (\$)	<b>Qty</b> (Each)	<b>Total Cost</b> (\$ M)	<b>Unit Cost</b> (\$)	<b>Qty</b> (Each)	<b>Total Cost</b> (\$ M)	<b>Unit Cost</b> (\$)	<b>Qty</b> (Each)	<b>Total Cost</b> (\$ M)
<b>Hardware Cost</b>																		
Recurring Cost																		
COMPLETE ROUND <sup>(†)</sup>	-	-	-	0.34	33,589,342	11.420	0.38	10,073,478	3.828	0.37	16,053,557	5.940	-	-	-	0.37	16,053,557	5.940
<i>Subtotal: Recurring Cost</i>	-	-	-	-	-	11.420	-	-	3.828	-	-	5.940	-	-	-	-	-	5.940
<i>Subtotal: Hardware Cost</i>	-	-	-	-	-	11.420	-	-	3.828	-	-	5.940	-	-	-	-	-	5.940
<b>Support Cost</b>																		
PRODUCTION ENGINEERING	-	-	-	-	-	0.728	-	-	0.428	-	-	0.662	-	-	-	-	-	0.662
QUALITY ASSURANCE	-	-	-	-	-	0.010	-	-	0.011	-	-	0.004	-	-	-	-	-	0.004
ACCEPTANCE TESTING	-	-	-	-	-	-	-	-	0.049	-	-	0.019	-	-	-	-	-	0.019
ENVIRONMENTAL INITIATIVES	-	-	29.338	-	-	2.179	-	-	-	-	-	-	-	-	-	-	-	-
<i>Subtotal: Support Cost</i>	-	-	29.338	-	-	2.917	-	-	0.488	-	-	0.685	-	-	-	-	-	0.685
<b>Gross/Weapon System Cost</b>	<b>0.41</b>	<b>71,556,097</b>	<b>29.338</b>	<b>0.43</b>	<b>33,589,342</b>	<b>14.337</b>	<b>0.43</b>	<b>10,073,478</b>	<b>4.316</b>	<b>0.41</b>	<b>16,053,557</b>	<b>6.625</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>0.41</b>	<b>16,053,557</b>	<b>6.625</b>

(†) indicates the presence of a P-5a

**UNCLASSIFIED**

<b>Exhibit P-5a, Procurement History and Planning:</b> PB 2016 Army							<b>Date:</b> February 2015					
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2034A / 01 / 30			<b>P-1 Line Item Number / Title:</b> E00700 / CTG, 5.56MM, All Types				<b>Item Number / Title [DODIC]:</b> E04607 / CTG, 5.56MM 4 BALL M855A1 EPR /1 TR M856A1 LINKED [AB73]					

Cost Elements	O C O	FY	Contractor and Location	Method/Type or Funding Vehicle	Location of PCO	Award Date	Date of First Delivery	Qty <i>(Each)</i>	Unit Cost <i>(\$)</i>	Specs Avail Now?	Date Revision Available	RFP Issue Date
COMPLETE ROUND <sup>(†)</sup>		2014	ALLIANT TECHSYSTEMS (LCAAP) / INDEPENDENCE, MO	C / FFP	ROCK ISLAND ARSENAL, IL	Mar 2014	Apr 2015	33,589,342	0.34	Y		
COMPLETE ROUND <sup>(†)</sup>		2015	ALLIANT TECHSYSTEMS (LCAAP) / INDEPENDENCE, MO	C / FFP	ROCK ISLAND ARSENAL, IL	Mar 2015	Apr 2016	10,073,478	0.38	Y		
COMPLETE ROUND <sup>(†)</sup>		2016	ALLIANT TECHSYSTEMS (LCAAP) / INDEPENDENCE, MO	C / FFP	ROCK ISLAND ARSENAL, IL	Mar 2016	Apr 2017	16,053,557	0.37	Y		

<sup>(†)</sup> indicates the presence of a P-21

**Remarks:**  
FY 2014, FY 2015 AND FY 2016 COMPLETE ROUND IS A DELIVERY ORDER TO THE EXISTING CONTRACT AWARDED IN FY 2012.

TYPE CLASSIFICATION DATE: 1982

**UNCLASSIFIED**

<b>Exhibit P-21, Production Schedule:</b> PB 2016 Army															<b>Date:</b> February 2015														
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2034A / 01 / 30										<b>P-1 Line Item Number / Title:</b> E00700 / CTG, 5.56MM, All Types										<b>Item Number / Title [DODIC]:</b> E04607 / CTG, 5.56MM 4 BALL M855A1 EPR /1 TR M856A1 LINKED [AB73]									

Cost Elements <i>(Units in Millions (* = &lt; 500 units))</i>						Fiscal Year 2014												Fiscal Year 2015													
O C C #	M F R #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2013	BAL DUE AS OF 1 OCT	Calendar Year 2014												Calendar Year 2015												
							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	B A L
COMPLETE ROUND																															
	1	2014	ARMY	33.589	-	33.589																									
	1	2015	ARMY	10.073	-	10.073																									
	1	2016	ARMY	16.054	-	16.054																									
							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	B A L

**UNCLASSIFIED**

<b>Exhibit P-21, Production Schedule:</b> PB 2016 Army															<b>Date:</b> February 2015														
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2034A / 01 / 30										<b>P-1 Line Item Number / Title:</b> E00700 / CTG, 5.56MM, All Types										<b>Item Number / Title [DODIC]:</b> E04607 / CTG, 5.56MM 4 BALL M855A1 EPR /1 TR M856A1 LINKED [AB73]									

Cost Elements <i>(Units in Millions (* = &lt; 500 units))</i>						Fiscal Year 2016												Fiscal Year 2017																
O C C #	M F R #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2015	BAL DUE AS OF 1 OCT	Calendar Year 2016												Calendar Year 2017															
							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	B A L			
COMPLETE ROUND																																		
1		2014	ARMY	33.589	16.954	16.636	3.085	3.085	3.085	2.000	2.000	3.381																			-			
1		2015	ARMY	10.073	-	10.073	-	-	-	-	-	-	.839	.839	.839	.839	.839	.839	.839	.839	.839	.839	.839	.839	.839	.839	.839	.839			-			
1		2016	ARMY	16.054	-	16.054						A -	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.338	1.338	1.338	1.338	1.338	1.338	8.027
							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	B A L			



**UNCLASSIFIED**

<b>Exhibit P-21, Production Schedule:</b> PB 2016 Army													<b>Date:</b> February 2015												
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2034A / 01 / 30						<b>P-1 Line Item Number / Title:</b> E00700 / CTG, 5.56MM, All Types						<b>Item Number / Title [DODIC]:</b> E04607 / CTG, 5.56MM 4 BALL M855A1 EPR /1 TR M856A1 LINKED [AB73]													

Cost Elements <i>(Units in Millions (* = &lt; 500 units))</i>						Fiscal Year 2018												Fiscal Year 2019													
O C C O	M F R #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2017	BAL DUE AS OF 1 OCT	Calendar Year 2018												Calendar Year 2019												
							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	B A L
COMPLETE ROUND																															
	1	2014	ARMY	33.589	33.589	-																									-
	1	2015	ARMY	10.073	10.073	-																									-
	1	2016	ARMY	16.054	8.027	8.027	1.338	1.338	1.338	1.338	1.338	1.338																-			
							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	B A L

**UNCLASSIFIED**

<b>Exhibit P-21, Production Schedule:</b> PB 2016 Army		<b>Date:</b> February 2015
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2034A / 01 / 30		<b>P-1 Line Item Number / Title:</b> E00700 / CTG, 5.56MM, All Types
<b>Item Number / Title [DODIC]:</b> E04607 / CTG, 5.56MM 4 BALL M855A1 EPR /1 TR M856A1 LINKED [AB73]		

MFR Ref #	MFR Name - Location	Production Rates (Each / Month)			Procurement Leadtime (Months)							
		MSR For 2016	1-8-5 For 2016	MAX For 2016	Initial				Reorder			
					ALT Prior to Oct 1	ALT After Oct 1	Mfg PLT	Total After Oct 1	ALT Prior to Oct 1	ALT After Oct 1	Mfg PLT	Total After Oct 1
1	ALLIANT TECHSYSTEMS (LCAAP) - INDEPENDENCE, MO	1,600	5,143,040	9,771,776	12	6	13	19	6	6	13	19

"A" in the Delivery Schedule indicates the Contract Award Date.  
 Note: Due to space limitations, quantities in the Exhibit P-21 delivery calendar are truncated and rounded based on the maximum quantity in the calendar as follows. If the maximum quantity is less than or equal to than 9,999, all quantities are shown as each. If the maximum quantity is between 10,000 and 999,999 all quantities are shown in thousands. If the maximum quantity is between 1,000,000 and 999,999,999 all quantities are shown in millions (rounded to the nearest thousand). If the maximum quantity is equal or greater than 1,000,000,000 all quantities are shown in billions (rounded to the nearest million).

**UNCLASSIFIED**

<b>Exhibit P-5, Cost Analysis: PB 2016 Army</b>		<b>Date:</b> February 2015
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2034A / 01 / 30		<b>P-1 Line Item Number / Title:</b> E00700 / CTG, 5.56MM, All Types
		<b>Item Number / Title [DODIC]:</b> E95400 / CTG 5.56MM, BALL M855A1 EPR, CLIPPED MIL PACK [AB57]

<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : A	<b>MDAP/MAIS Code:</b>
---	------------------------

<b>Resource Summary</b>	<b>Prior Years</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016 Base</b>	<b>FY 2016 OCO</b>	<b>FY 2016 Total</b>
Procurement Quantity (Units in Each)	925,121K	44,501,818	14,639,218	18,063,813	-	18,063,813
Gross/Weapon System Cost (\$ in Millions)	749.348	34.964	8.603	9.002	-	9.002
Less PY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
Net Procurement (P1) (\$ in Millions)	749.348	34.964	8.603	9.002	-	9.002
Plus CY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
<b>Total Obligation Authority (\$ in Millions)</b>	<b>749.348</b>	<b>34.964</b>	<b>8.603</b>	<b>9.002</b>	<b>-</b>	<b>9.002</b>

*(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)*

Initial Spares (\$ in Millions)	-	-	-	-	-	-
Gross/Weapon System Unit Cost (\$ in Dollars)	0.81	0.79	0.59	0.50	-	0.50

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or add, due to rounding.

<b>Cost Elements</b>	<b>Prior Years</b>			<b>FY 2014</b>			<b>FY 2015</b>			<b>FY 2016 Base</b>			<b>FY 2016 OCO</b>			<b>FY 2016 Total</b>		
	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)
<b>Hardware Cost</b>																		
<b>Recurring Cost</b>																		
LOAD, ASSEMBLE, PACK (LAP) <sup>(†)</sup>	0.81	925,121K	749.348	0.34	44,501,818	15.131	0.40	14,639,218	5.856	0.31	18,063,813	5.600	-	-	-	0.31	18,063,813	5.600
BOX METAL M2A2 <sup>(†)</sup>	-	-	-	10.87	53,402	0.580	13.21	17,567	0.232	12.49	21,677	0.271	-	-	-	12.49	21,677	0.271
<i>Subtotal: Recurring Cost</i>	-	-	749.348	-	-	15.711	-	-	6.088	-	-	5.871	-	-	-	-	-	5.871
<i>Subtotal: Hardware Cost</i>	-	-	749.348	-	-	15.711	-	-	6.088	-	-	5.871	-	-	-	-	-	5.871
<b>Support Cost</b>																		
PRODUCTION ENGINEERING	-	-	-	-	-	2.538	-	-	0.718	-	-	0.638	-	-	-	-	-	0.638
QUALITY ASSURANCE	-	-	-	-	-	0.013	-	-	0.013	-	-	-	-	-	-	-	-	-
ACCEPTANCE TESTING	-	-	-	-	-	0.097	-	-	0.154	-	-	-	-	-	-	-	-	-
ENVIRONMENTAL INITIATIVES	-	-	-	-	-	4.528	-	-	1.630	-	-	2.493	-	-	-	-	-	2.493
MODERNIZATION	-	-	-	-	-	12.077	-	-	-	-	-	-	-	-	-	-	-	-
<i>Subtotal: Support Cost</i>	-	-	-	-	-	19.253	-	-	2.515	-	-	3.131	-	-	-	-	-	3.131
<b>Gross/Weapon System Cost</b>	<b>0.81</b>	<b>925,121K</b>	<b>749.348</b>	<b>0.79</b>	<b>44,501,818</b>	<b>34.964</b>	<b>0.59</b>	<b>14,639,218</b>	<b>8.603</b>	<b>0.50</b>	<b>18,063,813</b>	<b>9.002</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>0.50</b>	<b>18,063,813</b>	<b>9.002</b>

(†) indicates the presence of a P-5a

**UNCLASSIFIED**

<b>Exhibit P-5a, Procurement History and Planning: PB 2016 Army</b>							<b>Date:</b> February 2015					
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2034A / 01 / 30			<b>P-1 Line Item Number / Title:</b> E00700 / CTG, 5.56MM, All Types				<b>Item Number / Title [DODIC]:</b> E95400 / CTG 5.56MM, BALL M855A1 EPR, CLIPPED MIL PACK [AB57]					

Cost Elements	O C O	FY	Contractor and Location	Method/Type or Funding Vehicle	Location of PCO	Award Date	Date of First Delivery	Qty (Each)	Unit Cost (\$)	Specs Avail Now?	Date Revision Available	RFP Issue Date
LOAD, ASSEMBLE, PACK (LAP) <sup>(†)</sup>		2014	ALLIANT TECHSYSTEMS (LCAAP) / INDEPENDENCE, MO	C / FFP	ROCK ISLAND ARSENAL, IL	Mar 2014	Apr 2015	22,250,909	0.34	Y		
LOAD, ASSEMBLE, PACK (LAP) <sup>(†)</sup>		2014	OLIN CORP WINCHESTER DIVISION / EAST ALTON, IL	C / FFP	ROCK ISLAND ARSENAL, IL	Mar 2014	Dec 2014	22,250,909	0.34	Y		
LOAD, ASSEMBLE, PACK (LAP) <sup>(†)</sup>		2015	ALLIANT TECHSYSTEMS (LCAAP) / INDEPENDENCE, MO	C / FFP	ROCK ISLAND ARSENAL, IL	Mar 2015	Apr 2016	7,319,609	0.40	Y		
LOAD, ASSEMBLE, PACK (LAP) <sup>(†)</sup>		2015	OLIN CORP WINCHESTER DIVISION / EAST ALTON, IL	C / FFP	ROCK ISLAND ARSENAL, IL	Mar 2015	May 2015	7,319,609	0.40	Y		
LOAD, ASSEMBLE, PACK (LAP) <sup>(†)</sup>		2016	ALLIANT TECHSYSTEMS (LCAAP) / INDEPENDENCE, MO	C / FFP	ROCK ISLAND ARSENAL, IL	Mar 2016	Apr 2017	16,257,432	0.31	Y		
LOAD, ASSEMBLE, PACK (LAP) <sup>(†)</sup>		2016	TO BE SELECTED / TBS01	C / FFP	ROCK ISLAND ARSENAL, IL	Mar 2016	Mar 2017	1,806,381	0.31	Y		
BOX METAL M2A2		2014	BWAY CORPORATION / ATLANTA, GA	C / FFP	ROCK ISLAND ARSENAL, IL	Mar 2014	May 2014	53,402	10.87	Y		
BOX METAL M2A2		2015	BWAY CORPORATION / ATLANTA, GA	C / FFP	ROCK ISLAND ARSENAL, IL	Mar 2015	Apr 2015	17,567	13.21	Y		
BOX METAL M2A2		2016	BWAY CORPORATION / ATLANTA, GA	C / FFP	ROCK ISLAND ARSENAL, IL	May 2016	Jul 2016	21,677	12.49	Y		

<sup>(†)</sup> indicates the presence of a P-21

**Remarks:**

FY 2014, FY 2015 AND FY 2016 LAP IS A DELIVERY ORDER TO THE EXISTING CONTRACT AWARDED IN FY 2012. FY 2014, FY 2015 AND FY 2016 LAP IS AN AVERAGE UNIT COST BETWEEN TWO CONTRACTORS. FY 2014, BOX METAL M2A2 IS AN AVERAGE UNIT COST. FY 2014 OLIN CORP WINCHESTER DOES NOT REQUIRE BOX, METAL M2A1 OR M2A2.

TYPE CLASSIFICATION DATE: 1982

**UNCLASSIFIED**

<b>Exhibit P-21, Production Schedule:</b> PB 2016 Army												<b>Date:</b> February 2015																							
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2034A / 01 / 30												<b>P-1 Line Item Number / Title:</b> E00700 / CTG, 5.56MM, All Types												<b>Item Number / Title [DODIC]:</b> E95400 / CTG 5.56MM, BALL M855A1 EPR, CLIPPED MIL PACK [AB57]											

Cost Elements (Units in Millions (* = < 500 units))						Fiscal Year 2014														Fiscal Year 2015																			
O C O	M F R #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2013	BAL DUE AS OF 1 OCT	Calendar Year 2014														Calendar Year 2015																		
							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	B A L								
LOAD, ASSEMBLE, PACK (LAP)																																							
Prior Years Deliveries: 925120987																																							
1	2014	ARMY		22.251	-	22.251								A -	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5.862	5.862	5.862	4.665			-	
1	2014	AF (†)		24.927	-	24.927								A -	-	-	-	-	-	-	.489	-	-	-	-	-	-	-	-	-	10.290	9.005	5.143	-			-		
1	2014	<b>Total</b>		<b>47.178</b>	-	<b>47.178</b>								-	-	-	-	-	-	-	<b>.489</b>	-	-	-	-	-	-	-	-	-	<b>16.152</b>	<b>14.867</b>	<b>11.005</b>	<b>4.665</b>			-		
2	2014	ARMY		22.251	-	22.251								A -	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5.862	5.862	5.862	1.201	3.463			-	
1	2015	ARMY		7.320	-	7.320																																	7.320
1	2015	AF (†)		7.493	-	7.493																																	7.493
1	2015	<b>Total</b>		<b>14.812</b>	-	<b>14.812</b>																																	<b>14.812</b>
2	2015	ARMY		7.320	-	7.320																																	4.270
2	2015	AF (†)		7.493	-	7.493																																	4.371
2	2015	<b>Total</b>		<b>14.812</b>	-	<b>14.812</b>																																	<b>8.640</b>
1	2016	ARMY		16.257	-	16.257																																16.257	
1	2016	AF (†)		13.065	-	13.065																																13.065	
1	2016	<b>Total</b>		<b>29.322</b>	-	<b>29.322</b>																																	<b>29.322</b>
3	2016	ARMY		1.806	-	1.806																																1.806	
3	2016	AF (†)		1.452	-	1.452																																1.452	
3	2016	<b>Total</b>		<b>3.258</b>	-	<b>3.258</b>																																	<b>3.258</b>
							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	B A L								

UNCLASSIFIED

<b>Exhibit P-21, Production Schedule:</b> PB 2016 Army														<b>Date:</b> February 2015												
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2034A / 01 / 30						<b>P-1 Line Item Number / Title:</b> E00700 / CTG, 5.56MM, All Types										<b>Item Number / Title [DODIC]:</b> E95400 / CTG 5.56MM, BALL M855A1 EPR, CLIPPED MIL PACK [AB57]										

Cost Elements (Units in Millions (* = < 500 units))						Fiscal Year 2016													Fiscal Year 2017													
O C O	M F R #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2015	BAL DUE AS OF 1 OCT	Calendar Year 2016													Calendar Year 2017												
							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	B A L	
LOAD, ASSEMBLE, PACK (LAP)																																
Prior Years Deliveries: 925120987																																
1	2014	ARMY		22.251	22.251	-																										
1	2014	AF (†)		24.927	24.927	-																										
1	2014	<b>Total</b>		<b>47.178</b>	<b>47.178</b>	-																										
2	2014	ARMY		22.251	22.251	-																										
1	2015	ARMY		7.320	-	7.320	-	-	-	-	-	-	.610	.610	.610	.610	.610	.610	.610	.610	.610	.610	.610	.610	.610	.610	.610					
1	2015	AF (†)		7.493	-	7.493	-	-	-	-	-	-	.624	.624	.624	.624	.624	.624	.624	.624	.624	.624	.624	.624	.624	.624	.624					
1	2015	<b>Total</b>		<b>14.812</b>	-	<b>14.812</b>	-	-	-	-	-	-	<b>1.234</b>	<b>1.234</b>	<b>1.234</b>	<b>1.234</b>	<b>1.234</b>	<b>1.234</b>	<b>1.234</b>	<b>1.234</b>	<b>1.234</b>	<b>1.234</b>	<b>1.234</b>	<b>1.234</b>	<b>1.234</b>	<b>1.234</b>						
2	2015	ARMY		7.320	3.050	4.270	.610	.610	.610	.610	.610	.610																				
2	2015	AF (†)		7.493	3.122	4.371	.624	.624	.624	.624	.624	.624																				
2	2015	<b>Total</b>		<b>14.812</b>	<b>6.172</b>	<b>8.640</b>	<b>1.234</b>	<b>1.234</b>	<b>1.234</b>	<b>1.234</b>	<b>1.234</b>	<b>1.234</b>																				
1	2016	ARMY		16.257	-	16.257																										
1	2016	AF (†)		13.065	-	13.065																										
1	2016	<b>Total</b>		<b>29.322</b>	-	<b>29.322</b>																										
3	2016	ARMY		1.806	-	1.806																										
3	2016	AF (†)		1.452	-	1.452																										
3	2016	<b>Total</b>		<b>3.258</b>	-	<b>3.258</b>																										
							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	B A L	

**UNCLASSIFIED**

<b>Exhibit P-21, Production Schedule: PB 2016 Army</b>		<b>Date:</b> February 2015
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2034A / 01 / 30		<b>P-1 Line Item Number / Title:</b> E00700 / CTG, 5.56MM, All Types
		<b>Item Number / Title [DODIC]:</b> E95400 / CTG 5.56MM, BALL M855A1 EPR, CLIPPED MIL PACK [AB57]

Cost Elements <i>(Units in Millions (* = &lt; 500 units))</i>					Fiscal Year 2018											Fiscal Year 2019												
O C C O	M F R #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2017	BAL DUE AS OF 1 OCT	Calendar Year 2018											Calendar Year 2019										
							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

LOAD, ASSEMBLE, PACK (LAP)																																				
Prior Years Deliveries: 925120987																																				
	1	2014	ARMY	22.251	22.251	-																														-
	1	2014	AF (+)	24.927	24.927	-																														-
	<b>1</b>	<b>2014</b>	<b>Total</b>	<b>47.178</b>	<b>47.178</b>	<b>-</b>																														-
	2	2014	ARMY	22.251	22.251	-																														-
	1	2015	ARMY	7.320	7.320	-																														-
	1	2015	AF (+)	7.493	7.493	-																														-
	<b>1</b>	<b>2015</b>	<b>Total</b>	<b>14.812</b>	<b>14.812</b>	<b>-</b>																														-
	2	2015	ARMY	7.320	7.320	-																														-
	2	2015	AF (+)	7.493	7.493	-																														-
	<b>2</b>	<b>2015</b>	<b>Total</b>	<b>14.812</b>	<b>14.812</b>	<b>-</b>																														-
	1	2016	ARMY	16.257	8.129	8.129	1.355	1.355	1.355	1.355	1.355	1.355																								-
	1	2016	AF (+)	13.065	6.532	6.532	1.089	1.089	1.089	1.089	1.089	1.089																								-
	<b>1</b>	<b>2016</b>	<b>Total</b>	<b>29.322</b>	<b>14.661</b>	<b>14.661</b>	<b>2.444</b>	<b>2.444</b>	<b>2.444</b>	<b>2.444</b>	<b>2.444</b>	<b>2.444</b>																								-
	3	2016	ARMY	1.806	1.054	.753	.151	.151	.151	.151	.151																									-
	3	2016	AF (+)	1.452	.847	.605	.121	.121	.121	.121	.121																									-
	<b>3</b>	<b>2016</b>	<b>Total</b>	<b>3.258</b>	<b>1.901</b>	<b>1.357</b>	<b>.271</b>	<b>.271</b>	<b>.271</b>	<b>.271</b>	<b>.271</b>																									-
							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	B A L					

**UNCLASSIFIED**

<b>Exhibit P-21, Production Schedule:</b> PB 2016 Army		<b>Date:</b> February 2015
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2034A / 01 / 30		<b>P-1 Line Item Number / Title:</b> E00700 / CTG, 5.56MM, All Types
		<b>Item Number / Title [DODIC]:</b> E95400 / CTG 5.56MM, BALL M855A1 EPR, CLIPPED MIL PACK [AB57]

MFR Ref #	MFR Name - Location	Production Rates (Each / Month)			Procurement Leadtime (Months)							
		MSR For 2016	1-8-5 For 2016	MAX For 2016	Initial				Reorder			
					ALT Prior to Oct 1	ALT After Oct 1	Mfg PLT	Total After Oct 1	ALT Prior to Oct 1	ALT After Oct 1	Mfg PLT	Total After Oct 1
1	ALLIANT TECHSYSTEMS (LCAAP) - INDEPENDENCE, MO	1,680	19,400,000	67,500,000	12	6	13	19	6	6	13	19
2	OLIN CORP WINCHESTER DIVISION - EAST ALTON, IL	1,680	500,000	19,500,000	6	6	6	12	6	6	2	8
3	TO BE SELECTED - TBS01	1,680	19,400,000	67,500,000	6	6	12	18	6	6	6	12

(†) Delivery rows marked with this symbol indicate that they are funded through a separate Line Item. See the respective components' exhibits for details, including the full delivery schedule.

"A" in the Delivery Schedule indicates the Contract Award Date.

Note: Due to space limitations, quantities in the Exhibit P-21 delivery calendar are truncated and rounded based on the maximum quantity in the calendar as follows. If the maximum quantity is less than or equal to 9,999, all quantities are shown as each. If the maximum quantity is between 10,000 and 999,999 all quantities are shown in thousands. If the maximum quantity is between 1,000,000 and 999,999,999 all quantities are shown in millions (rounded to the nearest thousand). If the maximum quantity is equal or greater than 1,000,000,000 all quantities are shown in billions (rounded to the nearest million).



**UNCLASSIFIED**

<b>Exhibit P-5, Cost Analysis: PB 2016 Army</b>		<b>Date:</b> February 2015
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2034A / 01 / 30	<b>P-1 Line Item Number / Title:</b> E00700 / CTG, 5.56MM, All Types	<b>Item Number / Title [DODIC]:</b> E95700 / CTG, 5.56MM, BALL M855A1, CLIPPED BULK PACK [AB58]

<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : A	<b>MDAP/MAIS Code:</b>
---	------------------------

Resource Summary	Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total
Procurement Quantity (Units in Each)	253,173K	5,960,328	40,311,293	56,724,108	-	56,724,108
Gross/Weapon System Cost (\$ in Millions)	93.674	3.905	12.660	17.500	-	17.500
Less PY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
Net Procurement (P1) (\$ in Millions)	93.674	3.905	12.660	17.500	-	17.500
Plus CY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
<b>Total Obligation Authority (\$ in Millions)</b>	<b>93.674</b>	<b>3.905</b>	<b>12.660</b>	<b>17.500</b>	<b>-</b>	<b>17.500</b>

*(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)*

Initial Spares (\$ in Millions)	-	-	-	-	-	-
Gross/Weapon System Unit Cost (\$ in Dollars)	0.37	0.66	0.31	0.31	-	0.31

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or add, due to rounding.

Cost Elements	Prior Years			FY 2014			FY 2015			FY 2016 Base			FY 2016 OCO			FY 2016 Total		
	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)
Hardware Cost																		
Recurring Cost																		
LOAD, ASSEMBLE, PACK (LAP) <sup>(†)</sup>	-	-	-	0.25	5,960,328	1.490	0.26	40,311,293	10.481	0.27	56,724,108	15.316	-	-	-	0.27	56,724,108	15.316
BOX METAL M2A2 <sup>(†)</sup>	-	-	-	10.87	6,676	0.073	13.21	45,149	0.596	12.49	63,532	0.794	-	-	-	12.49	63,532	0.794
COMPLETE ROUND	0.37	253,173K	93.674	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Subtotal: Recurring Cost</i>	-	-	93.674	-	-	1.563	-	-	11.077	-	-	16.109	-	-	-	-	-	16.109
<i>Subtotal: Hardware Cost</i>	-	-	93.674	-	-	1.563	-	-	11.077	-	-	16.109	-	-	-	-	-	16.109
Support Cost																		
PRODUCTION ENGINEERING	-	-	-	-	-	2.342	-	-	1.583	-	-	1.171	-	-	-	-	-	1.171
ACCEPTANCE TESTING	-	-	-	-	-	-	-	-	-	-	-	0.010	-	-	-	-	-	0.010
NATO CERTIFICATION	-	-	-	-	-	-	-	-	-	-	-	0.209	-	-	-	-	-	0.209
<i>Subtotal: Support Cost</i>	-	-	-	-	-	2.342	-	-	1.583	-	-	1.390	-	-	-	-	-	1.390
<b>Gross/Weapon System Cost</b>	<b>0.37</b>	<b>253,173K</b>	<b>93.674</b>	<b>0.66</b>	<b>5,960,328</b>	<b>3.905</b>	<b>0.31</b>	<b>40,311,293</b>	<b>12.660</b>	<b>0.31</b>	<b>56,724,108</b>	<b>17.500</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>0.31</b>	<b>56,724,108</b>	<b>17.500</b>

<sup>(†)</sup> indicates the presence of a P-5a

**UNCLASSIFIED**

<b>Exhibit P-5a, Procurement History and Planning:</b> PB 2016 Army							<b>Date:</b> February 2015					
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2034A / 01 / 30			<b>P-1 Line Item Number / Title:</b> E00700 / CTG, 5.56MM, All Types				<b>Item Number / Title [DODIC]:</b> E95700 / CTG, 5.56MM, BALL M855A1, CLIPPED BULK PACK [AB58]					

Cost Elements	O C O	FY	Contractor and Location	Method/Type or Funding Vehicle	Location of PCO	Award Date	Date of First Delivery	Qty <i>(Each)</i>	Unit Cost <i>(\$)</i>	Specs Avail Now?	Date Revision Available	RFP Issue Date
LOAD, ASSEMBLE, PACK (LAP) <sup>(†)</sup>		2014	ALLIANT TECHSYSTEMS (LCAAP) / INDEPENDENCE, MO	C / FFP	ROCK ISLAND ARSENAL, IL	Jun 2014	Apr 2015	5,960,328	0.25	Y		
LOAD, ASSEMBLE, PACK (LAP) <sup>(†)</sup>		2015	ALLIANT TECHSYSTEMS (LCAAP) / INDEPENDENCE, MO	C / FFP	ROCK ISLAND ARSENAL, IL	Mar 2015	Apr 2016	40,311,293	0.26	Y		
LOAD, ASSEMBLE, PACK (LAP) <sup>(†)</sup>		2016	ALLIANT TECHSYSTEMS (LCAAP) / INDEPENDENCE, MO	C / FFP	ROCK ISLAND ARSENAL, IL	Mar 2016	Apr 2017	56,724,108	0.27	Y		
BOX METAL M2A2		2014	BWAY CORPORATION / ATLANTA, GA	C / FFP	ROCK ISLAND ARSENAL, IL	Jun 2014	Jan 2015	6,676	10.87	Y		
BOX METAL M2A2		2015	BWAY CORPORATION / ATLANTA, GA	C / FFP	ROCK ISLAND ARSENAL, IL	May 2015	Jul 2015	45,149	13.21	Y		
BOX METAL M2A2		2016	BWAY CORPORATION / ATLANTA, GA	C / FFP	ROCK ISLAND ARSENAL, IL	May 2016	Jul 2016	63,532	12.49	Y		

<sup>(†)</sup> indicates the presence of a P-21

**Remarks:**  
FY 2014, FY 2015, AND FY 2016 COMPLETE ROUND IS A DELIVERY ORDER TO THE EXISTING CONTRACT AWARDED IN FY 2012. FY 2014, BOX METAL M2A2 IS AN AVERAGE UNIT COST.

TYPE CLASSIFICATION DATE: 1982

**UNCLASSIFIED**

<b>Exhibit P-21, Production Schedule:</b> PB 2016 Army															<b>Date:</b> February 2015														
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2034A / 01 / 30										<b>P-1 Line Item Number / Title:</b> E00700 / CTG, 5.56MM, All Types										<b>Item Number / Title [DODIC]:</b> E95700 / CTG, 5.56MM, BALL M855A1, CLIPPED BULK PACK [AB58]									

Cost Elements <i>(Units in Millions (* = &lt; 500 units))</i>						Fiscal Year 2014												Fiscal Year 2015													
O C C #	M F R #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2013	BAL DUE AS OF 1 OCT	Calendar Year 2014												Calendar Year 2015												
							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	B A L
LOAD, ASSEMBLE, PACK (LAP)																															
1		2014	ARMY	5.960	-	5.960																									
1		2015	ARMY	40.311	-	40.311																									
1		2016	ARMY	56.724	-	56.724																									
							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	B A L

**UNCLASSIFIED**

<b>Exhibit P-21, Production Schedule:</b> PB 2016 Army		<b>Date:</b> February 2015
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2034A / 01 / 30		<b>P-1 Line Item Number / Title:</b> E00700 / CTG, 5.56MM, All Types
		<b>Item Number / Title [DODIC]:</b> E95700 / CTG, 5.56MM, BALL M855A1, CLIPPED BULK PACK [AB58]

Cost Elements (Units in Millions (* = < 500 units))						Fiscal Year 2016														Fiscal Year 2017																	
O C C O	M F R #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2015	BAL DUE AS OF 1 OCT	Calendar Year 2016														Calendar Year 2017																
							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	B A L						
LOAD, ASSEMBLE, PACK (LAP)																																					
	1	2014	ARMY	5.960	5.960	-																															
	1	2015	ARMY	40.311	-	40.311	-	-	-	-	-	-	-	3.359	3.359	3.359	3.359	3.359	3.359	3.359	3.359	3.359	3.359	3.359	3.359	3.359	3.359	3.359									
	1	2016	ARMY	56.724	-	56.724								A-	-	-	-	-	-	-	-	-	-	-	-	-	-	-									
							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	B A L						
																																					28.362

**UNCLASSIFIED**

<b>Exhibit P-21, Production Schedule:</b> PB 2016 Army														<b>Date:</b> February 2015															
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2034A / 01 / 30										<b>P-1 Line Item Number / Title:</b> E00700 / CTG, 5.56MM, All Types										<b>Item Number / Title [DODIC]:</b> E95700 / CTG, 5.56MM, BALL M855A1, CLIPPED BULK PACK [AB58]									

Cost Elements <i>(Units in Millions (* = &lt; 500 units))</i>						Fiscal Year 2018														Fiscal Year 2019														
O C C #	M F R #	FY	SERVICE	PROC QTY	ACCEP T P R I O R T O 1 O C T 2 0 1 7	BAL D U E A S O F 1 O C T	Calendar Year 2018														Calendar Year 2019													
							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	B A L			
LOAD, ASSEMBLE, PACK (LAP)																																		
	1	2014	ARMY	5.960	5.960	-																												
	1	2015	ARMY	40.311	40.311	-																												
	1	2016	ARMY	56.724	28.362	28.362	4.727	4.727	4.727	4.727	4.727	4.727																						
							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	B A L			

**UNCLASSIFIED**

<b>Exhibit P-21, Production Schedule:</b> PB 2016 Army		<b>Date:</b> February 2015
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2034A / 01 / 30		<b>P-1 Line Item Number / Title:</b> E00700 / CTG, 5.56MM, All Types
<b>Item Number / Title [DODIC]:</b> E95700 / CTG, 5.56MM, BALL M855A1, CLIPPED BULK PACK [AB58]		

MFR Ref #	MFR Name - Location	Production Rates (Each / Month)			Procurement Leadtime (Months)							
		MSR For 2016	1-8-5 For 2016	MAX For 2016	Initial				Reorder			
					ALT Prior to Oct 1	ALT After Oct 1	Mfg PLT	Total After Oct 1	ALT Prior to Oct 1	ALT After Oct 1	Mfg PLT	Total After Oct 1
1	ALLIANT TECHSYSTEMS (LCAAP) - INDEPENDENCE, MO	1,800	19,400,000	67,500,000	12	6	13	19	6	6	13	19

"A" in the Delivery Schedule indicates the Contract Award Date.  
 Note: Due to space limitations, quantities in the Exhibit P-21 delivery calendar are truncated and rounded based on the maximum quantity in the calendar as follows. If the maximum quantity is less than or equal to than 9,999, all quantities are shown as each. If the maximum quantity is between 10,000 and 999,999 all quantities are shown in thousands. If the maximum quantity is between 1,000,000 and 999,999,999 all quantities are shown in millions (rounded to the nearest thousand). If the maximum quantity is equal or greater than 1,000,000,000 all quantities are shown in billions (rounded to the nearest million).

**UNCLASSIFIED**

<b>Exhibit P-5, Cost Analysis: PB 2016 Army</b>		<b>Date:</b> February 2015
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2034A / 01 / 30	<b>P-1 Line Item Number / Title:</b> E00700 / CTG, 5.56MM, All Types	<b>Item Number / Title [DODIC]:</b> E96110 / CTG, 5.56MM MARKING, M1042 (BLUE) [AB09]

<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : A				<b>MDAP/MAIS Code:</b>			
<b>Resource Summary</b>		<b>Prior Years</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016 Base</b>	<b>FY 2016 OCO</b>	<b>FY 2016 Total</b>
Procurement Quantity ( <i>Units in Each</i> )		30,680,000	6,728,792	971,772	-	-	-
Gross/Weapon System Cost ( <i>\$ in Millions</i> )		20.104	5.000	0.759	-	-	-
Less PY Advance Procurement ( <i>\$ in Millions</i> )		-	-	-	-	-	-
Net Procurement (P1) ( <i>\$ in Millions</i> )		20.104	5.000	0.759	-	-	-
Plus CY Advance Procurement ( <i>\$ in Millions</i> )		-	-	-	-	-	-
<b>Total Obligation Authority</b> ( <i>\$ in Millions</i> )		<b>20.104</b>	<b>5.000</b>	<b>0.759</b>	-	-	-
<i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i>							
Initial Spares ( <i>\$ in Millions</i> )		-	-	-	-	-	-
Gross/Weapon System Unit Cost ( <i>\$ in Dollars</i> )		0.66	0.74	0.78	-	-	-

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or add, due to rounding.

Cost Elements	Prior Years			FY 2014			FY 2015			FY 2016 Base			FY 2016 OCO			FY 2016 Total		
	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)
Hardware Cost																		
Recurring Cost																		
Complete Round <sup>(t)</sup>	-	-	-	0.71	6,728,792	4.777	0.72	971,772	0.700	-	-	-	-	-	-	-	-	-
<i>Subtotal: Recurring Cost</i>	-	-	-	-	-	4.777	-	-	0.700	-	-	-	-	-	-	-	-	-
<i>Subtotal: Hardware Cost</i>	-	-	-	-	-	4.777	-	-	0.700	-	-	-	-	-	-	-	-	-
Support Cost																		
Production Engineering	-	-	20.104	-	-	0.223	-	-	0.059	-	-	-	-	-	-	-	-	-
<i>Subtotal: Support Cost</i>	-	-	20.104	-	-	0.223	-	-	0.059	-	-	-	-	-	-	-	-	-
<b>Gross/Weapon System Cost</b>	<b>0.66</b>	<b>30,680,000</b>	<b>20.104</b>	<b>0.74</b>	<b>6,728,792</b>	<b>5.000</b>	<b>0.78</b>	<b>971,772</b>	<b>0.759</b>	-	-	-	-	-	-	-	-	-

(t) indicates the presence of a P-5a

**UNCLASSIFIED**

<b>Exhibit P-5a, Procurement History and Planning:</b> PB 2016 Army							<b>Date:</b> February 2015					
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2034A / 01 / 30			<b>P-1 Line Item Number / Title:</b> E00700 / CTG, 5.56MM, All Types				<b>Item Number / Title [DODIC]:</b> E96110 / CTG, 5.56MM MARKING, M1042 (BLUE) [AB09]					

Cost Elements	O C O	FY	Contractor and Location	Method/Type or Funding Vehicle	Location of PCO	Award Date	Date of First Delivery	Qty <i>(Each)</i>	Unit Cost <i>(\$)</i>	Specs Avail Now?	Date Revision Available	RFP Issue Date
Complete Round <sup>(†)</sup>		2014	UTM LTD / BURY ST EDMUNDS, UNITED KINGDOM	C / FFP	PICATINNY ARSENAL, NJ	Jun 2014	Oct 2014	6,728,792	0.71	Y		
Complete Round <sup>(†)</sup>		2015	UTM LTD / BURY ST EDMUNDS, UNITED KINGDOM	C / FFP	PICATINNY ARSENAL, NJ	Mar 2015	Sep 2015	971,772	0.72	Y		

<sup>(†)</sup> indicates the presence of a P-21

**Remarks:**

FY 2014 AND FY 2015 COMPLETE ROUND IS A DELIVERY ORDER TO THE EXISTING CONTRACT AWARDED IN FY 2010.

TYPE CLASSIFICATION DATE: MAY 2009



**UNCLASSIFIED**

<b>Exhibit P-21, Production Schedule:</b> PB 2016 Army		<b>Date:</b> February 2015
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2034A / 01 / 30		<b>P-1 Line Item Number / Title:</b> E00700 / CTG, 5.56MM, All Types
		<b>Item Number / Title [DODIC]:</b> E96110 / CTG, 5.56MM MARKING, M1042 (BLUE) [AB09]

Cost Elements <i>(Units in Millions (* = &lt; 500 units))</i>						Fiscal Year 2014												Fiscal Year 2015																	
O C C #	M F R #	FY	SERVICE	PROC QTY	ACCEP T P R I O R T O 1 O C T 2 0 1 3	BAL D U E A S O F 1 O C T	Calendar Year 2014												Calendar Year 2015																
							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	B A L				
Complete Round																																			
1		2014	ARMY	6.729	-	6.729												A	-	-	-	-	1.934	1.934	-	.397	-	-	-	-	-	-	2.463	-	
1		2014	NAVSEA (‡)	.002	-	.002											A	-	-	-	-	-	-	-	-	-	.002	-	-	-	-	-	-	-	-
1		2014	<b>Total</b>	<b>6.731</b>	-	<b>6.731</b>										-	-	-	-	-	-	<b>1.934</b>	<b>1.934</b>	-	<b>.397</b>	<b>.002</b>	-	-	-	-	-	-	<b>2.463</b>	-	
1		2015	ARMY	.972	-	.972																					A	-	-	-	-	-	-	.081	.891
1		2015	MC (‡)	.018	-	.018																					A	-	-	-	-	-	-	.018	-
1		2015	AF (‡)	.558	-	.558																					A	-	-	-	-	-	-	.046	.511
1		2015	<b>Total</b>	<b>1.548</b>	-	<b>1.548</b>																					-	-	-	-	-	-	-	<b>.146</b>	<b>1.402</b>
							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	B A L				

**UNCLASSIFIED**

<b>Exhibit P-21, Production Schedule:</b> PB 2016 Army														<b>Date:</b> February 2015																							
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2034A / 01 / 30														<b>P-1 Line Item Number / Title:</b> E00700 / CTG, 5.56MM, All Types												<b>Item Number / Title [DODIC]:</b> E96110 / CTG, 5.56MM MARKING, M1042 (BLUE) [AB09]											

Cost Elements <i>(Units in Millions (* = &lt; 500 units))</i>						Fiscal Year 2016														Fiscal Year 2017															
O C C O	M F R #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2015	BAL DUE AS OF 1 OCT	Calendar Year 2016														Calendar Year 2017														B A L
							O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P					
Complete Round																																			
	1	2014	ARMY	6.729	6.729	-																													-
	1	2014	NAVSEA (‡)	.002	.002	-																													-
	<b>1</b>	<b>2014</b>	<b>Total</b>	<b>6.731</b>	<b>6.731</b>	-																													-
	1	2015	ARMY	.972	.081	.891	.081	.081	.081	.081	.081	.081	.081	.081	.081	.081	.081	.081	.081	.081	.081	.081	.081	.081	.081	.081	.081	.081	.081	-					
	1	2015	MC (‡)	.018	.018	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-						
	1	2015	AF (‡)	.558	.046	.511	.046	.046	.046	.046	.046	.046	.046	.046	.046	.046	.046	.046	.046	.046	.046	.046	.046	.046	.046	.046	.046	.046	.046	-					
	<b>1</b>	<b>2015</b>	<b>Total</b>	<b>1.548</b>	<b>.146</b>	<b>1.402</b>	<b>.127</b>	<b>.127</b>	<b>.127</b>	<b>.127</b>	<b>.127</b>	<b>.127</b>	<b>.127</b>	<b>.127</b>	<b>.127</b>	<b>.127</b>	<b>.127</b>	<b>.127</b>	<b>.127</b>	<b>.127</b>	<b>.127</b>	<b>.127</b>	<b>.127</b>	<b>.127</b>	<b>.127</b>	<b>.127</b>	<b>.127</b>	<b>.127</b>	<b>.127</b>	-					
O C C O	M F R #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2015	BAL DUE AS OF 1 OCT	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	B A L				

**UNCLASSIFIED**

<b>Exhibit P-21, Production Schedule:</b> PB 2016 Army		<b>Date:</b> February 2015
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2034A / 01 / 30		<b>P-1 Line Item Number / Title:</b> E00700 / CTG, 5.56MM, All Types
		<b>Item Number / Title [DODIC]:</b> E96110 / CTG, 5.56MM MARKING, M1042 (BLUE) [AB09]

MFR Ref #	MFR Name - Location	Production Rates (Each / Month)			Procurement Leadtime (Months)							
		MSR For 2016	1-8-5 For 2016	MAX For 2016	Initial				Reorder			
					ALT Prior to Oct 1	ALT After Oct 1	Mfg PLT	Total After Oct 1	ALT Prior to Oct 1	ALT After Oct 1	Mfg PLT	Total After Oct 1
1	UTM LTD - BURY ST EDMUNDS, UNITED KINGDOM	175,000	2,000,000	2,500,000	6	6	6	12	6	6	6	12

(±) Delivery rows marked with this symbol indicate that they are funded through a separate Line Item. See the respective components' exhibits for details, including the full delivery schedule.

"A" in the Delivery Schedule indicates the Contract Award Date.

Note: Due to space limitations, quantities in the Exhibit P-21 delivery calendar are truncated and rounded based on the maximum quantity in the calendar as follows. If the maximum quantity is less than or equal to than 9,999, all quantities are shown as each. If the maximum quantity is between 10,000 and 999,999 all quantities are shown in thousands. If the maximum quantity is between 1,000,000 and 999,999,999 all quantities are shown in millions (rounded to the nearest thousand). If the maximum quantity is equal or greater than 1,000,000,000 all quantities are shown in billions (rounded to the nearest million).

**UNCLASSIFIED**

**Exhibit P-40, Budget Line Item Justification:** PB 2016 Army **Date:** February 2015

<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2034A: Procurement of Ammunition, Army / BA 01: Ammunition / BSA 30: Small/ Medium Cal Ammunition	<b>P-1 Line Item Number / Title:</b> E02000 / CTG, 7.62MM, All Types
---	---

ID Code (A=Service Ready, B=Not Service Ready) :		Program Elements for Code B Items:					Other Related Program Elements:					
Resource Summary	Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	To Complete	Total
Procurement Quantity (Units in Each)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (\$ in Millions)	118.435	53.571	12.418	40.715	-	40.715	56.206	67.192	69.237	70.903	-	488.677
Less PY Advance Procurement (\$ in Millions)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P1) (\$ in Millions)	118.435	53.571	12.418	40.715	-	40.715	56.206	67.192	69.237	70.903	-	488.677
Plus CY Advance Procurement (\$ in Millions)	-	-	-	-	-	-	-	-	-	-	-	-
<b>Total Obligation Authority (\$ in Millions)</b>	<b>118.435</b>	<b>53.571</b>	<b>12.418</b>	<b>40.715</b>	<b>-</b>	<b>40.715</b>	<b>56.206</b>	<b>67.192</b>	<b>69.237</b>	<b>70.903</b>	<b>-</b>	<b>488.677</b>
<i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i>												
Initial Spares (\$ in Millions)	-	-	-	-	-	-	-	-	-	-	-	-
Flyaway Unit Cost (\$ in Dollars)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (\$ in Dollars)	-	-	-	-	-	-	-	-	-	-	-	-

**Description:**

(E02011) 7.62mm M80A1 Enhanced Performance Round (EPR) Ball is linked in a 100 round belt with the M13 link for use in the M240 Machine Gun. The M80A1 Ball Cartridge has a steel penetrator and non-lead slug surrounded by a copper jacket. They are intended for use against personnel and non-armored targets. This Item is Code A, approved for service use.

(E02012) 7.62mm M80A1 Enhanced Performance Round (EPR) Ball Cartridges and M62A1 Tracer Cartridges are linked in a 100 round belt in a 4 Ball/1 Tracer configuration with the M13 link for use in the M240 Machine Gun. The M80A1 Ball Cartridge has a steel penetrator and a non-lead slug surrounded by a copper jacket. The M62A1 Tracer Cartridge provides a visible red light signature through its trajectory and is ballistically matched with the M80A1 trajectory. They are intended for use against personnel and non-armored targets. This Item is Code A, approved for service use.

(E02015) 7.62mm M82A1 Blank Bottlenose Cartridge has a bottlenose design with a paper wad closure and a red tip. The M82A1 is used in sniper training and salute ceremonies in M14 rifles when equipped with a firing adapter. This Item is Code A, approved for service use.

(E02500) 7.62mm Dummy M172 W/M13 linked cartridge is properly weighted in terms of mass and center of gravity and is physically contoured to represent a tactical M80 7.62mm ball round. The round is used for weapon manufacturing testing to conduct belt-pull tests for automatic weapons and for environmental conditioning tests of weapons, mounts and ammunition. The M172 linked cartridge is also used for developing new and/or improved mount systems for the vehicles that contain the M240 Series machine gun. This Item is Code A, approved for service use.

(E02501) 7.62mm, M63A1 Dummy, Drilled and Inert ammunition (DDI) is an inert dummy round used as an ammunition training aid and for weapon familiarization. The 7.62mm, M63A1 DDI ammunition is both nickel plated and fluted for easy recognition and to distinguish the dummy ammunition visually from tactical ammunition. This Item is Code A, approved for service use.

(E89100) 7.62mm M118 Long Range round is a match grade design intended for long range accuracy and is packed in a 20 round cardboard carton and intended for use in the M24, M40, M110, and M14 Rifles. It is intended for use against personnel and non-armored targets. This Item is Code A, approved for service use.

**UNCLASSIFIED**

**Exhibit P-40, Budget Line Item Justification:** PB 2016 Army **Date:** February 2015

**Appropriation / Budget Activity / Budget Sub Activity:**  
2034A: Procurement of Ammunition, Army / BA 01: Ammunition / BSA 30: Small/  
Medium Cal Ammunition **P-1 Line Item Number / Title:**  
E02000 / CTG, 7.62MM, All Types

Exhibits Schedule			Program Elements for Code B Items:			Other Related Program Elements:		
Title*	Exhibits	ID CD	Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total
			Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)
E02011 / CTG, 7.62MM M80A1 BALL LINKED, LEAD FREE [AB79]	P-5, P-5a, P-21	A	10,691,000 / 10.038	7,659,020 / 6.470	3,120,761 / 3.100	6,483,025 / 5.900	- / -	6,483,025 / 5.900
E02012 / CTG, 7.62MM 4 BALL/1TR LINKED, LEAD FREE [AB86]	P-5, P-5a, P-21	A	53,014,000 / 70.766	33,937,595 / 46.799	5,366,638 / 7.656	28,623,647 / 34.362	- / -	28,623,647 / 34.362
E02015 / CTG, 7.62MM, BOTTLENOSE BLANK, M82A1	P-40a	A	- / -	464,404 / 0.302	2,248,130 / 0.805	642,428 / 0.234	- / -	642,428 / 0.234
E02500 / CTG 7.62MM DUMMY M172 W/M13 LINK	P-40a	A	5,000 / 0.290	- / -	418,533 / 0.444	- / -	- / -	- / -
E89100 / CARTRIDGE 7.62MM M118 LONG RANGE	P-40a	A	52,259,000 / 37.341	- / -	588,829 / 0.413	313,663 / 0.219	- / -	313,663 / 0.219
<b>Total Gross/Weapon System Cost</b>			<b>- / 118.435</b>	<b>- / 53.571</b>	<b>- / 12.418</b>	<b>- / 40.715</b>	<b>- / -</b>	<b>- / 40.715</b>

\*Title represents 1) the Number / Title for Items; 2) the Number / Title [DODIC] for Ammunition; and/or 3) the Number / Title (Modification Type) for Modifications.

Note: Totals in this Exhibit P-40 set may not be exact or add due to rounding.

**Justification:**

FY 2016 Base Budget supports critical Army Title 10 war reserve/operational, training, and test requirements IAW DoD Instruction 3000.04 (Munitions Requirements Process) and AR 5-13 (Total Army Munitions Requirements Process and Prioritization System). War reserve requirements support OSD-approved Combatant Commander Operational Plans, Homeland Defense, and other OSD-directed missions. Training requirements support individual and collective training of Active and Reserve Component forces at Army schools, home station, and the combined training centers. Test requirements support the development, fielding, safety, and quality assurance of Army munitions and equipment throughout their life-cycle.

In accordance with Section 1815 of the FY 2008 National Defense Authorization Act (P.L. 110-181), this item is necessary for use by the active and reserve components of the Armed Forces for homeland defense missions, domestic emergency responses, and providing military support to civil authorities.

(E02011) 7.62mm M80A1 Enhanced Performance Round (EPR) Lead Free Slug (LFS) Ball Cartridge is a training standard item used in training and combat. The FY 2016 request supports annual training and builds a war reserve inventory in accordance with the Army's procurement goals. FY 2016 Base Procurement dollars in the amount of \$5.900 million supports the procurement of 6.483 million of the 7.62mm M80A1 1 Ball (EPR) (LFS) Cartridges.

(E02012) 7.62mm M80A1 Enhanced Performance Round (EPR) 4 Ball /1 Trace, Lead Free Slug (LFS) Cartridge /M62A1 LFS Tracer Cartridge is a training standard item used in training and combat. The FY 2016 request supports annual training and builds a war reserve inventory in accordance with the Army's procurement goals. FY 2016 Base Procurement dollars in the amount of \$34.362 million supports the procurement of 28.624 million of the 7.62mm M80A1 4 Ball/1Trace (EPR) (LFS) Cartridges.

(E02015) 7.62mm M82A1 Blank Bottleneck Cartridge is a training unique item not used in combat. The FY 2016 request supports annual training and builds a depot level in accordance with the Army's procurement goals. FY 2016 Base Procurement dollars in the amount of \$.234 million supports the procurement of .642 million of the M82A1 Blank Bottleneck Cartridges.

(E02500) 7.62mm Dummy M172 W/M13 linked cartridge is a training unique item not used in combat. The procurement supports annual training and builds a depot level in accordance with the Army's procurement goals.

(E89100) 7.62mm M118 Long Range Round is a training standard item used in training and combat. The FY 2016 request supports annual training and builds a war reserve inventory in accordance with the Army's procurement goals. FY 2016 Base Procurement dollars in the amount of \$.219 million supports the procurement of .314 million of the 7.62mm Long Range Rounds.

**UNCLASSIFIED**

<b>Exhibit P-5, Cost Analysis: PB 2016 Army</b>		<b>Date:</b> February 2015
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2034A / 01 / 30	<b>P-1 Line Item Number / Title:</b> E02000 / CTG, 7.62MM, All Types	<b>Item Number / Title [DODIC]:</b> E02011 / CTG, 7.62MM M80A1 BALL LINKED, LEAD FREE [AB79]

<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : A	<b>MDAP/MAIS Code:</b>
---	------------------------

<b>Resource Summary</b>	<b>Prior Years</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016 Base</b>	<b>FY 2016 OCO</b>	<b>FY 2016 Total</b>
Procurement Quantity ( <i>Units in Each</i> )	10,691,000	7,659,020	3,120,761	6,483,025	-	6,483,025
Gross/Weapon System Cost ( <i>\$ in Millions</i> )	10.038	6.470	3.100	5.900	-	5.900
Less PY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-
Net Procurement (P1) ( <i>\$ in Millions</i> )	10.038	6.470	3.100	5.900	-	5.900
Plus CY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-
<b>Total Obligation Authority</b> ( <i>\$ in Millions</i> )	<b>10.038</b>	<b>6.470</b>	<b>3.100</b>	<b>5.900</b>	<b>-</b>	<b>5.900</b>

*(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)*

Initial Spares ( <i>\$ in Millions</i> )	-	-	-	-	-	-
Gross/Weapon System Unit Cost ( <i>\$ in Dollars</i> )	0.94	0.84	0.99	0.91	-	0.91

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or add, due to rounding.

<b>Cost Elements</b>	<b>Prior Years</b>			<b>FY 2014</b>			<b>FY 2015</b>			<b>FY 2016 Base</b>			<b>FY 2016 OCO</b>			<b>FY 2016 Total</b>		
	<b>Unit Cost</b> (\$)	<b>Qty</b> (Each)	<b>Total Cost</b> (\$ M)	<b>Unit Cost</b> (\$)	<b>Qty</b> (Each)	<b>Total Cost</b> (\$ M)	<b>Unit Cost</b> (\$)	<b>Qty</b> (Each)	<b>Total Cost</b> (\$ M)	<b>Unit Cost</b> (\$)	<b>Qty</b> (Each)	<b>Total Cost</b> (\$ M)	<b>Unit Cost</b> (\$)	<b>Qty</b> (Each)	<b>Total Cost</b> (\$ M)	<b>Unit Cost</b> (\$)	<b>Qty</b> (Each)	<b>Total Cost</b> (\$ M)
<b>Hardware Cost</b>																		
Recurring Cost																		
COMPLETE ROUND <sup>(†)</sup>	-	-	10.038	0.77	7,659,020	5.897	0.84	3,120,761	2.621	0.84	6,483,025	5.446	-	-	-	0.84	6,483,025	5.446
<i>Subtotal: Recurring Cost</i>	-	-	10.038	-	-	5.897	-	-	2.621	-	-	5.446	-	-	-	-	-	5.446
<i>Subtotal: Hardware Cost</i>	-	-	10.038	-	-	5.897	-	-	2.621	-	-	5.446	-	-	-	-	-	5.446
<b>Support Cost</b>																		
PRODUCTION ENGINEERING	-	-	-	-	-	0.536	-	-	0.443	-	-	0.454	-	-	-	-	-	0.454
QUALITY ASSURANCE	-	-	-	-	-	0.004	-	-	0.003	-	-	-	-	-	-	-	-	-
ACCEPTANCE TESTING	-	-	-	-	-	0.033	-	-	0.033	-	-	-	-	-	-	-	-	-
<i>Subtotal: Support Cost</i>	-	-	-	-	-	0.573	-	-	0.479	-	-	0.454	-	-	-	-	-	0.454
<b>Gross/Weapon System Cost</b>	<b>0.94</b>	<b>10,691,000</b>	<b>10.038</b>	<b>0.84</b>	<b>7,659,020</b>	<b>6.470</b>	<b>0.99</b>	<b>3,120,761</b>	<b>3.100</b>	<b>0.91</b>	<b>6,483,025</b>	<b>5.900</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>0.91</b>	<b>6,483,025</b>	<b>5.900</b>

(†) indicates the presence of a P-5a

**UNCLASSIFIED**

<b>Exhibit P-5a, Procurement History and Planning:</b> PB 2016 Army							<b>Date:</b> February 2015					
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2034A / 01 / 30			<b>P-1 Line Item Number / Title:</b> E02000 / CTG, 7.62MM, All Types				<b>Item Number / Title [DODIC]:</b> E02011 / CTG, 7.62MM M80A1 BALL LINKED, LEAD FREE [AB79]					

Cost Elements	O C O	FY	Contractor and Location	Method/Type or Funding Vehicle	Location of PCO	Award Date	Date of First Delivery	Qty <i>(Each)</i>	Unit Cost <i>(\$)</i>	Specs Avail Now?	Date Revision Available	RFP Issue Date
COMPLETE ROUND <sup>(†)</sup>		2014	ALLIANT TECHSYSTEMS (LCAAP) / INDEPENDENCE, MO	C / FFP	ROCK ISLAND ARSENAL, IL	Sep 2014	Jan 2015	7,659,020	0.77	Y		
COMPLETE ROUND <sup>(†)</sup>		2015	ALLIANT TECHSYSTEMS (LCAAP) / INDEPENDENCE, MO	C / FFP	ROCK ISLAND ARSENAL, IL	Mar 2015	Apr 2016	3,120,761	0.84	Y		
COMPLETE ROUND <sup>(†)</sup>		2016	ALLIANT TECHSYSTEMS (LCAAP) / INDEPENDENCE, MO	C / FFP	ROCK ISLAND ARSENAL, IL	Mar 2016	Apr 2017	6,483,025	0.84	Y		

<sup>(†)</sup> indicates the presence of a P-21

**Remarks:**  
FY 2014, FY 2015 AND FY 2016 COMPLETE ROUND IS A DELIVERY ORDER TO THE E XISTING CONTRACT AWARDED IN FY 2012.

TYPE CLASSIFICATION DATE: 1962

UNCLASSIFIED

Exhibit P-21, Production Schedule: PB 2016 Army																				Date: February 2015																																		
Appropriation / Budget Activity / Budget Sub Activity:										P-1 Line Item Number / Title:										Item Number / Title [DODIC]:																																		
2034A / 01 / 30										E02000 / CTG, 7.62MM, All Types										E02011 / CTG, 7.62MM M80A1 BALL LINKED, LEAD FREE [AB79]																																		
Cost Elements (Units in Millions (* = < 500 units))							Fiscal Year 2014												Fiscal Year 2015																																			
O C C #	M F R #	FY	SERVICE	PROC QTY	ACCEP T O 1 OCT 2013	BAL DUE AS OF 1 OCT	Calendar Year 2014												Calendar Year 2015																																			
							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	B A L																							
COMPLETE ROUND																																																						
1		2014	ARMY	7.659	-	7.659													A	-	-	-		.500	1.000	1.000	.547	-	-	-	-	-	-	4.612																				
1		2015	ARMY	3.121	-	3.121																													A	-	-	-	-	-	-	-	-	3.121										
1		2016	ARMY	6.483	-	6.483																																																6.483
							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	B A L																							



**UNCLASSIFIED**

<b>Exhibit P-21, Production Schedule:</b> PB 2016 Army															<b>Date:</b> February 2015														
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2034A / 01 / 30										<b>P-1 Line Item Number / Title:</b> E02000 / CTG, 7.62MM, All Types										<b>Item Number / Title [DODIC]:</b> E02011 / CTG, 7.62MM M80A1 BALL LINKED, LEAD FREE [AB79]									

Cost Elements <i>(Units in Millions (* = &lt; 500 units))</i>						Fiscal Year 2016												Fiscal Year 2017													
O C C #	M F R #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2015	BAL DUE AS OF 1 OCT	Calendar Year 2016												Calendar Year 2017												
							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	B A L
COMPLETE ROUND																															
	1	2014	ARMY	7.659	3.047	4.612	-	-	4.612																				-		
	1	2015	ARMY	3.121	-	3.121	-	-	-	-	-	.260	.260	.260	.260	.260	.260	.260	.260	.260	.260	.260	.260						-		
	1	2016	ARMY	6.483	-	6.483						A -	-	-	-	-	-	-	-	-	-	-	.540	.540	.540	.540	.540	.540	3.242		
							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	B A L

**UNCLASSIFIED**

<b>Exhibit P-21, Production Schedule:</b> PB 2016 Army															<b>Date:</b> February 2015														
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2034A / 01 / 30										<b>P-1 Line Item Number / Title:</b> E02000 / CTG, 7.62MM, All Types										<b>Item Number / Title [DODIC]:</b> E02011 / CTG, 7.62MM M80A1 BALL LINKED, LEAD FREE [AB79]									

Cost Elements <i>(Units in Millions (* = &lt; 500 units))</i>						Fiscal Year 2018												Fiscal Year 2019													
O C C #	M F R #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2017	BAL DUE AS OF 1 OCT	Calendar Year 2018												Calendar Year 2019												
							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	B A L
COMPLETE ROUND																															
	1	2014	ARMY	7.659	7.659	-																							-		
	1	2015	ARMY	3.121	3.121	-																							-		
	1	2016	ARMY	6.483	3.242	3.242	.540	.540	.540	.540	.540	.540																	-		
							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	B A L

**UNCLASSIFIED**

<b>Exhibit P-21, Production Schedule:</b> PB 2016 Army		<b>Date:</b> February 2015
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2034A / 01 / 30		<b>P-1 Line Item Number / Title:</b> E02000 / CTG, 7.62MM, All Types
		<b>Item Number / Title [DODIC]:</b> E02011 / CTG, 7.62MM M80A1 BALL LINKED, LEAD FREE [AB79]

MFR Ref #	MFR Name - Location	Production Rates (Each / Month)			Procurement Leadtime (Months)							
		MSR For 2016	1-8-5 For 2016	MAX For 2016	Initial				Reorder			
					ALT Prior to Oct 1	ALT After Oct 1	Mfg PLT	Total After Oct 1	ALT Prior to Oct 1	ALT After Oct 1	Mfg PLT	Total After Oct 1
1	ALLIANT TECHSYSTEMS (LCAAP) - INDEPENDENCE, MO	800	5,000,000	10,000,000	6	6	13	19	6	6	13	19

"A" in the Delivery Schedule indicates the Contract Award Date.  
 Note: Due to space limitations, quantities in the Exhibit P-21 delivery calendar are truncated and rounded based on the maximum quantity in the calendar as follows. If the maximum quantity is less than or equal to than 9,999, all quantities are shown as each. If the maximum quantity is between 10,000 and 999,999 all quantities are shown in thousands. If the maximum quantity is between 1,000,000 and 999,999,999 all quantities are shown in millions (rounded to the nearest thousand). If the maximum quantity is equal or greater than 1,000,000,000 all quantities are shown in billions (rounded to the nearest million).

**UNCLASSIFIED**

<b>Exhibit P-5, Cost Analysis: PB 2016 Army</b>		<b>Date:</b> February 2015
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2034A / 01 / 30	<b>P-1 Line Item Number / Title:</b> E02000 / CTG, 7.62MM, All Types	<b>Item Number / Title [DODIC]:</b> E02012 / CTG, 7.62MM 4 BALL/1TR LINKED, LEAD FREE [AB86]

<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : A	<b>MDAP/MAIS Code:</b>
---	------------------------

Resource Summary	Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total
Procurement Quantity <i>(Units in Each)</i>	53,014,000	33,937,595	5,366,638	28,623,647	-	28,623,647
Gross/Weapon System Cost <i>(\$ in Millions)</i>	70.766	46.799	7.656	34.362	-	34.362
Less PY Advance Procurement <i>(\$ in Millions)</i>	-	-	-	-	-	-
Net Procurement (P1) <i>(\$ in Millions)</i>	70.766	46.799	7.656	34.362	-	34.362
Plus CY Advance Procurement <i>(\$ in Millions)</i>	-	-	-	-	-	-
<b>Total Obligation Authority</b> <i>(\$ in Millions)</i>	<b>70.766</b>	<b>46.799</b>	<b>7.656</b>	<b>34.362</b>	<b>-</b>	<b>34.362</b>

*(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)*

Initial Spares <i>(\$ in Millions)</i>	-	-	-	-	-	-
Gross/Weapon System Unit Cost <i>(\$ in Dollars)</i>	1.33	1.38	1.43	1.20	-	1.20

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or add, due to rounding.

Cost Elements	Prior Years			FY 2014			FY 2015			FY 2016 Base			FY 2016 OCO			FY 2016 Total		
	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)
Hardware Cost																		
Recurring Cost																		
COMPLETE ROUND <sup>(†)</sup>	-	-	70.766	1.13	33,937,595	38.349	1.15	5,366,638	6.172	1.06	28,623,647	30.341	-	-	-	1.06	28,623,647	30.341
Subtotal: Recurring Cost	-	-	70.766	-	-	38.349	-	-	6.172	-	-	30.341	-	-	-	-	-	30.341
Subtotal: Hardware Cost	-	-	70.766	-	-	38.349	-	-	6.172	-	-	30.341	-	-	-	-	-	30.341
Support Cost																		
PRODUCTION ENGINEERING	-	-	-	-	-	2.878	-	-	0.840	-	-	2.325	-	-	-	-	-	2.325
QUALITY ASSURANCE	-	-	-	-	-	-	-	-	0.006	-	-	0.022	-	-	-	-	-	0.022
ACCEPTANCE TESTING	-	-	-	-	-	-	-	-	0.072	-	-	0.050	-	-	-	-	-	0.050
ENVIRONMENTAL INITIATIVES	-	-	-	-	-	5.572	-	-	0.566	-	-	1.497	-	-	-	-	-	1.497
NATO CERTIFICATION	-	-	-	-	-	-	-	-	-	-	-	0.127	-	-	-	-	-	0.127
Subtotal: Support Cost	-	-	-	-	-	8.450	-	-	1.484	-	-	4.021	-	-	-	-	-	4.021
<b>Gross/Weapon System Cost</b>	<b>1.33</b>	<b>53,014,000</b>	<b>70.766</b>	<b>1.38</b>	<b>33,937,595</b>	<b>46.799</b>	<b>1.43</b>	<b>5,366,638</b>	<b>7.656</b>	<b>1.20</b>	<b>28,623,647</b>	<b>34.362</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>1.20</b>	<b>28,623,647</b>	<b>34.362</b>

(†) indicates the presence of a P-5a

**UNCLASSIFIED**

<b>Exhibit P-5a, Procurement History and Planning:</b> PB 2016 Army							<b>Date:</b> February 2015					
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2034A / 01 / 30			<b>P-1 Line Item Number / Title:</b> E02000 / CTG, 7.62MM, All Types				<b>Item Number / Title [DODIC]:</b> E02012 / CTG, 7.62MM 4 BALL/1TR LINKED, LEAD FREE [AB86]					

Cost Elements	O C O	FY	Contractor and Location	Method/Type or Funding Vehicle	Location of PCO	Award Date	Date of First Delivery	Qty <i>(Each)</i>	Unit Cost <i>(\$)</i>	Specs Avail Now?	Date Revision Available	RFP Issue Date
COMPLETE ROUND <sup>(†)</sup>		2014	OLIN CORP WINCHESTER DIVISION / EAST ALTON, IL	C / FFP	PICATINNY ARSENAL, NJ	Jun 2014	Sep 2015	5,430,015	1.13	Y		
COMPLETE ROUND <sup>(†)</sup>		2014	ALLIANT TECHSYSTEMS (LCAAP) / INDEPENDENCE, MO	C / FFP	ROCK ISLAND ARSENAL, IL	Sep 2014	Apr 2015	28,507,580	1.13	Y		
COMPLETE ROUND <sup>(†)</sup>		2015	ALLIANT TECHSYSTEMS (LCAAP) / INDEPENDENCE, MO	C / FFP	ROCK ISLAND ARSENAL, IL	Mar 2015	Apr 2016	5,366,638	1.15	Y		
COMPLETE ROUND <sup>(†)</sup>		2016	ALLIANT TECHSYSTEMS (LCAAP) / INDEPENDENCE, MO	C / FFP	ROCK ISLAND ARSENAL, IL	Mar 2016	Apr 2017	28,623,647	1.06	Y		

<sup>(†)</sup> indicates the presence of a P-21

**Remarks:**

FY 2014, FY 2015 AND FY 2016 COMPLETE ROUND IS A DELIVERY ORDER TO THE EXISTING CONTRACT AWARDED IN FY 2012.

TYPE CLASSIFICATION DATE: 1957

**UNCLASSIFIED**

<b>Exhibit P-21, Production Schedule:</b> PB 2016 Army		<b>Date:</b> February 2015
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2034A / 01 / 30		<b>P-1 Line Item Number / Title:</b> E02000 / CTG, 7.62MM, All Types
		<b>Item Number / Title [DODIC]:</b> E02012 / CTG, 7.62MM 4 BALL/1TR LINKED, LEAD FREE [AB86]

Cost Elements <i>(Units in Millions (* = &lt; 500 units))</i>						Fiscal Year 2014												Fiscal Year 2015																
O C C #	M F R #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2013	BAL DUE AS OF 1 OCT	Calendar Year 2014												Calendar Year 2015															
							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	B A L			
COMPLETE ROUND																																		
	1	2014	ARMY	5.430	-	5.430											A	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.000	4.430	
	2	2014	ARMY	28.508	-	28.508																												
	2	2015	ARMY	5.367	-	5.367																												
	2	2016	ARMY	28.624	-	28.624																												
							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	B A L			

**UNCLASSIFIED**

<b>Exhibit P-21, Production Schedule:</b> PB 2016 Army															<b>Date:</b> February 2015														
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2034A / 01 / 30										<b>P-1 Line Item Number / Title:</b> E02000 / CTG, 7.62MM, All Types										<b>Item Number / Title [DODIC]:</b> E02012 / CTG, 7.62MM 4 BALL/1TR LINKED, LEAD FREE [AB86]									

Cost Elements <i>(Units in Millions (* = &lt; 500 units))</i>						Fiscal Year 2016												Fiscal Year 2017													
O C C #	M F R #	FY	SERVICE	PROC QTY	ACCEP T O 1 OCT 2015	BAL DUE AS OF 1 OCT	Calendar Year 2016												Calendar Year 2017												
							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	B A L
COMPLETE ROUND																															
	1	2014	ARMY	5.430	1.000	4.430	1.000	1.000	1.000	1.000	.430																		-		
	2	2014	ARMY	28.508	18.000	10.508	2.300	2.100	2.100	2.100	1.908																		-		
	2	2015	ARMY	5.367	-	5.367	-	-	-	-	-	-	2.000	2.000	1.367														-		
	2	2016	ARMY	28.624	-	28.624						A	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	14.312		
							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	B A L

**UNCLASSIFIED**

<b>Exhibit P-21, Production Schedule:</b> PB 2016 Army															<b>Date:</b> February 2015														
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2034A / 01 / 30										<b>P-1 Line Item Number / Title:</b> E02000 / CTG, 7.62MM, All Types										<b>Item Number / Title [DODIC]:</b> E02012 / CTG, 7.62MM 4 BALL/1TR LINKED, LEAD FREE [AB86]									

Cost Elements <i>(Units in Millions (* = &lt; 500 units))</i>						Fiscal Year 2018												Fiscal Year 2019													
O C C #	M F R #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2017	BAL DUE AS OF 1 OCT	Calendar Year 2018												Calendar Year 2019												
							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	B A L
COMPLETE ROUND																															
	1	2014	ARMY	5.430	5.430	-																									
	2	2014	ARMY	28.508	28.508	-																									
	2	2015	ARMY	5.367	5.367	-																									
	2	2016	ARMY	28.624	14.312	14.312	2.385	2.385	2.385	2.385	2.385	2.385																			
							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	B A L



**UNCLASSIFIED**

<b>Exhibit P-21, Production Schedule:</b> PB 2016 Army		<b>Date:</b> February 2015
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2034A / 01 / 30		<b>P-1 Line Item Number / Title:</b> E02000 / CTG, 7.62MM, All Types
		<b>Item Number / Title [DODIC]:</b> E02012 / CTG, 7.62MM 4 BALL/1TR LINKED, LEAD FREE [AB86]

MFR Ref #	MFR Name - Location	Production Rates (Each / Month)			Procurement Leadtime (Months)							
		MSR For 2016	1-8-5 For 2016	MAX For 2016	Initial				Reorder			
					ALT Prior to Oct 1	ALT After Oct 1	Mfg PLT	Total After Oct 1	ALT Prior to Oct 1	ALT After Oct 1	Mfg PLT	Total After Oct 1
1	OLIN CORP WINCHESTER DIVISION - EAST ALTON, IL	500,000	1,500,000	3,000,000	6	6	13	19	6	6	13	19
2	ALLIANT TECHSYSTEMS (LCAAP) - INDEPENDENCE, MO	800	5,000,000	10,000,000	6	6	13	19	6	6	13	19

"A" in the Delivery Schedule indicates the Contract Award Date.

Note: Due to space limitations, quantities in the Exhibit P-21 delivery calendar are truncated and rounded based on the maximum quantity in the calendar as follows. If the maximum quantity is less than or equal to than 9,999, all quantities are shown as each. If the maximum quantity is between 10,000 and 999,999 all quantities are shown in thousands. If the maximum quantity is between 1,000,000 and 999,999,999 all quantities are shown in millions (rounded to the nearest thousand). If the maximum quantity is equal or greater than 1,000,000,000 all quantities are shown in billions (rounded to the nearest million).

**UNCLASSIFIED**

<b>Exhibit P-40a, Budget Item Justification For Aggregated Items:</b> PB 2016 Army															<b>Date:</b> February 2015				
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2034A / 01 / 30										<b>P-1 Line Item Number / Title:</b> E02000 / CTG, 7.62MM, All Types					<b>Aggregated Items Title:</b> Various				

Note: Subtotals or Totals in this Exhibit P-40a may not be exact or add, due to rounding.

Item Number / Title [DODIC]	ID CD	MDAP/MAIS Code	Prior Years			FY 2014			FY 2015			FY 2016 Base			FY 2016 OCO			FY 2016 Total		
			Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)
<b>CTG, 7.62MM, BOTTLENOSE BLANK, M82A1</b>																				
E02015 / CTG, 7.62MM, BOTTLENOSE BLANK, M82A1	A		-	-	-	0.65	464,404	0.302	0.36	2,248,130	0.805	0.36	642,428	0.234	-	-	-	0.36	642,428	0.234
E02500 / CTG 7.62MM DUMMY M172 W/M13 LINK	A		58.00	5,000	0.290	-	-	-	1.06	418,533	0.444	-	-	-	-	-	-	-	-	-
E89100 / CARTRIDGE 7.62MM M118 LONG RANGE	A		0.71	52,259,000	37.341	-	-	-	0.70	588,829	0.413	0.70	313,663	0.219	-	-	-	0.70	313,663	0.219
<i>Subtotal: CTG, 7.62MM, BOTTLENOSE BLANK, M82A1</i>			-	-	37.631	-	-	0.302	-	-	1.662	-	-	0.453	-	-	-	-	-	0.453
<b>Total</b>			-	-	<b>37.631</b>	-	-	<b>0.302</b>	-	-	<b>1.662</b>	-	-	<b>0.453</b>	-	-	-	-	-	<b>0.453</b>

**UNCLASSIFIED**

**Exhibit P-40, Budget Line Item Justification:** PB 2016 Army **Date:** February 2015

<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2034A: Procurement of Ammunition, Army / BA 01: Ammunition / BSA 30: Small/ Medium Cal Ammunition	<b>P-1 Line Item Number / Title:</b> EA3000 / CTG, Handgun, All Types
---	--

ID Code (A=Service Ready, B=Not Service Ready) :	Program Elements for Code B Items:						Other Related Program Elements:					
Resource Summary	Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	To Complete	Total
Procurement Quantity (Units in Each)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (\$ in Millions)	106.754	11.358	9.655	7.753	-	7.753	11.089	11.811	12.197	11.551	-	182.168
Less PY Advance Procurement (\$ in Millions)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P1) (\$ in Millions)	106.754	11.358	9.655	7.753	-	7.753	11.089	11.811	12.197	11.551	-	182.168
Plus CY Advance Procurement (\$ in Millions)	-	-	-	-	-	-	-	-	-	-	-	-
<b>Total Obligation Authority (\$ in Millions)</b>	<b>106.754</b>	<b>11.358</b>	<b>9.655</b>	<b>7.753</b>	<b>-</b>	<b>7.753</b>	<b>11.089</b>	<b>11.811</b>	<b>12.197</b>	<b>11.551</b>	<b>-</b>	<b>182.168</b>

*(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)*

Initial Spares (\$ in Millions)	-	-	-	-	-	-	-	-	-	-	-	-
Flyaway Unit Cost (\$ in Dollars)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (\$ in Dollars)	-	-	-	0.16	-	0.16	-	-	-	-	-	25,879.81

**Description:**

This budget line includes CTG, Handgun, ALL TYPES.

**DESCRIPTION:**

(E96105) CTG 9MM MARKING, M1041 (BLUE) is used for force on force training engagements. The cartridge can be fired with existing M9/M11 pistols with use of a conversion kit. The M9 kit consists of a replacement barrel only. The M11 kit consists of a replacement barrel and recoil spring guide. A blue enameled portion of the M9 and M11 barrels is visible through the ejection port of the weapons. The projectile leaves a mark upon impact (similar to paintball), enabling after action evaluation of training scenarios. It differs from paintball in that it is a full complete cartridge with projectile and cartridge case containing a propulsion system for a low velocity launch. The M1041 is required to hit targets accurately out to 12 meters. The cartridge has been safety certified to be fired in close proximity at properly protected human subjects. This item is Code A, approved for service use.

(E96107) CTG, 9MM MARKING, M1041 (RED) is used for force on force training engagements. The cartridge can be fired with existing M9/M11 pistols with use of a conversion kit. The M9 kit consists of a replacement barrel only. The M11 kit consists of a replacement barrel and recoil spring guide. A blue enameled portion of the M9 and M11 barrels is visible through the ejection port of the weapons. The projectile leaves a mark upon impact (similar to paintball), enabling after action evaluation of training scenarios. It differs from paintball in that it is a full complete cartridge with projectile and cartridge case containing a propulsion system for a low velocity launch. The M1041 is required to hit targets accurately out to 12 meters. The cartridge has been safety certified to be fired in close proximity at properly protected human subjects. This item is Code A, approved for service use.

(E05218) CTG MODULAR HANDGUN SYSTEM AMMUNITION consists of four new cartridges – Ball, Jacketed Hollow Point (JHP), Drilled Dummy Inert (DDI) and Blank. The Ball cartridge is intended for use against enemy personnel, for training, and for force protection. The JHP cartridge is required for use in situations where limited over-penetration of targets is necessary to reduce collateral damage. DDI cartridges are completely inert. They are plated and drilled for easy identification and used for training and weapon familiarization. Blank cartridges are used for K-9 training. These items are not yet type classified or approved for service use. The Modular Handgun System will also utilize three M1041 rounds - Blue, Red and Yellow through the use of a weapon adapter kit.

(E05217) CTG, 9MM SINGLE ROUND, Dummy Drill and Inert (DDI), M917A1 ammunition cartridge is an inert (no energetic) dummy round used as an ammunition training aid and for weapon familiarization. This item is Code A, approved for service use.

**UNCLASSIFIED**

<b>Exhibit P-40, Budget Line Item Justification:</b> PB 2016 Army		<b>Date:</b> February 2015
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2034A: Procurement of Ammunition, Army / BA 01: Ammunition / BSA 30: Small/ Medium Cal Ammunition		<b>P-1 Line Item Number / Title:</b> EA3000 / CTG, Handgun, All Types
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) :	<b>Program Elements for Code B Items:</b>	<b>Other Related Program Elements:</b>
<p>(E05210) CTG 9MM BALL M882 (Combat Pack) cartridge contains a bullet comprised of a copper alloy jacket and a lead alloy core. The cartridge is identified by the plain bullet tip. The ammunition complies with NATO STANAG 4090 and is packed in military type packaging. It is used in M9 and M11 pistols. This item is Code A, approved for service use.</p> <p>(E99900) CTG 9MM BALL M882: COMMERCIAL PACK cartridge contains a bullet comprised of a copper alloy jacket and a lead alloy core. The cartridge is identified by the plain bullet tip. It is packed in commercial type packaging and is not intended for OCONUS shipment. It is used in the M9 and M11 pistols. This item is Code A, approved for service use.</p>		

**UNCLASSIFIED**

**Exhibit P-40, Budget Line Item Justification:** PB 2016 Army **Date:** February 2015

<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2034A: Procurement of Ammunition, Army / BA 01: Ammunition / BSA 30: Small/ Medium Cal Ammunition	<b>P-1 Line Item Number / Title:</b> EA3000 / CTG, Handgun, All Types
---	--

Exhibits Schedule			Program Elements for Code B Items:			Other Related Program Elements:		
Title*	Exhibits	ID CD	Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total
			Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)
E05210 / CTG, 9MM BALL, M882 (Combat Pack)	P-40a	A	283,624K / 70.906	15,068,808 / 2.738	13,075,583 / 2.698	12,796,736 / 2.746	- / -	12,796,736 / 2.746
E05217 / CTG, 9MM SINGLE ROUND, (DDI), M917A1	P-40a	A	- / -	259,720 / 0.545	- / -	- / -	- / -	- / -
E05218 / CTG, MODULAR HANDGUN AMMO	P-40a	B	- / -	- / -	6,541,419 / 3.154	- / 0.952	- / -	- / 0.952
E96105 / CTG, 9MM MARKING, M1041 (BLUE)	P-40a	A	1,961,666 / 1.177	540,812 / 0.324	131,563 / 0.081	151,252 / 0.100	- / -	151,252 / 0.100
E96107 / CTG, 9MM MARKING, M1041 (RED)	P-40a	A	1,079,104 / 0.723	540,744 / 0.324	210,415 / 0.129	96,522 / 0.065	- / -	96,522 / 0.065
E99900 / CTG, 9MM Ball, M882 (Commercial Pack) [AA49]	P-5, P-5a, P-21	A	169,740K / 33.948	49,369,429 / 7.427	20,666,455 / 3.593	20,760,034 / 3.890	- / -	20,760,034 / 3.890
<b>Total Gross/Weapon System Cost</b>			<b>- / 106.754</b>	<b>- / 11.358</b>	<b>- / 9.655</b>	<b>- / 7.753</b>	<b>- / -</b>	<b>- / 7.753</b>

\*Title represents 1) the Number / Title for Items; 2) the Number / Title [DODIC] for Ammunition; and/or 3) the Number / Title (Modification Type) for Modifications.

Note: Totals in this Exhibit P-40 set may not be exact or add due to rounding.

**Justification:**  
FY 2016 Base Budget supports critical Army Title 10 war reserve/operational, training, and test requirements IAW DoD Instruction 3000.04 (Munitions Requirements Process) and AR 5-13 (Total Army Munitions Requirements Process and Prioritization System). War reserve requirements support OSD-approved Combatant Commander Operational Plans, Homeland Defense, and other OSD-directed missions. Training requirements support individual and collective training of Active and Reserve Component forces at Army schools, home station, and the combined training centers. Test requirements support the development, fielding, safety, and quality assurance of Army munitions and equipment throughout their life-cycle.

In accordance with Section 1815 of the FY 2008 National Defense Authorization Act (P.L. 110-181), this item is necessary for use by the active and reserve components of the Armed Forces for homeland defense missions, domestic emergency responses, and providing military support to civil authorities.

(E05210) CTG 9MM BALL, M882 (Combat Pack) is a training standard item used in both training and combat. The FY 2016 request supports annual training and builds a war reserve inventory in accordance with the Army's procurement goals. FY 2016 Base procurement dollars in the amount of \$2.746 million supports the procurement of 12.797 million M882 Ball cartridges.

(E05217) CTG, 9MM SINGLE ROUND, (DDI), M917A1 is a training unique item not used in combat. The procurement supports annual training and builds a depot level in accordance with the Army's procurement goals.

(E05218) CTG MODULAR HANDGUN SYSTEM AMMUNITION is a training standard item used in both training and combat. The FY 2016 procurement supports annual training and builds a depot level in accordance with the Army's procurement goals. FY 2016 Base procurement dollars in the amount of \$.952 million supports annual training and builds a depot level in accordance with the Army's procurement goals.

(E96105) CTG 9MM MARKING, M1041 (BLUE) is a training unique item not used in combat. The FY 2016 procurement supports annual training and builds a depot level in accordance with the Army's procurement goals. FY 2016 Base procurement dollars in the amount of \$0.100 million supports the procurement of 0.151 million M1041 (Blue) cartridges.

(E96107) CTG, 9MM MARKING, M1041 (RED) is a training unique item not used in combat. The FY 2016 procurement supports annual training and builds a depot level in accordance with the Army's procurement goals. FY 2016 Base procurement dollars in the amount of \$0.065 million supports the procurement of 0.097 million M1041 (Red) cartridges.

(E99900) CTG 9MM BALL M882 (COMMERCIAL PACK) is a training standard item packed commercially for training. The FY 2016 procurement supports annual training and builds a depot level in accordance with the Army's procurement goals. FY 2016 Base procurement dollars in the amount of \$3.890 million supports the procurement of 20.760 million M882 Ball cartridges.

**UNCLASSIFIED**

<b>Exhibit P-40a, Budget Item Justification For Aggregated Items:</b> PB 2016 Army														<b>Date:</b> February 2015					
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2034A / 01 / 30							<b>P-1 Line Item Number / Title:</b> EA3000 / CTG, Handgun, All Types							<b>Aggregated Items Title:</b> Various					

Note: Subtotals or Totals in this Exhibit P-40a may not be exact or add, due to rounding.

Item Number / Title [DODIC]	ID CD	MDAP/MAIS Code	Prior Years			FY 2014			FY 2015			FY 2016 Base			FY 2016 OCO			FY 2016 Total		
			Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)
<b>CTG, 9MM BALL, M882 (Combat Pack)</b>																				
E05210 / CTG, 9MM BALL, M882 (Combat Pack)	A		0.25	283,624K	70.906	0.18	15,068,808	2.738	0.21	13,075,583	2.698	0.21	12,796,736	2.746	-	-	-	0.21	12,796,736	2.746
E05217 / CTG, 9MM SINGLE ROUND, (DDI), M917A1	A		-	-	-	2.10	259,720	0.545	-	-	-	-	-	-	-	-	-	-	-	-
E05218 / CTG, MODULAR HANDGUN AMMO	B		-	-	-	-	-	-	0.48	6,541,419	3.154	-	-	0.952	-	-	-	-	-	0.952
E96105 / CTG, 9MM MARKING, M1041 (BLUE)	A		0.60	1,961,666	1.177	0.60	540,812	0.324	0.62	131,563	0.081	0.66	151,252	0.100	-	-	-	0.66	151,252	0.100
E96107 / CTG, 9MM MARKING, M1041 (RED)	A		0.67	1,079,104	0.723	0.60	540,744	0.324	0.61	210,415	0.129	0.67	96,522	0.065	-	-	-	0.67	96,522	0.065
<i>Subtotal: CTG, 9MM BALL, M882 (Combat Pack)</i>			-	-	72.806	-	-	3.931	-	-	6.062	-	-	3.863	-	-	-	-	-	3.863
<b>Total</b>			-	-	72.806	-	-	3.931	-	-	6.062	-	-	3.863	-	-	-	-	-	3.863

**UNCLASSIFIED**

<b>Exhibit P-5, Cost Analysis: PB 2016 Army</b>		<b>Date:</b> February 2015
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2034A / 01 / 30	<b>P-1 Line Item Number / Title:</b> EA3000 / CTG, Handgun, All Types	<b>Item Number / Title [DODIC]:</b> E99900 / CTG, 9MM Ball, M882 (Commercial Pack) [AA49]

<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : A	<b>MDAP/MAIS Code:</b>
---	------------------------

<b>Resource Summary</b>	<b>Prior Years</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016 Base</b>	<b>FY 2016 OCO</b>	<b>FY 2016 Total</b>
Procurement Quantity <i>(Units in Each)</i>	169,740K	49,369,429	20,666,455	20,760,034	-	20,760,034
Gross/Weapon System Cost <i>(\$ in Millions)</i>	33.948	7.427	3.593	3.890	-	3.890
Less PY Advance Procurement <i>(\$ in Millions)</i>	-	-	-	-	-	-
Net Procurement (P1) <i>(\$ in Millions)</i>	33.948	7.427	3.593	3.890	-	3.890
Plus CY Advance Procurement <i>(\$ in Millions)</i>	-	-	-	-	-	-
<b>Total Obligation Authority</b> <i>(\$ in Millions)</i>	<b>33.948</b>	<b>7.427</b>	<b>3.593</b>	<b>3.890</b>	<b>-</b>	<b>3.890</b>

*(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)*

Initial Spares <i>(\$ in Millions)</i>	-	-	-	-	-	-
Gross/Weapon System Unit Cost <i>(\$ in Dollars)</i>	0.20	0.15	0.17	0.19	-	0.19

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or add, due to rounding.

<b>Cost Elements</b>	<b>Prior Years</b>			<b>FY 2014</b>			<b>FY 2015</b>			<b>FY 2016 Base</b>			<b>FY 2016 OCO</b>			<b>FY 2016 Total</b>		
	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)
Hardware Cost																		
Recurring Cost																		
COMPLETE ROUND <sup>(†)</sup>	0.20	169,740K	33.948	0.13	49,369,429	6.418	0.15	20,666,455	3.100	0.15	20,760,034	3.114	-	-	-	0.15	20,760,034	3.114
Subtotal: Recurring Cost	-	-	33.948	-	-	6.418	-	-	3.100	-	-	3.114	-	-	-	-	-	3.114
Subtotal: Hardware Cost	-	-	33.948	-	-	6.418	-	-	3.100	-	-	3.114	-	-	-	-	-	3.114
Support Cost																		
Production Engineering	-	-	-	-	-	1.009	-	-	0.489	-	-	0.773	-	-	-	-	-	0.773
Quality Assurance	-	-	-	-	-	-	-	-	0.004	-	-	0.003	-	-	-	-	-	0.003
Subtotal: Support Cost	-	-	-	-	-	1.009	-	-	0.493	-	-	0.776	-	-	-	-	-	0.776
<b>Gross/Weapon System Cost</b>	<b>0.20</b>	<b>169,740K</b>	<b>33.948</b>	<b>0.15</b>	<b>49,369,429</b>	<b>7.427</b>	<b>0.17</b>	<b>20,666,455</b>	<b>3.593</b>	<b>0.19</b>	<b>20,760,034</b>	<b>3.890</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>0.19</b>	<b>20,760,034</b>	<b>3.890</b>

(†) indicates the presence of a P-5a

**UNCLASSIFIED**

<b>Exhibit P-5a, Procurement History and Planning:</b> PB 2016 Army							<b>Date:</b> February 2015					
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2034A / 01 / 30			<b>P-1 Line Item Number / Title:</b> EA3000 / CTG, Handgun, All Types				<b>Item Number / Title [DODIC]:</b> E99900 / CTG, 9MM Ball, M882 (Commercial Pack) [AA49]					

Cost Elements	O C O	FY	Contractor and Location	Method/Type or Funding Vehicle	Location of PCO	Award Date	Date of First Delivery	Qty <i>(Each)</i>	Unit Cost <i>(\$)</i>	Specs Avail Now?	Date Revision Available	RFP Issue Date
COMPLETE ROUND <sup>(†)</sup>		2014	OLIN CORP WINCHESTER DIVISION / EAST ALTON, IL	C / FFP	ROCK ISLAND ARSENAL, IL	Mar 2014	Oct 2014	49,369,429	0.13	Y		
COMPLETE ROUND <sup>(†)</sup>		2015	OLIN CORP WINCHESTER DIVISION / EAST ALTON, IL	C / FFP	ROCK ISLAND ARSENAL, IL	Mar 2015	Oct 2015	20,666,455	0.15	Y		
COMPLETE ROUND <sup>(†)</sup>		2016	TO BE SELECTED / TBS01	C / FFP	ROCK ISLAND ARSENAL, IL	Apr 2016	Nov 2016	20,760,034	0.15	Y		

<sup>(†)</sup> indicates the presence of a P-21

**Remarks:**  
TYPE CLASSIFICATION DATE: 1985



**UNCLASSIFIED**

<b>Exhibit P-21, Production Schedule:</b> PB 2016 Army											<b>Date:</b> February 2015										
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2034A / 01 / 30						<b>P-1 Line Item Number / Title:</b> EA3000 / CTG, Handgun, All Types						<b>Item Number / Title [DODIC]:</b> E99900 / CTG, 9MM Ball, M882 (Commercial Pack) [AA49]									

Cost Elements <i>(Units in Millions (* = &lt; 500 units))</i>						Fiscal Year 2014											Fiscal Year 2015											
O C C O	M F R #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2013	BAL DUE AS OF 1 OCT	Calendar Year 2014											Calendar Year 2015										
							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

COMPLETE ROUND

Prior Years Deliveries: 169740000

1	2014	ARMY	49.369	-	49.369							A -	-	-	-	-	-	1.405	6.284	3.000	3.000	3.000	3.000	3.000	3.000	4.201	6.500	6.500	6.479	-
1	2015	ARMY	20.666	-	20.666																	A -	-	-	-	-	-	-	-	20.666
2	2016	ARMY	20.760	-	20.760																									20.760

O C C O	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	B A L
---------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------

**UNCLASSIFIED**

<b>Exhibit P-21, Production Schedule:</b> PB 2016 Army															<b>Date:</b> February 2015																
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2034A / 01 / 30										<b>P-1 Line Item Number / Title:</b> EA3000 / CTG, Handgun, All Types										<b>Item Number / Title [DODIC]:</b> E99900 / CTG, 9MM Ball, M882 (Commercial Pack) [AA49]											

Cost Elements <i>(Units in Millions (* = &lt; 500 units))</i>						Fiscal Year 2016													Fiscal Year 2017													
O C C O	M F R #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2015	BAL DUE AS OF 1 OCT	Calendar Year 2016													Calendar Year 2017												
							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	B A L	
COMPLETE ROUND																																
Prior Years Deliveries: 169740000																																
1		2014	ARMY	49.369	49.369	-																										
1		2015	ARMY	20.666	-	20.666	1.722	1.722	1.722	1.722	1.722	1.722	1.722	1.722	1.722	1.722																
2		2016	ARMY	20.760	-	20.760																										
							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	B A L	

**UNCLASSIFIED**

<b>Exhibit P-21, Production Schedule:</b> PB 2016 Army		<b>Date:</b> February 2015
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2034A / 01 / 30		<b>P-1 Line Item Number / Title:</b> EA3000 / CTG, Handgun, All Types
		<b>Item Number / Title [DODIC]:</b> E99900 / CTG, 9MM Ball, M882 (Commercial Pack) [AA49]

Cost Elements <i>(Units in Millions (* = &lt; 500 units))</i>					Fiscal Year 2018													Fiscal Year 2019													
O C C #	M F R #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2017	BAL DUE AS OF 1 OCT	Calendar Year 2018													Calendar Year 2019											
							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	B A L

COMPLETE ROUND																															
Prior Years Deliveries: 169740000																															
1	2014	ARMY	49.369	49.369	-																										
1	2015	ARMY	20.666	20.666	-																										
2	2016	ARMY	20.760	19.030	1.730	1.730																									
							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	B A L

**UNCLASSIFIED**

<b>Exhibit P-21, Production Schedule:</b> PB 2016 Army		<b>Date:</b> February 2015
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2034A / 01 / 30		<b>P-1 Line Item Number / Title:</b> EA3000 / CTG, Handgun, All Types
<b>Item Number / Title [DODIC]:</b> E99900 / CTG, 9MM Ball, M882 (Commercial Pack) [AA49]		

MFR Ref #	MFR Name - Location	Production Rates (Each / Month)			Procurement Leadtime (Months)							
		MSR For 2016	1-8-5 For 2016	MAX For 2016	Initial				Reorder			
					ALT Prior to Oct 1	ALT After Oct 1	Mfg PLT	Total After Oct 1	ALT Prior to Oct 1	ALT After Oct 1	Mfg PLT	Total After Oct 1
1	OLIN CORP WINCHESTER DIVISION - EAST ALTON, IL	2,000	2,500,000	10,000,000	7	7	7	14	6	6	7	13
2	TO BE SELECTED - TBS01	2,000	2,500,000	10,000,000	7	7	7	14	6	6	7	13

"A" in the Delivery Schedule indicates the Contract Award Date.

Note: Due to space limitations, quantities in the Exhibit P-21 delivery calendar are truncated and rounded based on the maximum quantity in the calendar as follows. If the maximum quantity is less than or equal to than 9,999, all quantities are shown as each. If the maximum quantity is between 10,000 and 999,999 all quantities are shown in thousands. If the maximum quantity is between 1,000,000 and 999,999,999 all quantities are shown in millions (rounded to the nearest thousand). If the maximum quantity is equal or greater than 1,000,000,000 all quantities are shown in billions (rounded to the nearest million).

**UNCLASSIFIED**

**Exhibit P-40, Budget Line Item Justification:** PB 2016 Army **Date:** February 2015

<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2034A: Procurement of Ammunition, Army / BA 01: Ammunition / BSA 30: Small/ Medium Cal Ammunition	<b>P-1 Line Item Number / Title:</b> E08000 / CTG, .50 Cal, All Types
---	--

ID Code (A=Service Ready, B=Not Service Ready) :			Program Elements for Code B Items:					Other Related Program Elements:				
Resource Summary	Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	To Complete	Total
Procurement Quantity (Units in Each)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (\$ in Millions)	1,503.817	58.351	29.304	24.728	4.000	28.728	39.662	38.974	36.275	40.093	-	1,775.204
Less PY Advance Procurement (\$ in Millions)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P1) (\$ in Millions)	1,503.817	58.351	29.304	24.728	4.000	28.728	39.662	38.974	36.275	40.093	-	1,775.204
Plus CY Advance Procurement (\$ in Millions)	-	-	-	-	-	-	-	-	-	-	-	-
<b>Total Obligation Authority (\$ in Millions)</b>	<b>1,503.817</b>	<b>58.351</b>	<b>29.304</b>	<b>24.728</b>	<b>4.000</b>	<b>28.728</b>	<b>39.662</b>	<b>38.974</b>	<b>36.275</b>	<b>40.093</b>	-	<b>1,775.204</b>
<i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i>												
Initial Spares (\$ in Millions)	-	-	-	-	-	-	-	-	-	-	-	-
Flyaway Unit Cost (\$ in Dollars)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (\$ in Dollars)	-	-	-	-	-	-	-	-	-	-	-	-

**Description:**

This budget line includes .50 CAL ALL TYPES.

(E06700) The .50 Caliber M8, Armor Piercing Incendiary (API) Cartridge, packed single round, is used in the M2 Machine Gun and the M107 and M82A1 Long Range Sniper Rifles. This cartridge is identified with a gray bullet tip. This is used in .50 Caliber Sniper training, a cost effective training round over the more expensive MK211 Long Range Sniper ammunition and minimizes training range limitations. This item is Code A, approved for service use.

(E07100) The .50 Caliber Cartridge Ball M33 Link is linked in 100 round belts with the M9 link for use in the M2/M3 Machine Gun. This round is also used in function test firing of the M2/M3 Machine Gun. This item is Code A, approved for service use.

(E07200) The .50 Caliber Cartridge, Ball M33 and Cartridge, Tracer M17 linked 4 to 1 in a 100 round belt with the M9 link for use in M2/M3 Machine Gun against unarmored targets. The tracer cartridge permits observation of the bullet's trajectory to the point of impact. M17 has a brown bullet tip. M33 has a plain bullet tip. This item is Code A, approved for service use.

(E07302) The .50 Caliber Blank Cartridge, M1A1 linked in a 100 round belt with the M9 link for use in the M2/M3 Machine Gun. This round is a blank cartridge with a rosette crimp at the mouth used to simulate firing in training exercises in conjunction with the M19 Blank Firing Attachment (BFA). This item is Code A, approved for service use.

(E07900) The .50 Caliber High Pressure Test (HPT) Cartridge M1, is used in all .50 Caliber weapons for proof testing during manufacturing, test and repair. The cartridge has a stannic stained (silvered) case. This item is Code A, approved for service use.

(E72191) The .50 Caliber Dummy Linked Cartridge is an inert cartridge used for M2A1 training exercises including ammunition/weapon familiarization, setting headspace and adjusting timing. The new Dummy, Drilled, Inert (DDI) configuration is both nickel plated and fluted for easy recognition and to distinguish the dummy ammunition visually from tactical ammunition. The cartridges are linked in 100 round belts using the M9 link. This item is Code A, approved for service use.

(E72192) The .50 Caliber Dummy Single Round (DSR) is an inert cartridge used for M2A1 training exercises including ammunition/weapon familiarization, setting headspace and adjusting timing. The new Dummy, Drilled, Inert (DDI) configuration is both nickel plated and fluted for easy recognition and to distinguish the dummy ammunition visually from tactical ammunition. This item is Code A, approved for service use.

**UNCLASSIFIED**

<b>Exhibit P-40, Budget Line Item Justification:</b> PB 2016 Army	<b>Date:</b> February 2015
---	----------------------------

<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2034A: Procurement of Ammunition, Army / BA 01: Ammunition / BSA 30: Small/ Medium Cal Ammunition	<b>P-1 Line Item Number / Title:</b> E08000 / CTG, .50 Cal, All Types
---	--

<b>ID Code</b> (A=Service Ready, B=Not Service Ready) :	<b>Program Elements for Code B Items:</b>	<b>Other Related Program Elements:</b>
---	---	--

--	--	--

--	--	--

**UNCLASSIFIED**

**Exhibit P-40, Budget Line Item Justification:** PB 2016 Army **Date:** February 2015

**Appropriation / Budget Activity / Budget Sub Activity:**  
2034A: Procurement of Ammunition, Army / BA 01: Ammunition / BSA 30: Small/  
Medium Cal Ammunition **P-1 Line Item Number / Title:**  
E08000 / CTG, .50 Cal, All Types

ID Code (A=Service Ready, B=Not Service Ready) :			Program Elements for Code B Items:			Other Related Program Elements:		
Exhibits Schedule			Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total
Title*	Exhibits	ID CD	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)
E06700 / CTG CAL .50 API M8, SINGLE ROUND	P-40a	A	628,904 / 4.591	527,730 / 1.060	- / -	228,062 / 0.606	- / -	228,062 / 0.606
E07302 / CTG CAL .50 BLANK M1A1 LKD W/M9 LINK F/M	P-40a	A	100,985K / 106.034	1,826,185 / 2.333	1,378,531 / 2.085	1,475,622 / 2.199	- / -	1,475,622 / 2.199
E07900 / CTG CAL .50 HIGH PRESSURE TEST M1, SINGLE RD	P-40a	A	1,174,115 / 5.307	66,800 / 0.200	- / -	- / -	- / -	- / -
E72191 / CTG, CAL. 50 DUMMY M2A1, LINKED	P-40a	A	15,998 / 0.539	- / -	28,740 / 0.079	- / -	- / -	- / -
E72192 / CTG, .50 CAL SINGLE ROUND, (DDI), M2A1 F/M2 & M107	P-40a	A	50,989 / 0.232	- / -	47,218 / 0.132	- / -	- / -	- / -
E07100 / CTG CAL .50 BALL M33 LINK [A555]	P-5, P-5a, P-21	A	121,410K / 246.463	4,732,449 / 9.570	1,687,518 / 4.668	2,754,050 / 6.100	- / -	2,754,050 / 6.100
E07200 / CTG CAL .50 4 BALL/1 TRACER W/M9 LINK [A557]	P-5, P-5a, P-21	A	708,479 / 1,140.651	20,863,360 / 45.188	9,778,541 / 22.340	6,103,171 / 15.823	1,890,931 / 4.000	7,994,102 / 19.823
<b>Total Gross/Weapon System Cost</b>			<b>- / 1,503.817</b>	<b>- / 58.351</b>	<b>- / 29.304</b>	<b>- / 24.728</b>	<b>- / 4.000</b>	<b>- / 28.728</b>

\*Title represents 1) the Number / Title for Items; 2) the Number / Title [DODIC] for Ammunition; and/or 3) the Number / Title (Modification Type) for Modifications.

Note: Totals in this Exhibit P-40 set may not be exact or add due to rounding.

**Justification:**

FY 2016 Base Budget supports critical Army Title 10 war reserve/operational, training, and test requirements IAW DoD Instruction 3000.04 (Munitions Requirements Process) and AR 5-13 (Total Army Munitions Requirements Process and Prioritization System). War reserve requirements support OSD-approved Combatant Commander Operational Plans, Homeland Defense, and other OSD-directed missions. Training requirements support individual and collective training of Active and Reserve Component forces at Army schools, home station, and the combined training centers. Test requirements support the development, fielding, safety, and quality assurance of Army munitions and equipment throughout their life-cycle.

In accordance with Section 1815 of the FY 2008 National Defense Authorization Act (P.L. 110-181), this item is necessary for use by the active and reserve components of the Armed Forces for homeland defense missions, domestic emergency responses, and providing military support to civil authorities.

(E06700) .50 Caliber M8, Armor Piercing Incendiary (API) Cartridge is a training standard item used in training and combat. The FY 2016 request supports annual training and builds a war reserve inventory in accordance with the Army's procurement goals. FY 2016 Base procurement dollars in the amount of \$.606 million supports the procurement of .228 million of the M8, Armor Piercing Incendiary (API) Cartridges.

(E07100) .50 Caliber Cartridge Ball M33 Link is a training standard item used in training and combat. The FY 2016 request supports annual training and builds a war reserve inventory in accordance with the Army's procurement goals. FY 2016 Base procurement dollars in the amount of \$6.100 million supports the procurement of 2.754 million of the Ball M33 Link Cartridges.

(E07200) .50 Caliber Cartridge, Ball M33 and Cartridge, Tracer M17 linked is a training standard item used in training and combat. The FY 2016 request supports annual training and builds a war reserve inventory in accordance with the Army's procurement goals. FY 2016 Base procurement dollars in the amount of \$15.823 million supports the procurement of 6.103 million .50 Caliber Cartridge, Ball M33 and Cartridge, Tracer M17 linked Cartridges. FY 2016 OCO procurement dollars in the amount of \$4 million supports the procurement of 1.891 million .50 Caliber Cartridge, Ball M33 and Cartridge, Tracer M17 linked Cartridges. OCO funds are required to replenish munitions expended in combat operations in theater.

(E07302) .50 Caliber Blank Cartridge, M1A1 linked is a training unique item not used in combat. The FY 2016 request supports annual training and builds a depot level in accordance with the Army's procurement goals. FY 2016 Base procurement dollars in the amount of \$2.199 million supports the procurement of 1.476 million .50 Caliber Blank Cartridge, M1A1 Cartridges.

(E07900) .50 Caliber High Pressure Test (HPT) Cartridge M1 is a testing unique item not used in combat. The procurement supports annual testing requirements and builds a depot level in accordance with the Army's procurement goals.

(E72191) .50 Caliber Dummy Linked Cartridge is a training unique item not used in combat. The procurement supports annual training and builds a depot level in accordance with the Army's procurement goals.

**UNCLASSIFIED**

<b>Exhibit P-40, Budget Line Item Justification:</b> PB 2016 Army		<b>Date:</b> February 2015
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2034A: Procurement of Ammunition, Army / BA 01: Ammunition / BSA 30: Small/ Medium Cal Ammunition		<b>P-1 Line Item Number / Title:</b> E08000 / CTG, .50 Cal, All Types
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) :	<b>Program Elements for Code B Items:</b>	<b>Other Related Program Elements:</b>
<p>(E72192) .50 Caliber Dummy Single Round (DSR) is a training unique item not used in combat. The procurement supports annual training and builds a depot level in accordance with the Army's procurement goals.</p>		



**UNCLASSIFIED**

<b>Exhibit P-40a, Budget Item Justification For Aggregated Items: PB 2016 Army</b>															<b>Date:</b> February 2015				
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2034A / 01 / 30								<b>P-1 Line Item Number / Title:</b> E08000 / CTG, .50 Cal, All Types							<b>Aggregated Items Title:</b> Various				

Note: Subtotals or Totals in this Exhibit P-40a may not be exact or add, due to rounding.

Item Number / Title [DODIC]	ID CD	MDAP/MAIS Code	Prior Years			FY 2014			FY 2015			FY 2016 Base			FY 2016 OCO			FY 2016 Total		
			Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)
<b>CTG CAL .50 API M8, SINGLE ROUND</b>																				
E06700 / CTG CAL .50 API M8, SINGLE ROUND	A		7.30	628,904	4.591	2.01	527,730	1.060	-	-	-	2.66	228,062	0.606	-	-	-	2.66	228,062	0.606
E07302 / CTG CAL .50 BLANK M1A1 LKD W/M9 LINK F/M	A		1.05	100,985K	106.034	1.28	1,826,185	2.333	1.51	1,378,531	2.085	1.49	1,475,622	2.199	-	-	-	1.49	1,475,622	2.199
E07900 / CTG CAL .50 HIGH PRESSURE TEST M1, SINGLE RD	A		4.52	1,174,115	5.307	2.99	66,800	0.200	-	-	-	-	-	-	-	-	-	-	-	-
E72191 / CTG, CAL. 50 DUMMY M2A1, LINKED	A		33.69	15,998	0.539	-	-	-	2.75	28,740	0.079	-	-	-	-	-	-	-	-	-
E72192 / CTG, .50 CAL SINGLE ROUND, (DDI), M2A1 F/M2 & M107	A		4.55	50,989	0.232	-	-	-	2.80	47,218	0.132	-	-	-	-	-	-	-	-	-
<i>Subtotal: CTG CAL .50 API M8, SINGLE ROUND</i>			-	-	116.703	-	-	3.593	-	-	2.296	-	-	2.805	-	-	-	-	-	2.805
<b>Total</b>			-	-	116.703	-	-	3.593	-	-	2.296	-	-	2.805	-	-	-	-	-	2.805

**UNCLASSIFIED**

<b>Exhibit P-5, Cost Analysis: PB 2016 Army</b>		<b>Date:</b> February 2015
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2034A / 01 / 30		<b>P-1 Line Item Number / Title:</b> E08000 / CTG, .50 Cal, All Types
		<b>Item Number / Title [DODIC]:</b> E07100 / CTG CAL .50 BALL M33 LINK [A555]

<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : A	<b>MDAP/MAIS Code:</b>
---	------------------------

Resource Summary	Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total
Procurement Quantity (Units in Each)	121,410K	4,732,449	1,687,518	2,754,050	-	2,754,050
Gross/Weapon System Cost (\$ in Millions)	246.463	9.570	4.668	6.100	-	6.100
Less PY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
Net Procurement (P1) (\$ in Millions)	246.463	9.570	4.668	6.100	-	6.100
Plus CY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
<b>Total Obligation Authority (\$ in Millions)</b>	<b>246.463</b>	<b>9.570</b>	<b>4.668</b>	<b>6.100</b>	<b>-</b>	<b>6.100</b>

*(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)*

Initial Spares (\$ in Millions)	-	-	-	-	-	-
Gross/Weapon System Unit Cost (\$ in Dollars)	2.03	2.02	2.77	2.21	-	2.21

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or add, due to rounding.

Cost Elements	Prior Years			FY 2014			FY 2015			FY 2016 Base			FY 2016 OCO			FY 2016 Total		
	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)
Hardware Cost																		
Recurring Cost																		
LOAD, ASSEMBLE, PACK (LAP) <sup>(†)</sup>	-	-	246.463	1.78	4,732,449	8.424	2.37	1,687,518	3.999	1.89	2,754,050	5.205	-	-	-	1.89	2,754,050	5.205
BOX METAL M2A2 <sup>(†)</sup>	-	-	-	10.87	48,271	0.525	13.21	17,213	0.227	12.49	28,091	0.351	-	-	-	12.49	28,091	0.351
<i>Subtotal: Recurring Cost</i>	-	-	246.463	-	-	8.948	-	-	4.227	-	-	5.556	-	-	-	-	-	5.556
<i>Subtotal: Hardware Cost</i>	-	-	246.463	-	-	8.948	-	-	4.227	-	-	5.556	-	-	-	-	-	5.556
Support Cost																		
PRODUCTION ENGINEERING	-	-	-	-	-	0.591	-	-	0.373	-	-	0.537	-	-	-	-	-	0.537
QUALITY ASSURANCE	-	-	-	-	-	0.003	-	-	0.003	-	-	0.003	-	-	-	-	-	0.003
ACCEPTANCE TESTING	-	-	-	-	-	0.027	-	-	0.066	-	-	0.004	-	-	-	-	-	0.004
<i>Subtotal: Support Cost</i>	-	-	-	-	-	0.621	-	-	0.442	-	-	0.544	-	-	-	-	-	0.544
<b>Gross/Weapon System Cost</b>	<b>2.03</b>	<b>121,410K</b>	<b>246.463</b>	<b>2.02</b>	<b>4,732,449</b>	<b>9.570</b>	<b>2.77</b>	<b>1,687,518</b>	<b>4.668</b>	<b>2.21</b>	<b>2,754,050</b>	<b>6.100</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>2.21</b>	<b>2,754,050</b>	<b>6.100</b>

(†) indicates the presence of a P-5a

**UNCLASSIFIED**

<b>Exhibit P-5a, Procurement History and Planning:</b> PB 2016 Army							<b>Date:</b> February 2015					
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2034A / 01 / 30			<b>P-1 Line Item Number / Title:</b> E08000 / CTG, .50 Cal, All Types				<b>Item Number / Title [DODIC]:</b> E07100 / CTG CAL .50 BALL M33 LINK [A555]					

Cost Elements	O C O	FY	Contractor and Location	Method/Type or Funding Vehicle	Location of PCO	Award Date	Date of First Delivery	Qty (Each)	Unit Cost (\$)	Specs Avail Now?	Date Revision Available	RFP Issue Date
LOAD, ASSEMBLE, PACK (LAP) <sup>(†)</sup>		2014	ALLIANT TECHSYSTEMS (LCAAP) / INDEPENDENCE, MO	C / FFP	ROCK ISLAND ARSENAL, IL	Mar 2014	Oct 2014	4,274,821	1.78	Y		
LOAD, ASSEMBLE, PACK (LAP) <sup>(†)</sup>		2014	OLIN CORP WINCHESTER DIVISION / EAST ALTON, IL	C / FFP	ROCK ISLAND ARSENAL, IL	Mar 2014	Jan 2015	457,628	1.78	Y		
LOAD, ASSEMBLE, PACK (LAP) <sup>(†)</sup>		2015	ALLIANT TECHSYSTEMS (LCAAP) / INDEPENDENCE, MO	C / FFP	ROCK ISLAND ARSENAL, IL	Mar 2015	Oct 2015	658,132	2.37	Y		
LOAD, ASSEMBLE, PACK (LAP) <sup>(†)</sup>		2015	OLIN CORP WINCHESTER DIVISION / EAST ALTON, IL	C / FFP	ROCK ISLAND ARSENAL, IL	Mar 2015	Jul 2015	1,029,386	2.37	Y		
LOAD, ASSEMBLE, PACK (LAP) <sup>(†)</sup>		2016	ALLIANT TECHSYSTEMS (LCAAP) / INDEPENDENCE, MO	C / FFP	ROCK ISLAND ARSENAL, IL	Mar 2016	Oct 2016	2,478,645	1.89	Y		
LOAD, ASSEMBLE, PACK (LAP) <sup>(†)</sup>		2016	TO BE SELECTED / TBS01	C / FFP	ROCK ISLAND ARSENAL, IL	Mar 2016	Mar 2017	275,405	1.89	Y		
BOX METAL M2A2		2014	BWAY CORPORATION / ATLANTA, GA	C / FFP	ROCK ISLAND ARSENAL, IL	Mar 2014	May 2014	48,271	10.87	Y		
BOX METAL M2A2		2015	BWAY CORPORATION / ATLANTA, GA	C / FFP	ROCK ISLAND ARSENAL, IL	May 2015	Jul 2015	17,213	13.21	Y		
BOX METAL M2A2		2016	BWAY CORPORATION / ATLANTA, GA	C / FFP	ROCK ISLAND ARSENAL, IL	May 2016	Jul 2016	28,091	12.49	Y		

<sup>(†)</sup> indicates the presence of a P-21

**Remarks:**

FY 2014, FY 2015 AND FY 2016 LAP IS A DELIVERY ORDER TO THE EXISTING CONTRACT AWARDED IN FY 2012. FY 2014, FY 2015 AND FY 2016 LAP IS AN AVERAGE UNIT COST BETWEEN TWO CONTRACTORS. FY 2014, BOX METAL M2A2 IS AN AVERAGE UNIT COST.

TYPE CLASSIFICATION DATE: 1951

**UNCLASSIFIED**

Exhibit P-21, Production Schedule: PB 2016 Army																							Date: February 2015									
Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 30										P-1 Line Item Number / Title: E08000 / CTG, .50 Cal, All Types										Item Number / Title [DODIC]: E07100 / CTG CAL .50 BALL M33 LINK [A555]												
Cost Elements (Units in Millions (* = < 500 units))						Fiscal Year 2014													Fiscal Year 2015													
O C C O	M F R #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2013	BAL DUE AS OF 1 OCT	Calendar Year 2014													Calendar Year 2015												
							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	B A L	
LOAD, ASSEMBLE, PACK (LAP)																																
1	2014	ARMY		4.275	-	4.275													.025	.386	.386	.386	.386	.386	.386	.386	.386	.386	.386			
1	2014	NAVSEA (‡)		4.580	-	4.580													4.249	.331	-	-	-	-	-	-	-	-	-			
1	2014	AF (‡)		.798	-	.798													.798	-	-	-	-	-	-	-	-	-	-			
1	2014	<b>Total</b>		<b>9.652</b>	-	<b>9.652</b>													<b>5.072</b>	<b>.717</b>	<b>.386</b>	<b>.386</b>	<b>.386</b>	<b>.386</b>	<b>.386</b>	<b>.386</b>	<b>.386</b>	<b>.386</b>	<b>.386</b>	<b>.386</b>		
2	2014	ARMY		.458	-	.458													-	-	-	.458	-	-	-	-	-	-	-			
2	2014	AF (‡)		.750	-	.750													.062	.062	.062	.062	.062	.062	.062	.062	.062	.062	.062			
2	2014	<b>Total</b>		<b>1.208</b>	-	<b>1.208</b>													<b>.062</b>	<b>.062</b>	<b>.062</b>	<b>.520</b>	<b>.062</b>	<b>.062</b>	<b>.062</b>	<b>.062</b>	<b>.062</b>	<b>.062</b>	<b>.062</b>	<b>.062</b>		
1	2015	ARMY		.658	-	.658																								.658		
1	2015	NAVSEA (‡)		.540	-	.540																								.540		
1	2015	AF (‡)		.386	-	.386																								.386		
1	2015	<b>Total</b>		<b>1.584</b>	-	<b>1.584</b>																								<b>1.584</b>		
2	2015	ARMY		1.029	-	1.029																								.772		
2	2015	NAVSEA (‡)		.844	-	.844																								.633		
2	2015	AF (‡)		.604	-	.604																								.453		
2	2015	<b>Total</b>		<b>2.477</b>	-	<b>2.477</b>																								<b>1.858</b>		
1	2016	ARMY		2.479	-	2.479																								2.479		
1	2016	NAVSEA (‡)		.899	-	.899																								.899		
1	2016	AF (‡)		1.270	-	1.270																								1.270		
1	2016	NSOF (‡)		.900	-	.900																								.900		
1	2016	<b>Total</b>		<b>5.547</b>	-	<b>5.547</b>																								<b>5.547</b>		
3	2016	ARMY		.275	-	.275																								.275		
3	2016	NAVSEA (‡)		.100	-	.100																								.100		
3	2016	AF (‡)		.141	-	.141																								.141		
3	2016	NSOF (‡)		.100	-	.100																								.100		
3	2016	<b>Total</b>		<b>.616</b>	-	<b>.616</b>																								<b>.616</b>		
							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	B A L	

**UNCLASSIFIED**

<b>Exhibit P-21, Production Schedule: PB 2016 Army</b>		<b>Date:</b> February 2015
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2034A / 01 / 30		<b>P-1 Line Item Number / Title:</b> E08000 / CTG, .50 Cal, All Types
		<b>Item Number / Title [DODIC]:</b> E07100 / CTG CAL .50 BALL M33 LINK [A555]

Cost Elements <i>(Units in Millions (* = &lt; 500 units))</i>						Fiscal Year 2016													Fiscal Year 2017													
O C C O	M F R #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2015	BAL DUE AS OF 1 OCT	Calendar Year 2016													Calendar Year 2017												
							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	B A L	
LOAD, ASSEMBLE, PACK (LAP)																																
1	2014	ARMY		4.275	4.275	-																							-			
1	2014	NAVSEA (‡)		4.580	4.580	-																							-			
1	2014	AF (‡)		.798	.798	-																							-			
1	2014	<b>Total</b>		<b>9.652</b>	<b>9.652</b>	-																							-			
2	2014	ARMY		.458	.458	-																							-			
2	2014	AF (‡)		.750	.750	-																							-			
2	2014	<b>Total</b>		<b>1.208</b>	<b>1.208</b>	-																							-			
1	2015	ARMY		.658	-	.658	.055	.055	.055	.055	.055	.055	.055	.055	.055	.055	.055	.055	.055	.055	.055	.055	.055	.055	.055	.055	.055	.055	-			
1	2015	NAVSEA (‡)		.540	-	.540	.045	.045	.045	.045	.045	.045	.045	.045	.045	.045	.045	.045	.045	.045	.045	.045	.045	.045	.045	.045	.045	.045	-			
1	2015	AF (‡)		.386	-	.386	.032	.032	.032	.032	.032	.032	.032	.032	.032	.032	.032	.032	.032	.032	.032	.032	.032	.032	.032	.032	.032	.032	-			
1	2015	<b>Total</b>		<b>1.584</b>	-	<b>1.584</b>	<b>.132</b>	<b>.132</b>	<b>.132</b>	<b>.132</b>	<b>.132</b>	<b>.132</b>	<b>.132</b>	<b>.132</b>	<b>.132</b>	<b>.132</b>	<b>.132</b>	<b>.132</b>	<b>.132</b>	<b>.132</b>	<b>.132</b>	<b>.132</b>	<b>.132</b>	<b>.132</b>	<b>.132</b>	<b>.132</b>	<b>.132</b>	<b>.132</b>	-			
2	2015	ARMY		1.029	.257	.772	.086	.086	.086	.086	.086	.086	.086	.086	.086	.086	.086	.086	.086	.086	.086	.086	.086	.086	.086	.086	.086	.086	-			
2	2015	NAVSEA (‡)		.844	.211	.633	.070	.070	.070	.070	.070	.070	.070	.070	.070	.070	.070	.070	.070	.070	.070	.070	.070	.070	.070	.070	.070	.070	-			
2	2015	AF (‡)		.604	.151	.453	.050	.050	.050	.050	.050	.050	.050	.050	.050	.050	.050	.050	.050	.050	.050	.050	.050	.050	.050	.050	.050	.050	-			
2	2015	<b>Total</b>		<b>2.477</b>	<b>.619</b>	<b>1.858</b>	<b>.206</b>	<b>.206</b>	<b>.206</b>	<b>.206</b>	<b>.206</b>	<b>.206</b>	<b>.206</b>	<b>.206</b>	<b>.206</b>	<b>.206</b>	<b>.206</b>	<b>.206</b>	<b>.206</b>	<b>.206</b>	<b>.206</b>	<b>.206</b>	<b>.206</b>	<b>.206</b>	<b>.206</b>	<b>.206</b>	<b>.206</b>	<b>.206</b>	-			
1	2016	ARMY		2.479	-	2.479												.207	.207	.207	.207	.207	.207	.207	.207	.207	.207	.207	-			
1	2016	NAVSEA (‡)		.899	-	.899												.075	.075	.075	.075	.075	.075	.075	.075	.075	.075	.075	-			
1	2016	AF (‡)		1.270	-	1.270												.106	.106	.106	.106	.106	.106	.106	.106	.106	.106	.106	-			
1	2016	NSOF (‡)		.900	-	.900												.075	.075	.075	.075	.075	.075	.075	.075	.075	.075	.075	-			
1	2016	<b>Total</b>		<b>5.547</b>	-	<b>5.547</b>												<b>.462</b>	<b>.462</b>	<b>.462</b>	<b>.462</b>	<b>.462</b>	<b>.462</b>	<b>.462</b>	<b>.462</b>	<b>.462</b>	<b>.462</b>	<b>.462</b>	-			
3	2016	ARMY		.275	-	.275												-	-	-	-	-	-	.023	.023	.023	.023	.023	.115			
3	2016	NAVSEA (‡)		.100	-	.100												-	-	-	-	-	-	.008	.008	.008	.008	.008	.042			
3	2016	AF (‡)		.141	-	.141												-	-	-	-	-	-	.012	.012	.012	.012	.059				
3	2016	NSOF (‡)		.100	-	.100												-	-	-	-	-	-	.008	.008	.008	.008	.042				
3	2016	<b>Total</b>		<b>.616</b>	-	<b>.616</b>												-	-	-	-	-	-	<b>.051</b>	<b>.051</b>	<b>.051</b>	<b>.051</b>	<b>.257</b>				
							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	B A L	

**UNCLASSIFIED**

<b>Exhibit P-21, Production Schedule:</b> PB 2016 Army		<b>Date:</b> February 2015
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2034A / 01 / 30		<b>P-1 Line Item Number / Title:</b> E08000 / CTG, .50 Cal, All Types
		<b>Item Number / Title [DODIC]:</b> E07100 / CTG CAL .50 BALL M33 LINK [A555]

Cost Elements <i>(Units in Millions (* = &lt; 500 units))</i>						Fiscal Year 2018												Fiscal Year 2019													
O C C #	M F R #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2017	BAL DUE AS OF 1 OCT	Calendar Year 2018												Calendar Year 2019												
							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	B A L
LOAD, ASSEMBLE, PACK (LAP)																															
1	2014	ARMY		4.275	4.275	-																									
1	2014	NAVSEA (‡)		4.580	4.580	-																									
1	2014	AF (‡)		.798	.798	-																									
1	2014	<b>Total</b>		<b>9.652</b>	<b>9.652</b>	-																									
2	2014	ARMY		.458	.458	-																									
2	2014	AF (‡)		.750	.750	-																									
2	2014	<b>Total</b>		<b>1.208</b>	<b>1.208</b>	-																									
1	2015	ARMY		.658	.658	-																									
1	2015	NAVSEA (‡)		.540	.540	-																									
1	2015	AF (‡)		.386	.386	-																									
1	2015	<b>Total</b>		<b>1.584</b>	<b>1.584</b>	-																									
2	2015	ARMY		1.029	1.029	-																									
2	2015	NAVSEA (‡)		.844	.844	-																									
2	2015	AF (‡)		.604	.604	-																									
2	2015	<b>Total</b>		<b>2.477</b>	<b>2.477</b>	-																									
1	2016	ARMY		2.479	2.479	-																									
1	2016	NAVSEA (‡)		.899	.899	-																									
1	2016	AF (‡)		1.270	1.270	-																									
1	2016	NSOF (‡)		.900	.900	-																									
1	2016	<b>Total</b>		<b>5.547</b>	<b>5.547</b>	-																									
3	2016	ARMY		.275	.161	.115	.023	.023	.023	.023	.023																				
3	2016	NAVSEA (‡)		.100	.058	.042	.008	.008	.008	.008	.008																				
3	2016	AF (‡)		.141	.082	.059	.012	.012	.012	.012	.012																				
3	2016	NSOF (‡)		.100	.058	.042	.008	.008	.008	.008	.008																				
3	2016	<b>Total</b>		<b>.616</b>	<b>.360</b>	<b>.257</b>	<b>.051</b>	<b>.051</b>	<b>.051</b>	<b>.051</b>	<b>.051</b>																				
							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	B A L

**UNCLASSIFIED**

<b>Exhibit P-21, Production Schedule:</b> PB 2016 Army		<b>Date:</b> February 2015
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2034A / 01 / 30		<b>P-1 Line Item Number / Title:</b> E08000 / CTG, .50 Cal, All Types
		<b>Item Number / Title [DODIC]:</b> E07100 / CTG CAL .50 BALL M33 LINK [A555]

MFR Ref #	MFR Name - Location	Production Rates (Each / Month)			Procurement Leadtime (Months)							
		MSR For 2016	1-8-5 For 2016	MAX For 2016	Initial				Reorder			
					ALT Prior to Oct 1	ALT After Oct 1	Mfg PLT	Total After Oct 1	ALT Prior to Oct 1	ALT After Oct 1	Mfg PLT	Total After Oct 1
1	ALLIANT TECHSYSTEMS (LCAAP) - INDEPENDENCE, MO	200	5,990,000	20,770,000	6	6	12	18	6	6	7	13
2	OLIN CORP WINCHESTER DIVISION - EAST ALTON, IL	200	1,000,000	2,500,000	6	6	9	15	6	6	4	10
3	TO BE SELECTED - TBS01	200	5,990,000	20,770,000	6	6	12	18	6	6	6	12

(†) Delivery rows marked with this symbol indicate that they are funded through a separate Line Item. See the respective components' exhibits for details, including the full delivery schedule.  
 "A" in the Delivery Schedule indicates the Contract Award Date.  
 Note: Due to space limitations, quantities in the Exhibit P-21 delivery calendar are truncated and rounded based on the maximum quantity in the calendar as follows. If the maximum quantity is less than or equal to than 9,999, all quantities are shown as each. If the maximum quantity is between 10,000 and 999,999 all quantities are shown in thousands. If the maximum quantity is between 1,000,000 and 999,999,999 all quantities are shown in millions (rounded to the nearest thousand). If the maximum quantity is equal or greater than 1,000,000,000 all quantities are shown in billions (rounded to the nearest million).

**UNCLASSIFIED**

<b>Exhibit P-5, Cost Analysis: PB 2016 Army</b>		<b>Date:</b> February 2015
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2034A / 01 / 30	<b>P-1 Line Item Number / Title:</b> E08000 / CTG, .50 Cal, All Types	<b>Item Number / Title [DODIC]:</b> E07200 / CTG CAL .50 4 BALL/1 TRACER W/M9 LINK [A557]

<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : A	<b>MDAP/MAIS Code:</b>
---	------------------------

Resource Summary	Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total
Procurement Quantity (Units in Each)	708,479	20,863,360	9,778,541	6,103,171	1,890,931	7,994,102
Gross/Weapon System Cost (\$ in Millions)	1,140.651	45.188	22.340	15.823	4.000	19.823
Less PY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
Net Procurement (P1) (\$ in Millions)	1,140.651	45.188	22.340	15.823	4.000	19.823
Plus CY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
<b>Total Obligation Authority (\$ in Millions)</b>	<b>1,140.651</b>	<b>45.188</b>	<b>22.340</b>	<b>15.823</b>	<b>4.000</b>	<b>19.823</b>

*(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)*

Initial Spares (\$ in Millions)	-	-	-	-	-	-
Gross/Weapon System Unit Cost (\$ in Dollars)	1,610.00	2.17	2.28	2.59	2.12	2.48

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or add, due to rounding.

Cost Elements	Prior Years			FY 2014			FY 2015			FY 2016 Base			FY 2016 OCO			FY 2016 Total		
	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)
Hardware Cost																		
Recurring Cost																		
LOAD, ASSEMBLE, PACK (LAP) <sup>(†)</sup>	1,610.00	708,479	1,140.652	1.84	20,863,360	38.389	1.84	9,778,541	17.993	1.98	6,103,171	12.084	1.98	1,890,931	3.744	1.98	7,994,102	15.828
BOX METAL M2A2 <sup>(†)</sup>	-	-	-	10.87	212,806	2.313	13.21	99,741	1.318	12.49	62,252	0.778	12.49	19,287	0.241	12.49	81,539	1.018
<i>Subtotal: Recurring Cost</i>	-	-	1,140.651	-	-	40.702	-	-	19.310	-	-	12.862	-	-	3.985	-	-	16.847
<i>Subtotal: Hardware Cost</i>	-	-	1,140.651	-	-	40.702	-	-	19.310	-	-	12.862	-	-	3.985	-	-	16.847
Support Cost																		
PRODUCTION ENGINEERING	-	-	-	-	-	3.843	-	-	1.982	-	-	1.275	-	-	-	-	-	1.275
ACCEPTANCE TESTING	-	-	-	-	-	0.142	-	-	0.258	-	-	0.038	-	-	0.015	-	-	0.053
QUALITY ASSURANCE	-	-	-	-	-	0.011	-	-	0.010	-	-	0.005	-	-	-	-	-	0.005
ENVIRONMENTAL INITIATIVES	-	-	-	-	-	0.105	-	-	0.779	-	-	1.531	-	-	-	-	-	1.531
NATO CERTIFICATION	-	-	-	-	-	0.116	-	-	-	-	-	0.112	-	-	-	-	-	0.112
MODERNIZATION	-	-	-	-	-	0.269	-	-	-	-	-	-	-	-	-	-	-	-
<i>Subtotal: Support Cost</i>	-	-	-	-	-	4.486	-	-	3.029	-	-	2.961	-	-	0.015	-	-	2.976
<b>Gross/Weapon System Cost</b>	<b>1,610.00</b>	<b>708,479</b>	<b>1,140.651</b>	<b>2.17</b>	<b>20,863,360</b>	<b>45.188</b>	<b>2.28</b>	<b>9,778,541</b>	<b>22.340</b>	<b>2.59</b>	<b>6,103,171</b>	<b>15.823</b>	<b>2.12</b>	<b>1,890,931</b>	<b>4.000</b>	<b>2.48</b>	<b>7,994,102</b>	<b>19.823</b>

<sup>(†)</sup> indicates the presence of a P-5a



**UNCLASSIFIED**

**Exhibit P-5a, Procurement History and Planning: PB 2016 Army** **Date:** February 2015

<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2034A / 01 / 30	<b>P-1 Line Item Number / Title:</b> E08000 / CTG, .50 Cal, All Types	<b>Item Number / Title [DODIC]:</b> E07200 / CTG CAL .50 4 BALL/1 TRACER W/M9 LINK [A557]
--	--	---

Cost Elements	O C O	FY	Contractor and Location	Method/Type or Funding Vehicle	Location of PCO	Award Date	Date of First Delivery	Qty <i>(Each)</i>	Unit Cost <i>(\$)</i>	Specs Avail Now?	Date Revision Available	RFP Issue Date
LOAD, ASSEMBLE, PACK (LAP) <sup>(†)</sup>		2014	OLIN CORP WINCHESTER DIVISION / EAST ALTON, IL	C / FFP	ROCK ISLAND ARSENAL, IL	Mar 2014	Mar 2015	8,510,165	1.84	Y		
LOAD, ASSEMBLE, PACK (LAP) <sup>(†)</sup>		2014	ALLIANT TECHSYSTEMS (LCAAP) / INDEPENDENCE, MO	C / FFP	ROCK ISLAND ARSENAL, IL	Mar 2014	Jan 2015	12,353,195	1.84	Y		
LOAD, ASSEMBLE, PACK (LAP) <sup>(†)</sup>		2015	ALLIANT TECHSYSTEMS (LCAAP) / INDEPENDENCE, MO	C / FFP	ROCK ISLAND ARSENAL, IL	Mar 2015	Oct 2015	9,778,541	1.84	Y		
LOAD, ASSEMBLE, PACK (LAP) <sup>(†)</sup>		2016	ALLIANT TECHSYSTEMS (LCAAP) / INDEPENDENCE, MO	C / FFP	ROCK ISLAND ARSENAL, IL	Mar 2016	Oct 2016	7,194,692	1.98	Y		
LOAD, ASSEMBLE, PACK (LAP) <sup>(†)</sup>		2016	TO BE SELECTED / TBS01	C / FFP	ROCK ISLAND ARSENAL, IL	Mar 2016	Mar 2017	799,410	1.98	Y		
BOX METAL M2A2		2014	BWAY CORPORATION / ATLANTA, GA	C / FFP	ROCK ISLAND ARSENAL, IL	Mar 2014	May 2014	212,806	10.87	Y		
BOX METAL M2A2		2015	BWAY CORPORATION / ATLANTA, GA	C / FFP	ROCK ISLAND ARSENAL, IL	May 2015	Jul 2015	99,741	13.21	Y		
BOX METAL M2A2		2016	BWAY CORPORATION / ATLANTA, GA	C / FFP	ROCK ISLAND ARSENAL, IL	May 2016	Jul 2016	81,539	12.49	Y		

<sup>(†)</sup> indicates the presence of a P-21

**Remarks:**

FY 2014, FY 2015, AND FY 2016 LAP IS A DELIVERY ORDER TO THE EXISTING CONTRACT AWARDED IN FY 2012. FY 2014 AND FY 2016 LAP IS AN AVERAGE UNIT COST BETWEEN TWO CONTRACTORS. FY 2014, BOX METAL M2A2 IS AN AVERAGE UNIT COST. FY 2014 LAP IS A DELIVERY ORDER TO THE EXISTING CONTRACT AWARDED IN FY 2012. FY 2014, BOX METAL M2A2 IS AN AVERAGE UNIT COST.

TYPE CLASSIFICATION DATE: 1968



**UNCLASSIFIED**

**Exhibit P-21, Production Schedule: PB 2016 Army** **Date:** February 2015

<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2034A / 01 / 30	<b>P-1 Line Item Number / Title:</b> E08000 / CTG, .50 Cal, All Types	<b>Item Number / Title [DODIC]:</b> E07200 / CTG CAL .50 4 BALL/1 TRACER W/M9 LINK [A557]
--	--	--

Cost Elements <i>(Units in Millions (* = &lt; 500 units))</i>					Fiscal Year 2016													Fiscal Year 2017														
O C C O	M F R #	FY	SERVICE	PROC QTY	ACCEP T P R I O R T O 1 O C T 2 0 1 5	BAL D U E A S O F 1 O C T	Calendar Year 2016													Calendar Year 2017												
							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	B A L	
LOAD, ASSEMBLE, PACK (LAP)																																
Prior Years Deliveries: 708479																																
	1	2014	ARMY	8.510	4.964	3.546	.709	.709	.709	.709	.709																					
	2	2014	ARMY	12.353	9.265	3.088	1.029	1.029	1.029																							
	2	2014	NAVSEA (‡)	8.788	8.788	-	-	-	-																							
	2	2014	AF (‡)	2.804	2.804	-	-	-	-																							
	2	2014	CG (‡)	.100	.100	-	-	-	-																							
	2	2014	NSOF (‡)	1.303	1.303	-	-	-	-																							
	<b>2</b>	<b>2014</b>	<b>Total</b>	<b>25.349</b>	<b>22.260</b>	<b>3.088</b>	<b>1.029</b>	<b>1.029</b>	<b>1.029</b>																							
	2	2015	ARMY	9.779	-	9.779	.815	.815	.815	.815	.815	.815	.815	.815	.815	.815	.815															
	2	2015	NAVSEA (‡)	5.778	-	5.778	.737	.458	.458	.458	.458	.458	.458	.458	.458	.458	.458															
	2	2015	AF (‡)	1.005	-	1.005	.084	.084	.084	.084	.084	.084	.084	.084	.084	.084	.084															
	2	2015	CG (‡)	.100	-	.100	.100	-	-	-	-	-	-	-	-	-	-															
	<b>2</b>	<b>2015</b>	<b>Total</b>	<b>16.662</b>	<b>-</b>	<b>16.662</b>	<b>1.735</b>	<b>1.357</b>	<b>1.357</b>	<b>1.357</b>	<b>1.357</b>	<b>1.357</b>	<b>1.357</b>	<b>1.357</b>	<b>1.357</b>	<b>1.357</b>	<b>1.357</b>															
	2	2016	ARMY	7.195	-	7.195												.600	.600	.600	.600	.600	.600	.600	.600	.600	.600	.600	.600	.600		
	2	2016	NAVSEA (‡)	3.603	-	3.603												.300	.300	.300	.300	.300	.300	.300	.300	.300	.300	.300	.300	.300		
	2	2016	AF (‡)	.810	-	.810												.068	.068	.068	.068	.068	.068	.068	.068	.068	.068	.068	.068	.068		
	2	2016	CG (‡)	.180	-	.180												.015	.015	.015	.015	.015	.015	.015	.015	.015	.015	.015	.015	.015		
	2	2016	NSOF (‡)	.630	-	.630												.052	.052	.052	.052	.052	.052	.052	.052	.052	.052	.052	.052	.052		
	<b>2</b>	<b>2016</b>	<b>Total</b>	<b>12.418</b>	<b>-</b>	<b>12.418</b>												<b>1.035</b>	<b>1.035</b>	<b>1.035</b>	<b>1.035</b>	<b>1.035</b>	<b>1.035</b>	<b>1.035</b>	<b>1.035</b>	<b>1.035</b>	<b>1.035</b>	<b>1.035</b>	<b>1.035</b>	<b>1.035</b>		
	3	2016	ARMY	.799	-	.799												-	-	-	-	-	.240	.051	.051	.051	.051	.051	.051	.051	.254	
	3	2016	NAVSEA (‡)	.400	-	.400												-	-	-	-	-	.033	.033	.033	.033	.033	.033	.033	.033	.167	
	3	2016	AF (‡)	.090	-	.090												-	-	-	-	-	.090	-	-	-	-	-	-	-		
	3	2016	CG (‡)	.020	-	.020												-	-	-	-	-	.020	-	-	-	-	-	-	-		
	3	2016	NSOF (‡)	.070	-	.070												-	-	-	-	-	.070	-	-	-	-	-	-	-		
	<b>3</b>	<b>2016</b>	<b>Total</b>	<b>1.380</b>	<b>-</b>	<b>1.380</b>												<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>.453</b>	<b>.084</b>	<b>.084</b>	<b>.084</b>	<b>.084</b>	<b>.084</b>	<b>.084</b>	<b>.421</b>		
							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	B A L	

**UNCLASSIFIED**

**Exhibit P-21, Production Schedule: PB 2016 Army** **Date:** February 2015

<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2034A / 01 / 30	<b>P-1 Line Item Number / Title:</b> E08000 / CTG, .50 Cal, All Types	<b>Item Number / Title [DODIC]:</b> E07200 / CTG CAL .50 4 BALL/1 TRACER W/M9 LINK [A557]
--	--	---

Cost Elements <i>(Units in Millions (* = &lt; 500 units))</i>					Fiscal Year 2018													Fiscal Year 2019													
O C C O	M F R #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2017	BAL DUE AS OF 1 OCT	Calendar Year 2018													Calendar Year 2019											
							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	B A L
LOAD, ASSEMBLE, PACK (LAP)																															
Prior Years Deliveries: 708479																															
	1	2014	ARMY	8.510	8.510	-																									
	2	2014	ARMY	12.353	12.353	-																									
	2	2014	NAVSEA (‡)	8.788	8.788	-																									
	2	2014	AF (‡)	2.804	2.804	-																									
	2	2014	CG (‡)	.100	.100	-																									
	2	2014	NSOF (‡)	1.303	1.303	-																									
	<b>2</b>	<b>2014</b>	<b>Total</b>	<b>25.349</b>	<b>25.349</b>	-																									
	2	2015	ARMY	9.779	9.779	-																									
	2	2015	NAVSEA (‡)	5.778	5.778	-																									
	2	2015	AF (‡)	1.005	1.005	-																									
	2	2015	CG (‡)	.100	.100	-																									
	<b>2</b>	<b>2015</b>	<b>Total</b>	<b>16.662</b>	<b>16.662</b>	-																									
	2	2016	ARMY	7.195	7.195	-																									
	2	2016	NAVSEA (‡)	3.603	3.603	-																									
	2	2016	AF (‡)	.810	.810	-																									
	2	2016	CG (‡)	.180	.180	-																									
	2	2016	NSOF (‡)	.630	.630	-																									
	<b>2</b>	<b>2016</b>	<b>Total</b>	<b>12.418</b>	<b>12.418</b>	-																									
	3	2016	ARMY	.799	.545	.254	.051	.051	.051	.051	.051																				
	3	2016	NAVSEA (‡)	.400	.234	.167	.033	.033	.033	.033	.033																				
	3	2016	AF (‡)	.090	.090	-	-	-	-	-	-																				
	3	2016	CG (‡)	.020	.020	-	-	-	-	-	-																				
	3	2016	NSOF (‡)	.070	.070	-	-	-	-	-	-																				
	<b>3</b>	<b>2016</b>	<b>Total</b>	<b>1.380</b>	<b>.959</b>	<b>.421</b>	<b>.084</b>	<b>.084</b>	<b>.084</b>	<b>.084</b>	<b>.084</b>																				
							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	B A L

**UNCLASSIFIED**

<b>Exhibit P-21, Production Schedule:</b> PB 2016 Army		<b>Date:</b> February 2015
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2034A / 01 / 30		<b>P-1 Line Item Number / Title:</b> E08000 / CTG, .50 Cal, All Types
		<b>Item Number / Title [DODIC]:</b> E07200 / CTG CAL .50 4 BALL/1 TRACER W/M9 LINK [A557]

MFR Ref #	MFR Name - Location	Production Rates (Each / Month)			Procurement Leadtime (Months)							
		MSR For 2016	1-8-5 For 2016	MAX For 2016	Initial				Reorder			
					ALT Prior to Oct 1	ALT After Oct 1	Mfg PLT	Total After Oct 1	ALT Prior to Oct 1	ALT After Oct 1	Mfg PLT	Total After Oct 1
1	OLIN CORP WINCHESTER DIVISION - EAST ALTON, IL	200	300,000	3,000,000	6	6	9	15	6	6	4	10
2	ALLIANT TECHSYSTEMS (LCAAP) - INDEPENDENCE, MO	200	5,999,000	20,770,000	6	6	12	18	6	6	7	13
3	TO BE SELECTED - TBS01	200	5,990,000	20,770,000	6	6	12	18	6	6	6	12

(†) Delivery rows marked with this symbol indicate that they are funded through a separate Line Item. See the respective components' exhibits for details, including the full delivery schedule.  
 "A" in the Delivery Schedule indicates the Contract Award Date.  
 Note: Due to space limitations, quantities in the Exhibit P-21 delivery calendar are truncated and rounded based on the maximum quantity in the calendar as follows. If the maximum quantity is less than or equal to 9,999, all quantities are shown as each. If the maximum quantity is between 10,000 and 999,999 all quantities are shown in thousands. If the maximum quantity is between 1,000,000 and 999,999,999 all quantities are shown in millions (rounded to the nearest thousand). If the maximum quantity is equal or greater than 1,000,000,000 all quantities are shown in billions (rounded to the nearest million).

**UNCLASSIFIED**

**Exhibit P-40, Budget Line Item Justification:** PB 2016 Army **Date:** February 2015

<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2034A: Procurement of Ammunition, Army / BA 01: Ammunition / BSA 30: Small/ Medium Cal Ammunition	<b>P-1 Line Item Number / Title:</b> E08200 / CTG, 25MM, All Types
---	---

ID Code (A=Service Ready, B=Not Service Ready) :	Program Elements for Code B Items:						Other Related Program Elements:					
Resource Summary	Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	To Complete	Total
Procurement Quantity (Units in Each)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (\$ in Millions)	443.126	6.197	8.181	8.305	-	8.305	8.669	11.216	14.662	14.989	-	515.345
Less PY Advance Procurement (\$ in Millions)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P1) (\$ in Millions)	443.126	6.197	8.181	8.305	-	8.305	8.669	11.216	14.662	14.989	-	515.345
Plus CY Advance Procurement (\$ in Millions)	-	-	-	-	-	-	-	-	-	-	-	-
<b>Total Obligation Authority (\$ in Millions)</b>	<b>443.126</b>	<b>6.197</b>	<b>8.181</b>	<b>8.305</b>	<b>-</b>	<b>8.305</b>	<b>8.669</b>	<b>11.216</b>	<b>14.662</b>	<b>14.989</b>	<b>-</b>	<b>515.345</b>
<i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i>												
Initial Spares (\$ in Millions)	-	-	-	-	-	-	-	-	-	-	-	-
Flyaway Unit Cost (\$ in Dollars)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (\$ in Dollars)	-	-	-	-	-	-	-	-	-	-	-	-

**Description:**

This budget line includes 25MM ALL TYPES:

(E08203) The 25MM M793 Target Practice - Tracer Cartridge is a ballistically matched training round that simulates the M792 25mm High Explosive Incendiary - Tracer Cartridge and the MK210 High Explosive Incendiary - Tracer Cartridge. The M793 supports gunnery training for the Army's Bradley Fighting Vehicles, the United States Marine Corps Light Armored Vehicles, and the Navy's MK38 Deck Gun. The M793 is a percussion primed round. It is packed for the Army and USMC in linked belts of 30 cartridges per PA125 Container. It is packed for the Navy in linked belts of 55 cartridges in the CNU405 Container. The M28 metal link is used to belt M793 cartridges. This item is Code A, approved for service use.

(E08209) The 25MM M794 is an inert training device. It physically mimics 25mm M792, M793, MK210, PGU-23 and PGU-25 ammunition. It is used for training of proper handling and loading of ammunition and for non-firing system training and checkout of 25mm weapons prior to exposing soldiers to live ammunition. This item is Code A, approved for service use.

**UNCLASSIFIED**

**Exhibit P-40, Budget Line Item Justification:** PB 2016 Army **Date:** February 2015

**Appropriation / Budget Activity / Budget Sub Activity:**  
2034A: Procurement of Ammunition, Army / BA 01: Ammunition / BSA 30: Small/  
Medium Cal Ammunition **P-1 Line Item Number / Title:**  
E08200 / CTG, 25MM, All Types

ID Code (A=Service Ready, B=Not Service Ready) :			Program Elements for Code B Items:			Other Related Program Elements:		
Exhibits Schedule			Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total
Title*	Exhibits	ID CD	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)
E08203 / CTG 25MM TP-T M793 [A976]	P-5, P-5a, P-21	A	30,001 / 434.158	272,280 / 6.197	194,837 / 6.506	254,569 / 8.305	- / -	254,569 / 8.305
E08209 / CTG 25MM DUMMY M794	P-40a	A	382 / 8.968	- / -	12,081 / 1.675	- / -	- / -	- / -
<b>Total Gross/Weapon System Cost</b>			<b>- / 443.126</b>	<b>- / 6.197</b>	<b>- / 8.181</b>	<b>- / 8.305</b>	<b>- / -</b>	<b>- / 8.305</b>

\*Title represents 1) the Number / Title for Items; 2) the Number / Title [DODIC] for Ammunition; and/or 3) the Number / Title (Modification Type) for Modifications.  
 Note: Totals in this Exhibit P-40 set may not be exact or add due to rounding.

**Justification:**  
 FY 2016 Base Budget supports critical Army Title 10 war reserve/operational, training, and test requirements IAW DoD Instruction 3000.04 (Munitions Requirements Process) and AR 5-13 (Total Army Munitions Requirements Process and Prioritization System). War reserve requirements support OSD-approved Combatant Commander Operational Plans, Homeland Defense, and other OSD-directed missions. Training requirements support individual and collective training of Active and Reserve Component forces at Army schools, home station, and the combined training centers. Test requirements support the development, fielding, safety, and quality assurance of Army munitions and equipment throughout their life-cycle.

In accordance with Section 1815 of the FY 2008 National Defense Authorization Act (P.L. 110-181), this item is necessary for use by the active and reserve components of the Armed Forces for homeland defense missions, domestic emergency responses, and providing military support to civil authorities.

(E08203) CTG 25MM TP-T M793 - This is a training unique item not used in combat. The FY 2016 request supports annual training and builds a depot level in accordance with the Army's procurement goals. FY 2016 Base procurement dollars in the amount of \$8.305 million supports .255 million M793 cartridges.

TYPE CLASSIFICATION DATE: 1979

(E08209) CTG 25MM DUMMY M794 - This is a training unique item not used in combat. The procurement supports annual training and builds a depot level in accordance with the Army's procurement goals.

TYPE CLASSIFICATION DATE: 1979

**UNCLASSIFIED**

<b>Exhibit P-5, Cost Analysis: PB 2016 Army</b>		<b>Date:</b> February 2015
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2034A / 01 / 30	<b>P-1 Line Item Number / Title:</b> E08200 / CTG, 25MM, All Types	<b>Item Number / Title [DODIC]:</b> E08203 / CTG 25MM TP-T M793 [A976]

<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : A	<b>MDAP/MAIS Code:</b>
---	------------------------

<b>Resource Summary</b>	<b>Prior Years</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016 Base</b>	<b>FY 2016 OCO</b>	<b>FY 2016 Total</b>
Procurement Quantity ( <i>Units in Each</i> )	30,001	272,280	194,837	254,569	-	254,569
Gross/Weapon System Cost ( <i>\$ in Millions</i> )	434.158	6.197	6.506	8.305	-	8.305
Less PY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-
Net Procurement (P1) ( <i>\$ in Millions</i> )	434.158	6.197	6.506	8.305	-	8.305
Plus CY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-
<b>Total Obligation Authority (<i>\$ in Millions</i>)</b>	<b>434.158</b>	<b>6.197</b>	<b>6.506</b>	<b>8.305</b>	<b>-</b>	<b>8.305</b>

*(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)*

Initial Spares ( <i>\$ in Millions</i> )	-	-	-	-	-	-
Gross/Weapon System Unit Cost ( <i>\$ in Dollars</i> )	14,471.45	22.76	33.39	32.62	-	32.62

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or add, due to rounding.

<b>Cost Elements</b>	<b>Prior Years</b>			<b>FY 2014</b>			<b>FY 2015</b>			<b>FY 2016 Base</b>			<b>FY 2016 OCO</b>			<b>FY 2016 Total</b>		
	<b>Unit Cost (\$)</b>	<b>Qty (Each)</b>	<b>Total Cost (\$ M)</b>	<b>Unit Cost (\$)</b>	<b>Qty (Each)</b>	<b>Total Cost (\$ M)</b>	<b>Unit Cost (\$)</b>	<b>Qty (Each)</b>	<b>Total Cost (\$ M)</b>	<b>Unit Cost (\$)</b>	<b>Qty (Each)</b>	<b>Total Cost (\$ M)</b>	<b>Unit Cost (\$)</b>	<b>Qty (Each)</b>	<b>Total Cost (\$ M)</b>	<b>Unit Cost (\$)</b>	<b>Qty (Each)</b>	<b>Total Cost (\$ M)</b>
<b>Hardware Cost</b>																		
Recurring Cost																		
LOAD, ASSEMBLE, PACK (LAP) <sup>(t)</sup>	17.61	20,418,311	359.566	19.87	272,280	5.410	26.51	194,837	5.165	27.33	254,569	6.957	-	-	-	27.33	254,569	6.957
CONTAINER PA125 <sup>(t)</sup>	57.93	307,276	17.800	27.21	9,328	0.254	66.27	6,675	0.442	69.21	8,721	0.604	-	-	-	69.21	8,721	0.604
<i>Subtotal: Recurring Cost</i>	-	-	377.367	-	-	5.664	-	-	5.607	-	-	7.561	-	-	-	-	-	7.561
<i>Subtotal: Hardware Cost</i>	-	-	377.367	-	-	5.664	-	-	5.607	-	-	7.561	-	-	-	-	-	7.561
<b>Support Cost</b>																		
PRODUCTION ENGINEERING	-	-	36.903	-	-	0.528	-	-	0.599	-	-	0.578	-	-	-	-	-	0.578
QUALITY ASSURANCE	-	-	0.352	-	-	0.005	-	-	0.005	-	-	0.003	-	-	-	-	-	0.003
FIRST ARTICLE TEST	-	-	19.537	-	-	-	-	-	0.295	-	-	0.163	-	-	-	-	-	0.163
<i>Subtotal: Support Cost</i>	-	-	56.792	-	-	0.533	-	-	0.899	-	-	0.744	-	-	-	-	-	0.744
<b>Gross/Weapon System Cost</b>	<b>14,471.45</b>	<b>30,001</b>	<b>434.158</b>	<b>22.76</b>	<b>272,280</b>	<b>6.197</b>	<b>33.39</b>	<b>194,837</b>	<b>6.506</b>	<b>32.62</b>	<b>254,569</b>	<b>8.305</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>32.62</b>	<b>254,569</b>	<b>8.305</b>

(t) indicates the presence of a P-5a



**UNCLASSIFIED**

**Exhibit P-5a, Procurement History and Planning:** PB 2016 Army **Date:** February 2015

<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2034A / 01 / 30	<b>P-1 Line Item Number / Title:</b> E08200 / CTG, 25MM, All Types	<b>Item Number / Title [DODIC]:</b> E08203 / CTG 25MM TP-T M793 [A976]
--	---	---

Cost Elements	O C O	FY	Contractor and Location	Method/Type or Funding Vehicle	Location of PCO	Award Date	Date of First Delivery	Qty <i>(Each)</i>	Unit Cost <i>(\$)</i>	Specs Avail Now?	Date Revision Available	RFP Issue Date
LOAD, ASSEMBLE, PACK (LAP) <sup>(†)</sup>		2014	ALLIANT TECHSYSTEMS INC. / MESA, AZ	C / FFP	ROCK ISLAND ARSENAL, IL	Jul 2014	Jan 2015	272,280	19.87	Y		
LOAD, ASSEMBLE, PACK (LAP) <sup>(†)</sup>		2015	TO BE SELECTED / TBS01	C / FFP	ROCK ISLAND ARSENAL, IL	Mar 2015	Mar 2016	194,837	26.51	Y		
LOAD, ASSEMBLE, PACK (LAP) <sup>(†)</sup>		2016	TO BE SELECTED / TBS01	C / FFP	ROCK ISLAND ARSENAL, IL	Mar 2016	Mar 2017	254,569	27.33	Y		
CONTAINER PA125		2014	CONCO INC. / LOUISVILLE, KY	C / FFP	ROCK ISLAND ARSENAL, IL	Jul 2014	Sep 2014	9,328	27.21	Y		
CONTAINER PA125		2015	CONCO INC. / LOUISVILLE, KY	C / FFP	ROCK ISLAND ARSENAL, IL	Mar 2015	Nov 2015	6,675	66.27	Y		
CONTAINER PA125		2016	CONCO INC. / LOUISVILLE, KY	C / FFP	ROCK ISLAND ARSENAL, IL	Mar 2016	Nov 2016	8,721	69.21	Y		

<sup>(†)</sup> indicates the presence of a P-21

**Remarks:**

This item is part of a combined 20mm, 25mm, 30mm contract FY 2013 - FY 2017. Quantity split is determined in year of execution between two contractors: General Dynamics Ordnance and Tactical Systems, Marion IL and Alliant Techsystems Operations, Plymouth MN. This is a training unique item not used in combat. The procurement supports annual training and builds a depot level in accordance with the Army's procurement goals. Type Classification Date: 1979

**UNCLASSIFIED**

**Exhibit P-21, Production Schedule:** PB 2016 Army **Date:** February 2015

<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2034A / 01 / 30	<b>P-1 Line Item Number / Title:</b> E08200 / CTG, 25MM, All Types	<b>Item Number / Title [DODIC]:</b> E08203 / CTG 25MM TP-T M793 [A976]
--	---	---

Cost Elements <i>(Units in Thousands)</i>						Fiscal Year 2014											Fiscal Year 2015																											
O C C O	M F R #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2013	BAL DUE AS OF 1 OCT	Calendar Year 2014											Calendar Year 2015																										
							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	B A L													
LOAD, ASSEMBLE, PACK (LAP)																																												
Prior Years Deliveries: 20418311																																												
	1	2014	ARMY	272.280	-	272.280											A	-	-	-	-	-	-	150.000	122.280									-										
	2	2015	ARMY	194.837	-	194.837																														A	-	-	-	-	-	-	-	194.837
	2	2016	ARMY	254.569	-	254.569																																						254.569
							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	B A L													

**UNCLASSIFIED**

**Exhibit P-21, Production Schedule:** PB 2016 Army **Date:** February 2015

<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2034A / 01 / 30	<b>P-1 Line Item Number / Title:</b> E08200 / CTG, 25MM, All Types	<b>Item Number / Title [DODIC]:</b> E08203 / CTG 25MM TP-T M793 [A976]
--	---	---

Cost Elements <i>(Units in Thousands)</i>					Fiscal Year 2016														Fiscal Year 2017														
O C C O	M F R #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2015	BAL DUE AS OF 1 OCT	Calendar Year 2016														Calendar Year 2017												B A L
							O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P			
LOAD, ASSEMBLE, PACK (LAP)																																	
Prior Years Deliveries: 20418311																																	
	1	2014	ARMY	272.280	272.280	-																											
	2	2015	ARMY	194.837	-	194.837	-	-	-	-	-	16.241	16.236	16.236	16.236	16.236	16.236	16.236	16.236	16.236	16.236	16.236	16.236										
	2	2016	ARMY	254.569	-	254.569						A -	-	-	-	-	-	-	-	-	-	-	21.215	21.214	21.214	21.214	21.214	21.214	106.070				
O C C O	M F R #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2015	BAL DUE AS OF 1 OCT	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	B A L		

**UNCLASSIFIED**

**Exhibit P-21, Production Schedule: PB 2016 Army** **Date:** February 2015

**Appropriation / Budget Activity / Budget Sub Activity:**  
2034A / 01 / 30

**P-1 Line Item Number / Title:**  
E08200 / CTG, 25MM, All Types

**Item Number / Title [DODIC]:**  
E08203 / CTG 25MM TP-T M793 [A976]

Cost Elements (Units in Thousands)						Fiscal Year 2018													Fiscal Year 2019													
O C C O	M F R #	FY	SERVICE	PROC QTY	ACCEP T P R I O R T O 1 O C T 2 0 1 7	BAL D U E A S O F 1 O C T	Calendar Year 2018													Calendar Year 2019												
							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	B A L	

LOAD, ASSEMBLE, PACK (LAP)  
Prior Years Deliveries: 20418311

1	2014	ARMY	272.280	272.280	-																									-
2	2015	ARMY	194.837	194.837	-																									-
2	2016	ARMY	254.569	148.499	106.070	21.214	21.214	21.214	21.214	21.214																				-

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	B A L
-------------	-------------	-------------	-------------	-------------	-------------	-------------	-------------	-------------	-------------	-------------	-------------	-------------	-------------	-------------	-------------	-------------	-------------	-------------	-------------	-------------	-------------	-------------	-------------	-------------

**UNCLASSIFIED**

<b>Exhibit P-21, Production Schedule:</b> PB 2016 Army		<b>Date:</b> February 2015
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2034A / 01 / 30		<b>P-1 Line Item Number / Title:</b> E08200 / CTG, 25MM, All Types
		<b>Item Number / Title [DODIC]:</b> E08203 / CTG 25MM TP-T M793 [A976]

MFR Ref #	MFR Name - Location	Production Rates (Each / Month)			Procurement Leadtime (Months)							
		MSR For 2016	1-8-5 For 2016	MAX For 2016	Initial				Reorder			
					ALT Prior to Oct 1	ALT After Oct 1	Mfg PLT	Total After Oct 1	ALT Prior to Oct 1	ALT After Oct 1	Mfg PLT	Total After Oct 1
1	ALLIANT TECHSYSTEMS INC. - MESA, AZ	20,000	100,000	150,000	6	6	12	18	4	4	12	16
2	TO BE SELECTED - TBS01	80,000	100,000	150,000	6	6	12	18	6	6	12	18

**Remarks:**  
LAP LINE FOR EACH CONTRACTOR SHARED WITH OTHER 25MM ITEMS. QUARTERLY DELIVERIES.

"A" in the Delivery Schedule indicates the Contract Award Date.  
 Note: Due to space limitations, quantities in the Exhibit P-21 delivery calendar are truncated and rounded based on the maximum quantity in the calendar as follows. If the maximum quantity is less than or equal to than 9,999, all quantities are shown as each. If the maximum quantity is between 10,000 and 999,999 all quantities are shown in thousands. If the maximum quantity is between 1,000,000 and 999,999,999 all quantities are shown in millions (rounded to the nearest thousand). If the maximum quantity is equal or greater than 1,000,000,000 all quantities are shown in billions (rounded to the nearest million).

**UNCLASSIFIED**

<b>Exhibit P-40a, Budget Item Justification For Aggregated Items:</b> PB 2016 Army															<b>Date:</b> February 2015				
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2034A / 01 / 30						<b>P-1 Line Item Number / Title:</b> E08200 / CTG, 25MM, All Types									<b>Aggregated Items Title:</b> Various				

Note: Subtotals or Totals in this Exhibit P-40a may not be exact or add, due to rounding.

Item Number / Title [DODIC]	ID CD	MDAP/MAIS Code	Prior Years			FY 2014			FY 2015			FY 2016 Base			FY 2016 OCO			FY 2016 Total		
			Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)
<b>CTG 25MM DUMMY M794</b>																				
E08209 / CTG 25MM DUMMY M794	A		23,476.44	382	8.968	-	-	-	138.65	12,081	1.675	-	-	-	-	-	-	-	-	-
<i>Subtotal: CTG 25MM DUMMY M794</i>			-	-	8.968	-	-	-	-	-	1.675	-	-	-	-	-	-	-	-	-
<b>Total</b>			-	-	<b>8.968</b>	-	-	-	-	-	<b>1.675</b>	-	-	-	-	-	-	-	-	-

**UNCLASSIFIED**

**Exhibit P-40, Budget Line Item Justification:** PB 2016 Army **Date:** February 2015

<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2034A: Procurement of Ammunition, Army / BA 01: Ammunition / BSA 30: Small/ Medium Cal Ammunition	<b>P-1 Line Item Number / Title:</b> ER8120 / CTG, 30MM, ALL TYPES
---	---

ID Code (A=Service Ready, B=Not Service Ready) :	Program Elements for Code B Items:						Other Related Program Elements:					
Resource Summary	Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	To Complete	Total
Procurement Quantity (Units in Each)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (\$ in Millions)	1,282.272	110.033	87.667	34.330	-	34.330	34.921	35.479	33.493	34.202	-	1,652.397
Less PY Advance Procurement (\$ in Millions)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P1) (\$ in Millions)	1,282.272	110.033	87.667	34.330	-	34.330	34.921	35.479	33.493	34.202	-	1,652.397
Plus CY Advance Procurement (\$ in Millions)	-	-	-	-	-	-	-	-	-	-	-	-
<b>Total Obligation Authority (\$ in Millions)</b>	<b>1,282.272</b>	<b>110.033</b>	<b>87.667</b>	<b>34.330</b>	<b>-</b>	<b>34.330</b>	<b>34.921</b>	<b>35.479</b>	<b>33.493</b>	<b>34.202</b>	<b>-</b>	<b>1,652.397</b>
<i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i>												
Initial Spares (\$ in Millions)	-	-	-	-	-	-	-	-	-	-	-	-
Flyaway Unit Cost (\$ in Dollars)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (\$ in Dollars)	-	-	-	-	-	-	-	-	-	-	-	-

**Description:**

This budget line includes 30MM ALL TYPES:

(E06000) The 30mm M848 is an inert training device. It physically mimics the M788 and M789 cartridges. It is used for training of proper handling and loading of ammunition and for non-firing system training and checkout of the 30mm M230 weapon prior to exposing soldiers to live ammunition. This item is Code A, approved for service use.

(E09900) The 30mm M789 High Explosive - Dual Purpose Cartridge is the only qualified combat cartridge for use in the Apache Helicopter's M230 Chain Gun. It is also used by SOCOM, fired from the MH-60 Blackhawk helicopter. The M789 cartridge consists of a projectile containing explosive, a shaped charge liner, a M759 point-detonating fuze, aluminum cartridge case, propellant and a PA520 electric primer. The shaped charge allows the M789 to defeat light armor, and the steel projectile body provides an anti-personnel capability. M789 cartridges are packed in Bulk Ammunition Strips (BAS), 110 cartridges per M592 container. This item is Code A, approved for service use

(E10100) The 30MM M788 30mm Target Practice cartridge is the only qualified training cartridge for use in the Apache and Blackhawk Helicopter's M230 Chain Gun. The M788 consists of an inert projectile, propellant utilizes a PA520 electric primer and a lightweight aluminum cartridge case. M788 cartridges are packed in Bulk Ammunition Strips (BAS), 110 cartridges per M592 container. This item is Code A, approved for service use.

**UNCLASSIFIED**

**Exhibit P-40, Budget Line Item Justification:** PB 2016 Army **Date:** February 2015

**Appropriation / Budget Activity / Budget Sub Activity:**  
2034A: Procurement of Ammunition, Army / BA 01: Ammunition / BSA 30: Small/ Medium Cal Ammunition

**P-1 Line Item Number / Title:**  
ER8120 / CTG, 30MM, ALL TYPES

Exhibits Schedule			Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total
Title*	Exhibits	ID CD	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)
E06000 / CTG 30MM DUMMY M848	P-40a	A	- / 2.666	- / -	- / -	24,738 / 0.637	- / -	24,738 / 0.637
E09900 / CTG 30MM HEDP M789 [B129]	P-5, P-5a, P-21	A	- / 792.348	1,128,942 / 92.619	618,058 / 65.652	77,568 / 10.033	- / -	77,568 / 10.033
E10100 / CTG 30MM TP M788 [B118]	P-5, P-5a, P-21	A	- / 303.082	857,233 / 17.414	929,584 / 22.015	1,027,226 / 23.660	- / -	1,027,226 / 23.660
<b>Total Gross/Weapon System Cost</b>			<b>- / 1,282.272</b>	<b>- / 110.033</b>	<b>- / 87.667</b>	<b>- / 34.330</b>	<b>- / -</b>	<b>- / 34.330</b>

\*Title represents 1) the Number / Title for Items; 2) the Number / Title [DODIC] for Ammunition; and/or 3) the Number / Title (Modification Type) for Modifications.

Note: Totals in this Exhibit P-40 set may not be exact or add due to rounding.

**Justification:**  
FY 2016 Base Budget supports critical Army Title 10 war reserve/operational, training, and test requirements IAW DoD Instruction 3000.04 (Munitions Requirements Process) and AR 5-13 (Total Army Munitions Requirements Process and Prioritization System). War reserve requirements support OSD-approved Combatant Commander Operational Plans, Homeland Defense, and other OSD-directed missions. Training requirements support individual and collective training of Active and Reserve Component forces at Army schools, home station, and the combined training centers. Test requirements support the development, fielding, safety, and quality assurance of Army munitions and equipment throughout their life-cycle.

In accordance with Section 1815 of the FY 2008 National Defense Authorization Act (P.L. 110-181), this item is necessary for use by the active and reserve components of the Armed Forces for homeland defense missions, domestic emergency responses, and providing military support to civil authorities.

(E06000) CTG 30MM DUMMY M848 - This is a training unique item not used in combat. The FY 2016 request supports annual training and builds a depot level in accordance with the Army's procurement goals. FY 2016 procurement dollars in the amount of \$.637 million supports the procurement of .025 million M848 cartridges.

TYPE CLASSIFICATION DATE: 1991

(E09900) CTG 30mm HEDP M789 Base - This is a training standard item used in both training and combat. The FY 2016 request supports annual training and builds a war reserve inventory in accordance with the Army's procurement goals. FY 2016 base procurement dollars in the amount of \$10.033 million supports the procurement of .078 million M789 cartridges.

TYPE CLASSIFICATION DATE: 1962

(E10100) CTG 30mm TP M788 - This is a training unique item not used in combat. The FY 2016 request supports annual training and builds a depot level in accordance with the Army's procurement goals. FY 2016 procurement dollars in the amount of \$23.660 million supports the procurement of 1.027 million M788 cartridges.

TYPE CLASSIFICATION DATE: 1982



**UNCLASSIFIED**

<b>Exhibit P-40a, Budget Item Justification For Aggregated Items:</b> PB 2016 Army															<b>Date:</b> February 2015				
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2034A / 01 / 30							<b>P-1 Line Item Number / Title:</b> ER8120 / CTG, 30MM, ALL TYPES								<b>Aggregated Items Title:</b> Various				

Note: Subtotals or Totals in this Exhibit P-40a may not be exact or add, due to rounding.

Item Number / Title [DODIC]	ID CD	MDAP/MAIS Code	Prior Years			FY 2014			FY 2015			FY 2016 Base			FY 2016 OCO			FY 2016 Total		
			Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)
<b>CTG 30MM DUMMY M848</b>																				
E06000 / CTG 30MM DUMMY M848	A		-	-	2.666	-	-	-	-	-	-	25.75	24,738	0.637	-	-	-	25.75	24,738	0.637
<i>Subtotal: CTG 30MM DUMMY M848</i>			-	-	2.666	-	-	-	-	-	-	-	-	0.637	-	-	-	-	-	0.637
<b>Total</b>			-	-	<b>2.666</b>	-	-	-	-	-	-	-	-	<b>0.637</b>	-	-	-	-	-	<b>0.637</b>

**UNCLASSIFIED**

<b>Exhibit P-5, Cost Analysis: PB 2016 Army</b>		<b>Date:</b> February 2015
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2034A / 01 / 30	<b>P-1 Line Item Number / Title:</b> ER8120 / CTG, 30MM, ALL TYPES	<b>Item Number / Title [DODIC]:</b> E09900 / CTG 30MM HEDP M789 [B129]

<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : A	<b>MDAP/MAIS Code:</b>
---	------------------------

Resource Summary	Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total
Procurement Quantity (Units in Each)	-	1,128,942	618,058	77,568	-	77,568
Gross/Weapon System Cost (\$ in Millions)	792.348	92.619	65.652	10.033	-	10.033
Less PY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
Net Procurement (P1) (\$ in Millions)	792.348	92.619	65.652	10.033	-	10.033
Plus CY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
<b>Total Obligation Authority (\$ in Millions)</b>	<b>792.348</b>	<b>92.619</b>	<b>65.652</b>	<b>10.033</b>	<b>-</b>	<b>10.033</b>

*(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)*

Initial Spares (\$ in Millions)	-	-	-	-	-	-
Gross/Weapon System Unit Cost (\$ in Dollars)	-	82.04	106.22	129.34	-	129.34

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or add, due to rounding.

Cost Elements	Prior Years			FY 2014			FY 2015			FY 2016 Base			FY 2016 OCO			FY 2016 Total		
	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)
Hardware Cost																		
Recurring Cost																		
COMPLETE ROUND <sup>(†)</sup>	-	-	792.348	77.88	1,128,942	87.922	100.93	618,058	62.381	105.31	77,568	8.169	-	-	-	105.31	77,568	8.169
Subtotal: Recurring Cost	-	-	792.348	-	-	87.922	-	-	62.381	-	-	8.169	-	-	-	-	-	8.169
Subtotal: Hardware Cost	-	-	792.348	-	-	87.922	-	-	62.381	-	-	8.169	-	-	-	-	-	8.169
Support Cost																		
PRODUCTION ENGINEERING	-	-	-	-	-	2.228	-	-	2.763	-	-	1.853	-	-	-	-	-	1.853
QUALITY ASSURANCE	-	-	-	-	-	0.016	-	-	0.008	-	-	0.011	-	-	-	-	-	0.011
FLASH TUBE QUALIFICATION	-	-	-	-	-	1.802	-	-	0.500	-	-	-	-	-	-	-	-	-
APACHE LIAISON SUPPORT FT RUCKER	-	-	-	-	-	0.300	-	-	-	-	-	-	-	-	-	-	-	-
REA REBORE/LINER RETENTION	-	-	-	-	-	0.351	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: Support Cost	-	-	-	-	-	4.697	-	-	3.271	-	-	1.864	-	-	-	-	-	1.864
<b>Gross/Weapon System Cost</b>	<b>-</b>	<b>-</b>	<b>792.348</b>	<b>82.04</b>	<b>1,128,942</b>	<b>92.619</b>	<b>106.22</b>	<b>618,058</b>	<b>65.652</b>	<b>129.34</b>	<b>77,568</b>	<b>10.033</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>129.34</b>	<b>77,568</b>	<b>10.033</b>

(†) indicates the presence of a P-5a

**UNCLASSIFIED**

**Exhibit P-5a, Procurement History and Planning:** PB 2016 Army **Date:** February 2015

<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2034A / 01 / 30	<b>P-1 Line Item Number / Title:</b> ER8120 / CTG, 30MM, ALL TYPES	<b>Item Number / Title [DODIC]:</b> E09900 / CTG 30MM HEDP M789 [B129]
--	---	---

Cost Elements	O C O	FY	Contractor and Location	Method/Type or Funding Vehicle	Location of PCO	Award Date	Date of First Delivery	Qty <i>(Each)</i>	Unit Cost <i>(\$)</i>	Specs Avail Now?	Date Revision Available	RFP Issue Date
COMPLETE ROUND <sup>(†)</sup>		2014	ALLIANT TECHSYSTEMS INC. / PLYMOUTH, MN	C / FFP	ROCK ISLAND ARSENAL, IL	Mar 2014	Feb 2016	620,918	77.88	Y		
COMPLETE ROUND <sup>(†)</sup>		2014	GENERAL DYNAMICS ORD & TAC / MARION, IL	C / FFP	ROCK ISLAND ARSENAL, IL	Mar 2014	Oct 2015	508,024	77.88	Y		
COMPLETE ROUND <sup>(†)</sup>		2015	TO BE SELECTED / TBS01	C / FFP	ROCK ISLAND ARSENAL, IL	Mar 2015	Mar 2016	309,029	100.93	Y		
COMPLETE ROUND <sup>(†)</sup>		2015	TO BE SELECTED / TBS02	C / FFP	ROCK ISLAND ARSENAL	Mar 2015	Mar 2016	309,029	100.93	Y		
COMPLETE ROUND <sup>(†)</sup>		2016	TO BE SELECTED / TBS01	C / FFP	ROCK ISLAND ARSENAL, IL	Mar 2016	Mar 2017	38,784	105.31	Y		
COMPLETE ROUND <sup>(†)</sup>		2016	TO BE SELECTED / TBS02	C / FFP	ROCK ISLAND ARSENAL	Mar 2016	Mar 2017	38,784	105.31	Y		

<sup>(†)</sup> indicates the presence of a P-21

**Remarks:**

This item is part of a combined 20mm, 25mm, 30mm contract FY 2013 - FY 2017. Quantity split is determined in year of execution between two contractors: General Dynamics Ordnance and Tactical Systems, Marion IL and Alliant Techsystems Operations, Plymouth MN. This is a training standard item used in training and combat. FY 2016 procurement supports annual training and builds a war reserve inventory in accordance with the Army's procurement goals. Type Classification Date: 1962

**UNCLASSIFIED**

**Exhibit P-21, Production Schedule:** PB 2016 Army **Date:** February 2015

<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2034A / 01 / 30	<b>P-1 Line Item Number / Title:</b> ER8120 / CTG, 30MM, ALL TYPES	<b>Item Number / Title [DODIC]:</b> E09900 / CTG 30MM HEDP M789 [B129]
--	---	---

Cost Elements <i>(Units in Thousands)</i>						Fiscal Year 2014												Fiscal Year 2015																			
O C C O	M F R #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2013	BAL DUE AS OF 1 OCT	Calendar Year 2014												Calendar Year 2015																		
							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	B A L						
COMPLETE ROUND																																					
	1	2014	ARMY	620.918	-	620.918																															620.918
	2	2014	ARMY	508.024	-	508.024																															508.024
	3	2015	ARMY	309.029	-	309.029																															309.029
	4	2015	ARMY	309.029	-	309.029																															309.029
	3	2016	ARMY	38.784	-	38.784																															38.784
	4	2016	ARMY	38.784	-	38.784																															38.784

**UNCLASSIFIED**

<b>Exhibit P-21, Production Schedule:</b> PB 2016 Army															<b>Date:</b> February 2015														
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2034A / 01 / 30										<b>P-1 Line Item Number / Title:</b> ER8120 / CTG, 30MM, ALL TYPES										<b>Item Number / Title [DODIC]:</b> E09900 / CTG 30MM HEDP M789 [B129]									

Cost Elements <i>(Units in Thousands)</i>						Fiscal Year 2016														Fiscal Year 2017																
O C C O	M F R #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2015	BAL DUE AS OF 1 OCT	Calendar Year 2016														Calendar Year 2017															
							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	B A L					
COMPLETE ROUND																																				
	1	2014	ARMY	620.918	-	620.918	-	-	-	-	51.743	51.743	51.743	51.743	51.743	51.743	51.743	51.743	51.743	51.743	51.743	51.743	51.743	51.743	51.743	51.743	51.743	51.743	51.743	51.743	51.743	51.743	51.743	-		
	2	2014	ARMY	508.024	-	508.024	42.119	42.355	42.355	42.355	42.355	42.355	42.355	42.355	42.355	42.355	42.355	42.355	42.355	42.355	42.355	42.355	42.355	42.355	42.355	42.355	42.355	42.355	42.355	42.355	42.355	42.355	42.355	42.355	-	
	3	2015	ARMY	309.029	-	309.029	-	-	-	-	-	25.757	25.752	25.752	25.752	25.752	25.752	25.752	25.752	25.752	25.752	25.752	25.752	25.752	25.752	25.752	25.752	25.752	25.752	25.752	25.752	25.752	25.752	-		
	4	2015	ARMY	309.029	-	309.029	-	-	-	-	-	25.757	25.752	25.752	25.752	25.752	25.752	25.752	25.752	25.752	25.752	25.752	25.752	25.752	25.752	25.752	25.752	25.752	25.752	25.752	25.752	25.752	25.752	-		
	3	2016	ARMY	38.784	-	38.784						A -	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3.232	3.232	3.232	16.160
	4	2016	ARMY	38.784	-	38.784						A -	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3.232	3.232	3.232	16.160
							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	B A L					

**UNCLASSIFIED**

**Exhibit P-21, Production Schedule:** PB 2016 Army **Date:** February 2015

<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2034A / 01 / 30	<b>P-1 Line Item Number / Title:</b> ER8120 / CTG, 30MM, ALL TYPES	<b>Item Number / Title [DODIC]:</b> E09900 / CTG 30MM HEDP M789 [B129]
--	---	---

Cost Elements <i>(Units in Thousands)</i>						Fiscal Year 2018										Fiscal Year 2019															
O C C #	M F R #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2017	BAL DUE AS OF 1 OCT	Calendar Year 2018										Calendar Year 2019										B A L				
							O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y		J U N	J U L	A U G	S E P
COMPLETE ROUND																															
	1	2014	ARMY	620.918	620.918	-																							-		
	2	2014	ARMY	508.024	508.024	-																							-		
	3	2015	ARMY	309.029	309.029	-																							-		
	4	2015	ARMY	309.029	309.029	-																							-		
	3	2016	ARMY	38.784	22.624	16.160	3.232	3.232	3.232	3.232	3.232																		-		
	4	2016	ARMY	38.784	22.624	16.160	3.232	3.232	3.232	3.232	3.232																		-		
							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	B A L

**UNCLASSIFIED**

<b>Exhibit P-21, Production Schedule:</b> PB 2016 Army		<b>Date:</b> February 2015
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2034A / 01 / 30		<b>P-1 Line Item Number / Title:</b> ER8120 / CTG, 30MM, ALL TYPES
		<b>Item Number / Title [DODIC]:</b> E09900 / CTG 30MM HEDP M789 [B129]

MFR Ref #	MFR Name - Location	Production Rates (Each / Month)			Procurement Leadtime (Months)							
		MSR For 2016	1-8-5 For 2016	MAX For 2016	Initial				Reorder			
					ALT Prior to Oct 1	ALT After Oct 1	Mfg PLT	Total After Oct 1	ALT Prior to Oct 1	ALT After Oct 1	Mfg PLT	Total After Oct 1
1	ALLIANT TECHSYSTEMS INC. - PLYMOUTH, MN	68,000	85,000	150,000	6	6	12	18	6	6	12	18
2	GENERAL DYNAMICS ORD & TAC - MARION, IL	24,000	30,000	65,000	6	6	12	18	6	6	12	18
3	TO BE SELECTED - TBS01	68,000	85,000	150,000	6	6	12	18	6	6	12	18
4	TO BE SELECTED - TBS02	24,000	30,000	50,000	6	6	12	18	6	6	12	18

"A" in the Delivery Schedule indicates the Contract Award Date.

Note: Due to space limitations, quantities in the Exhibit P-21 delivery calendar are truncated and rounded based on the maximum quantity in the calendar as follows. If the maximum quantity is less than or equal to than 9,999, all quantities are shown as each. If the maximum quantity is between 10,000 and 999,999 all quantities are shown in thousands. If the maximum quantity is between 1,000,000 and 999,999,999 all quantities are shown in millions (rounded to the nearest thousand). If the maximum quantity is equal or greater than 1,000,000,000 all quantities are shown in billions (rounded to the nearest million).

**UNCLASSIFIED**

<b>Exhibit P-5, Cost Analysis: PB 2016 Army</b>		<b>Date:</b> February 2015
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2034A / 01 / 30	<b>P-1 Line Item Number / Title:</b> ER8120 / CTG, 30MM, ALL TYPES	<b>Item Number / Title [DODIC]:</b> E10100 / CTG 30MM TP M788 [B118]

<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : A	<b>MDAP/MAIS Code:</b>
---	------------------------

Resource Summary	Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total
Procurement Quantity ( <i>Units in Each</i> )	-	857,233	929,584	1,027,226	-	1,027,226
Gross/Weapon System Cost ( <i>\$ in Millions</i> )	303.082	17.414	22.015	23.660	-	23.660
Less PY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-
Net Procurement (P1) ( <i>\$ in Millions</i> )	303.082	17.414	22.015	23.660	-	23.660
Plus CY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-
<b>Total Obligation Authority</b> ( <i>\$ in Millions</i> )	<b>303.082</b>	<b>17.414</b>	<b>22.015</b>	<b>23.660</b>	<b>-</b>	<b>23.660</b>

*(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)*

Initial Spares ( <i>\$ in Millions</i> )	-	-	-	-	-	-
Gross/Weapon System Unit Cost ( <i>\$ in Dollars</i> )	-	20.31	23.68	23.03	-	23.03

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or add, due to rounding.

Cost Elements	Prior Years			FY 2014			FY 2015			FY 2016 Base			FY 2016 OCO			FY 2016 Total		
	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)
Hardware Cost																		
Recurring Cost																		
COMPLETE ROUND <sup>(†)</sup>	-	-	303.082	17.73	857,233	15.199	20.86	929,584	19.391	21.41	1,027,226	21.993	-	-	-	21.41	1,027,226	21.993
<i>Subtotal: Recurring Cost</i>	-	-	<i>303.082</i>	-	-	<i>15.199</i>	-	-	<i>19.391</i>	-	-	<i>21.993</i>	-	-	-	-	-	<i>21.993</i>
<i>Subtotal: Hardware Cost</i>	-	-	<i>303.082</i>	-	-	<i>15.199</i>	-	-	<i>19.391</i>	-	-	<i>21.993</i>	-	-	-	-	-	<i>21.993</i>
Support Cost																		
PRODUCTION ENGINEERING	-	-	-	-	-	1.907	-	-	1.617	-	-	1.653	-	-	-	-	-	1.653
QUALITY ASSURANCE	-	-	-	-	-	0.008	-	-	0.007	-	-	0.014	-	-	-	-	-	0.014
NON-RECURRING ENGINEERING	-	-	-	-	-	0.300	-	-	1.000	-	-	-	-	-	-	-	-	-
<i>Subtotal: Support Cost</i>	-	-	-	-	-	<i>2.215</i>	-	-	<i>2.624</i>	-	-	<i>1.667</i>	-	-	-	-	-	<i>1.667</i>
<b>Gross/Weapon System Cost</b>	-	-	<b>303.082</b>	<b>20.31</b>	<b>857,233</b>	<b>17.414</b>	<b>23.68</b>	<b>929,584</b>	<b>22.015</b>	<b>23.03</b>	<b>1,027,226</b>	<b>23.660</b>	-	-	-	<b>23.03</b>	<b>1,027,226</b>	<b>23.660</b>

(†) indicates the presence of a P-5a



**UNCLASSIFIED**

**Exhibit P-5a, Procurement History and Planning:** PB 2016 Army **Date:** February 2015

<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2034A / 01 / 30	<b>P-1 Line Item Number / Title:</b> ER8120 / CTG, 30MM, ALL TYPES	<b>Item Number / Title [DODIC]:</b> E10100 / CTG 30MM TP M788 [B118]
--	---	---

Cost Elements	O C O	FY	Contractor and Location	Method/Type or Funding Vehicle	Location of PCO	Award Date	Date of First Delivery	Qty <i>(Each)</i>	Unit Cost <i>(\$)</i>	Specs Avail Now?	Date Revision Available	RFP Issue Date
COMPLETE ROUND <sup>(†)</sup>		2014	GENERAL DYNAMICS ORD & TAC / MARION, IL	C / FFP	ROCK ISLAND ARSENAL, IL	Mar 2014	Nov 2014	471,478	17.73	Y		
COMPLETE ROUND <sup>(†)</sup>		2014	ALLIANT TECHSYSTEMS INC. / PLYMOUTH, MN	C / FFP	ROCK ISLAND ARSENAL, IL	Mar 2014	Jan 2015	385,755	17.73	Y		
COMPLETE ROUND <sup>(†)</sup>		2015	TO BE SELECTED / TBS01	C / FFP	ROCK ISLAND ARSENAL, IL	Mar 2015	Mar 2016	464,792	20.86	Y		
COMPLETE ROUND <sup>(†)</sup>		2015	TO BE SELECTED / TBS02	C / FFP	ROCK ISLAND ARSENAL, IL	Mar 2015	Mar 2016	464,792	20.86	Y		
COMPLETE ROUND <sup>(†)</sup>		2016	TO BE SELECTED / TBS01	C / FFP	ROCK ISLAND ARSENAL, IL	Mar 2016	Mar 2017	513,613	21.41	Y		
COMPLETE ROUND <sup>(†)</sup>		2016	TO BE SELECTED / TBS02	C / FFP	ROCK ISLAND ARSENAL, IL	Mar 2016	Mar 2017	513,613	21.41	Y		

<sup>(†)</sup> indicates the presence of a P-21

**Remarks:**

This item is part of a combined 20mm, 25mm, 30mm contract FY 2013 - FY 2017. Quantity split is determined in year of execution between two contractors: General Dynamics Ordnance Tactical Systems, Marion IL and Alliant Techsystems Operations, Plymouth MN. This is a training unique item not used in combat. FY 2016 procurement supports annual training and builds a depot level in accordance with the Army's procurement goals. Type Classification Date: 1982

**UNCLASSIFIED**

**Exhibit P-21, Production Schedule:** PB 2016 Army **Date:** February 2015

**Appropriation / Budget Activity / Budget Sub Activity:** 2034A / 01 / 30 **P-1 Line Item Number / Title:** ER8120 / CTG, 30MM, ALL TYPES **Item Number / Title [DODIC]:** E10100 / CTG 30MM TP M788 [B118]

Cost Elements <i>(Units in Thousands)</i>						Fiscal Year 2014												Fiscal Year 2015												
O C C #	M F R #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2013	BAL DUE AS OF 1 OCT	Calendar Year 2014												Calendar Year 2015											
							O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P
COMPLETE ROUND																														
1		2014	ARMY	471.478	-	471.478																								
2		2014	ARMY	385.755	-	385.755																								
3		2015	ARMY	464.792	-	464.792																								
4		2015	ARMY	464.792	-	464.792																								
3		2016	ARMY	513.613	-	513.613																								
4		2016	ARMY	513.613	-	513.613																								

**UNCLASSIFIED**

**Exhibit P-21, Production Schedule: PB 2016 Army** **Date:** February 2015

<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2034A / 01 / 30	<b>P-1 Line Item Number / Title:</b> ER8120 / CTG, 30MM, ALL TYPES	<b>Item Number / Title [DODIC]:</b> E10100 / CTG 30MM TP M788 [B118]
--	---	---

Cost Elements <i>(Units in Thousands)</i>					Fiscal Year 2016													Fiscal Year 2017													
O C C O	M F R #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2015	BAL DUE AS OF 1 OCT	Calendar Year 2016													Calendar Year 2017											
							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	B A L
COMPLETE ROUND																															
	1	2014	ARMY	471.478	430.121	41.357	41.357																						-		
	2	2014	ARMY	385.755	289.317	96.438	32.146	32.146	32.146																				-		
	3	2015	ARMY	464.792	-	464.792	-	-	-	-	38.740	38.732	38.732	38.732	38.732	38.732	38.732	38.732	38.732	38.732	38.732	38.732	38.732	38.732	38.732	38.732	38.732	-			
	4	2015	ARMY	464.792	-	464.792	-	-	-	-	38.740	38.732	38.732	38.732	38.732	38.732	38.732	38.732	38.732	38.732	38.732	38.732	38.732	38.732	38.732	38.732	38.732	-			
	3	2016	ARMY	513.613	-	513.613																									
	4	2016	ARMY	513.613	-	513.613																									

**UNCLASSIFIED**

**Exhibit P-21, Production Schedule:** PB 2016 Army **Date:** February 2015

<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2034A / 01 / 30	<b>P-1 Line Item Number / Title:</b> ER8120 / CTG, 30MM, ALL TYPES	<b>Item Number / Title [DODIC]:</b> E10100 / CTG 30MM TP M788 [B118]
--	---	---

Cost Elements <i>(Units in Thousands)</i>					Fiscal Year 2018												Fiscal Year 2019														
O C C O	M F R #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2017	BAL DUE AS OF 1 OCT	Calendar Year 2018												Calendar Year 2019												
							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	B A L
COMPLETE ROUND																															
	1	2014	ARMY	471.478	471.478	-																									
	2	2014	ARMY	385.755	385.755	-																									
	3	2015	ARMY	464.792	464.792	-																									
	4	2015	ARMY	464.792	464.792	-																									
	3	2016	ARMY	513.613	299.608	214.005	42.801	42.801	42.801	42.801	42.801																				
	4	2016	ARMY	513.613	299.608	214.005	42.801	42.801	42.801	42.801	42.801																				
							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	B A L

**UNCLASSIFIED**

<b>Exhibit P-21, Production Schedule:</b> PB 2016 Army		<b>Date:</b> February 2015
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2034A / 01 / 30		<b>P-1 Line Item Number / Title:</b> ER8120 / CTG, 30MM, ALL TYPES
		<b>Item Number / Title [DODIC]:</b> E10100 / CTG 30MM TP M788 [B118]

MFR Ref #	MFR Name - Location	Production Rates (Each / Month)			Procurement Leadtime (Months)							
		MSR For 2016	1-8-5 For 2016	MAX For 2016	Initial				Reorder			
					ALT Prior to Oct 1	ALT After Oct 1	Mfg PLT	Total After Oct 1	ALT Prior to Oct 1	ALT After Oct 1	Mfg PLT	Total After Oct 1
1	GENERAL DYNAMICS ORD & TAC - MARION, IL	96,000	120,000	200,000	6	6	12	18	6	6	12	18
2	ALLIANT TECHSYSTEMS INC. - PLYMOUTH, MN	96,000	120,000	200,000	6	6	12	18	6	6	12	18
3	TO BE SELECTED - TBS01	96,000	120,000	200,000	6	6	12	18	6	6	12	18
4	TO BE SELECTED - TBS02	96,000	120,000	200,000	6	6	12	18	6	6	12	18

"A" in the Delivery Schedule indicates the Contract Award Date.

Note: Due to space limitations, quantities in the Exhibit P-21 delivery calendar are truncated and rounded based on the maximum quantity in the calendar as follows. If the maximum quantity is less than or equal to than 9,999, all quantities are shown as each. If the maximum quantity is between 10,000 and 999,999 all quantities are shown in thousands. If the maximum quantity is between 1,000,000 and 999,999,999 all quantities are shown in millions (rounded to the nearest thousand). If the maximum quantity is equal or greater than 1,000,000,000 all quantities are shown in billions (rounded to the nearest million).

**UNCLASSIFIED**

**Exhibit P-40, Budget Line Item Justification:** PB 2016 Army **Date:** February 2015

<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2034A: Procurement of Ammunition, Army / BA 01: Ammunition / BSA 30: Small/ Medium Cal Ammunition	<b>P-1 Line Item Number / Title:</b> ER8001 / CTG, 40MM, All Types
---	---

ID Code (A=Service Ready, B=Not Service Ready) :	Program Elements for Code B Items:						Other Related Program Elements:					
Resource Summary	Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	To Complete	Total
Procurement Quantity (Units in Each)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (\$ in Millions)	3,402.784	55.780	40.904	79.972	-	79.972	115.472	122.008	114.122	105.340	-	4,036.382
Less PY Advance Procurement (\$ in Millions)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P1) (\$ in Millions)	3,402.784	55.780	40.904	79.972	-	79.972	115.472	122.008	114.122	105.340	-	4,036.382
Plus CY Advance Procurement (\$ in Millions)	-	-	-	-	-	-	-	-	-	-	-	-
<b>Total Obligation Authority (\$ in Millions)</b>	<b>3,402.784</b>	<b>55.780</b>	<b>40.904</b>	<b>79.972</b>	<b>-</b>	<b>79.972</b>	<b>115.472</b>	<b>122.008</b>	<b>114.122</b>	<b>105.340</b>	<b>-</b>	<b>4,036.382</b>

*(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)*

Initial Spares (\$ in Millions)	-	-	-	-	-	-	-	-	-	-	-	-
Flyaway Unit Cost (\$ in Dollars)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (\$ in Dollars)	-	-	-	-	-	-	-	-	-	-	-	-

**Description:**

This budget line includes 40MM ALL TYPES:

(E11800) The 40mm M430A1 is a High-Explosive Dual Purpose cartridge (HEDP), and is fired from a MK19 Grenade Machine Gun at a max range of 2,200 meters. It is capable of penetrating three inches of steel armor and inflicting personnel casualties in the target area. This item is Code A, approved for service use.

(E12502) The 40mm M385A1 practice cartridge is a fixed round of ammunition consisting of a one-piece solid aluminum projectile body with copper rotating band and is fired from a MK19 Grenade Machine Gun at a max range of 2,200 meters. The cartridge is used as training ammunition. This item is Code A, approved for service use.

(E12601) The 40mm M433 is a High Explosive Dual Purpose impact type round designed to penetrate lightly armored targets and perform an anti-personnel mission, and is compatible with the M203, M320, and M79 Grenade Launchers. Upon impact, the detonator triggers the spitback shaped charge and produces a jet blast that detonates the high explosive bursting charge. Detonation of the bursting charge forms an armor-piercing jet of molten metal and fragmentation of the projectile body. This item is Code A, approved for service use.

(E74200) The 40mm Practice M781 is a training cartridge for the M203, M320, and M79 Grenade Launchers. It is a fixed round of ammunition consisting of zinc-alloy projectile body with a rotating band and cartridge case assembly. A hollow polystyrene ogive is filled with high visibility yellow-orange dye. A .38 caliber blank cartridge is press-fitted into the base of the cartridge case and provides gas pressure needed to propel projectile through the launcher barrel. This item is Code A, approved for service use.

(E74315) The 40mm Practice M918/M385A1 Mixed Belt cartridge configuration for the MK19 Grenade Machine Gun is a high velocity training projectile with realistic signature effects providing sufficient flash, smoke and sound upon impact to be seen/heard out to 1,200 meters. In addition to providing audible/visual signature for day or night firing, the mixed belt for MK19 Grenade Machine Gun will minimize hazards to troops in the training area. This item is Code A, approved for service use.

(E05611) The 40mm M918E1 High Velocity Day Night Thermal cartridge is a training cartridge for the Mk19 Grenade Machine Gun. This is a fixed round of ammunition consisting of a projectile assembly and cartridge case assembly. The projectile ogive is filled with a signature material that provides a signature upon impact that can be seen, day or night with unaided eye, thermal and night vision weapon sights. The cartridge does not contain any fuzing or explosives, eliminating unexploded ordnance issues on the training ranges due to non-functioning training ammunition. This item is code B, not approved for service use.

**UNCLASSIFIED**

<b>Exhibit P-40, Budget Line Item Justification:</b> PB 2016 Army		<b>Date:</b> February 2015
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2034A: Procurement of Ammunition, Army / BA 01: Ammunition / BSA 30: Small/ Medium Cal Ammunition		<b>P-1 Line Item Number / Title:</b> ER8001 / CTG, 40MM, All Types
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) :	<b>Program Elements for Code B Items:</b>	<b>Other Related Program Elements:</b>
<p>(E05610) The 40mm M781E1 Low Velocity Day Night Thermal cartridge is a training cartridge for the M203, M320 and M79 Grenade Launchers. This is a fixed round of ammunition consisting of a projectile assembly and cartridge case assembly. The projectile ogive is filled with a signature material that provides a signature upon impact that can be seen, day or night with unaided eye, thermal and night vision weapon sights. The cartridge does not contain any fuzing or explosives, eliminating unexploded ordnance issues on the training ranges due to non-functioning training ammunition. This item is code B, not approved for service use.</p> <p>(E71700) The 40mm Dummy M922 is an inert round. It physically mimics the M430A1 cartridge. It is used to check weapon function and for crew training. This cartridge is used as a drill round to train users in handling ammunition and loading the Mk19 series automatic grenade launcher. This item is Code A, approved for service use.</p>		

**UNCLASSIFIED**

**Exhibit P-40, Budget Line Item Justification:** PB 2016 Army **Date:** February 2015

<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2034A: Procurement of Ammunition, Army / BA 01: Ammunition / BSA 30: Small/ Medium Cal Ammunition	<b>P-1 Line Item Number / Title:</b> ER8001 / CTG, 40MM, All Types
---	---

Exhibits Schedule			Program Elements for Code B Items:			Other Related Program Elements:		
Title*	Exhibits	ID CD	Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total
			Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)
E05610 / CTG, 40MM TGT PRAC-DAY/NIGHT/THERMAL,LO VEL M781E1	P-40a	B	- / -	- / -	- / 0.986	- / -	- / -	- / -
E05611 / CTG, 40MM TGT PRAC-DAY NIGHT THERMAL,HI VEL M918E1	P-40a	B	- / -	- / -	- / 0.986	- / -	- / -	- / -
E11800 / CTG 40MM HEDP M430 series F/MK19 MG	P-40a	A	56,410,000 / 715.174	- / -	87,421 / 4.928	27,051 / 2.802	- / -	27,051 / 2.802
E12502 / CTG 40MM PRACTICE M385A1	P-40a	A	3,228,000 / 50.479	- / -	86,386 / 2.098	105,086 / 2.170	- / -	105,086 / 2.170
E71700 / CTG 40MM DUMMY M922	P-40a	A	91,000 / 1.221	- / -	33,445 / 0.493	- / -	- / -	- / -
E12601 / CTG 40MM HEDP M433 [B546]	P-5, P-5a, P-21	A	156,790K / 527.014	- / -	- / -	60,100 / 5.000	- / -	60,100 / 5.000
E74200 / CTG 40MM PRACTICE M781 f/M203 Gren Launcher [B519]	P-5, P-5a, P-21	A	46,701,000 / 152.831	2,188,524 / 8.500	215,577 / 1.232	- / -	- / -	- / -
E74315 / CTG 40MM PRAC, M918/M385A1 [BA30]	P-5, P-5a, P-21	A	28,417,000 / 760.445	1,386,676 / 47.280	1,060,197 / 30.181	2,501,419 / 70.000	- / -	2,501,419 / 70.000
<b>Total Gross/Weapon System Cost</b>			<b>- / 3,402.784</b>	<b>- / 55.780</b>	<b>- / 40.904</b>	<b>- / 79.972</b>	<b>- / -</b>	<b>- / 79.972</b>

\*Title represents 1) the Number / Title for Items; 2) the Number / Title [DODIC] for Ammunition; and/or 3) the Number / Title (Modification Type) for Modifications.

Note: Totals in this Exhibit P-40 set may not be exact or add due to rounding.

**Justification:**  
 FY 2016 Base Budget supports critical Army Title 10 war reserve/operational, training, and test requirements IAW DoD Instruction 3000.04 (Munitions Requirements Process) and AR 5-13 (Total Army Munitions Requirements Process and Prioritization System). War reserve requirements support OSD-approved Combatant Commander Operational Plans, Homeland Defense, and other OSD-directed missions. Training requirements support individual and collective training of Active and Reserve Component forces at Army schools, home station, and the combined training centers. Test requirements support the development, fielding, safety, and quality assurance of Army munitions and equipment throughout their life-cycle.

In accordance with Section 1815 of the FY 2008 National Defense Authorization Act (P.L. 110-181), this item is necessary for use by the active and reserve components of the Armed Forces for homeland defense missions, domestic emergency responses, and providing military support to civil authorities.

(E05610) CTG, 40MM, M781E1 LOW VELOCITY DAY NIGHT THERMAL - This is a training unique item not used in combat. The FY 2016 request supports annual training and builds a depot level in accordance with the Army's procurement goals.

Type Classification Date: Pending

(E05611) CTG, 40MM, M918E1 HIGH VELOCITY DAY NIGHT THERMAL - This is a training unique item not used in combat. The FY 2016 request supports annual training and builds a depot level in accordance with the Army's procurement goals.

Type Classification Date: Pending

(E11800) CTG 40MM HEDP M430A1 F/MK19 MG - This is a training standard item used in both training and combat. The FY 2016 request supports annual training and builds a depot level in accordance with the Army's procurement goals. The FY 2016 procurement dollars in the amount of \$2.802 million supports the procurement of .027 million HEDP M430A1 cartridges.

TYPE CLASSIFICATION DATE: 1971

(E12502) CTG 40MM PRACTICE M385A1 - This is a training unique item not used in combat. The FY 2016 request supports annual training and builds a depot level in accordance with the Army's procurement goals. The FY 2016 procurement dollars in the amount of \$2.170 million supports the procurement of .105 million M385A1 cartridges.



**UNCLASSIFIED**

<b>Exhibit P-40, Budget Line Item Justification:</b> PB 2016 Army		<b>Date:</b> February 2015
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2034A: Procurement of Ammunition, Army / BA 01: Ammunition / BSA 30: Small/ Medium Cal Ammunition		<b>P-1 Line Item Number / Title:</b> ER8001 / CTG, 40MM, All Types
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) :	<b>Program Elements for Code B Items:</b>	<b>Other Related Program Elements:</b>
<p>TYPE CLASSIFICATION DATE: 1987</p> <p>(E12601) CTG 40MM HEDP M433 - This is a training standard item used in both training and combat. The procurement supports annual training and builds a war reserve inventory in accordance with the Army's procurement goals. The FY 2016 procurement dollars in the amount of \$5.000 million supports the procurement of .060 million HEDP M433 cartridges.</p> <p>TYPE CLASSIFICATION DATE: 1971</p> <p>(E74200) CTG 40MM PRACTICE M781 f/M203 Grenade Launcher - This is a training unique item not used in combat. The FY 2016 request supports annual training and builds a depot level in accordance with the Army's procurement goals.</p> <p>TYPE CLASSIFICATION DATE: 1978</p> <p>(E74315) CTG 40MM PRAC, M918/M385A1 - This is a training unique item not used in combat. The FY 2016 request supports annual training and builds a depot level in accordance with the Army's procurement goals. FY 2016 procurement dollars in the amount of \$70.000 million supports the procurement of 2.501 million M918/M385A1 cartridges.</p> <p>TYPE CLASSIFICATION DATE: 1985</p> <p>(E71700) CTG 40MM DUMMY M922 - This is a training unique item not used in combat. The FY 2016 request supports annual training and builds a depot level in accordance with the Army's procurement goals.</p> <p>TYPE CLASSIFICATION DATE: 1987</p>		

**UNCLASSIFIED**

<b>Exhibit P-40a, Budget Item Justification For Aggregated Items:</b> PB 2016 Army														<b>Date:</b> February 2015					
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2034A / 01 / 30							<b>P-1 Line Item Number / Title:</b> ER8001 / CTG, 40MM, All Types							<b>Aggregated Items Title:</b> Various					

Note: Subtotals or Totals in this Exhibit P-40a may not be exact or add, due to rounding.

Item Number / Title [DODIC]	ID CD	MDAP/MAIS Code	Prior Years			FY 2014			FY 2015			FY 2016 Base			FY 2016 OCO			FY 2016 Total		
			Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)
<b>CTG, 40MM TGT PRAC-DAY/NIGHT/THERMAL,LO VEL M781E1</b>																				
E05610 / CTG, 40MM TGT PRAC-DAY/NIGHT/THERMAL,LO VEL M781E1	B		-	-	-	-	-	-	-	-	0.986	-	-	-	-	-	-	-	-	-
E05611 / CTG, 40MM TGT PRAC-DAY/NIGHT THERMAL,HI VEL M918E1	B		-	-	-	-	-	-	-	-	0.986	-	-	-	-	-	-	-	-	-
E11800 / CTG 40MM HEDP M430 series F/ MK19 MG	A		12.68	56,410,000	715.174	-	-	-	56.37	87,421	4.928	103.58	27,051	2.802	-	-	-	103.58	27,051	2.802
E12502 / CTG 40MM PRACTICE M385A1	A		15.64	3,228,000	50.479	-	-	-	24.29	86,386	2.098	20.65	105,086	2.170	-	-	-	20.65	105,086	2.170
E71700 / CTG 40MM DUMMY M922	A		13.42	91,000	1.221	-	-	-	14.74	33,445	0.493	-	-	-	-	-	-	-	-	-
<i>Subtotal: CTG, 40MM TGT PRAC-DAY/NIGHT/THERMAL,LO VEL M781E1</i>			-	-	766.874	-	-	-	-	-	9.491	-	-	4.972	-	-	-	-	-	4.972
<b>Total</b>			-	-	<b>766.874</b>	-	-	-	-	-	<b>9.491</b>	-	-	<b>4.972</b>	-	-	-	-	-	<b>4.972</b>

**UNCLASSIFIED**

<b>Exhibit P-5, Cost Analysis: PB 2016 Army</b>		<b>Date:</b> February 2015
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2034A / 01 / 30	<b>P-1 Line Item Number / Title:</b> ER8001 / CTG, 40MM, All Types	<b>Item Number / Title [DODIC]:</b> E12601 / CTG 40MM HEDP M433 [B546]

<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : A	<b>MDAP/MAIS Code:</b>
---	------------------------

<b>Resource Summary</b>	<b>Prior Years</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016 Base</b>	<b>FY 2016 OCO</b>	<b>FY 2016 Total</b>
Procurement Quantity ( <i>Units in Each</i> )	156,790K	-	-	60,100	-	60,100
Gross/Weapon System Cost ( <i>\$ in Millions</i> )	527.014	-	-	5.000	-	5.000
Less PY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-
Net Procurement (P1) ( <i>\$ in Millions</i> )	527.014	-	-	5.000	-	5.000
Plus CY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-
<b>Total Obligation Authority</b> ( <i>\$ in Millions</i> )	<b>527.014</b>	<b>-</b>	<b>-</b>	<b>5.000</b>	<b>-</b>	<b>5.000</b>

*(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)*

Initial Spares ( <i>\$ in Millions</i> )	-	-	-	-	-	-
Gross/Weapon System Unit Cost ( <i>\$ in Dollars</i> )	3.36	-	-	83.19	-	83.19

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or add, due to rounding.

<b>Cost Elements</b>	<b>Prior Years</b>			<b>FY 2014</b>			<b>FY 2015</b>			<b>FY 2016 Base</b>			<b>FY 2016 OCO</b>			<b>FY 2016 Total</b>		
	<b>Unit Cost</b> (\$)	<b>Qty</b> (Each)	<b>Total Cost</b> (\$ M)	<b>Unit Cost</b> (\$)	<b>Qty</b> (Each)	<b>Total Cost</b> (\$ M)	<b>Unit Cost</b> (\$)	<b>Qty</b> (Each)	<b>Total Cost</b> (\$ M)	<b>Unit Cost</b> (\$)	<b>Qty</b> (Each)	<b>Total Cost</b> (\$ M)	<b>Unit Cost</b> (\$)	<b>Qty</b> (Each)	<b>Total Cost</b> (\$ M)	<b>Unit Cost</b> (\$)	<b>Qty</b> (Each)	<b>Total Cost</b> (\$ M)
Hardware Cost																		
Recurring Cost																		
COMPLETE ROUND <sup>(†)</sup>	92.48	4,859,265	449.385	-	-	-	-	-	-	67.92	60,100	4.082	-	-	-	67.92	60,100	4.082
Subtotal: Recurring Cost	-	-	449.385	-	-	-	-	-	-	-	-	4.082	-	-	-	-	-	4.082
Subtotal: Hardware Cost	-	-	449.385	-	-	-	-	-	-	-	-	4.082	-	-	-	-	-	4.082
Support Cost																		
PRODUCTION ENGINEERING	-	-	76.417	-	-	-	-	-	-	-	-	0.723	-	-	-	-	-	0.723
QUALITY ASSURANCE	-	-	1.212	-	-	-	-	-	-	-	-	0.012	-	-	-	-	-	0.012
FIRST ARTICLE TEST	-	-	-	-	-	-	-	-	-	-	-	0.183	-	-	-	-	-	0.183
Subtotal: Support Cost	-	-	77.629	-	-	-	-	-	-	-	-	0.918	-	-	-	-	-	0.918
<b>Gross/Weapon System Cost</b>	<b>3.36</b>	<b>156,790K</b>	<b>527.014</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>83.19</b>	<b>60,100</b>	<b>5.000</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>83.19</b>	<b>60,100</b>	<b>5.000</b>

(†) indicates the presence of a P-5a

**UNCLASSIFIED**

**Exhibit P-5a, Procurement History and Planning:** PB 2016 Army **Date:** February 2015

<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2034A / 01 / 30	<b>P-1 Line Item Number / Title:</b> ER8001 / CTG, 40MM, All Types	<b>Item Number / Title [DODIC]:</b> E12601 / CTG 40MM HEDP M433 [B546]
--	---	---

Cost Elements	O C O	FY	Contractor and Location	Method/Type or Funding Vehicle	Location of PCO	Award Date	Date of First Delivery	Qty <i>(Each)</i>	Unit Cost <i>(\$)</i>	Specs Avail Now?	Date Revision Available	RFP Issue Date
COMPLETE ROUND <sup>(†)</sup>		2016	TO BE SELECTED / TBS01	C / FFP	ROCK ISLAND ARSENAL, IL	Mar 2016	Aug 2017	60,100	67.92	Y		

<sup>(†)</sup> indicates the presence of a P-21

**Remarks:**  
(E12601) CTG 40MM HEDP M433 - This is a training standard item used in both training and combat. The procurement supports annual training and builds a war reserve inventory in accordance with the Army's procurement goals. The FY 2016 procurement dollars in the amount of \$5.000 million supports the procurement of .060 million HEDP M433 cartridges.

TYPE CLASSIFICATION DATE: 1971

**UNCLASSIFIED**

**Exhibit P-21, Production Schedule:** PB 2016 Army **Date:** February 2015

<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2034A / 01 / 30	<b>P-1 Line Item Number / Title:</b> ER8001 / CTG, 40MM, All Types	<b>Item Number / Title [DODIC]:</b> E12601 / CTG 40MM HEDP M433 [B546]
--	---	---

Cost Elements <small>(Units in Millions (* = &lt; 500 units))</small>						Fiscal Year 2016													Fiscal Year 2017															
O C O	M F R #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2015	BAL DUE AS OF 1 OCT	Calendar Year 2016													Calendar Year 2017														
							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	B A L			
COMPLETE ROUND																																		
Prior Years Deliveries: 4859265																																		
	1	2016	ARMY	.060	-	.060								A	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	.005	.005	.050
							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	B A L			

**UNCLASSIFIED**

**Exhibit P-21, Production Schedule:** PB 2016 Army **Date:** February 2015

<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2034A / 01 / 30	<b>P-1 Line Item Number / Title:</b> ER8001 / CTG, 40MM, All Types	<b>Item Number / Title [DODIC]:</b> E12601 / CTG 40MM HEDP M433 [B546]
--	---	---

Cost Elements <i>(Units in Millions (* = &lt; 500 units))</i>						Fiscal Year 2018										Fiscal Year 2019														
O C C O	M F R #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2017	BAL DUE AS OF 1 OCT	Calendar Year 2018										Calendar Year 2019										B A L			
							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
COMPLETE ROUND																														
Prior Years Deliveries: 4859265																														
	1	2016	ARMY	.060	.010	.050	.005	.005	.005	.005	.005	.005	.005	.005	.005	.005													-	
							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

**UNCLASSIFIED**

<b>Exhibit P-21, Production Schedule:</b> PB 2016 Army								<b>Date:</b> February 2015				
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2034A / 01 / 30					<b>P-1 Line Item Number / Title:</b> ER8001 / CTG, 40MM, All Types				<b>Item Number / Title [DODIC]:</b> E12601 / CTG 40MM HEDP M433 [B546]			
<b>Production Rates (Each / Month)</b>					<b>Procurement Leadtime (Months)</b>							
<b>MFR Ref #</b>	<b>MFR Name - Location</b>	<b>MSR For 2016</b>	<b>1-8-5 For 2016</b>	<b>MAX For 2016</b>	<b>Initial</b>				<b>Reorder</b>			
					<b>ALT Prior to Oct 1</b>	<b>ALT After Oct 1</b>	<b>Mfg PLT</b>	<b>Total After Oct 1</b>	<b>ALT Prior to Oct 1</b>	<b>ALT After Oct 1</b>	<b>Mfg PLT</b>	<b>Total After Oct 1</b>
1	TO BE SELECTED - TBS01	200,000	274,000	685,000	6	6	19	25	6	6	17	23

**Remarks:**  
STATED CAPACITIES ARE BASED ON SHARED LINES ACROSS MULTIPLE 40MM LOW VELOCITY CONFIGURATIONS.

"A" in the Delivery Schedule indicates the Contract Award Date.  
Note: Due to space limitations, quantities in the Exhibit P-21 delivery calendar are truncated and rounded based on the maximum quantity in the calendar as follows. If the maximum quantity is less than or equal to than 9,999, all quantities are shown as each. If the maximum quantity is between 10,000 and 999,999 all quantities are shown in thousands. If the maximum quantity is between 1,000,000 and 999,999,999 all quantities are shown in millions (rounded to the nearest thousand). If the maximum quantity is equal or greater than 1,000,000,000 all quantities are shown in billions (rounded to the nearest million).

**UNCLASSIFIED**

<b>Exhibit P-5, Cost Analysis: PB 2016 Army</b>		<b>Date:</b> February 2015
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2034A / 01 / 30		<b>P-1 Line Item Number / Title:</b> ER8001 / CTG, 40MM, All Types
		<b>Item Number / Title [DODIC]:</b> E74200 / CTG 40MM PRACTICE M781 f/ M203 Gren Launcher [B519]

<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : A				<b>MDAP/MAIS Code:</b>					
Resource Summary				Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total
Procurement Quantity (Units in Each)				46,701,000	2,188,524	215,577	-	-	-
Gross/Weapon System Cost (\$ in Millions)				152.831	8.500	1.232	-	-	-
Less PY Advance Procurement (\$ in Millions)				-	-	-	-	-	-
Net Procurement (P1) (\$ in Millions)				152.831	8.500	1.232	-	-	-
Plus CY Advance Procurement (\$ in Millions)				-	-	-	-	-	-
<b>Total Obligation Authority (\$ in Millions)</b>				<b>152.831</b>	<b>8.500</b>	<b>1.232</b>	-	-	-
<i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i>									
Initial Spares (\$ in Millions)				-	-	-	-	-	-
Gross/Weapon System Unit Cost (\$ in Dollars)				3.27	3.88	5.71	-	-	-

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or add, due to rounding.

Cost Elements	Prior Years			FY 2014			FY 2015			FY 2016 Base			FY 2016 OCO			FY 2016 Total		
	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)
Hardware Cost																		
Recurring Cost																		
COMPLETE ROUND <sup>(†)</sup>	11.71	12,229,120	143.203	3.66	2,188,524	8.010	4.69	215,577	1.011	-	-	-	-	-	-	-	-	-
Subtotal: Recurring Cost	-	-	143.203	-	-	8.010	-	-	1.011	-	-	-	-	-	-	-	-	-
Subtotal: Hardware Cost	-	-	143.203	-	-	8.010	-	-	1.011	-	-	-	-	-	-	-	-	-
Support Cost																		
Production Engineering	-	-	1.834	-	-	0.100	-	-	0.200	-	-	-	-	-	-	-	-	-
Quality Assurance	-	-	0.764	-	-	-	-	-	0.006	-	-	-	-	-	-	-	-	-
FIRST ARTICLE TEST	-	-	-	-	-	-	-	-	0.015	-	-	-	-	-	-	-	-	-
M320 FIRING TABLES	-	-	4.126	-	-	0.231	-	-	-	-	-	-	-	-	-	-	-	-
GFM DISPOSAL	-	-	2.904	-	-	0.159	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: Support Cost	-	-	9.628	-	-	0.490	-	-	0.221	-	-	-	-	-	-	-	-	-
<b>Gross/Weapon System Cost</b>	<b>3.27</b>	<b>46,701,000</b>	<b>152.831</b>	<b>3.88</b>	<b>2,188,524</b>	<b>8.500</b>	<b>5.71</b>	<b>215,577</b>	<b>1.232</b>	-	-	-	-	-	-	-	-	-

<sup>(†)</sup> indicates the presence of a P-5a



**UNCLASSIFIED**

<b>Exhibit P-5a, Procurement History and Planning:</b> PB 2016 Army							<b>Date:</b> February 2015					
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2034A / 01 / 30			<b>P-1 Line Item Number / Title:</b> ER8001 / CTG, 40MM, All Types				<b>Item Number / Title [DODIC]:</b> E74200 / CTG 40MM PRACTICE M781 f/ M203 Gren Launcher [B519]					

Cost Elements	O C O	FY	Contractor and Location	Method/Type or Funding Vehicle	Location of PCO	Award Date	Date of First Delivery	Qty <i>(Each)</i>	Unit Cost <i>(\$)</i>	Specs Avail Now?	Date Revision Available	RFP Issue Date
COMPLETE ROUND <sup>(†)</sup>		2014	AMTEC CORPORATION / JANESVILLE, WI	C / FFP	ROCK ISLAND ARSENAL, IL	Jun 2014	Apr 2015	2,188,524	3.66	Y		
COMPLETE ROUND <sup>(†)</sup>		2015	TO BE SELECTED / TBS01	C / FFP	ROCK ISLAND ARSENAL, IL	Mar 2015	Apr 2016	215,577	4.69	Y		

<sup>(†)</sup> indicates the presence of a P-21

**Remarks:**  
(E74200) CTG 40MM PRACTICE M781 f/M203 Grenade Launcher - This is a training unique item not used in combat. The procurement request supports annual training and builds a depot level in accordance with the Army's procurement goals.

TYPE CLASSIFICATION DATE: 1978

**UNCLASSIFIED**

<b>Exhibit P-21, Production Schedule:</b> PB 2016 Army				<b>Date:</b> February 2015							
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2034A / 01 / 30				<b>P-1 Line Item Number / Title:</b> ER8001 / CTG, 40MM, All Types				<b>Item Number / Title [DODIC]:</b> E74200 / CTG 40MM PRACTICE M781 f/ M203 Gren Launcher [B519]			

Cost Elements <i>(Units in Millions (* = &lt; 500 units))</i>						Fiscal Year 2014											Fiscal Year 2015																								
O C C #	M F R FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2013	BAL DUE AS OF 1 OCT	Calendar Year 2014											Calendar Year 2015																								
						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	B A L											
COMPLETE ROUND																																									
Prior Years Deliveries: 12229120																																									
1	2014	ARMY	2.189	-	2.189												A	-	-	-	-	-	-	-	-	-	-	-	-	-	-	.115	.189	.189	.189	.189	.189	.189	1.131		
1	2014	AF (†)	.071	-	.071												A	-	-	-	-	-	-	-	-	-	-	-	-	-	-	.071	-	-	-	-	-	-	-	-	
<b>1</b>	<b>2014</b>	<b>Total</b>	<b>2.260</b>	<b>-</b>	<b>2.260</b>												-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<b>.186</b>	<b>.189</b>	<b>.189</b>	<b>.189</b>	<b>.189</b>	<b>.189</b>	<b>.189</b>	<b>1.131</b>		
2	2015	ARMY	.216	-	.216																							A	-	-	-	-	-	-	-	-	-	-	-	-	.216
2	2015	AF (†)	.381	-	.381																							A	-	-	-	-	-	-	-	-	-	-	-	-	.381
<b>2</b>	<b>2015</b>	<b>Total</b>	<b>.596</b>	<b>-</b>	<b>.596</b>																							-	-	-	-	-	-	-	-	-	-	-	-	-	<b>.596</b>

O C C #	M F R FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2013	BAL DUE AS OF 1 OCT	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	B A L
------------------	-------------------	---------	-------------	--	------------------------------	-------------	-------------	-------------	-------------	-------------	-------------	-------------	-------------	-------------	-------------	-------------	-------------	-------------	-------------	-------------	-------------	-------------	-------------	-------------	-------------	-------------	-------------	-------------	-------------	-------------

**UNCLASSIFIED**

<b>Exhibit P-21, Production Schedule:</b> PB 2016 Army													<b>Date:</b> February 2015												
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2034A / 01 / 30						<b>P-1 Line Item Number / Title:</b> ER8001 / CTG, 40MM, All Types						<b>Item Number / Title [DODIC]:</b> E74200 / CTG 40MM PRACTICE M781 f/ M203 Gren Launcher [B519]													

Cost Elements <i>(Units in Millions (* = &lt; 500 units))</i>					Fiscal Year 2016												Fiscal Year 2017														
O C C O	M F R #	FY	SERVICE	PROC QTY	ACCEP T P R I O R T O 1 O C T 2 0 1 5	BAL D U E A S O F 1 O C T	Calendar Year 2016												Calendar Year 2017												
							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	B A L
COMPLETE ROUND																															
Prior Years Deliveries: 12229120																															
1	2014	ARMY		2.189	1.058	1.131	.189	.189	.189	.189	.189	.189																		-	
1	2014	AF (†)		.071	.071	-	-	-	-	-	-	-																		-	
1	2014	<b>Total</b>		<b>2.260</b>	<b>1.129</b>	<b>1.131</b>	<b>.189</b>	<b>.189</b>	<b>.189</b>	<b>.189</b>	<b>.189</b>	<b>.189</b>																		-	
2	2015	ARMY		.216	-	.216	-	-	-	-	-	-	.018	.018	.018	.018	.018	.018	.018	.018	.018	.018	.018	.018						-	
2	2015	AF (†)		.381	-	.381	-	-	-	-	-	-	.032	.032	.032	.032	.032	.032	.032	.032	.032	.032	.032	.032						-	
2	2015	<b>Total</b>		<b>.596</b>	-	<b>.596</b>	-	-	-	-	-	-	<b>.050</b>	<b>.050</b>	<b>.050</b>	<b>.050</b>	<b>.050</b>	<b>.050</b>	<b>.050</b>	<b>.050</b>	<b>.050</b>	<b>.050</b>	<b>.050</b>	<b>.050</b>						-	
							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	B A L

**UNCLASSIFIED**

<b>Exhibit P-21, Production Schedule:</b> PB 2016 Army		<b>Date:</b> February 2015
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2034A / 01 / 30		<b>P-1 Line Item Number / Title:</b> ER8001 / CTG, 40MM, All Types
		<b>Item Number / Title [DODIC]:</b> E74200 / CTG 40MM PRACTICE M781 f/ M203 Gren Launcher [B519]

MFR Ref #	MFR Name - Location	Production Rates (Each / Month)			Procurement Leadtime (Months)							
		MSR For 2016	1-8-5 For 2016	MAX For 2016	Initial				Reorder			
					ALT Prior to Oct 1	ALT After Oct 1	Mfg PLT	Total After Oct 1	ALT Prior to Oct 1	ALT After Oct 1	Mfg PLT	Total After Oct 1
1	AMTEC CORPORATION - JANESVILLE, WI	20,000	150,000	375,000	6	6	13	19	6	6	10	16
2	TO BE SELECTED - TBS01	20,000	150,000	375,000	6	6	13	19	6	6	10	16

(‡) Delivery rows marked with this symbol indicate that they are funded through a separate Line Item. See the respective components' exhibits for details, including the full delivery schedule.

"A" in the Delivery Schedule indicates the Contract Award Date.

Note: Due to space limitations, quantities in the Exhibit P-21 delivery calendar are truncated and rounded based on the maximum quantity in the calendar as follows. If the maximum quantity is less than or equal to than 9,999, all quantities are shown as each. If the maximum quantity is between 10,000 and 999,999 all quantities are shown in thousands. If the maximum quantity is between 1,000,000 and 999,999,999 all quantities are shown in millions (rounded to the nearest thousand). If the maximum quantity is equal or greater than 1,000,000,000 all quantities are shown in billions (rounded to the nearest million).

**UNCLASSIFIED**

<b>Exhibit P-5, Cost Analysis: PB 2016 Army</b>		<b>Date:</b> February 2015
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2034A / 01 / 30		<b>P-1 Line Item Number / Title:</b> ER8001 / CTG, 40MM, All Types
		<b>Item Number / Title [DODIC]:</b> E74315 / CTG 40MM PRAC, M918/ M385A1 [BA30]

<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : A	<b>MDAP/MAIS Code:</b>
---	------------------------

Resource Summary	Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total
Procurement Quantity (Units in Each)	28,417,000	1,386,676	1,060,197	2,501,419	-	2,501,419
Gross/Weapon System Cost (\$ in Millions)	760.445	47.280	30.181	70.000	-	70.000
Less PY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
Net Procurement (P1) (\$ in Millions)	760.445	47.280	30.181	70.000	-	70.000
Plus CY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
<b>Total Obligation Authority (\$ in Millions)</b>	<b>760.445</b>	<b>47.280</b>	<b>30.181</b>	<b>70.000</b>	<b>-</b>	<b>70.000</b>

*(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)*

Initial Spares (\$ in Millions)	-	-	-	-	-	-
Gross/Weapon System Unit Cost (\$ in Dollars)	26.76	34.10	28.47	27.98	-	27.98

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or add, due to rounding.

Cost Elements	Prior Years			FY 2014			FY 2015			FY 2016 Base			FY 2016 OCO			FY 2016 Total		
	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)
<b>Hardware Cost</b>																		
Recurring Cost																		
LOAD, ASSEMBLE, PACK (LAP) <sup>(†)</sup>	10.78	23,847,959	257.081	11.62	1,386,676	16.113	13.43	1,060,197	14.238	13.57	2,501,419	33.944	-	-	-	13.57	2,501,419	33.944
PROJ ASSY 40MM M918 <sup>(†)</sup>	12.73	20,185,407	256.960	16.27	981,947	15.976	15.13	743,463	11.249	16.86	1,754,120	29.574	-	-	-	16.86	1,754,120	29.574
PROJ BODY 40MM M385A1 <sup>(†)</sup>	4.55	6,623,213	30.136	4.18	448,243	1.874	5.02	342,709	1.720	4.52	808,583	3.655	-	-	-	4.52	808,583	3.655
<i>Subtotal: Recurring Cost</i>	-	-	544.177	-	-	33.963	-	-	27.207	-	-	67.174	-	-	-	-	-	67.174
<i>Subtotal: Hardware Cost</i>	-	-	544.177	-	-	33.963	-	-	27.207	-	-	67.174	-	-	-	-	-	67.174
<b>Support Cost</b>																		
PRODUCTION ENGINEERING	-	-	65.285	-	-	4.059	-	-	2.837	-	-	2.800	-	-	-	-	-	2.800
QUALITY ASSURANCE	-	-	2.301	-	-	0.014	-	-	0.007	-	-	0.004	-	-	-	-	-	0.004
FIRST ARTICLE TEST FOR LAP	-	-	-	-	-	-	-	-	0.130	-	-	0.023	-	-	-	-	-	0.023
FIRST ARTICLE TEST FOR PROJECTILE	-	-	9.698	-	-	0.603	-	-	-	-	-	-	-	-	-	-	-	-
CLOSING CUP REDESIGN	-	-	10.152	-	-	0.631	-	-	-	-	-	-	-	-	-	-	-	-
REA BASELINE OPTIMIZATION	-	-	128.832	-	-	8.010	-	-	-	-	-	-	-	-	-	-	-	-
<i>Subtotal: Support Cost</i>	-	-	216.268	-	-	13.317	-	-	2.974	-	-	2.827	-	-	-	-	-	2.827

**UNCLASSIFIED**

<b>Exhibit P-5, Cost Analysis:</b> PB 2016 Army		<b>Date:</b> February 2015
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2034A / 01 / 30	<b>P-1 Line Item Number / Title:</b> ER8001 / CTG, 40MM, All Types	<b>Item Number / Title [DODIC]:</b> E74315 / CTG 40MM PRAC, M918/ M385A1 [BA30]
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : A		<b>MDAP/MAIS Code:</b>

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or add, due to rounding.

Cost Elements	Prior Years			FY 2014			FY 2015			FY 2016 Base			FY 2016 OCO			FY 2016 Total		
	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)
Gross/Weapon System Cost	26.76	28,417,000	760.445	34.10	1,386,676	47.280	28.47	1,060,197	30.181	27.98	2,501,419	70.000	-	-	-	27.98	2,501,419	70.000

(t) indicates the presence of a P-5a

**UNCLASSIFIED**

<b>Exhibit P-5a, Procurement History and Planning:</b> PB 2016 Army							<b>Date:</b> February 2015					
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2034A / 01 / 30			<b>P-1 Line Item Number / Title:</b> ER8001 / CTG, 40MM, All Types				<b>Item Number / Title [DODIC]:</b> E74315 / CTG 40MM PRAC, M918/ M385A1 [BA30]					

Cost Elements	O C O	FY	Contractor and Location	Method/Type or Funding Vehicle	Location of PCO	Award Date	Date of First Delivery	Qty (Each)	Unit Cost (\$)	Specs Avail Now?	Date Revision Available	RFP Issue Date
LOAD, ASSEMBLE, PACK (LAP) <sup>(†)</sup>		2014	AMTEC CORPORATION / JANESVILLE, WI	C / FFP	ROCK ISLAND ARSENAL, IL	Mar 2014	Feb 2016	1,386,676	11.62	Y		
LOAD, ASSEMBLE, PACK (LAP) <sup>(†)</sup>		2015	TO BE SELECTED / TBS01	C / FFP	ROCK ISLAND ARSENAL, IL	Mar 2015	Nov 2017	1,060,197	13.43	Y		
LOAD, ASSEMBLE, PACK (LAP) <sup>(†)</sup>		2016	TO BE SELECTED / TBS01	C / FFP	ROCK ISLAND ARSENAL, IL	Mar 2016	Sep 2018	2,501,419	13.57	Y		
PROJ ASSY 40MM M918		2014	GTI SYSTEMS, INC / AUBURNDALE, FL	C / FFP	ROCK ISLAND ARSENAL, IL	Jul 2014	Dec 2015	981,947	16.27	Y		
PROJ ASSY 40MM M918		2015	GTI SYSTEMS, INC / AUBURNDALE, FL	C / FFP	ROCK ISLAND ARSENAL, IL	Mar 2015	Sep 2017	743,463	15.13	Y		
PROJ ASSY 40MM M918		2016	GTI SYSTEMS, INC / AUBURNDALE, FL	C / FFP	ROCK ISLAND ARSENAL, IL	Mar 2016	Jul 2018	1,754,120	16.86	Y		
PROJ BODY 40MM M385A1		2014	GTI SYSTEMS, INC / AUBURNDALE, FL	C / FFP	ROCK ISLAND ARSENAL, IL	May 2014	Dec 2015	448,243	4.18	Y		
PROJ BODY 40MM M385A1		2015	GTI SYSTEMS, INC / AUBURNDALE, FL	C / FFP	ROCK ISLAND ARSENAL, IL	Mar 2015	Sep 2017	342,709	5.02	Y		
PROJ BODY 40MM M385A1		2016	GTI SYSTEMS, INC / AUBURNDALE, FL	C / FFP	ROCK ISLAND ARSENAL, IL	Mar 2016	Jul 2018	808,583	4.52	Y		

<sup>(†)</sup> indicates the presence of a P-21

**Remarks:**  
FY 2015 - FY 2016 M918 PROJECTILE ASSEMBLIES AND M385A1 PROJECTILE BODIES WILL BE AWARDED AS AN OPTION TO THE FY 2014 CONTRACT.

(E74315) CTG 40MM PRAC, M918/M385A1 - This is a training unique item not used in combat. The FY 2016 request supports annual training and builds a depot level in accordance with the Army's procurement goals. FY 2016 procurement dollars in the amount of \$70.000 million supports the procurement of 2.501 million M918/M385A1 cartridges.

TYPE CLASSIFICATION DATE: 1985

FY 2015 M918 and M385 Projectiles will be part of the FY 2014 Projectile contracts.

**UNCLASSIFIED**

<b>Exhibit P-21, Production Schedule: PB 2016 Army</b>		<b>Date:</b> February 2015
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2034A / 01 / 30	<b>P-1 Line Item Number / Title:</b> ER8001 / CTG, 40MM, All Types	
		<b>Item Number / Title [DODIC]:</b> E74315 / CTG 40MM PRAC, M918/ M385A1 [BA30]

Cost Elements <small>(Units in Millions (* = &lt; 500 units))</small>						Fiscal Year 2014													Fiscal Year 2015													
O C C O	M F R #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2013	BAL DUE AS OF 1 OCT	Calendar Year 2014													Calendar Year 2015												
							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	B A L	

LOAD, ASSEMBLE, PACK (LAP)

Prior Years Deliveries: 23847959

1	2014	ARMY	1.387	-	1.387										A	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.387	
2	2015	ARMY	1.060	-	1.060																										1.060	
2	2016	ARMY	2.501	-	2.501																										2.501	



**UNCLASSIFIED**

<b>Exhibit P-21, Production Schedule:</b> PB 2016 Army														<b>Date:</b> February 2015																											
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2034A / 01 / 30														<b>P-1 Line Item Number / Title:</b> ER8001 / CTG, 40MM, All Types														<b>Item Number / Title [DODIC]:</b> E74315 / CTG 40MM PRAC, M918/ M385A1 [BA30]													

Cost Elements <i>(Units in Millions (* = &lt; 500 units))</i>						Fiscal Year 2016														Fiscal Year 2017																		
O C C O	M F R #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2015	BAL DUE AS OF 1 OCT	Calendar Year 2016														Calendar Year 2017																	
							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	B A L							
LOAD, ASSEMBLE, PACK (LAP)																																						
Prior Years Deliveries: 23847959																																						
	1	2014	ARMY	1.387	-	1.387	-	-	-	-	.231	.231	.231	.231	.231	.231																						
	2	2015	ARMY	1.060	-	1.060	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.060	
	2	2016	ARMY	2.501	-	2.501																															2.501	
							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	B A L							

**UNCLASSIFIED**

<b>Exhibit P-21, Production Schedule:</b> PB 2016 Army														<b>Date:</b> February 2015															
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2034A / 01 / 30										<b>P-1 Line Item Number / Title:</b> ER8001 / CTG, 40MM, All Types										<b>Item Number / Title [DODIC]:</b> E74315 / CTG 40MM PRAC, M918/ M385A1 [BA30]									

Cost Elements <i>(Units in Millions (* = &lt; 500 units))</i>						Fiscal Year 2018												Fiscal Year 2019													
O C C #	M F R #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2017	BAL DUE AS OF 1 OCT	Calendar Year 2018												Calendar Year 2019												
							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	B A L
LOAD, ASSEMBLE, PACK (LAP)																															
Prior Years Deliveries: 23847959																															
1	2014	ARMY		1.387	1.387	-																									
2	2015	ARMY		1.060	-	1.060	-	.088	.088	.088	.088	.088	.088	.088	.088	.088	.088	.088	.088												
2	2016	ARMY		2.501	-	2.501	-	-	-	-	-	-	-	-	-	.208	.208	.208	.208	.208	.208	.208	.208	.208	.208	.208	.208	.208			
							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	B A L

**UNCLASSIFIED**

<b>Exhibit P-21, Production Schedule:</b> PB 2016 Army		<b>Date:</b> February 2015
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2034A / 01 / 30		<b>P-1 Line Item Number / Title:</b> ER8001 / CTG, 40MM, All Types
		<b>Item Number / Title [DODIC]:</b> E74315 / CTG 40MM PRAC, M918/ M385A1 [BA30]

MFR Ref #	MFR Name - Location	Production Rates (Each / Month)			Procurement Leadtime (Months)							
		MSR For 2016	1-8-5 For 2016	MAX For 2016	Initial				Reorder			
					ALT Prior to Oct 1	ALT After Oct 1	Mfg PLT	Total After Oct 1	ALT Prior to Oct 1	ALT After Oct 1	Mfg PLT	Total After Oct 1
1	AMTEC CORPORATION - JANESVILLE, WI	20,000	320,000	800,000	6	6	32	38	6	6	30	36
2	TO BE SELECTED - TBS01	20,000	320,000	800,000	6	6	32	38	6	6	30	36

**Remarks:**  
STATED CAPACITIES ARE SHARED ACROSS MULTIPLE 40MM HIGH VELOCITY CONFIGURATIONS AND BETWEEN MULTIPLE CONTRACTS.

"A" in the Delivery Schedule indicates the Contract Award Date.

Note: Due to space limitations, quantities in the Exhibit P-21 delivery calendar are truncated and rounded based on the maximum quantity in the calendar as follows. If the maximum quantity is less than or equal to than 9,999, all quantities are shown as each. If the maximum quantity is between 10,000 and 999,999 all quantities are shown in thousands. If the maximum quantity is between 1,000,000 and 999,999,999 all quantities are shown in millions (rounded to the nearest thousand). If the maximum quantity is equal or greater than 1,000,000,000 all quantities are shown in billions (rounded to the nearest million).

**UNCLASSIFIED**

**Exhibit P-40, Budget Line Item Justification:** PB 2016 Army **Date:** February 2015

<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2034A: Procurement of Ammunition, Army / BA 01: Ammunition / BSA 33: Mortar Ammunition	<b>P-1 Line Item Number / Title:</b> E89600 / 60MM Mortar, All Types
---	---

ID Code (A=Service Ready, B=Not Service Ready) :	Program Elements for Code B Items:						Other Related Program Elements:					
Resource Summary	Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	To Complete	Total
Procurement Quantity (Units in Each)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (\$ in Millions)	732.068	51.629	46.742	42.898	11.700	54.598	76.118	81.667	64.244	75.811	-	1,182.877
Less PY Advance Procurement (\$ in Millions)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P1) (\$ in Millions)	732.068	51.629	46.742	42.898	11.700	54.598	76.118	81.667	64.244	75.811	-	1,182.877
Plus CY Advance Procurement (\$ in Millions)	-	-	-	-	-	-	-	-	-	-	-	-
<b>Total Obligation Authority (\$ in Millions)</b>	<b>732.068</b>	<b>51.629</b>	<b>46.742</b>	<b>42.898</b>	<b>11.700</b>	<b>54.598</b>	<b>76.118</b>	<b>81.667</b>	<b>64.244</b>	<b>75.811</b>	-	<b>1,182.877</b>

*(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)*

Initial Spares (\$ in Millions)	-	-	-	-	-	-	-	-	-	-	-	-
Flyaway Unit Cost (\$ in Dollars)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (\$ in Dollars)	-	-	-	-	-	-	-	-	-	-	-	-

**Description:**

(E89600)60MM Mortar, All Types  
This line includes 60mm Mortar Ammunition, All Types.

The 60mm Mortar cartridges are designed for use with the M224A1 Lightweight Company Mortar System (LWCMS) in all light infantry battalions including Airborne, Air Assault and Ranger. The short minimum range of the M224 makes the 60mm mortar ammunition well suited for close protective fires against an assaulting enemy, for block-to-block fighting in cities, and combat over close terrain with restricted visibility.

(E72199)CTG, MORTAR 60MM HE EnFrag M1061 (IM) W/M734A1 MOF

The M1061, 60mm High Explosive Enhanced Fragmentation (EF) cartridge with multi-option fuze is used against personnel and a higher category of materiel target sets providing both fragmentation and blast effect. This round uses the insensitive main charge explosive PBNX-110. Lethality is maintained by an enhanced fragmentation warhead. The M1061 EF uses the highly reliable and countermeasure resistant M734A1 multi-option fuze. When the fuze is set in the proximity mode, it functions at a height over the target that is optimized for lethality. The M1061 is Code A, approved for service use.

(E92900)CTG MORTAR 60MM HE M768 W/PD FUZE

The 60mm High Explosive Cartridges are Insensitive Munitions (IM) enhanced, HE rounds. The M786 High Explosive cartridge (Range 70 meter minimum to 3,400 meter maximum) is used with the new M783 dual safety, point detonating/delay fuze, tail fin assembly, and high fragmentation steel (HF-1) shell body loaded with approximately 2lbs. of an IM explosive. This round is used primarily in training because it is significantly less expensive than the M720A1, the preferred war fighting round. However, the M768 is lethal and can be used in combat. This item is Code A, approved for service use.

(E92200)CTG Mortar 60MM FRPC M769 SERIES W/PRACTICE FUZE

The M769 is a low-cost, full range, practice round that will replace a percentage of the standard HE rounds used in 60mm mortar training. The M769 FRPC (Range 70 meter minimum to 3,500 meter maximum) has been designed to provide the user with realistic training at a fraction of the cost. It is identical in shape, size and weight to the M720/M720A1 HE cartridges. The flash, bang and smoke signature provided by the M775 fuze is channeled to exhaust holes in the rear of the cartridge through the use of a center vent tube. This item is Code A, approved for service use.

(E98600)CTG, Mortar, 60MM WP SMOKE M722 SERIES W/PD FUZE

UNCLASSIFIED

<b>Exhibit P-40, Budget Line Item Justification:</b> PB 2016 Army		<b>Date:</b> February 2015
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2034A: Procurement of Ammunition, Army / BA 01: Ammunition / BSA 33: Mortar Ammunition		<b>P-1 Line Item Number / Title:</b> E89600 / 60MM Mortar, All Types
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) :	<b>Program Elements for Code B Items:</b>	<b>Other Related Program Elements:</b>
<p>The M722A1 60mm Smoke cartridge is designed as a spotting/marketing round. The steel projectile is bulk loaded with white phosphorous. When the fuze functions, it detonates the M85 burster, which ruptures the projectile and disperses the white phosphorus. The M722A1 WP Smoke ((Range 200 meter minimum to 3,200 meter maximum) replaced the M745 mechanical point-detonating fuze with the reliable, safe, and cost effective electronic M783 Point Detonating (PD) and Delay (DLY) fuze. This item is Code A, approved for service use.</p>		

**UNCLASSIFIED**

**Exhibit P-40, Budget Line Item Justification:** PB 2016 Army **Date:** February 2015

<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2034A: Procurement of Ammunition, Army / BA 01: Ammunition / BSA 33: Mortar Ammunition	<b>P-1 Line Item Number / Title:</b> E89600 / 60MM Mortar, All Types
---	---

ID Code (A=Service Ready, B=Not Service Ready) :			Program Elements for Code B Items:			Other Related Program Elements:		
Exhibits Schedule			Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total
Title*	Exhibits	ID CD	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)
E72199 / CTG, MORTAR 60MM HE EnFrag XM1061(IM)W/M734A1 MOF [BA42]	P-5, P-5a, P-21	A	- / 10.046	5,149 / 9.477	- / -	- / -	2,605 / 3.700	2,605 / 3.700
E92200 / CTG Mortar 60MM FRPC M769 SERIES W/PRACTICE FUZE [BA15]	P-5, P-5a, P-21	A	- / 103.015	121,720 / 17.887	54,752 / 9.394	120,568 / 21.000	- / -	120,568 / 21.000
E92900 / CTG MORTAR 60MM HE M768 SERIES W/PD FUZE [BA45]	P-5, P-5a, P-21	A	- / 137.646	60,039 / 24.265	63,824 / 24.337	38,940 / 21.898	15,806 / 8.000	54,746 / 29.898
E98600 / Ctg, Mortar,60MM WP SMOKE M722 SERIES W/PD FUZE [BA14]	P-5, P-5a, P-21	A	- / 18.955	- / -	24,588 / 13.011	- / -	- / -	- / -
<b>Total Gross/Weapon System Cost</b>			<b>- / 732.068</b>	<b>- / 51.629</b>	<b>- / 46.742</b>	<b>- / 42.898</b>	<b>- / 11.700</b>	<b>- / 54.598</b>

\*Title represents 1) the Number / Title for Items; 2) the Number / Title [DODIC] for Ammunition; and/or 3) the Number / Title (Modification Type) for Modifications.

Note: Totals in this Exhibit P-40 set may not be exact or add due to rounding.

**Justification:**  
 FY 2016 Base Budget supports critical Army Title 10 war reserve/operational, training, and test requirements IAW DoD Instruction 3000.04 (Munitions Requirements Process) and AR 5-13 (Total Army Munitions Requirements Process and Prioritization System). War reserve requirements support OSD-approved Combatant Commander Operational Plans, Homeland Defense, and other OSD-directed missions. Training requirements support individual and collective training of Active and Reserve Component forces at Army schools, home station, and the combined training centers. Test requirements support the development, fielding, safety, and quality assurance of Army munitions and equipment throughout their life-cycle.

In accordance with Section 1815 of the FY 2008 National Defense Authorization Act (P.L. 110-181), this item is necessary for use by the active and reserve components of the Armed Forces for homeland defense missions, domestic emergency responses, and providing military support to civil authorities.

FY 2016 Base procurement dollars in the amount of \$42.898 million supports production of 159,508 cartridges. FY16 OCO procurement dollars in the amount of \$11.700 million supports production of 18,411 cartridges. Funds are required to replenish munitions expended in combat operations in theater.

E72199 - CTG, MORTAR 60MM HE ENFRAG XM1061(IM)W/M734A1 MOF  
 This is a war reserve item used in combat. Request builds a war reserve inventory in accordance with the Army's procurement goals.  
 TYPE CLASSIFICATION DATE: 2QFY13  
 FY 2016 OCO procurement dollars in the amount of \$3.700 million supports production of 2,605 cartridges. Funds are required to replenish munitions expended in combat operations in theater.

E92200 - CTG Mortar 60MM FRPC M769 SERIES W/PRACTICE FUZE  
 This is a training unique item not used in combat. FY 2016 request supports annual training and builds a depot level in accordance with the Army's procurement goals.  
 TYPE CLASSIFICATION DATE: 2001  
 FY 2016 Base procurement dollars in the amount of \$21.000 million supports production of 120,568 cartridges.

E92900 - CTG MORTAR 60MM HE M768 SERIES W/PD FUZE  
 This is a training standard item used in training and combat. FY 2016 request supports annual training and builds a war reserve inventory in accordance with the Army procurement goals.  
 TYPE CLASSIFICATION DATE: 2001  
 FY 2016 Base procurement dollars in the amount of \$21.898 million supports production of 38,940 cartridges.  
 FY 2016 OCO procurement dollars in the amount of \$8.000 million supports production of 15,806 cartridges. Funds are required to replenish munitions expended in combat operations in theater.

E98600 - CTG, Mortar,60MM WP SMOKE M722 SERIES W/PD FUZE

**UNCLASSIFIED**

<b>Exhibit P-40, Budget Line Item Justification:</b> PB 2016 Army		<b>Date:</b> February 2015
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2034A: Procurement of Ammunition, Army / BA 01: Ammunition / BSA 33: Mortar Ammunition		<b>P-1 Line Item Number / Title:</b> E89600 / 60MM Mortar, All Types
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) :	<b>Program Elements for Code B Items:</b>	<b>Other Related Program Elements:</b>
This is a training standard item used in training and combat. Request supports annual training and builds a war reserve inventory in accordance with the Army's procurement goals. TYPE CLASSIFICATION DATE: March 2004		

**UNCLASSIFIED**

<b>Exhibit P-5, Cost Analysis: PB 2016 Army</b>		<b>Date:</b> February 2015
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2034A / 01 / 33	<b>P-1 Line Item Number / Title:</b> E89600 / 60MM Mortar, All Types	<b>Item Number / Title [DODIC]:</b> E72199 / CTG, MORTAR 60MM HE EnFrag XM1061(IM)W/M734A1 MOF [BA42]

<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : A	<b>MDAP/MAIS Code:</b>
---	------------------------

Resource Summary	Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total
Procurement Quantity (Units in Each)	-	5,149	-	-	2,605	2,605
Gross/Weapon System Cost (\$ in Millions)	10.046	9.477	-	-	3.700	3.700
Less PY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
Net Procurement (P1) (\$ in Millions)	10.046	9.477	-	-	3.700	3.700
Plus CY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
<b>Total Obligation Authority (\$ in Millions)</b>	<b>10.046</b>	<b>9.477</b>	<b>-</b>	<b>-</b>	<b>3.700</b>	<b>3.700</b>

*(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)*

Initial Spares (\$ in Millions)	-	-	-	-	-	-
Gross/Weapon System Unit Cost (\$ in Dollars)	-	-	-	-	-	-

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or add, due to rounding.

Cost Elements	Prior Years			FY 2014			FY 2015			FY 2016 Base			FY 2016 OCO			FY 2016 Total		
	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)
<b>Hardware Cost</b>																		
<b>Recurring Cost</b>																		
LOAD, ASSEMBLE, PACK (LAP) <sup>(†)</sup>	-	-	-	834.63	5,149	4.298	-	-	-	-	-	-	900.13	2,605	2.345	900.13	2,605	2.345
FUZE MOFM, M734A1 <sup>(†)</sup>	-	-	-	248.33	5,303	1.317	-	-	-	-	-	-	334.33	2,683	0.897	334.33	2,683	0.897
M702 IGNITION CARTRIDGE <sup>(†)</sup>	-	-	-	13.25	5,303	0.070	-	-	-	-	-	-	16.73	2,683	0.045	16.73	2,683	0.045
PROPELLANT CHARGE, M236 <sup>(†)</sup>	-	-	-	13.43	21,214	0.285	-	-	-	-	-	-	10.78	10,732	0.116	10.78	10,732	0.116
FIN ASSEMBLY M27 <sup>(†)</sup>	-	-	-	7.19	5,303	0.038	-	-	-	-	-	-	9.99	2,683	0.027	9.99	2,683	0.027
<i>Subtotal: Recurring Cost</i>	-	-	-	-	-	6.008	-	-	-	-	-	-	-	-	3.429	-	-	3.429
<i>Subtotal: Hardware Cost</i>	-	-	-	-	-	6.008	-	-	-	-	-	-	-	-	3.429	-	-	3.429
<b>Support Cost</b>																		
PRODUCTION ENGINEERING	-	-	-	-	-	2.155	-	-	-	-	-	-	-	-	0.150	-	-	0.150
ACCEPTANCE TESTING	-	-	-	-	-	0.280	-	-	-	-	-	-	-	-	0.120	-	-	0.120
FIRST ARTICLE TEST	-	-	-	-	-	0.013	-	-	-	-	-	-	-	-	-	-	-	-
PRODUCTION VERIFICATION TEST	-	-	10.046	-	-	1.021	-	-	-	-	-	-	-	-	-	-	-	-



**UNCLASSIFIED**

<b>Exhibit P-5, Cost Analysis:</b> PB 2016 Army		<b>Date:</b> February 2015
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2034A / 01 / 33	<b>P-1 Line Item Number / Title:</b> E89600 / 60MM Mortar, All Types	<b>Item Number / Title [DODIC]:</b> E72199 / CTG, MORTAR 60MM HE EnFrag XM1061(IM)W/M734A1 MOF [BA42]
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : A		<b>MDAP/MAIS Code:</b>

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or add, due to rounding.

Cost Elements	Prior Years			FY 2014			FY 2015			FY 2016 Base			FY 2016 OCO			FY 2016 Total		
	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)
<i>Subtotal: Support Cost</i>	-	-	10.046	-	-	3.469	-	-	-	-	-	-	-	-	0.270	-	-	0.270
<b>Gross/Weapon System Cost</b>	-	-	10.046	-	5,149	9.477	-	-	-	-	-	-	-	2,605	3.700	-	2,605	3.700

(†) indicates the presence of a P-5a

**UNCLASSIFIED**

<b>Exhibit P-5a, Procurement History and Planning: PB 2016 Army</b>							<b>Date:</b> February 2015					
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2034A / 01 / 33			<b>P-1 Line Item Number / Title:</b> E89600 / 60MM Mortar, All Types				<b>Item Number / Title [DODIC]:</b> E72199 / CTG, MORTAR 60MM HE EnFrag XM1061(IM)W/M734A1 MOF [BA42]					

Cost Elements	O C O	FY	Contractor and Location	Method/Type or Funding Vehicle	Location of PCO	Award Date	Date of First Delivery	Qty <i>(Each)</i>	Unit Cost <i>(\$)</i>	Specs Avail Now?	Date Revision Available	RFP Issue Date
LOAD, ASSEMBLE, PACK (LAP) <sup>(†)</sup>		2014	ATK TACTICAL SYSTEMS COMPANY / ROCKET CENTER, WV	C / FFP	PICATINNY ARSENAL, NJ	Feb 2014	Feb 2016	5,149	834.63	Y		
LOAD, ASSEMBLE, PACK (LAP) <sup>(†)</sup>	✓	2016	TO BE SELECTED / TBS01	C / FFP	PICATINNY ARSENAL, NJ	Feb 2017	Feb 2019	2,605	900.13	Y		
FUZE MOFM, M734A1		2014	L-3 FUZING & ORDANCE SYSTEMS / CINCINNATI, OH	C / FFP	PICATINNY ARSENAL, NJ	Dec 2014	Aug 2015	5,303	248.33	Y		
FUZE MOFM, M734A1	✓	2016	TO BE SELECTED / TBS02	C / FFP	PICATINNY ARSENAL, NJ	Mar 2017	Nov 2018	2,683	334.33	Y		
M702 IGNITION CARTRIDGE		2014	NAMMO POCAL INC. / SCRANTON, PA	C / IDIQ	ROCK ISLAND ARSENAL, IL	Mar 2014	Sep 2015	5,303	13.25	Y		
M702 IGNITION CARTRIDGE	✓	2016	TO BE SELECTED / TBS03	C / IDIQ	ROCK ISLAND ARSENAL, IL	Mar 2017	Sep 2018	2,683	16.73	Y		
PROPELLANT CHARGE, M236		2014	AMERICAN ORDNANCE LLC (IAAP) / MIDDLETOWN, IA	C / IDIQ	ROCK ISLAND ARSENAL, IL	Jan 2014	Sep 2015	21,214	13.43	Y		
PROPELLANT CHARGE, M236	✓	2016	TO BE SELECTED / TBS04	C / IDIQ	ROCK ISLAND ARSENAL, IL	Mar 2017	Sep 2018	10,732	10.78	Y		
FIN ASSEMBLY M27		2014	FLEXIBLE CONCEPTS INC. / ELKHART, IN	C / IDIQ	ROCK ISLAND ARSENAL, IL	Mar 2014	Sep 2015	5,303	7.19	Y		
FIN ASSEMBLY M27	✓	2016	TO BE SELECTED / TBS05	C / IDIQ	ROCK ISLAND ARSENAL, IL	Mar 2017	Sep 2018	2,683	9.99	Y		

<sup>(†)</sup> indicates the presence of a P-21

**Remarks:**

Ignition Cartridges: IDIQ awarded (Jun 12) to multiple contractors. Requirements will be competed among the following contractors: Pocal Industries, Scranton, PA; Day and Zimmerman, Camden AR and American Ordnance, Middletown, IA.  
M27 Fins: IDIQ awarded (Feb 11) to multiple contractors. Requirements will be competed among the following contractors: Gayston, Springboro, OH; Flexible Concepts, Elkhart, IN; Cerebrus, Morris Plains, NJ. M236 Propellant Charges:  
IDIQ awarded (Dec 12) to multiple contractors. Requirements will be competed among the following contractors: Day and Zimmerman, Camden, AR; American Ordnance, Middletown, IA; and General Dynamics, Marion, IL.

**UNCLASSIFIED**

<b>Exhibit P-21, Production Schedule:</b> PB 2016 Army															<b>Date:</b> February 2015														
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2034A / 01 / 33										<b>P-1 Line Item Number / Title:</b> E89600 / 60MM Mortar, All Types										<b>Item Number / Title [DODIC]:</b> E72199 / CTG, MORTAR 60MM HE EnFrag XM1061(IM)W/M734A1 MOF [BA42]									

Cost Elements <i>(Units in Thousands)</i>						Fiscal Year 2014												Fiscal Year 2015													
O C C O	M F R #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2013	BAL DUE AS OF 1 OCT	Calendar Year 2014												Calendar Year 2015												B A L
							O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	
LOAD, ASSEMBLE, PACK (LAP)																															
	1	2014	ARMY	5.149	-	5.149																								5.149	
✓	2	2016	ARMY	2.605	-	2.605																								2.605	
							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	B A L

**UNCLASSIFIED**

<b>Exhibit P-21, Production Schedule:</b> PB 2016 Army													<b>Date:</b> February 2015																		
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2034A / 01 / 33						<b>P-1 Line Item Number / Title:</b> E89600 / 60MM Mortar, All Types													<b>Item Number / Title [DODIC]:</b> E72199 / CTG, MORTAR 60MM HE EnFrag XM1061(IM)W/M734A1 MOF [BA42]												

Cost Elements <i>(Units in Thousands)</i>						Fiscal Year 2016													Fiscal Year 2017													
O C C O	M F R #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2015	BAL DUE AS OF 1 OCT	Calendar Year 2016													Calendar Year 2017												
							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	B A L	
LOAD, ASSEMBLE, PACK (LAP)																																
	1	2014	ARMY	5.149	-	5.149	-	-	-	-	5.149																		-			
✓	2	2016	ARMY	2.605	-	2.605																							2.605			
							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	B A L	

**UNCLASSIFIED**

<b>Exhibit P-21, Production Schedule:</b> PB 2016 Army		<b>Date:</b> February 2015
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2034A / 01 / 33		<b>P-1 Line Item Number / Title:</b> E89600 / 60MM Mortar, All Types
		<b>Item Number / Title [DODIC]:</b> E72199 / CTG, MORTAR 60MM HE EnFrag XM1061(IM)W/M734A1 MOF [BA42]

Cost Elements <i>(Units in Thousands)</i>						Fiscal Year 2018												Fiscal Year 2019													
O C C O	M F R #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2017	BAL DUE AS OF 1 OCT	Calendar Year 2018												Calendar Year 2019												
							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	B A L
LOAD, ASSEMBLE, PACK (LAP)																															
	1	2014	ARMY	5.149	5.149	-																									
✓	2	2016	ARMY	2.605	-	2.605	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.605				
							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	B A L

**UNCLASSIFIED**

<b>Exhibit P-21, Production Schedule:</b> PB 2016 Army		<b>Date:</b> February 2015
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2034A / 01 / 33		<b>P-1 Line Item Number / Title:</b> E89600 / 60MM Mortar, All Types
		<b>Item Number / Title [DODIC]:</b> E72199 / CTG, MORTAR 60MM HE EnFrag XM1061(IM)W/M734A1 MOF [BA42]

MFR Ref #	MFR Name - Location	Production Rates (Each / Month)			Procurement Leadtime (Months)							
		MSR For 2016	1-8-5 For 2016	MAX For 2016	Initial				Reorder			
					ALT Prior to Oct 1	ALT After Oct 1	Mfg PLT	Total After Oct 1	ALT Prior to Oct 1	ALT After Oct 1	Mfg PLT	Total After Oct 1
1	ATK TACTICAL SYSTEMS COMPANY - ROCKET CENTER, WV	10,000	10,000	30,000	6	6	24	30	6	6	24	30
2	TO BE SELECTED - TBS01	10,000	10,000	30,000	6	6	24	30	6	6	24	30

"A" in the Delivery Schedule indicates the Contract Award Date.  
 Note: Due to space limitations, quantities in the Exhibit P-21 delivery calendar are truncated and rounded based on the maximum quantity in the calendar as follows. If the maximum quantity is less than or equal to than 9,999, all quantities are shown as each. If the maximum quantity is between 10,000 and 999,999 all quantities are shown in thousands. If the maximum quantity is between 1,000,000 and 999,999,999 all quantities are shown in millions (rounded to the nearest thousand). If the maximum quantity is equal or greater than 1,000,000,000 all quantities are shown in billions (rounded to the nearest million).

**UNCLASSIFIED**

<b>Exhibit P-5, Cost Analysis: PB 2016 Army</b>		<b>Date:</b> February 2015
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2034A / 01 / 33		<b>P-1 Line Item Number / Title:</b> E89600 / 60MM Mortar, All Types
		<b>Item Number / Title [DODIC]:</b> E92200 / CTG Mortar 60MM FRPC M769 SERIES W/PRACTICE FUZE [BA15]

<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : A	<b>MDAP/MAIS Code:</b>
---	------------------------

Resource Summary		Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total
Procurement Quantity (Units in Each)		-	121,720	54,752	120,568	-	120,568
Gross/Weapon System Cost (\$ in Millions)		103.015	17.887	9.394	21.000	-	21.000
Less PY Advance Procurement (\$ in Millions)		-	-	-	-	-	-
Net Procurement (P1) (\$ in Millions)		103.015	17.887	9.394	21.000	-	21.000
Plus CY Advance Procurement (\$ in Millions)		-	-	-	-	-	-
<b>Total Obligation Authority (\$ in Millions)</b>		<b>103.015</b>	<b>17.887</b>	<b>9.394</b>	<b>21.000</b>	<b>-</b>	<b>21.000</b>

*(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)*

Initial Spares (\$ in Millions)	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (\$ in Dollars)	-	-	-	-	-	-	-

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or add, due to rounding.

Cost Elements	Prior Years			FY 2014			FY 2015			FY 2016 Base			FY 2016 OCO			FY 2016 Total		
	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)
<b>Hardware Cost</b>																		
<b>Recurring Cost</b>																		
Load, Assemble, Pack (LAP) <sup>(†)</sup>	-	-	-	17.16	121,720	2.089	17.27	54,752	0.946	18.96	120,568	2.286	-	-	-	18.96	120,568	2.286
Fuze Practice, M775 <sup>(†)</sup>	-	-	-	17.89	125,372	2.243	18.99	56,395	1.071	19.36	124,185	2.404	-	-	-	19.36	124,185	2.404
Shell Body, 60MM FRPC <sup>(†)</sup>	-	-	-	34.39	125,372	4.312	38.17	56,395	2.153	38.93	124,185	4.835	-	-	-	38.93	124,185	4.835
M702 Ignition Cartridge <sup>(†)</sup>	-	-	-	13.25	125,372	1.661	16.41	56,395	0.925	16.73	124,185	2.078	-	-	-	16.73	124,185	2.078
Propellant Charge, M235 <sup>(†)</sup>	-	-	-	8.92	501,487	4.473	10.34	225,578	2.332	10.54	496,739	5.236	-	-	-	10.54	496,739	5.236
Fin Assembly M27 <sup>(†)</sup>	-	-	-	7.19	125,372	0.901	9.80	56,395	0.553	9.99	124,185	1.241	-	-	-	9.99	124,185	1.241
<i>Subtotal: Recurring Cost</i>	-	-	-	-	-	15.679	-	-	7.980	-	-	18.079	-	-	-	-	-	18.079
<i>Subtotal: Hardware Cost</i>	-	-	-	-	-	15.679	-	-	7.980	-	-	18.079	-	-	-	-	-	18.079
<b>Support Cost</b>																		
Production Engineering	-	-	103.015	-	-	2.037	-	-	1.033	-	-	2.100	-	-	-	-	-	2.100
Acceptance Testing	-	-	-	-	-	0.152	-	-	0.381	-	-	0.820	-	-	-	-	-	0.820
FIRST ARTICLE TEST	-	-	-	-	-	0.019	-	-	-	-	-	-	-	-	-	-	-	-
<i>Subtotal: Support Cost</i>	-	-	103.015	-	-	2.208	-	-	1.414	-	-	2.920	-	-	-	-	-	2.920
<b>Gross/Weapon System Cost</b>	-	-	<b>103.015</b>	-	<b>121,720</b>	<b>17.887</b>	-	<b>54,752</b>	<b>9.394</b>	-	<b>120,568</b>	<b>21.000</b>	-	-	-	-	<b>120,568</b>	<b>21.000</b>

UNCLASSIFIED

<b>Exhibit P-5, Cost Analysis:</b> PB 2016 Army		<b>Date:</b> February 2015
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2034A / 01 / 33	<b>P-1 Line Item Number / Title:</b> E89600 / 60MM Mortar, All Types	<b>Item Number / Title [DODIC]:</b> E92200 / CTG Mortar 60MM FRPC M769 SERIES W/PRACTICE FUZE [BA15]
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : A	<b>MDAP/MAIS Code:</b>	

(†) indicates the presence of a P-5a



**UNCLASSIFIED**

<b>Exhibit P-5a, Procurement History and Planning: PB 2016 Army</b>							<b>Date:</b> February 2015					
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2034A / 01 / 33			<b>P-1 Line Item Number / Title:</b> E89600 / 60MM Mortar, All Types				<b>Item Number / Title [DODIC]:</b> E92200 / CTG Mortar 60MM FRPC M769 SERIES W/PRACTICE FUZE [BA15]					

Cost Elements	O C O	FY	Contractor and Location	Method/Type or Funding Vehicle	Location of PCO	Award Date	Date of First Delivery	Qty (Each)	Unit Cost (\$)	Specs Avail Now?	Date Revision Available	RFP Issue Date
Load, Assemble, Pack (LAP) <sup>(†)</sup>		2014	DAY & ZIMMERMANN LONE STAR / CAMDEN, AR	C / IDIQ	PICATINNY ARSENAL, NJ	Jun 2014	Jun 2016	41,453	17.16	Y		
Load, Assemble, Pack (LAP) <sup>(†)</sup>		2014	NAMMO POCAL INC. / SCRANTON, PA	C / IDIQ	ROCK ISLAND ARSENAL, IL	Jun 2014	Jun 2016	80,267	17.16	Y		
Load, Assemble, Pack (LAP) <sup>(†)</sup>		2015	TO BE SELECTED / TBS01	C / IDIQ	ROCK ISLAND ARSENAL, IL	Mar 2015	May 2017	54,752	17.27	Y		
Load, Assemble, Pack (LAP) <sup>(†)</sup>		2016	TO BE SELECTED / TBS01	C / IDIQ	ROCK ISLAND ARSENAL, IL	Mar 2016	Mar 2018	120,568	18.96	Y		
Fuze Practice, M775		2014	NAMMO POCAL INC. / SCRANTON, PA	C / IDIQ	PICATINNY ARSENAL, NJ	Jan 2014	Jul 2015	125,372	17.89	Y		
Fuze Practice, M775		2015	NAMMO POCAL INC. / SCRANTON, PA	C / IDIQ	PICATINNY ARSENAL, NJ	Feb 2015	Aug 2016	56,395	18.99	Y		
Fuze Practice, M775		2016	NAMMO POCAL INC. / SCRANTON, PA	C / IDIQ	PICATINNY ARSENAL, NJ	Feb 2016	Aug 2017	124,185	19.36	Y		
Shell Body, 60MM FRPC		2014	MEDICO INDUSTRIES INC. / WILKES BARRE, PA	C / IDIQ	PICATINNY ARSENAL, NJ	Feb 2014	Dec 2015	125,372	34.39	Y		
Shell Body, 60MM FRPC		2015	TO BE SELECTED / TBS02	C / IDIQ	PICATINNY ARSENAL, NJ	Feb 2015	Aug 2016	56,395	38.17	Y		
Shell Body, 60MM FRPC		2016	TO BE SELECTED / TBS02	C / IDIQ	PICATINNY ARSENAL, NJ	Feb 2016	Aug 2017	124,185	38.93	Y		
M702 Ignition Cartridge		2014	NAMMO POCAL INC. / SCRANTON, PA	C / IDIQ	ROCK ISLAND ARSENAL, IL	Mar 2014	Sep 2015	125,372	13.25	Y		
M702 Ignition Cartridge		2015	TO BE SELECTED / TBS03	C / IDIQ	ROCK ISLAND ARSENAL, IL	Feb 2015	Aug 2016	56,395	16.41	Y		
M702 Ignition Cartridge		2016	TO BE SELECTED / TBS03	C / IDIQ	ROCK ISLAND ARSENAL, IL	Feb 2016	Aug 2017	124,185	16.73	Y		
Propellant Charge, M235		2014	AMERICAN ORDNANCE LLC (IAAP) / MIDDLETOWN, IA	C / IDIQ	ROCK ISLAND ARSENAL, IL	Jul 2014	Jan 2016	501,487	8.92	Y		
Propellant Charge, M235		2015	TO BE SELECTED / TBS04	C / IDIQ	ROCK ISLAND ARSENAL, IL	Feb 2015	Aug 2016	225,578	10.34	Y		
Propellant Charge, M235		2016	TO BE SELECTED / TBS04	C / IDIQ	ROCK ISLAND ARSENAL, IL	Feb 2016	Aug 2017	496,739	10.54	Y		
Fin Assembly M27		2014	FLEXIBLE CONCEPTS INC. / ELKHART, IN	C / IDIQ	ROCK ISLAND ARSENAL, IL	Mar 2014	Sep 2015	125,372	7.19	Y		
Fin Assembly M27		2015	TO BE SELECTED / TBS05	C / IDIQ	ROCK ISLAND ARSENAL, IL	Feb 2015	Aug 2016	56,395	9.80	Y		
Fin Assembly M27		2016	TO BE SELECTED / TBS05	C / IDIQ	ROCK ISLAND ARSENAL, IL	Feb 2016	Aug 2017	124,185	9.99	Y		

<sup>(†)</sup> indicates the presence of a P-21

**Remarks:**

FRPC LAP: IDIQ awarded (Feb 11) to multiple contractors. Requirements will be competed among the following contractors: Day and Zimmerman, Parsons, KS; Chemring Ordnance, Perry FL. M27 FINS: IDIQ awarded (Feb 11) to multiple contractors. Requirements will be competed among the following contractors: Gayston, Springboro, OH; Flexible Concepts, Elkhart, IN; Cerebrus, Morris Plains, NJ. Ignition Cartridges: IDIQ awarded (Jun 12) to multiple contractors. Requirements will be competed among the following contractors: Pocal Industries, Scranton, PA and American Ordnance, Middletown, IA.

**UNCLASSIFIED**

<b>Exhibit P-21, Production Schedule:</b> PB 2016 Army			<b>Date:</b> February 2015
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2034A / 01 / 33		<b>P-1 Line Item Number / Title:</b> E89600 / 60MM Mortar, All Types	<b>Item Number / Title [DODIC]:</b> E92200 / CTG Mortar 60MM FRPC M769 SERIES W/PRACTICE FUZE [BA15]

Cost Elements <i>(Units in Thousands)</i>						Fiscal Year 2014												Fiscal Year 2015													
O C C O	M F R #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2013	BAL DUE AS OF 1 OCT	Calendar Year 2014												Calendar Year 2015												B A L
							O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	
Load, Assemble, Pack (LAP)																															
	1	2014	ARMY	41.453	-	41.453																							41.453		
	2	2014	ARMY	80.267	-	80.267																							80.267		
	2	2014	MC (†)	47.637	-	47.637																							47.637		
	<b>2</b>	<b>2014</b>	<b>Total</b>	<b>127.904</b>	<b>-</b>	<b>127.904</b>																							<b>127.904</b>		
	3	2015	ARMY	54.752	-	54.752																							54.752		
	3	2015	MC (†)	48.284	-	48.284																							48.284		
	<b>3</b>	<b>2015</b>	<b>Total</b>	<b>103.036</b>	<b>-</b>	<b>103.036</b>																							<b>103.036</b>		
	3	2016	ARMY	120.568	-	120.568																							120.568		
	3	2016	MC (†)	11.005	-	11.005																							11.005		
	<b>3</b>	<b>2016</b>	<b>Total</b>	<b>131.573</b>	<b>-</b>	<b>131.573</b>																							<b>131.573</b>		

O C C O	M F R #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2013	BAL DUE AS OF 1 OCT	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	B A L

**UNCLASSIFIED**

<b>Exhibit P-21, Production Schedule:</b> PB 2016 Army		<b>Date:</b> February 2015
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2034A / 01 / 33		<b>P-1 Line Item Number / Title:</b> E89600 / 60MM Mortar, All Types
		<b>Item Number / Title [DODIC]:</b> E92200 / CTG Mortar 60MM FRPC M769 SERIES W/PRACTICE FUZE [BA15]

Cost Elements <i>(Units in Thousands)</i>						Fiscal Year 2016												Fiscal Year 2017													
O C C O	M F R #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2015	BAL DUE AS OF 1 OCT	Calendar Year 2016												Calendar Year 2017												
							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	B A L
Load, Assemble, Pack (LAP)																															
	1	2014	ARMY	41.453	-	41.453	-	-	-	-	-	-	-	-	12.000	12.000	12.000	5.453												-	
	2	2014	ARMY	80.267	-	80.267	-	-	-	-	-	-	-	-	6.000	6.000	6.000	6.000	6.000	6.000	6.000	6.363	12.000	12.000	7.904					-	
	2	2014	MC (†)	47.637	-	47.637	-	-	-	-	-	-	-	-	6.000	6.000	6.000	6.000	6.000	6.000	6.000	5.637	-	-	-					-	
	<b>2</b>	<b>2014</b>	<b>Total</b>	<b>127.904</b>	<b>-</b>	<b>127.904</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>12.000</b>	<b>12.000</b>	<b>12.000</b>	<b>12.000</b>	<b>12.000</b>	<b>12.000</b>	<b>12.000</b>	<b>12.000</b>	<b>12.000</b>	<b>12.000</b>	<b>7.904</b>					<b>-</b>	
	3	2015	ARMY	54.752	-	54.752	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6.000	6.000	5.613	6.000	6.000	25.139
	3	2015	MC (†)	48.284	-	48.284	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6.000	6.000	6.387	6.000	6.000	17.897
	<b>3</b>	<b>2015</b>	<b>Total</b>	<b>103.036</b>	<b>-</b>	<b>103.036</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>12.000</b>	<b>12.000</b>	<b>12.000</b>	<b>12.000</b>	<b>12.000</b>	<b>43.036</b>	
	3	2016	ARMY	120.568	-	120.568																								120.568	
	3	2016	MC (†)	11.005	-	11.005																								11.005	
	<b>3</b>	<b>2016</b>	<b>Total</b>	<b>131.573</b>	<b>-</b>	<b>131.573</b>																								<b>131.573</b>	
							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	B A L

**UNCLASSIFIED**

<b>Exhibit P-21, Production Schedule:</b> PB 2016 Army		<b>Date:</b> February 2015
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2034A / 01 / 33		<b>P-1 Line Item Number / Title:</b> E89600 / 60MM Mortar, All Types
		<b>Item Number / Title [DODIC]:</b> E92200 / CTG Mortar 60MM FRPC M769 SERIES W/PRACTICE FUZE [BA15]

Cost Elements <i>(Units in Thousands)</i>					Fiscal Year 2018													Fiscal Year 2019													
O C C O	M F R #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2017	BAL DUE AS OF 1 OCT	Calendar Year 2018													Calendar Year 2019											
							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	B A L
Load, Assemble, Pack (LAP)																															
	1	2014	ARMY	41.453	41.453	-																							-		
	2	2014	ARMY	80.267	80.267	-																							-		
	2	2014	MC (†)	47.637	47.637	-																							-		
	<b>2</b>	<b>2014</b>	<b>Total</b>	<b>127.904</b>	<b>127.904</b>	<b>-</b>																							-		
	3	2015	ARMY	54.752	29.613	25.139	6.000	6.000	6.103	7.036																			-		
	3	2015	MC (†)	48.284	30.387	17.897	6.000	6.000	5.897	-																			-		
	<b>3</b>	<b>2015</b>	<b>Total</b>	<b>103.036</b>	<b>60.000</b>	<b>43.036</b>	<b>12.000</b>	<b>12.000</b>	<b>12.000</b>	<b>7.036</b>																			-		
	3	2016	ARMY	120.568	-	120.568	-	-	-	-	6.000	6.995	12.000	12.000	12.000	12.000	12.000	12.000	12.000	12.000	12.000	12.000	12.000	12.000	12.000	12.000	12.000	11.573	-		
	3	2016	MC (†)	11.005	-	11.005	-	-	-	-	6.000	5.005	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
	<b>3</b>	<b>2016</b>	<b>Total</b>	<b>131.573</b>	<b>-</b>	<b>131.573</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>12.000</b>	<b>12.000</b>	<b>12.000</b>	<b>12.000</b>	<b>12.000</b>	<b>12.000</b>	<b>12.000</b>	<b>12.000</b>	<b>12.000</b>	<b>12.000</b>	<b>12.000</b>	<b>12.000</b>	<b>12.000</b>	<b>12.000</b>	<b>12.000</b>	<b>12.000</b>	<b>12.000</b>	<b>11.573</b>	<b>-</b>		
							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	B A L

**UNCLASSIFIED**

<b>Exhibit P-21, Production Schedule:</b> PB 2016 Army		<b>Date:</b> February 2015
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2034A / 01 / 33		<b>P-1 Line Item Number / Title:</b> E89600 / 60MM Mortar, All Types
		<b>Item Number / Title [DODIC]:</b> E92200 / CTG Mortar 60MM FRPC M769 SERIES W/PRACTICE FUZE [BA15]

MFR Ref #	MFR Name - Location	Production Rates (Each / Month)			Procurement Leadtime (Months)							
		MSR For 2016	1-8-5 For 2016	MAX For 2016	Initial				Reorder			
					ALT Prior to Oct 1	ALT After Oct 1	Mfg PLT	Total After Oct 1	ALT Prior to Oct 1	ALT After Oct 1	Mfg PLT	Total After Oct 1
1	DAY & ZIMMERMANN LONE STAR - CAMDEN, AR	12,000	12,000	12,000	6	6	24	30	6	6	24	30
2	NAMMO POCAL INC. - SCRANTON, PA	12,000	12,000	12,000	6	6	24	30	6	6	24	30
3	TO BE SELECTED - TBS01	10,000	12,000	24,000	6	6	24	30	6	6	24	30

(±) Delivery rows marked with this symbol indicate that they are funded through a separate Line Item. See the respective components' exhibits for details, including the full delivery schedule.  
 "A" in the Delivery Schedule indicates the Contract Award Date.

Note: Due to space limitations, quantities in the Exhibit P-21 delivery calendar are truncated and rounded based on the maximum quantity in the calendar as follows. If the maximum quantity is less than or equal to than 9,999, all quantities are shown as each. If the maximum quantity is between 10,000 and 999,999 all quantities are shown in thousands. If the maximum quantity is between 1,000,000 and 999,999,999 all quantities are shown in millions (rounded to the nearest thousand). If the maximum quantity is equal or greater than 1,000,000,000 all quantities are shown in billions (rounded to the nearest million).

**UNCLASSIFIED**

<b>Exhibit P-5, Cost Analysis: PB 2016 Army</b>		<b>Date:</b> February 2015
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2034A / 01 / 33		<b>P-1 Line Item Number / Title:</b> E89600 / 60MM Mortar, All Types
		<b>Item Number / Title [DODIC]:</b> E92900 / CTG MORTAR 60MM HE M768 SERIES W/PD FUZE [BA45]

<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : A	<b>MDAP/MAIS Code:</b>
---	------------------------

Resource Summary	Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total
Procurement Quantity (Units in Each)	-	60,039	63,824	38,940	15,806	54,746
Gross/Weapon System Cost (\$ in Millions)	137.646	24.265	24.337	21.898	8.000	29.898
Less PY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
Net Procurement (P1) (\$ in Millions)	137.646	24.265	24.337	21.898	8.000	29.898
Plus CY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
<b>Total Obligation Authority (\$ in Millions)</b>	<b>137.646</b>	<b>24.265</b>	<b>24.337</b>	<b>21.898</b>	<b>8.000</b>	<b>29.898</b>

*(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)*

Initial Spares (\$ in Millions)	-	-	-	-	-	-
Gross/Weapon System Unit Cost (\$ in Dollars)	-	404.15	381.31	562.35	506.14	546.12

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or add, due to rounding.

Cost Elements	Prior Years			FY 2014			FY 2015			FY 2016 Base			FY 2016 OCO			FY 2016 Total		
	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)
Hardware Cost																		
Recurring Cost																		
LOAD, ASSEMBLE, PACK (LAP) <sup>(†)</sup>	-	-	-	53.39	60,039	3.205	55.00	63,824	3.510	56.10	38,940	2.185	56.10	15,806	0.887	56.10	54,746	3.071
SHELL BODY (HF1), 60MM HE <sup>(†)</sup>	-	-	-	37.39	61,840	2.312	39.54	65,739	2.599	40.32	40,108	1.617	40.32	16,280	0.656	40.32	56,388	2.274
FIN ASSEMBLY M27 <sup>(†)</sup>	-	-	-	7.95	61,840	0.492	9.80	65,739	0.644	9.99	40,108	0.401	9.99	16,280	0.163	9.99	56,388	0.563
M702 IGNITION CARTRIDGE <sup>(†)</sup>	-	-	-	13.25	61,840	0.819	16.41	65,739	1.079	16.73	40,108	0.671	16.73	16,280	0.272	16.73	56,388	0.943
PROPELLANT CHARGE, M235 <sup>(†)</sup>	-	-	-	8.92	247,361	2.206	10.34	262,955	2.719	10.54	160,432	1.691	10.54	65,121	0.686	10.54	225,553	2.377
FUZE POINT DETONATOR M783 <sup>(†)</sup>	-	-	-	158.29	61,840	9.789	156.55	65,739	10.291	250.00	40,108	10.027	250.00	16,280	4.070	250.00	56,388	14.097
PBXW-14 BULK EXPLOSIVE <sup>(†)</sup>	-	-	-	80.31	3,482	0.280	81.78	3,702	0.303	83.41	2,336	0.195	83.41	948	0.079	83.41	3,284	0.274
EXPLOSIVE FILL IMX-104 <sup>(†)</sup>	-	-	-	21.90	102,066	2.235	-	-	-	22.74	116,820	2.656	22.74	47,418	1.078	22.74	164,238	3.735
*EXPLOSIVE FILL IMX-104 <sup>(†)</sup>	-	-	-	-	-	-	23.33	108,501	2.531	-	-	-	-	-	-	-	-	-
<i>Subtotal: Recurring Cost</i>	-	-	-	-	-	21.339	-	-	23.677	-	-	19.443	-	-	7.892	-	-	27.335
<i>Subtotal: Hardware Cost</i>	-	-	-	-	-	21.339	-	-	23.677	-	-	19.443	-	-	7.892	-	-	27.335

**UNCLASSIFIED**

<b>Exhibit P-5, Cost Analysis: PB 2016 Army</b>		<b>Date:</b> February 2015
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2034A / 01 / 33	<b>P-1 Line Item Number / Title:</b> E89600 / 60MM Mortar, All Types	<b>Item Number / Title [DODIC]:</b> E92900 / CTG MORTAR 60MM HE M768 SERIES W/PD FUZE [BA45]
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : A		<b>MDAP/MAIS Code:</b>

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or add, due to rounding.

Cost Elements	Prior Years			FY 2014			FY 2015			FY 2016 Base			FY 2016 OCO			FY 2016 Total		
	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)
Support Cost																		
PRODUCTION ENGINEERING	-	-	137.646	-	-	2.627	-	-	2.127	-	-	2.192	-	-	-	-	-	2.192
ACCEPTANCE TESTING	-	-	-	-	-	0.300	-	-	0.465	-	-	0.263	-	-	0.109	-	-	0.372
FIRST ARTICLE TEST	-	-	-	-	-	-	-	-	0.600	-	-	-	-	-	-	-	-	-
*GOVERNMENT FURNISHED MATERIAL	-	-	-	-	-	-	-	-	-2.531	-	-	-	-	-	-	-	-	-
<i>Subtotal: Support Cost</i>	-	-	137.646	-	-	2.927	-	-	0.661	-	-	2.455	-	-	0.109	-	-	2.564
<b>Gross/Weapon System Cost</b>	-	-	137.646	404.15	60,039	24.265	381.31	63,824	24.337	562.35	38,940	21.898	506.14	15,806	8.000	546.12	54,746	29.898

(t) indicates the presence of a P-5a

**UNCLASSIFIED**

Exhibit P-5a, Procurement History and Planning: PB 2016 Army								Date: February 2015				
Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 33			P-1 Line Item Number / Title: E89600 / 60MM Mortar, All Types					Item Number / Title [DODIC]: E92900 / CTG MORTAR 60MM HE M768 SERIES W/PD FUZE [BA45]				
Cost Elements	O C O	FY	Contractor and Location	Method/Type or Funding Vehicle	Location of PCO	Award Date	Date of First Delivery	Qty (Each)	Unit Cost (\$)	Specs Avail Now?	Date Revision Available	RFP Issue Date
LOAD, ASSEMBLE, PACK (LAP) <sup>(†)</sup>		2014	GEN DYNAMICS ORD & TAC SYS - / LE GARDEUR, CANADA	C / IDIQ	ROCK ISLAND ARSENAL, IL	Aug 2014	Aug 2016	60,039	53.39	Y		
LOAD, ASSEMBLE, PACK (LAP) <sup>(†)</sup>		2015	TO BE SELECTED / TBS01	C / IDIQ	ROCK ISLAND ARSENAL, IL	Mar 2015	Mar 2017	63,824	55.00	Y		
LOAD, ASSEMBLE, PACK (LAP) <sup>(†)</sup>		2016	TO BE SELECTED / TBS01	C / IDIQ	ROCK ISLAND ARSENAL, IL	Mar 2016	Mar 2018	54,746	56.10	Y		
SHELL BODY (HF1), 60MM HE		2014	MEDICO INDUSTRIES INC. / WILKES BARRE, PA	C / IDIQ	PICATINNY ARSENAL, NJ	Mar 2014	Sep 2015	61,840	37.39	Y		
SHELL BODY (HF1), 60MM HE		2015	TO BE SELECTED / TBS02	C / IDIQ	PICATINNY ARSENAL, NJ	Feb 2015	Aug 2016	65,739	39.54	Y		
SHELL BODY (HF1), 60MM HE		2016	TO BE SELECTED / TBS02	C / IDIQ	PICATINNY ARSENAL, NJ	Feb 2016	Aug 2017	56,388	40.32	Y		
FIN ASSEMBLY M27		2014	GAYSTON CORPORATION / SPRINGBORO, OH	C / IDIQ	ROCK ISLAND ARSENAL, IL	Mar 2014	Sep 2015	61,840	7.95	Y		
FIN ASSEMBLY M27		2015	TO BE SELECTED / TBS03	C / IDIQ	ROCK ISLAND ARSENAL, IL	Feb 2015	Aug 2016	65,739	9.80	Y		
FIN ASSEMBLY M27		2016	TO BE SELECTED / TBS03	C / IDIQ	ROCK ISLAND ARSENAL, IL	Feb 2016	Aug 2017	56,388	9.99	Y		
M702 IGNITION CARTRIDGE		2014	NAMMO POCAL INC. / SCRANTON, PA	C / IDIQ	ROCK ISLAND ARSENAL, IL	Mar 2014	Sep 2015	61,840	13.25	Y		
M702 IGNITION CARTRIDGE		2015	TO BE SELECTED / TBS04	C / IDIQ	ROCK ISLAND ARSENAL, IL	Feb 2015	Aug 2016	65,739	16.41	Y		
M702 IGNITION CARTRIDGE		2016	TO BE SELECTED / TBS04	C / IDIQ	ROCK ISLAND ARSENAL, IL	Feb 2016	Aug 2017	56,388	16.73	Y		
PROPELLANT CHARGE, M235		2014	AMERICAN ORDNANCE LLC (IAAP) / MIDDLETOWN, IA	C / IDIQ	ROCK ISLAND ARSENAL, IL	Jul 2014	Jan 2016	247,361	8.92	Y		
PROPELLANT CHARGE, M235		2015	TO BE SELECTED / TBS05	C / IDIQ	ROCK ISLAND ARSENAL, IL	Feb 2015	Aug 2016	262,955	10.34	Y		
PROPELLANT CHARGE, M235		2016	TO BE SELECTED / TBS05	C / IDIQ	ROCK ISLAND ARSENAL, IL	Feb 2016	Aug 2017	225,553	10.54	Y		
FUZE POINT DETONATOR M783		2014	L-3 FUZING & ORDANCE SYSTEMS / CINCINNATI, OH	C / FFP	PICATINNY ARSENAL, NJ	Jan 2014	Jul 2015	61,840	158.29	Y		
FUZE POINT DETONATOR M783		2015	TO BE SELECTED / TBS06	C / FFP	PICATINNY ARSENAL, NJ	Feb 2015	Aug 2016	65,739	156.55	Y		
FUZE POINT DETONATOR M783		2016	TO BE SELECTED / TBS06	C / FFP	PICATINNY ARSENAL, NJ	Feb 2016	Aug 2017	56,388	250.00	Y		
PBXW-14 BULK EXPLOSIVE		2014	BAE SYSTEMS ORDNANCE SYSTEMS / KINGSPORT, TN	C / FFP	ROCK ISLAND ARSENAL, IL	Jul 2014	Mar 2016	3,482	80.31	Y		
PBXW-14 BULK EXPLOSIVE		2015	BAE SYSTEMS ORDNANCE SYSTEMS / KINGSPORT, TN	C / FFP	ROCK ISLAND ARSENAL, IL	Feb 2015	Oct 2016	3,702	81.78	Y		
PBXW-14 BULK EXPLOSIVE		2016	BAE SYSTEMS ORDNANCE SYSTEMS / KINGSPORT, TN	C / FFP	ROCK ISLAND ARSENAL, IL	Feb 2016	Oct 2017	3,284	83.41	Y		
EXPLOSIVE FILL IMX-104		2014	BAE SYSTEMS ORDNANCE SYSTEMS / KINGSPORT, TN	C / FFP	ROCK ISLAND ARSENAL, IL	Jul 2014	Mar 2016	102,066	21.90	Y		
EXPLOSIVE FILL IMX-104		2016	BAE SYSTEMS ORDNANCE SYSTEMS / KINGSPORT, TN	C / FFP	ROCK ISLAND ARSENAL, IL	Feb 2016	Oct 2017	164,238	22.74	Y		



**UNCLASSIFIED**

<b>Exhibit P-5a, Procurement History and Planning:</b> PB 2016 Army							<b>Date:</b> February 2015					
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2034A / 01 / 33			<b>P-1 Line Item Number / Title:</b> E89600 / 60MM Mortar, All Types				<b>Item Number / Title [DODIC]:</b> E92900 / CTG MORTAR 60MM HE M768 SERIES W/PD FUZE [BA45]					
Cost Elements	O C O	FY	Contractor and Location	Method/Type or Funding Vehicle	Location of PCO	Award Date	Date of First Delivery	Qty <i>(Each)</i>	Unit Cost <i>(\$)</i>	Specs Avail Now?	Date Revision Available	RFP Issue Date
*EXPLOSIVE FILL IMX-104		2015	GOVERNMENT FURNISHED MATERIAL / STOCK ISSUE,	GFM	ROCK ISLAND ARSENAL, IL	Oct 2014	Oct 2014	108,501	23.33			

(†) indicates the presence of a P-21

**Remarks:**

Ignition Cartridges: IDIQ awarded (Jun 12) to multiple contractors. Requirements will be competed among the following contractors: Pocal Industries, Scranton, PA; American Ordnance, Middletown, IA; and DZI Lonestar LLC., Texarkana, TX. HE LAP: IDIQ awarded (Aug 11) to multiple contractors. Requirements will be competed among the following contractors: Day and Zimmerman, Camden, AR; Day and Zimmerman, Parsons, KS; General Dynamics, LeGardeur, Canada; American Ordnance, Middletown, IA. HE Shell Bodies: IDIQ awarded (Aug 11) to multiple contractors. Requirements will be competed among the following contractors: Medico Industries, Wilkes Barre, PA; Modern Industries, Erie, PA; T&A Screw Products, Terryville, CT. M220 Propellant Charges: IDIQ awarded (Dec 12) to multiple contractors. Requirements will be competed among the following contractors: Day and Zimmerman, Camden, AR; American Ordnance, Middletown, IA; and General Dynamics, Marion IL. Fins: IDIQ awarded (Jul 12) to multiple contractors. Requirements will be competed among the following contractors: Gayston Corp., Springboro, OH and T&A Screw Products, Terryville, CT.

**UNCLASSIFIED**

<b>Exhibit P-21, Production Schedule:</b> PB 2016 Army															<b>Date:</b> February 2015														
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2034A / 01 / 33										<b>P-1 Line Item Number / Title:</b> E89600 / 60MM Mortar, All Types										<b>Item Number / Title [DODIC]:</b> E92900 / CTG MORTAR 60MM HE M768 SERIES W/PD FUZE [BA45]									

Cost Elements <i>(Units in Thousands)</i>						Fiscal Year 2014												Fiscal Year 2015													
O C C #	M F R #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2013	BAL DUE AS OF 1 OCT	Calendar Year 2014												Calendar Year 2015												B A L
							O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	
LOAD, ASSEMBLE, PACK (LAP)																															
	1	2014	ARMY	60.039	-	60.039																							60.039		
	2	2015	ARMY	63.824	-	63.824																							63.824		
	2	2016	ARMY	54.746	-	54.746																							54.746		
							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	B A L

**UNCLASSIFIED**

<b>Exhibit P-21, Production Schedule:</b> PB 2016 Army															<b>Date:</b> February 2015														
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2034A / 01 / 33										<b>P-1 Line Item Number / Title:</b> E89600 / 60MM Mortar, All Types										<b>Item Number / Title [DODIC]:</b> E92900 / CTG MORTAR 60MM HE M768 SERIES W/PD FUZE [BA45]									

Cost Elements <i>(Units in Thousands)</i>						Fiscal Year 2016															Fiscal Year 2017																		
O C C O	M F R #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2015	BAL DUE AS OF 1 OCT	Calendar Year 2016															Calendar Year 2017																	
							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	B A L								
LOAD, ASSEMBLE, PACK (LAP)																																							
	1	2014	ARMY	60.039	-	60.039	-	-	-	-	-	-	-	-	-	-	-	12.000	12.000	12.000	12.000	12.039	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
	2	2015	ARMY	63.824	-	63.824	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	9.824	-
	2	2016	ARMY	54.746	-	54.746																																54.746	
							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	B A L								

**UNCLASSIFIED**

<b>Exhibit P-21, Production Schedule:</b> PB 2016 Army															<b>Date:</b> February 2015														
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2034A / 01 / 33										<b>P-1 Line Item Number / Title:</b> E89600 / 60MM Mortar, All Types										<b>Item Number / Title [DODIC]:</b> E92900 / CTG MORTAR 60MM HE M768 SERIES W/PD FUZE [BA45]									

Cost Elements <i>(Units in Thousands)</i>						Fiscal Year 2018												Fiscal Year 2019													
O C C #	M F R #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2017	BAL DUE AS OF 1 OCT	Calendar Year 2018												Calendar Year 2019												
							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	B A L
LOAD, ASSEMBLE, PACK (LAP)																															
	1	2014	ARMY	60.039	60.039	-																									
	2	2015	ARMY	63.824	63.824	-																									
	2	2016	ARMY	54.746	-	54.746	-	-	-	-	-	12.000	12.000	12.000	18.746																
							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	B A L

**UNCLASSIFIED**

<b>Exhibit P-21, Production Schedule:</b> PB 2016 Army		<b>Date:</b> February 2015
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2034A / 01 / 33		<b>P-1 Line Item Number / Title:</b> E89600 / 60MM Mortar, All Types
<b>Item Number / Title [DODIC]:</b> E92900 / CTG MORTAR 60MM HE M768 SERIES W/PD FUZE [BA45]		

MFR Ref #	MFR Name - Location	Production Rates (Each / Month)			Procurement Leadtime (Months)							
		MSR For 2016	1-8-5 For 2016	MAX For 2016	Initial			Reorder				
					ALT Prior to Oct 1	ALT After Oct 1	Mfg PLT	ALT Prior to Oct 1	ALT After Oct 1	Mfg PLT	Total After Oct 1	
1	GEN DYNAMICS ORD & TAC SYS - - LE GARDEUR, CANADA	6,000	12,000	30,000	6	6	24	30	6	6	24	30
2	TO BE SELECTED - TBS01	6,000	12,000	30,000	6	6	24	30	6	6	24	30

"A" in the Delivery Schedule indicates the Contract Award Date.

Note: Due to space limitations, quantities in the Exhibit P-21 delivery calendar are truncated and rounded based on the maximum quantity in the calendar as follows. If the maximum quantity is less than or equal to than 9,999, all quantities are shown as each. If the maximum quantity is between 10,000 and 999,999 all quantities are shown in thousands. If the maximum quantity is between 1,000,000 and 999,999,999 all quantities are shown in millions (rounded to the nearest thousand). If the maximum quantity is equal or greater than 1,000,000,000 all quantities are shown in billions (rounded to the nearest million).

**UNCLASSIFIED**

<b>Exhibit P-5, Cost Analysis: PB 2016 Army</b>		<b>Date:</b> February 2015
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2034A / 01 / 33	<b>P-1 Line Item Number / Title:</b> E89600 / 60MM Mortar, All Types	<b>Item Number / Title [DODIC]:</b> E98600 / Ctg, Mortar,60MM WP SMOKE M722 SERIES W/PD FUZE [BA14]

<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : A				<b>MDAP/MAIS Code:</b>			
Resource Summary		Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total
Procurement Quantity (Units in Each)		-	-	24,588	-	-	-
Gross/Weapon System Cost (\$ in Millions)		18.955	-	13.011	-	-	-
Less PY Advance Procurement (\$ in Millions)		-	-	-	-	-	-
Net Procurement (P1) (\$ in Millions)		18.955	-	13.011	-	-	-
Plus CY Advance Procurement (\$ in Millions)		-	-	-	-	-	-
<b>Total Obligation Authority (\$ in Millions)</b>		<b>18.955</b>	<b>-</b>	<b>13.011</b>	<b>-</b>	<b>-</b>	<b>-</b>
<i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i>							
Initial Spares (\$ in Millions)		-	-	-	-	-	-
Gross/Weapon System Unit Cost (\$ in Dollars)		-	-	-	-	-	-

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or add, due to rounding.

Cost Elements	Prior Years			FY 2014			FY 2015			FY 2016 Base			FY 2016 OCO			FY 2016 Total		
	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)
Hardware Cost																		
Recurring Cost																		
LOAD, ASSEMBLE, PACK (LAP) <sup>(†)</sup>	-	-	-	-	-	-	107.30	24,588	2.638	-	-	-	-	-	-	-	-	-
FUZE POINT DETONATOR M783 <sup>(†)</sup>	-	-	-	-	-	-	156.55	25,326	3.965	-	-	-	-	-	-	-	-	-
SHELL BODY, 60MM SMOKE <sup>(†)</sup>	-	-	-	-	-	-	39.33	25,326	0.996	-	-	-	-	-	-	-	-	-
M702 IGNITION CARTRIDGE <sup>(†)</sup>	-	-	-	-	-	-	16.41	25,326	0.416	-	-	-	-	-	-	-	-	-
CHG PROP 60MM M204 <sup>(†)</sup>	-	-	-	-	-	-	21.23	101,303	2.151	-	-	-	-	-	-	-	-	-
FIN ASSEMBLY M27 <sup>(†)</sup>	-	-	-	-	-	-	9.80	25,326	0.248	-	-	-	-	-	-	-	-	-
FIBER CONTAINER PA 189, 60MM SMK <sup>(†)</sup>	-	-	-	-	-	-	4.05	25,326	0.103	-	-	-	-	-	-	-	-	-
METAL CONTAINER PA191, 60MM <sup>(†)</sup>	-	-	-	-	-	-	43.54	3,074	0.134	-	-	-	-	-	-	-	-	-
BURSTER HOUSING M216, 60MM SMK <sup>(†)</sup>	-	-	-	-	-	-	15.59	25,326	0.395	-	-	-	-	-	-	-	-	-
BURSTER ASSEMBLY, M85 <sup>(†)</sup>	-	-	-	-	-	-	17.57	25,326	0.445	-	-	-	-	-	-	-	-	-

**UNCLASSIFIED**

<b>Exhibit P-5, Cost Analysis: PB 2016 Army</b>		<b>Date:</b> February 2015
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2034A / 01 / 33	<b>P-1 Line Item Number / Title:</b> E89600 / 60MM Mortar, All Types	<b>Item Number / Title [DODIC]:</b> E98600 / Ctg, Mortar,60MM WP SMOKE M722 SERIES W/PD FUZE [BA14]
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : A		<b>MDAP/MAIS Code:</b>

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or add, due to rounding.

Cost Elements	Prior Years			FY 2014			FY 2015			FY 2016 Base			FY 2016 OCO			FY 2016 Total		
	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)
<i>Subtotal: Recurring Cost</i>	-	-	-	-	-	-	-	-	11.490	-	-	-	-	-	-	-	-	-
<i>Subtotal: Hardware Cost</i>	-	-	-	-	-	-	-	-	11.490	-	-	-	-	-	-	-	-	-
Support Cost																		
PRODUCTION ENGINEERING	-	-	18.955	-	-	-	-	-	1.140	-	-	-	-	-	-	-	-	-
ACCEPTANCE TESTING	-	-	-	-	-	-	-	-	0.200	-	-	-	-	-	-	-	-	-
FIRST ARTICLE TEST	-	-	-	-	-	-	-	-	0.180	-	-	-	-	-	-	-	-	-
<i>Subtotal: Support Cost</i>	-	-	18.955	-	-	-	-	-	1.520	-	-	-	-	-	-	-	-	-
<b>Gross/Weapon System Cost</b>	-	-	18.955	-	-	-	-	24,588	13.011	-	-	-	-	-	-	-	-	-

(t) indicates the presence of a P-5a

**UNCLASSIFIED**

<b>Exhibit P-5a, Procurement History and Planning: PB 2016 Army</b>							<b>Date:</b> February 2015					
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2034A / 01 / 33			<b>P-1 Line Item Number / Title:</b> E89600 / 60MM Mortar, All Types				<b>Item Number / Title [DODIC]:</b> E98600 / Ctg, Mortar, 60MM WP SMOKE M722 SERIES W/PD FUZE [BA14]					

Cost Elements	O C O	FY	Contractor and Location	Method/Type or Funding Vehicle	Location of PCO	Award Date	Date of First Delivery	Qty <i>(Each)</i>	Unit Cost <i>(\$)</i>	Specs Avail Now?	Date Revision Available	RFP Issue Date
LOAD, ASSEMBLE, PACK (LAP) <sup>(†)</sup>		2015	PINE BLUFF ARSENAL / PINE BLUFF, AR	C / FFP	ROCK ISLAND ARSENAL, IL	Feb 2015	Feb 2017	24,588	107.30	Y		
FUZE POINT DETONATOR M783		2015	L-3 FUZING & ORDANCE SYSTEMS / CINCINNATI, OH	C / FFP	PICATINNY ARSENAL, NJ	Feb 2015	Oct 2016	25,326	156.55	Y		
SHELL BODY, 60MM SMOKE		2015	TO BE SELECTED / TBS01	C / FFP	PICATINNY ARSENAL, NJ	Apr 2015	Oct 2016	25,326	39.33	Y		
M702 IGNITION CARTRIDGE		2015	TO BE SELECTED / TBS02	C / IDIQ	ROCK ISLAND ARSENAL, IL	Apr 2015	Oct 2016	25,326	16.41	Y		
CHG PROP 60MM M204		2015	TO BE SELECTED / TBS03	C / IDIQ	PICATINNY ARSENAL, NJ	Apr 2015	Oct 2016	101,303	21.23	Y		
FIN ASSEMBLY M27		2015	TO BE SELECTED / TBS04	C / IDIQ	ROCK ISLAND ARSENAL, IL	Apr 2015	Oct 2016	25,326	9.80	Y		
FIBER CONTAINER PA 189, 60MM SMK		2015	UNITED AMMUNITION CONTAINER / WYNNEWOOD, PA	C / IDIQ	PICATINNY ARSENAL, NJ	Apr 2015	Oct 2016	25,326	4.05	Y		
METAL CONTAINER PA191, 60MM		2015	BWAY CORPORATION / ATLANTA, GA	C / IDIQ	PICATINNY ARSENAL, NJ	Apr 2015	Oct 2016	3,074	43.54	Y		
BURSTER HOUSING M216, 60MM SMK		2015	CRANE ARMY AMMO ACTIVITY / CRANE, IN	C / FFP	ROCK ISLAND ARSENAL, IL	Feb 2015	Aug 2016	25,326	15.59	Y		
BURSTER ASSEMBLY, M85		2015	CRANE ARMY AMMO ACTIVITY / CRANE, IN	C / FFP	ROCK ISLAND ARSENAL, IL	Feb 2015	Aug 2016	25,326	17.57	Y		

<sup>(†)</sup> indicates the presence of a P-21

**Remarks:**

M27 Fins: IDIQ awarded (Feb 11) to multiple contractors. Requirements will be competed among the following contractors: Gayston, Springboro, OH; Flexible Concepts, Elkhart, IN; Cerebrus, Morris Plains, NJ. Ignition Cartridges: IDIQ awarded (June 12) to multiple contractors. Requirements will be competed among the following contractors: Pocal Industries, Scranton, PA; Day and Zimmerman, Camden, AR and American Ordnance, Middleton, IA. M204 Propellant Charges: IDIQ awarded (Dec 12) to multiple contractors. Requirements will be competed among the following contractors: Day and Zimmerman, Camden, AR; American Ordnance, Middletown, IA and General Dynamics, Marion, IL.



**UNCLASSIFIED**

<b>Exhibit P-21, Production Schedule:</b> PB 2016 Army																							<b>Date:</b> February 2015													
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2034A / 01 / 33										<b>P-1 Line Item Number / Title:</b> E89600 / 60MM Mortar, All Types										<b>Item Number / Title [DODIC]:</b> E98600 / Ctg, Mortar,60MM WP SMOKE M722 SERIES W/PD FUZE [BA14]																
<b>Cost Elements</b> <i>(Units in Thousands)</i>						<b>Fiscal Year 2015</b>															<b>Fiscal Year 2016</b>															
<b>O C C O</b>	<b>M F R #</b>	<b>FY</b>	<b>SERVICE</b>	<b>PROC QTY</b>	<b>ACCEPT PRIOR TO 1 OCT 2014</b>	<b>BAL DUE AS OF 1 OCT</b>	<b>Calendar Year 2015</b>															<b>Calendar Year 2016</b>														
							<b>O C T</b>	<b>N O V</b>	<b>D E C</b>	<b>J A N</b>	<b>F E B</b>	<b>M A R</b>	<b>A P R</b>	<b>M A Y</b>	<b>J U N</b>	<b>J U L</b>	<b>A U G</b>	<b>S E P</b>	<b>O C T</b>	<b>N O V</b>	<b>D E C</b>	<b>J A N</b>	<b>F E B</b>	<b>M A R</b>	<b>A P R</b>	<b>M A Y</b>	<b>J U N</b>	<b>J U L</b>	<b>A U G</b>	<b>S E P</b>	<b>B A L</b>					
LOAD, ASSEMBLE, PACK (LAP)																																				
	1	2015	ARMY	24.588	-	24.588						A	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	24.588								

**UNCLASSIFIED**

<b>Exhibit P-21, Production Schedule:</b> PB 2016 Army																							<b>Date:</b> February 2015													
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2034A / 01 / 33										<b>P-1 Line Item Number / Title:</b> E89600 / 60MM Mortar, All Types										<b>Item Number / Title [DODIC]:</b> E98600 / Ctg, Mortar,60MM WP SMOKE M722 SERIES W/PD FUZE [BA14]																
<b>Cost Elements</b> <i>(Units in Thousands)</i>						<b>Fiscal Year 2017</b>															<b>Fiscal Year 2018</b>															
O C C O	M F R #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2016	BAL DUE AS OF 1 OCT	<b>Calendar Year 2017</b>															<b>Calendar Year 2018</b>														
							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	B A L					
LOAD, ASSEMBLE, PACK (LAP)																																				
1	2015	ARMY	24.588	-	24.588	-	-	-	-	24.588																		-								
						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	B A L						

**UNCLASSIFIED**

<b>Exhibit P-21, Production Schedule:</b> PB 2016 Army				<b>Date:</b> February 2015					
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2034A / 01 / 33			<b>P-1 Line Item Number / Title:</b> E89600 / 60MM Mortar, All Types				<b>Item Number / Title [DODIC]:</b> E98600 / Ctg, Mortar,60MM WP SMOKE M722 SERIES W/PD FUZE [BA14]		

MFR Ref #	MFR Name - Location	Production Rates (Each / Month)			Procurement Leadtime (Months)							
		MSR For 2016	1-8-5 For 2016	MAX For 2016	Initial				Reorder			
					ALT Prior to Oct 1	ALT After Oct 1	Mfg PLT	Total After Oct 1	ALT Prior to Oct 1	ALT After Oct 1	Mfg PLT	Total After Oct 1
1	PINE BLUFF ARSENAL - PINE BLUFF, AR	20,000	20,000	32,000	6	6	24	30	6	4	24	28

**Remarks:**  
PRODUCTION LINE SHARED WITH OTHER 60 & 81MM SMOKE & ILLUM ITEMS

"A" in the Delivery Schedule indicates the Contract Award Date.  
 Note: Due to space limitations, quantities in the Exhibit P-21 delivery calendar are truncated and rounded based on the maximum quantity in the calendar as follows. If the maximum quantity is less than or equal to than 9,999, all quantities are shown as each. If the maximum quantity is between 10,000 and 999,999 all quantities are shown in thousands. If the maximum quantity is between 1,000,000 and 999,999,999 all quantities are shown in millions (rounded to the nearest thousand).If the maximum quantity is equal or greater than 1,000,000,000 all quantities are shown in billions (rounded to the nearest million).

**UNCLASSIFIED**

**Exhibit P-40, Budget Line Item Justification:** PB 2016 Army **Date:** February 2015

<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2034A: Procurement of Ammunition, Army / BA 01: Ammunition / BSA 33: Mortar Ammunition	<b>P-1 Line Item Number / Title:</b> E76000 / 81MM Mortar, All Types
---	---

Resource Summary	Prior Years	Program Elements for Code B Items:					Other Related Program Elements:					
		FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	To Complete	Total
Procurement Quantity (Units in Each)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (\$ in Millions)	611.970	24.656	42.433	43.500	4.000	47.500	41.647	37.371	37.838	48.395	-	891.810
Less PY Advance Procurement (\$ in Millions)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P1) (\$ in Millions)	611.970	24.656	42.433	43.500	4.000	47.500	41.647	37.371	37.838	48.395	-	891.810
Plus CY Advance Procurement (\$ in Millions)	-	-	-	-	-	-	-	-	-	-	-	-
<b>Total Obligation Authority (\$ in Millions)</b>	<b>611.970</b>	<b>24.656</b>	<b>42.433</b>	<b>43.500</b>	<b>4.000</b>	<b>47.500</b>	<b>41.647</b>	<b>37.371</b>	<b>37.838</b>	<b>48.395</b>	-	<b>891.810</b>

*(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)*

Initial Spares (\$ in Millions)	-	-	-	-	-	-	-	-	-	-	-	-
Flyaway Unit Cost (\$ in Dollars)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (\$ in Dollars)	-	-	-	-	-	-	-	-	-	-	-	-

**Description:**

This budget line includes 81mm Mortar Ammunition, All Types.

The 81mm Mortar cartridges are designed for use with the M252 Mortar Weapon System used by the Stryker Brigade Combat Teams as well as light infantry battalions including Airborne, Air Assault and Ranger.

**(E18403)CTG, MORTAR, 81MM HE M821 W/MOFM**

The 81mm High Explosive Cartridges are Insensitive Munitions (IM) enhanced, HE rounds. The 81mm HE Cartridges consist of a fuze, a threaded plastic fuze adapter, a HF-1 steel projectile body loaded with approximately 3lbs. of IMX-104 explosive, a plastic obturating ring, a M24 Fin, the M220 Propelling Charges, and a M299 Ignition Cartridge. The M821A2 HE (Range 70 meter minimum to 5,859 meter maximum) also incorporates the highly reliable and countermeasure resistant M734A1 multi-option fuze. When the fuze is set in the proximity mode, it functions at a height over the target that is optimized for lethality. IM features of this cartridge reduce the vulnerability to unplanned stimuli, e.g. fire/heat, shock and impact, while maintaining or exceeding the same level of effectiveness in combat.

These items are Code A, approved for service use.

**(E18404)CTG, MORTAR, 81MM HE M889 SERIES W/PD FUZE**

The 81mm High Explosive Cartridges are Insensitive Munitions (IM) enhanced, HE rounds. The 81mm HE Cartridges consist of a fuze, a threaded plastic fuze adapter, a HF-1 steel projectile body loaded with approximately 3lbs. of IMX-104 explosive, a plastic obturating ring, a M24 Fin, the M220 Propelling Charges, and a M299 Ignition Cartridge. The M889A2 HE (Range 70 meter minimum to 5,859 meter maximum) is used with the new M783 dual safety, point detonating/delay fuze. This round is used primarily in training because it is significantly less expensive than the M821A2, the preferred war fighting round. However, the M889A2 is lethal and can be used in combat.

IM features of this cartridge reduce the vulnerability to unplanned stimuli, e.g. fire/heat, shock and impact, while maintaining or exceeding the same level of effectiveness in combat.

These items are Code A, approved for service use.

**(E69600)CTG, MORTAR, 81MM FRPC M879 SERIES W/PRACTICE FUZE**

The M879 is a low-cost, full range, practice round that will replace a percentage of the standard HE rounds used in 81mm mortar training. The M879 FRPC (Range 70 meter minimum to 5,800 meter maximum) has been designed to provide the user with realistic training at a fraction of the cost. It is identical in shape, size and weight to the M889A2/M821A2 HE cartridges. The flash, bang and smoke signature provided by the M751 fuze is channeled to exhaust holes in the rear of the cartridge through the use of a center vent tube.

This item is Code A, approved for service use.

**UNCLASSIFIED**

<b>Exhibit P-40, Budget Line Item Justification:</b> PB 2016 Army		<b>Date:</b> February 2015
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2034A: Procurement of Ammunition, Army / BA 01: Ammunition / BSA 33: Mortar Ammunition		<b>P-1 Line Item Number / Title:</b> E76000 / 81MM Mortar, All Types
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) :	<b>Program Elements for Code B Items:</b>	<b>Other Related Program Elements:</b>
<p>(E76100)CTG, MORTAR, 81MM VL ILLUM M853 SERIES W/MTSQ FUZE                  The M853A1 cartridge is a fin stabilized, mortar cartridge that consists of a M772 Mechanical Time Super Quick (MTSQ) fuze, a thin wall aluminum body tube and aluminum tail cone that contains the payload (parachute and canister), and a fin assembly that contains the ignition cartridge and propelling charges. The payload is base ejected and upon ignition produces visible light illumination. This visible light illumination allows for monitoring of enemy activities and adjustment of fire at greater observation distances during night operations. It also provides a means for day/night signaling. It is particularly useful in combined operations with allies who may not have night vision devices (NVDs). This round illuminates to the full range of the HE round, which allows adjustment of fire at any distance out to the maximum range. The M853A1 (Range 300 meter minimum and 5,050 maximum) is range-matched to the 81mm High Explosive (HE) and smoke cartridges.                  This item is Code A, approved for service use.</p> <p>(E76200)CTG, MORTAR, 81MM RP SMOKE M819 SERIES W/MTSQ FUZE                  The M819 Cartridge is a fin stabilized thin wall steel body tube containing 28 palletized red phosphorous (RP) wedges; it uses the highly reliable M772 Mechanical Time Super Quick (MTSQ) fuze. After a set time delay, the RP wedges are ejected and dispersed on the target to quickly produce an obscuring smoke screen. A full screen can be developed with 3 rounds as opposed to 15 rounds with the M375 series WP cartridge that is used to create smoke screens to cover movement of troops and/or disrupt visibility of enemy forces.                  This cartridge was modified to include Gas Absorbent Modules (GAMS) that absorb the phosphine gas emitted by the RP to keep the round stable. The M819 (Range 300 meter minimum and 4,900 maximum) is range-matched to the 81mm High Explosive (HE) and Illum cartridges.                  This item is code A, approved for service use.</p>		

**UNCLASSIFIED**

**Exhibit P-40, Budget Line Item Justification:** PB 2016 Army **Date:** February 2015

<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2034A: Procurement of Ammunition, Army / BA 01: Ammunition / BSA 33: Mortar Ammunition	<b>P-1 Line Item Number / Title:</b> E76000 / 81MM Mortar, All Types
---	---

Exhibits Schedule			Program Elements for Code B Items:			Other Related Program Elements:		
Title*	Exhibits	ID CD	Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total
			Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)
E18403 / CTG, MORTAR, 81MM HE M821 SERIES W/MOFM [CA61]	P-5, P-5a, P-21	A	- / 274.634	- / -	14,337 / 9.216	17,298 / 13.122	5,858 / 4.000	23,156 / 17.122
E18404 / CTG, MORTAR 81MM HE M889 SERIES W/PD FUZE [CA63]	P-5, P-5a, P-21	A	- / 83.422	16,543 / 8.292	9,437 / 4.449	8,610 / 5.734	- / -	8,610 / 5.734
E69600 / CTG, MORTAR, 81MM FRPC M879 SERIES W/PRACTICE FUZE [C875]	P-5, P-5a, P-21	A	- / 114.690	23,609 / 4.743	32,020 / 7.091	44,567 / 10.000	- / -	44,567 / 10.000
E76100 / CTG, MORTAR, 81MM VL ILLUM M853 SERIES W/MTSQ FUZE [C871]	P-5, P-5a, P-21	A	- / 81.079	- / -	17,870 / 12.937	11,224 / 8.600	- / -	11,224 / 8.600
E76200 / CTG, MORTAR, 81MM RP SMOKE M819 SERIES W/MTSQ FUZE [C870]	P-5, P-5a, P-21	A	- / 58.145	18,230 / 11.621	12,358 / 8.740	8,379 / 6.044	- / -	8,379 / 6.044
<b>Total Gross/Weapon System Cost</b>			<b>- / 611.970</b>	<b>- / 24.656</b>	<b>- / 42.433</b>	<b>- / 43.500</b>	<b>- / 4.000</b>	<b>- / 47.500</b>

\*Title represents 1) the Number / Title for Items; 2) the Number / Title [DODIC] for Ammunition; and/or 3) the Number / Title (Modification Type) for Modifications.

Note: Totals in this Exhibit P-40 set may not be exact or add due to rounding.

**Justification:**  
 FY 2016 Base Budget supports critical Army Title 10 war reserve/operational, training, and test requirements IAW DoD Instruction 3000.04 (Munitions Requirements Process) and AR 5-13 (Total Army Munitions Requirements Process and Prioritization System). War reserve requirements support OSD-approved Combatant Commander Operational Plans, Homeland Defense, and other OSD-directed missions. Training requirements support individual and collective training of Active and Reserve Component forces at Army schools, home station, and the combined training centers. Test requirements support the development, fielding, safety, and quality assurance of Army munitions and equipment throughout their life-cycle.

In accordance with Section 1815 of the FY 2008 National Defense Authorization Act (P.L. 110-181), this item is necessary for use by the active and reserve components of the Armed Forces for homeland defense missions, domestic emergency responses, and providing military support to civil authorities.

FY 2016 Base procurement dollars in the amount of \$43.500 million supports production of 90,078 cartridges. FY16 OCO procurement dollars in the amount of \$4.000 million supports production of 5,858 cartridges. Funds are required to replenish munitions expended in combat operations in theater.

E18403 - CTG, MORTAR, 81MM HE M821 SERIES W/MOFM  
 This is a training standard item used in training and combat. FY 2016 request supports annual training and builds a war reserve inventory in accordance with the Army's procurement goals.  
 TYPE CLASSIFICATION DATE: June 1996  
 FY 2016 Base procurement dollars in the amount of \$13.122 million supports production of 17,298 cartridges.  
 FY 2016 OCO procurement dollars in the amount of \$4.000 million supports production of 5,858 cartridges. Funds are required to replenish munitions expended in combat operations in theater.

E18404 - CTG, MORTAR 81MM HE M889 SERIES W/PD FUZE  
 This is a training standard item used in training and combat. FY 2016 request supports annual training and builds a war reserve inventory in accordance with the Army's procurement goals.  
 TYPE CLASSIFICATION DATE: July 2009  
 FY 2016 Base procurement dollars in the amount of \$5.734 million supports production of 8,610 cartridges.

E69600 - CTG, MORTAR, 81MM FRPC M879 SERIES W/PRACTICE FUZE  
 This is a training standard item used in training and combat. FY 2016 request supports annual training and builds a war reserve inventory in accordance with the Army's procurement goals.  
 TYPE CLASSIFICATION DATE: August 1986

UNCLASSIFIED

<b>Exhibit P-40, Budget Line Item Justification:</b> PB 2016 Army		<b>Date:</b> February 2015
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2034A: Procurement of Ammunition, Army / BA 01: Ammunition / BSA 33: Mortar Ammunition		<b>P-1 Line Item Number / Title:</b> E76000 / 81MM Mortar, All Types
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) :	<b>Program Elements for Code B Items:</b>	<b>Other Related Program Elements:</b>
FY 2016 Base procurement dollars in the amount of \$10.000 million supports production of 44,567 cartridges.		
E76100 - CTG, MORTAR, 81MM VL ILLUM M853 SERIES W/MTSQ FUZE This is a training standard item used in training and combat. FY 2016 request supports annual training and builds a war reserve inventory in accordance with the Army procurement goals. TYPE CLASSIFICATION DATE: December 1986 FY 2016 Base procurement dollars in the amount of \$8.600 million supports production of 11,224 cartridges.		
E76200 - CTG, MORTAR, 81MM RP SMOKE M819 SERIES W/MTSQ FUZE This is a training standard item used in training and combat. FY 2016 request supports annual training and builds a war reserve inventory in accordance with the Army procurement goals. TYPE CLASSIFICATION DATE: December 1986 FY 2016 Base procurement dollars in the amount of \$6.044 million supports production of 8,379 cartridges.		

**UNCLASSIFIED**

<b>Exhibit P-5, Cost Analysis: PB 2016 Army</b>		<b>Date:</b> February 2015
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2034A / 01 / 33	<b>P-1 Line Item Number / Title:</b> E76000 / 81MM Mortar, All Types	<b>Item Number / Title [DODIC]:</b> E18403 / CTG, MORTAR, 81MM HE M821 SERIES W/MOFM [CA61]

<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : A				<b>MDAP/MAIS Code:</b>			
<b>Resource Summary</b>		<b>Prior Years</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016 Base</b>	<b>FY 2016 OCO</b>	<b>FY 2016 Total</b>
Procurement Quantity (Units in Each)		-	-	14,337	17,298	5,858	23,156
Gross/Weapon System Cost (\$ in Millions)		274.634	-	9.216	13.122	4.000	17.122
Less PY Advance Procurement (\$ in Millions)		-	-	-	-	-	-
Net Procurement (P1) (\$ in Millions)		274.634	-	9.216	13.122	4.000	17.122
Plus CY Advance Procurement (\$ in Millions)		-	-	-	-	-	-
<b>Total Obligation Authority (\$ in Millions)</b>		<b>274.634</b>	<b>-</b>	<b>9.216</b>	<b>13.122</b>	<b>4.000</b>	<b>17.122</b>
<i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i>							
Initial Spares (\$ in Millions)		-	-	-	-	-	-
Gross/Weapon System Unit Cost (\$ in Dollars)		-	-	642.81	758.58	682.83	739.42

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or add, due to rounding.

<b>Cost Elements</b>	<b>Prior Years</b>			<b>FY 2014</b>			<b>FY 2015</b>			<b>FY 2016 Base</b>			<b>FY 2016 OCO</b>			<b>FY 2016 Total</b>		
	<b>Unit Cost (\$)</b>	<b>Qty (Each)</b>	<b>Total Cost (\$ M)</b>	<b>Unit Cost (\$)</b>	<b>Qty (Each)</b>	<b>Total Cost (\$ M)</b>	<b>Unit Cost (\$)</b>	<b>Qty (Each)</b>	<b>Total Cost (\$ M)</b>	<b>Unit Cost (\$)</b>	<b>Qty (Each)</b>	<b>Total Cost (\$ M)</b>	<b>Unit Cost (\$)</b>	<b>Qty (Each)</b>	<b>Total Cost (\$ M)</b>	<b>Unit Cost (\$)</b>	<b>Qty (Each)</b>	<b>Total Cost (\$ M)</b>
Hardware Cost																		
Recurring Cost																		
LOAD, ASSEMBLE, PACK (LAP) <sup>(†)</sup>	-	-	-	-	-	-	81.07	14,337	1.162	82.68	17,298	1.430	82.68	5,858	0.484	82.68	23,156	1.915
FUZE MOFM, M734A1 <sup>(†)</sup>	-	-	-	-	-	-	327.80	14,767	4.841	334.33	17,817	5.956	334.33	6,035	2.017	334.33	23,852	7.974
SHELL BODY, 81MM HE <sup>(†)</sup>	-	-	-	-	-	-	50.49	14,767	0.746	51.49	17,816	0.917	51.49	6,034	0.311	51.49	23,850	1.228
IGN CTG M299 <sup>(†)</sup>	-	-	-	-	-	-	17.02	14,767	0.251	17.36	17,816	0.309	17.36	6,034	0.105	17.36	23,850	0.414
CHG PROP 81MM M220 <sup>(†)</sup>	-	-	-	-	-	-	12.69	59,068	0.750	12.94	71,267	0.922	12.94	24,134	0.312	12.94	95,401	1.235
FIN MORTAR CTG M24 F/81MM <sup>(†)</sup>	-	-	-	-	-	-	15.81	14,767	0.233	16.12	17,816	0.287	16.12	6,034	0.097	16.12	23,850	0.384
PBXW-14 BULK EXPLOSIVE <sup>(†)</sup>	-	-	-	-	-	-	81.78	1,663	0.136	83.41	2,072	0.173	83.41	703	0.059	83.41	2,775	0.232
EXPLOSIVE FILL IMX-104 <sup>(†)</sup>	-	-	-	-	-	-	-	-	-	22.73	72,651	1.651	22.73	24,604	0.559	22.73	97,255	2.211
*EXPLOSIVE FILL IMX-104 <sup>(†)</sup>	-	-	-	-	-	-	23.33	46,595	1.087	-	-	-	-	-	-	-	-	-
<i>Subtotal: Recurring Cost</i>	-	-	-	-	-	-	-	-	9.206	-	-	11.647	-	-	3.945	-	-	15.592
<i>Subtotal: Hardware Cost</i>	-	-	-	-	-	-	-	-	9.206	-	-	11.647	-	-	3.945	-	-	15.592
Support Cost																		



**UNCLASSIFIED**

<b>Exhibit P-5, Cost Analysis: PB 2016 Army</b>		<b>Date:</b> February 2015
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2034A / 01 / 33	<b>P-1 Line Item Number / Title:</b> E76000 / 81MM Mortar, All Types	<b>Item Number / Title [DODIC]:</b> E18403 / CTG, MORTAR, 81MM HE M821 SERIES W/MOFM [CA61]
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : A		<b>MDAP/MAIS Code:</b>

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or add, due to rounding.

Cost Elements	Prior Years			FY 2014			FY 2015			FY 2016 Base			FY 2016 OCO			FY 2016 Total		
	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)
PRODUCTION ENGINEERING	-	-	274.634	-	-	-	-	-	0.922	-	-	1.311	-	-	0.001	-	-	1.312
ACCEPTANCE TESTING	-	-	-	-	-	-	-	-	0.125	-	-	0.165	-	-	0.054	-	-	0.219
FIRST ARTICLE TEST	-	-	-	-	-	-	-	-	0.050	-	-	-	-	-	-	-	-	-
*GOVERNMENT FURNISHED MATERIAL	-	-	-	-	-	-	-	-	-1.087	-	-	-	-	-	-	-	-	-
<i>Subtotal: Support Cost</i>	-	-	274.634	-	-	-	-	-	0.010	-	-	1.476	-	-	0.055	-	-	1.531
<b>Gross/Weapon System Cost</b>	-	-	274.634	-	-	-	642.81	14,337	9.216	758.58	17,298	13.122	682.83	5,858	4.000	739.42	23,156	17.122

(t) indicates the presence of a P-5a

**UNCLASSIFIED**

Exhibit P-5a, Procurement History and Planning: PB 2016 Army								Date: February 2015				
Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 33			P-1 Line Item Number / Title: E76000 / 81MM Mortar, All Types					Item Number / Title [DODIC]: E18403 / CTG, MORTAR, 81MM HE M821 SERIES W/MOFM [CA61]				
Cost Elements	O C O	FY	Contractor and Location	Method/Type or Funding Vehicle	Location of PCO	Award Date	Date of First Delivery	Qty <i>(Each)</i>	Unit Cost <i>(\$)</i>	Specs Avail Now?	Date Revision Available	RFP Issue Date
LOAD, ASSEMBLE, PACK (LAP) <sup>(†)</sup>		2015	TO BE SELECTED / TBS01	C / IDIQ	ROCK ISLAND ARSENAL, IL	Mar 2015	Mar 2017	14,337	81.07	Y		
LOAD, ASSEMBLE, PACK (LAP) <sup>(†)</sup>		2016	TO BE SELECTED / TBS01	C / IDIQ	ROCK ISLAND ARSENAL, IL	Mar 2016	Mar 2018	23,156	82.68	Y		
FUZE MOFM, M734A1		2015	TO BE SELECTED / TBS02	C / FFP	PICATINNY ARSENAL, NJ	Apr 2015	Dec 2016	14,767	327.80	Y		
FUZE MOFM, M734A1		2016	TO BE SELECTED / TBS02	C / FFP	PICATINNY ARSENAL, NJ	Feb 2016	Oct 2017	23,852	334.33	Y		
SHELL BODY, 81MM HE		2015	TO BE SELECTED / TBS03	C / IDIQ	PICATINNY ARSENAL, NJ	Apr 2015	Oct 2016	14,767	50.49	Y		
SHELL BODY, 81MM HE		2016	TO BE SELECTED / TBS03	C / IDIQ	PICATINNY ARSENAL, NJ	Feb 2016	Aug 2017	23,850	51.49	Y		
IGN CTG M299		2015	TO BE SELECTED / TBS04	C / IDIQ	ROCK ISLAND ARSENAL, IL	Apr 2015	Oct 2016	14,767	17.02	Y		
IGN CTG M299		2016	TO BE SELECTED / TBS04	C / IDIQ	ROCK ISLAND ARSENAL, IL	Feb 2016	Aug 2017	23,850	17.36	Y		
CHG PROP 81MM M220		2015	TO BE SELECTED / TBS05	C / IDIQ	ROCK ISLAND ARSENAL, IL	Apr 2015	Oct 2016	59,068	12.69	Y		
CHG PROP 81MM M220		2016	TO BE SELECTED / TBS05	C / IDIQ	ROCK ISLAND ARSENAL, IL	Feb 2016	Aug 2017	95,401	12.94	Y		
FIN MORTAR CTG M24 F/81MM		2015	TO BE SELECTED / TBS06	C / IDIQ	PICATINNY ARSENAL, NJ	Apr 2015	Oct 2016	14,767	15.81	Y		
FIN MORTAR CTG M24 F/81MM		2016	TO BE SELECTED / TBS06	C / IDIQ	PICATINNY ARSENAL, NJ	Feb 2016	Aug 2017	23,850	16.12	Y		
PBXW-14 BULK EXPLOSIVE		2015	BAE SYSTEMS ORDNANCE SYSTEMS / KINGSPORT, TN	C / FFP	ROCK ISLAND ARSENAL, IL	Mar 2015	Nov 2016	1,663	81.78	Y		
PBXW-14 BULK EXPLOSIVE		2016	BAE SYSTEMS ORDNANCE SYSTEMS / KINGSPORT, TN	C / FFP	ROCK ISLAND ARSENAL, IL	Mar 2016	Nov 2017	2,775	83.41	Y		
EXPLOSIVE FILL IMX-104		2016	BAE SYSTEMS ORDNANCE SYSTEMS / KINGSPORT, TN	C / FFP	ROCK ISLAND ARSENAL, IL	Mar 2016	Nov 2017	97,255	22.73	Y		
*EXPLOSIVE FILL IMX-104		2015	GOVERNMENT FURNISHED MATERIAL / STOCK ISSUE,	GFM	ROCK ISLAND ARSENAL, IL	Oct 2014	Oct 2014	46,595	23.33			

<sup>(†)</sup> indicates the presence of a P-21

**Remarks:**

Ignition Cartridges: IDIQ awarded (Jun 12) to multiple contractors. Requirements will be competed among the following contractors: Pocal Industries, Scranton, PA; DZI Lonestar LLC., Texarkana, TX and American Ordnance, Middletown, IA. HE LAP: IDIQ awarded (Aug 11) to multiple contractors. Requirements will be competed among the following contractors: Day and Zimmerman, Camden, AR; Day and Zimmerman, Parsons, KS; General Dynamics, LeGardeur, Canada; American Ordnance, Middletown, IA. HE Shell Bodies: IDIQ awarded (Aug 11) to multiple contractors. Requirements will be competed among the following contractors: Medico Industries, Wilkes Barre, PA; Modern Industries, Erie, PA; T&A Screw Products, Terryville, CT. Propellant Charges: IDIQ awarded (Dec 12) to multiple contractors. Requirements will be competed among the following contractors: General Dynamics, Marion, IL; Day and Zimmerman, Camden, AR and American Ordnance, Middletown, IA. Fins: IDIQ awarded (Sep 11) to multiple contractors. Requirements will be competed among the following contractors: Flexible Concepts Inc. Elkhart, IN and Gayston Corp., Springboro, OH.

**UNCLASSIFIED**

<b>Exhibit P-21, Production Schedule:</b> PB 2016 Army																							<b>Date:</b> February 2015														
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2034A / 01 / 33											<b>P-1 Line Item Number / Title:</b> E76000 / 81MM Mortar, All Types											<b>Item Number / Title [DODIC]:</b> E18403 / CTG, MORTAR, 81MM HE M821 SERIES W/MOFM [CA61]															
<b>Cost Elements</b> <i>(Units in Thousands)</i>							<b>Fiscal Year 2015</b>															<b>Fiscal Year 2016</b>															
<b>O C C #</b>	<b>M F R #</b>	<b>FY</b>	<b>SERVICE</b>	<b>PROC QTY</b>	<b>ACCEPT PRIOR TO 1 OCT 2014</b>	<b>BAL DUE AS OF 1 OCT</b>	<b>Calendar Year 2015</b>															<b>Calendar Year 2016</b>															
							<b>O C T</b>	<b>N O V</b>	<b>D E C</b>	<b>J A N</b>	<b>F E B</b>	<b>M A R</b>	<b>A P R</b>	<b>M A Y</b>	<b>J U N</b>	<b>J U L</b>	<b>A U G</b>	<b>S E P</b>	<b>O C T</b>	<b>N O V</b>	<b>D E C</b>	<b>J A N</b>	<b>F E B</b>	<b>M A R</b>	<b>A P R</b>	<b>M A Y</b>	<b>J U N</b>	<b>J U L</b>	<b>A U G</b>	<b>S E P</b>	<b>B A L</b>						
LOAD, ASSEMBLE, PACK (LAP)																																					
	1	2015	ARMY	14.337	-	14.337																										14.337					
	1	2016	ARMY	23.156	-	23.156																										23.156					
							<b>O C T</b>	<b>N O V</b>	<b>D E C</b>	<b>J A N</b>	<b>F E B</b>	<b>M A R</b>	<b>A P R</b>	<b>M A Y</b>	<b>J U N</b>	<b>J U L</b>	<b>A U G</b>	<b>S E P</b>	<b>O C T</b>	<b>N O V</b>	<b>D E C</b>	<b>J A N</b>	<b>F E B</b>	<b>M A R</b>	<b>A P R</b>	<b>M A Y</b>	<b>J U N</b>	<b>J U L</b>	<b>A U G</b>	<b>S E P</b>	<b>B A L</b>						

**UNCLASSIFIED**

<b>Exhibit P-21, Production Schedule:</b> PB 2016 Army																							<b>Date:</b> February 2015										
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2034A / 01 / 33											<b>P-1 Line Item Number / Title:</b> E76000 / 81MM Mortar, All Types											<b>Item Number / Title [DODIC]:</b> E18403 / CTG, MORTAR, 81MM HE M821 SERIES W/MOFM [CA61]											
<b>Cost Elements</b> <i>(Units in Thousands)</i>						<b>Fiscal Year 2017</b>											<b>Fiscal Year 2018</b>																
O C C #	M F R #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2016	BAL DUE AS OF 1 OCT	<b>Calendar Year 2017</b>														<b>Calendar Year 2018</b>												B A L
							O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P			
LOAD, ASSEMBLE, PACK (LAP)																																	
	1	2015	ARMY	14.337	-	14.337	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-					
	1	2016	ARMY	23.156	-	23.156	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-					
							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	B A L		

**UNCLASSIFIED**

<b>Exhibit P-21, Production Schedule:</b> PB 2016 Army		<b>Date:</b> February 2015
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2034A / 01 / 33		<b>P-1 Line Item Number / Title:</b> E76000 / 81MM Mortar, All Types
		<b>Item Number / Title [DODIC]:</b> E18403 / CTG, MORTAR, 81MM HE M821 SERIES W/MOFM [CA61]

MFR Ref #	MFR Name - Location	Production Rates (Each / Month)			Procurement Leadtime (Months)							
		MSR For 2016	1-8-5 For 2016	MAX For 2016	Initial				Reorder			
					ALT Prior to Oct 1	ALT After Oct 1	Mfg PLT	Total After Oct 1	ALT Prior to Oct 1	ALT After Oct 1	Mfg PLT	Total After Oct 1
1	TO BE SELECTED - TBS01	6,000	12,000	30,000	6	6	24	30	6	6	24	30

"A" in the Delivery Schedule indicates the Contract Award Date.

Note: Due to space limitations, quantities in the Exhibit P-21 delivery calendar are truncated and rounded based on the maximum quantity in the calendar as follows. If the maximum quantity is less than or equal to than 9,999, all quantities are shown as each. If the maximum quantity is between 10,000 and 999,999 all quantities are shown in thousands. If the maximum quantity is between 1,000,000 and 999,999,999 all quantities are shown in millions (rounded to the nearest thousand). If the maximum quantity is equal or greater than 1,000,000,000 all quantities are shown in billions (rounded to the nearest million).

**UNCLASSIFIED**

<b>Exhibit P-5, Cost Analysis: PB 2016 Army</b>		<b>Date:</b> February 2015
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2034A / 01 / 33	<b>P-1 Line Item Number / Title:</b> E76000 / 81MM Mortar, All Types	<b>Item Number / Title [DODIC]:</b> E18404 / CTG, MORTAR 81MM HE M889 SERIES W/PD FUZE [CA63]

<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : A	<b>MDAP/MAIS Code:</b>
---	------------------------

<b>Resource Summary</b>	<b>Prior Years</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016 Base</b>	<b>FY 2016 OCO</b>	<b>FY 2016 Total</b>
Procurement Quantity (Units in Each)	-	16,543	9,437	8,610	-	8,610
Gross/Weapon System Cost (\$ in Millions)	83.422	8.292	4.449	5.734	-	5.734
Less PY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
Net Procurement (P1) (\$ in Millions)	83.422	8.292	4.449	5.734	-	5.734
Plus CY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
<b>Total Obligation Authority (\$ in Millions)</b>	<b>83.422</b>	<b>8.292</b>	<b>4.449</b>	<b>5.734</b>	<b>-</b>	<b>5.734</b>

*(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)*

Initial Spares (\$ in Millions)	-	-	-	-	-	-
Gross/Weapon System Unit Cost (\$ in Dollars)	-	-	-	-	-	-

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or add, due to rounding.

<b>Cost Elements</b>	<b>Prior Years</b>			<b>FY 2014</b>			<b>FY 2015</b>			<b>FY 2016 Base</b>			<b>FY 2016 OCO</b>			<b>FY 2016 Total</b>		
	<b>Unit Cost (\$)</b>	<b>Qty (Each)</b>	<b>Total Cost (\$ M)</b>	<b>Unit Cost (\$)</b>	<b>Qty (Each)</b>	<b>Total Cost (\$ M)</b>	<b>Unit Cost (\$)</b>	<b>Qty (Each)</b>	<b>Total Cost (\$ M)</b>	<b>Unit Cost (\$)</b>	<b>Qty (Each)</b>	<b>Total Cost (\$ M)</b>	<b>Unit Cost (\$)</b>	<b>Qty (Each)</b>	<b>Total Cost (\$ M)</b>	<b>Unit Cost (\$)</b>	<b>Qty (Each)</b>	<b>Total Cost (\$ M)</b>
<b>Hardware Cost</b>																		
<b>Recurring Cost</b>																		
LOAD, ASSEMBLE, PACK (LAP) <sup>(†)</sup>	-	-	-	70.97	16,543	1.174	81.07	9,437	0.765	82.68	8,610	0.712	-	-	-	82.68	8,610	0.712
FUZE POINT DETONATOR M783 <sup>(†)</sup>	-	-	-	158.29	17,039	2.697	156.55	9,720	1.522	250.00	8,868	2.217	-	-	-	250.00	8,868	2.217
SHELL BODY, 81MM HE <sup>(†)</sup>	-	-	-	48.63	17,039	0.829	50.49	9,720	0.491	51.49	8,868	0.457	-	-	-	51.49	8,868	0.457
IGN CTG M299 <sup>(†)</sup>	-	-	-	14.35	17,039	0.245	17.02	9,720	0.165	17.36	8,868	0.154	-	-	-	17.36	8,868	0.154
CHG PROP 81MM M220 <sup>(†)</sup>	-	-	-	10.50	68,157	0.716	12.69	38,880	0.493	12.94	35,473	0.459	-	-	-	12.94	35,473	0.459
FIN MORTAR CTG M24 F/81MM <sup>(†)</sup>	-	-	-	14.95	17,039	0.255	15.81	9,720	0.154	16.12	8,868	0.143	-	-	-	16.12	8,868	0.143
PBXW-14 BULK EXPLOSIVE <sup>(†)</sup>	-	-	-	80.31	1,919	0.154	81.78	1,095	0.090	83.41	1,033	0.086	-	-	-	83.41	1,033	0.086
EXPLOSIVE FILL IMX-104 <sup>(†)</sup>	-	-	-	21.90	53,765	1.177	-	-	-	22.74	36,162	0.822	-	-	-	22.74	36,162	0.822
*EXPLOSIVE FILL IMX-104 <sup>(†)</sup>	-	-	-	-	-	-	23.33	30,670	0.716	-	-	-	-	-	-	-	-	-
<i>Subtotal: Recurring Cost</i>	-	-	-	-	-	7.246	-	-	4.395	-	-	5.050	-	-	-	-	-	5.050
<i>Subtotal: Hardware Cost</i>	-	-	-	-	-	7.246	-	-	4.395	-	-	5.050	-	-	-	-	-	5.050
<b>Support Cost</b>																		

**UNCLASSIFIED**

<b>Exhibit P-5, Cost Analysis: PB 2016 Army</b>		<b>Date:</b> February 2015
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2034A / 01 / 33		<b>P-1 Line Item Number / Title:</b> E76000 / 81MM Mortar, All Types
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : A		<b>MDAP/MAIS Code:</b>
<b>Item Number / Title [DODIC]:</b> E18404 / CTG, MORTAR 81MM HE M889 SERIES W/PD FUZE [CA63]		

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or add, due to rounding.

Cost Elements	Prior Years			FY 2014			FY 2015			FY 2016 Base			FY 2016 OCO			FY 2016 Total		
	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)
PRODUCTION ENGINEERING	-	-	83.422	-	-	0.867	-	-	0.489	-	-	0.574	-	-	-	-	-	0.574
ACCEPTANCE TESTING	-	-	-	-	-	0.128	-	-	0.110	-	-	0.110	-	-	-	-	-	0.110
FIRST ARTICLE TEST	-	-	-	-	-	0.050	-	-	0.170	-	-	-	-	-	-	-	-	-
*GOVERNMENT FURNISHED MATERIAL	-	-	-	-	-	-	-	-	-0.716	-	-	-	-	-	-	-	-	-
<i>Subtotal: Support Cost</i>	-	-	83.422	-	-	1.045	-	-	0.053	-	-	0.684	-	-	-	-	-	0.684
<b>Gross/Weapon System Cost</b>	-	-	83.422	-	16,543	8.292	-	9,437	4.449	-	8,610	5.734	-	-	-	-	8,610	5.734

(t) indicates the presence of a P-5a

**UNCLASSIFIED**

Exhibit P-5a, Procurement History and Planning: PB 2016 Army								Date: February 2015				
Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 33			P-1 Line Item Number / Title: E76000 / 81MM Mortar, All Types					Item Number / Title [DODIC]: E18404 / CTG, MORTAR 81MM HE M889 SERIES W/PD FUZE [CA63]				
Cost Elements	O C O	FY	Contractor and Location	Method/Type or Funding Vehicle	Location of PCO	Award Date	Date of First Delivery	Qty (Each)	Unit Cost (\$)	Specs Avail Now?	Date Revision Available	RFP Issue Date
LOAD, ASSEMBLE, PACK (LAP) <sup>(†)</sup>		2014	GEN DYNAMICS ORD & TAC SYS - / LE GARDEUR, CANADA	C / IDIQ	ROCK ISLAND ARSENAL, IL	Aug 2014	Aug 2016	16,543	70.97	Y		
LOAD, ASSEMBLE, PACK (LAP) <sup>(†)</sup>		2015	TO BE SELECTED / TBS01	C / IDIQ	ROCK ISLAND ARSENAL, IL	Mar 2015	Mar 2017	9,437	81.07	Y		
LOAD, ASSEMBLE, PACK (LAP) <sup>(†)</sup>		2016	TO BE SELECTED / TBS01	C / IDIQ	ROCK ISLAND ARSENAL, IL	Mar 2016	Mar 2018	8,610	82.68	Y		
FUZE POINT DETONATOR M783		2014	L-3 FUZING & ORDANCE SYSTEMS / CINCINNATI, OH	C / FFP	PICATINNY ARSENAL, NJ	Dec 2013	Aug 2015	17,039	158.29	Y		
FUZE POINT DETONATOR M783		2015	L-3 FUZING & ORDANCE SYSTEMS / CINCINNATI, OH	C / FFP	PICATINNY ARSENAL, NJ	Feb 2015	Oct 2016	9,720	156.55	Y		
FUZE POINT DETONATOR M783		2016	TO BE SELECTED / TBS02	C / FFP	PICATINNY ARSENAL, NJ	Feb 2016	Oct 2017	8,868	250.00	Y		
SHELL BODY, 81MM HE		2014	MEDICO INDUSTRIES INC. / WILKES BARRE, PA	C / IDIQ	PICATINNY ARSENAL, NJ	Feb 2014	Aug 2015	17,039	48.63	Y		
SHELL BODY, 81MM HE		2015	TO BE SELECTED / TBS03	C / IDIQ	PICATINNY ARSENAL, NJ	Apr 2015	Oct 2016	9,720	50.49	Y		
SHELL BODY, 81MM HE		2016	TO BE SELECTED / TBS03	C / IDIQ	PICATINNY ARSENAL, NJ	Feb 2016	Aug 2017	8,868	51.49	Y		
IGN CTG M299		2014	NAMMO POCAL INC. / SCRANTON, PA	C / FFP	PICATINNY ARSENAL, NJ	Mar 2014	Sep 2015	17,039	14.35	Y		
IGN CTG M299		2015	TO BE SELECTED / TBS04	C / IDIQ	ROCK ISLAND ARSENAL, IL	Apr 2015	Oct 2016	9,720	17.02	Y		
IGN CTG M299		2016	TO BE SELECTED / TBS04	C / IDIQ	ROCK ISLAND ARSENAL, IL	Feb 2016	Aug 2017	8,868	17.36	Y		
CHG PROP 81MM M220		2014	GENERAL DYNAMICS ORD & TAC / MARION, IL	C / IDIQ	PICATINNY ARSENAL, NJ	May 2014	Nov 2015	68,157	10.50	Y		
CHG PROP 81MM M220		2015	TO BE SELECTED / TBS05	C / IDIQ	ROCK ISLAND ARSENAL, IL	Apr 2015	Oct 2016	38,880	12.69	Y		
CHG PROP 81MM M220		2016	TO BE SELECTED / TBS05	C / IDIQ	ROCK ISLAND ARSENAL, IL	Feb 2016	Aug 2017	35,473	12.94	Y		
FIN MORTAR CTG M24 F/81MM		2014	GAYSTON CORPORATION / SPRINGBORO, OH	C / IDIQ	ROCK ISLAND ARSENAL, IL	Apr 2014	Oct 2015	17,039	14.95	Y		
FIN MORTAR CTG M24 F/81MM		2015	TO BE SELECTED / TBS06	C / IDIQ	PICATINNY ARSENAL, NJ	Feb 2015	Aug 2016	9,720	15.81	Y		
FIN MORTAR CTG M24 F/81MM		2016	TO BE SELECTED / TBS06	C / IDIQ	PICATINNY ARSENAL, NJ	Feb 2016	Aug 2017	8,868	16.12	Y		
PBXW-14 BULK EXPLOSIVE		2014	BAE SYSTEMS ORDNANCE SYSTEMS / KINGSPORT, TN	C / FFP	ROCK ISLAND ARSENAL, IL	Aug 2014	Apr 2015	1,919	80.31	Y		
PBXW-14 BULK EXPLOSIVE		2015	BAE SYSTEMS ORDNANCE SYSTEMS / KINGSPORT, TN	C / FFP	ROCK ISLAND ARSENAL, IL	Apr 2015	Dec 2016	1,095	81.78	Y		
PBXW-14 BULK EXPLOSIVE		2016	BAE SYSTEMS ORDNANCE SYSTEMS / KINGSPORT, TN	C / FFP	ROCK ISLAND ARSENAL, IL	Feb 2016	Oct 2017	1,033	83.41	Y		
EXPLOSIVE FILL IMX-104		2014	BAE SYSTEMS ORDNANCE SYSTEMS / KINGSPORT, TN	C / FFP	ROCK ISLAND ARSENAL, IL	Aug 2014	Apr 2015	53,765	21.90	Y		
EXPLOSIVE FILL IMX-104		2016	BAE SYSTEMS ORDNANCE SYSTEMS / KINGSPORT, TN	C / FFP	ROCK ISLAND ARSENAL, IL	Mar 2016	Nov 2017	36,162	22.74	Y		



**UNCLASSIFIED**

<b>Exhibit P-5a, Procurement History and Planning:</b> PB 2016 Army							<b>Date:</b> February 2015					
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2034A / 01 / 33			<b>P-1 Line Item Number / Title:</b> E76000 / 81MM Mortar, All Types				<b>Item Number / Title [DODIC]:</b> E18404 / CTG, MORTAR 81MM HE M889 SERIES W/PD FUZE [CA63]					
Cost Elements	O C O	FY	Contractor and Location	Method/Type or Funding Vehicle	Location of PCO	Award Date	Date of First Delivery	Qty <i>(Each)</i>	Unit Cost <i>(\$)</i>	Specs Avail Now?	Date Revision Available	RFP Issue Date
*EXPLOSIVE FILL IMX-104		2015	GOVERNMENT FURNISHED MATERIAL / STOCK ISSUE,	GFM	ROCK ISLAND ARSENAL, IL	Oct 2014	Oct 2014	30,670	23.33			

(†) indicates the presence of a P-21

**Remarks:**

Ignition Cartridges: IDIQ awarded (Jun 12) to multiple contractors. Requirements will be competed among the following contractors: Pocal Industries, Scranton, PA; American Ordnance, Middletown, IA; and DZI Lonestar LLC., Texarkana, TX. HE LAP: IDIQ awarded (Aug 11) to multiple contractors. Requirements will be competed among the following contractors: Day and Zimmerman, Camden, AR; Day and Zimmerman, Parsons, KS; General Dynamics, LeGardeur, Canada; American Ordnance, Middletown, IA. HE Shell Bodes: IDIQ awarded (Aug 11) to multiple contractors. Requirements will be competed among the following contractors: Medico Industries, Wilkes Barre, PA; Modern Industries, Erie, PA; T&A Screw Products, Terryville, CT. M220 Propellant Charges: IDIQ awarded (Dec 12) to multiple contractors. Requirements will be competed among the following contractors: Day and Zimmerman, Camden, AR; American Ordnance, Middletown, IA; and General Dynamics, Marion IL. Fins: IDIQ awarded (Jul 12) to multiple contractors. Requirements will be competed among the following contractors: Gayston Corp., Springboro, OH and T&A Screw Products, Terryville, CT.

**UNCLASSIFIED**

<b>Exhibit P-21, Production Schedule:</b> PB 2016 Army															<b>Date:</b> February 2015														
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2034A / 01 / 33										<b>P-1 Line Item Number / Title:</b> E76000 / 81MM Mortar, All Types										<b>Item Number / Title [DODIC]:</b> E18404 / CTG, MORTAR 81MM HE M889 SERIES W/PD FUZE [CA63]									

Cost Elements <i>(Units in Thousands)</i>						Fiscal Year 2014												Fiscal Year 2015													
O C C #	M F R #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2013	BAL DUE AS OF 1 OCT	Calendar Year 2014												Calendar Year 2015												B A L
							O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	
LOAD, ASSEMBLE, PACK (LAP)																															
	1	2014	ARMY	16.543	-	16.543												A	-	-	-	-	-	-	-	-	-	-	-	16.543	
	2	2015	ARMY	9.437	-	9.437																								9.437	
	2	2016	ARMY	8.610	-	8.610																								8.610	
							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	B A L

**UNCLASSIFIED**

<b>Exhibit P-21, Production Schedule:</b> PB 2016 Army															<b>Date:</b> February 2015														
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2034A / 01 / 33										<b>P-1 Line Item Number / Title:</b> E76000 / 81MM Mortar, All Types										<b>Item Number / Title [DODIC]:</b> E18404 / CTG, MORTAR 81MM HE M889 SERIES W/PD FUZE [CA63]									

Cost Elements <i>(Units in Thousands)</i>						Fiscal Year 2016												Fiscal Year 2017																		
O C C #	M F R #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2015	BAL DUE AS OF 1 OCT	Calendar Year 2016												Calendar Year 2017																	
							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	B A L					
LOAD, ASSEMBLE, PACK (LAP)																																				
	1	2014	ARMY	16.543	-	16.543	-	-	-	-	-	-	-	-	-	-	-	10.000	6.543	-	-	-	-	-	-	-	-	-	-	-						
	2	2015	ARMY	9.437	-	9.437	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	9.437	-	-	-	-	-	-	-
	2	2016	ARMY	8.610	-	8.610	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	8.610
							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	B A L					

**UNCLASSIFIED**

<b>Exhibit P-21, Production Schedule:</b> PB 2016 Army															<b>Date:</b> February 2015														
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2034A / 01 / 33										<b>P-1 Line Item Number / Title:</b> E76000 / 81MM Mortar, All Types										<b>Item Number / Title [DODIC]:</b> E18404 / CTG, MORTAR 81MM HE M889 SERIES W/PD FUZE [CA63]									

Cost Elements <i>(Units in Thousands)</i>						Fiscal Year 2018												Fiscal Year 2019													
O C C #	M F R #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2017	BAL DUE AS OF 1 OCT	Calendar Year 2018												Calendar Year 2019												
							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	B A L
LOAD, ASSEMBLE, PACK (LAP)																															
	1	2014	ARMY	16.543	16.543	-																							-		
	2	2015	ARMY	9.437	9.437	-																							-		
	2	2016	ARMY	8.610	-	8.610	-	-	-	-	-	-	8.610																-		
							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	B A L

**UNCLASSIFIED**

<b>Exhibit P-21, Production Schedule:</b> PB 2016 Army		<b>Date:</b> February 2015
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2034A / 01 / 33		<b>P-1 Line Item Number / Title:</b> E76000 / 81MM Mortar, All Types
		<b>Item Number / Title [DODIC]:</b> E18404 / CTG, MORTAR 81MM HE M889 SERIES W/PD FUZE [CA63]

MFR Ref #	MFR Name - Location	Production Rates (Each / Month)			Procurement Leadtime (Months)							
		MSR For 2016	1-8-5 For 2016	MAX For 2016	Initial				Reorder			
					ALT Prior to Oct 1	ALT After Oct 1	Mfg PLT	Total After Oct 1	ALT Prior to Oct 1	ALT After Oct 1	Mfg PLT	Total After Oct 1
1	GEN DYNAMICS ORD & TAC SYS - - LE GARDEUR, CANADA	6,000	12,000	30,000	6	6	24	30	6	6	24	30
2	TO BE SELECTED - TBS01	6,000	12,000	30,000	6	6	24	30	6	6	24	30

"A" in the Delivery Schedule indicates the Contract Award Date.

Note: Due to space limitations, quantities in the Exhibit P-21 delivery calendar are truncated and rounded based on the maximum quantity in the calendar as follows. If the maximum quantity is less than or equal to than 9,999, all quantities are shown as each. If the maximum quantity is between 10,000 and 999,999 all quantities are shown in thousands. If the maximum quantity is between 1,000,000 and 999,999,999 all quantities are shown in millions (rounded to the nearest thousand). If the maximum quantity is equal or greater than 1,000,000,000 all quantities are shown in billions (rounded to the nearest million).

**UNCLASSIFIED**

<b>Exhibit P-5, Cost Analysis: PB 2016 Army</b>		<b>Date:</b> February 2015
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2034A / 01 / 33	<b>P-1 Line Item Number / Title:</b> E76000 / 81MM Mortar, All Types	<b>Item Number / Title [DODIC]:</b> E69600 / CTG, MORTAR, 81MM FRPC M879 SERIES W/PRACTICE FUZE [C875]

<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : A	<b>MDAP/MAIS Code:</b>
---	------------------------

Resource Summary	Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total
Procurement Quantity (Units in Each)	-	23,609	32,020	44,567	-	44,567
Gross/Weapon System Cost (\$ in Millions)	114.690	4.743	7.091	10.000	-	10.000
Less PY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
Net Procurement (P1) (\$ in Millions)	114.690	4.743	7.091	10.000	-	10.000
Plus CY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
<b>Total Obligation Authority (\$ in Millions)</b>	<b>114.690</b>	<b>4.743</b>	<b>7.091</b>	<b>10.000</b>	<b>-</b>	<b>10.000</b>

*(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)*

Initial Spares (\$ in Millions)	-	-	-	-	-	-
Gross/Weapon System Unit Cost (\$ in Dollars)	-	-	-	-	-	-

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or add, due to rounding.

Cost Elements	Prior Years			FY 2014			FY 2015			FY 2016 Base			FY 2016 OCO			FY 2016 Total		
	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)
<b>Hardware Cost</b>																		
<b>Recurring Cost</b>																		
LOAD, ASSEMBLE, PACK (LAP) <sup>(†)</sup>	-	-	-	37.83	23,609	0.893	36.68	32,020	1.174	39.98	44,567	1.782	-	-	-	39.98	44,567	1.782
FUZE PRACTICE, M751 <sup>(†)</sup>	-	-	-	18.60	24,317	0.452	23.79	32,981	0.785	24.26	45,904	1.114	-	-	-	24.26	45,904	1.114
SHELL BODY, 81MM FRPC <sup>(†)</sup>	-	-	-	38.79	24,317	0.943	41.02	32,981	1.353	41.83	45,904	1.920	-	-	-	41.83	45,904	1.920
IGN CTG M299 <sup>(†)</sup>	-	-	-	14.35	24,317	0.349	17.02	32,981	0.561	17.36	45,904	0.797	-	-	-	17.36	45,904	0.797
CHG PROP 81MM M220 <sup>(†)</sup>	-	-	-	10.50	97,269	1.021	12.69	131,922	1.674	12.94	183,616	2.376	-	-	-	12.94	183,616	2.376
FIN MORTAR CTG M24 F/81MM <sup>(†)</sup>	-	-	-	14.95	24,317	0.364	15.81	32,981	0.521	16.12	45,904	0.740	-	-	-	16.12	45,904	0.740
<i>Subtotal: Recurring Cost</i>	-	-	-	-	-	4.022	-	-	6.069	-	-	8.728	-	-	-	-	-	8.728
<i>Subtotal: Hardware Cost</i>	-	-	-	-	-	4.022	-	-	6.069	-	-	8.728	-	-	-	-	-	8.728
<b>Support Cost</b>																		
PRODUCTION ENGINEERING	-	-	114.690	-	-	0.544	-	-	0.780	-	-	1.000	-	-	-	-	-	1.000
QUALITY ASSURANCE	-	-	-	-	-	0.007	-	-	-	-	-	-	-	-	-	-	-	-
ACCEPTANCE TESTING	-	-	-	-	-	0.133	-	-	0.193	-	-	0.271	-	-	-	-	-	0.271

**UNCLASSIFIED**

<b>Exhibit P-5, Cost Analysis:</b> PB 2016 Army		<b>Date:</b> February 2015
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2034A / 01 / 33	<b>P-1 Line Item Number / Title:</b> E76000 / 81MM Mortar, All Types	<b>Item Number / Title [DODIC]:</b> E69600 / CTG, MORTAR, 81MM FRPC M879 SERIES W/PRACTICE FUZE [C875]
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : A		<b>MDAP/MAIS Code:</b>

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or add, due to rounding.

Cost Elements	Prior Years			FY 2014			FY 2015			FY 2016 Base			FY 2016 OCO			FY 2016 Total		
	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)
FIRST ARTICLE TEST	-	-	-	-	-	0.037	-	-	0.050	-	-	-	-	-	-	-	-	-
<i>Subtotal: Support Cost</i>	-	-	114.690	-	-	0.721	-	-	1.023	-	-	1.271	-	-	-	-	-	1.271
<b>Gross/Weapon System Cost</b>	-	-	114.690	-	23,609	4.743	-	32,020	7.091	-	44,567	10.000	-	-	-	-	44,567	10.000

(t) indicates the presence of a P-5a

**UNCLASSIFIED**

<b>Exhibit P-5a, Procurement History and Planning: PB 2016 Army</b>							<b>Date:</b> February 2015				
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2034A / 01 / 33			<b>P-1 Line Item Number / Title:</b> E76000 / 81MM Mortar, All Types				<b>Item Number / Title [DODIC]:</b> E69600 / CTG, MORTAR, 81MM FRPC M879 SERIES W/PRACTICE FUZE [C875]				

Cost Elements	O C O	FY	Contractor and Location	Method/Type or Funding Vehicle	Location of PCO	Award Date	Date of First Delivery	Qty (Each)	Unit Cost (\$)	Specs Avail Now?	Date Revision Available	RFP Issue Date
LOAD, ASSEMBLE, PACK (LAP) <sup>(t)</sup>		2014	DAY & ZIMMERMANN LONE STAR / CAMDEN, AR	C / IDIQ	ROCK ISLAND ARSENAL, IL	Jun 2014	Jun 2016	23,609	37.83	Y		
LOAD, ASSEMBLE, PACK (LAP) <sup>(t)</sup>		2015	TO BE SELECTED / TBS01	C / IDIQ	ROCK ISLAND ARSENAL, IL	Mar 2015	Mar 2017	32,020	36.68	Y		
LOAD, ASSEMBLE, PACK (LAP) <sup>(t)</sup>		2016	TO BE SELECTED / TBS01	C / IDIQ	ROCK ISLAND ARSENAL, IL	Mar 2016	Mar 2018	44,567	39.98	Y		
FUZE PRACTICE, M751		2014	NAMMO POCAL INC. / SCRANTON, PA	C / FFP	PICATINNY ARSENAL, NJ	Mar 2014	Sep 2015	24,317	18.60	Y		
FUZE PRACTICE, M751		2015	NAMMO POCAL INC. / SCRANTON, PA	C / FFP	PICATINNY ARSENAL, NJ	Mar 2015	Sep 2016	32,981	23.79	Y		
FUZE PRACTICE, M751		2016	NAMMO POCAL INC. / SCRANTON, PA	C / FFP	PICATINNY ARSENAL, NJ	Mar 2016	Sep 2017	45,904	24.26	Y		
SHELL BODY, 81MM FRPC		2014	MEDICO INDUSTRIES INC. / WILKES BARRE, PA	C / IDIQ	PICATINNY ARSENAL, NJ	Jun 2014	Dec 2015	24,317	38.79	Y		
SHELL BODY, 81MM FRPC		2015	TO BE SELECTED / TBS02	C / IDIQ	PICATINNY ARSENAL, NJ	Feb 2015	Aug 2016	32,981	41.02	Y		
SHELL BODY, 81MM FRPC		2016	TO BE SELECTED / TBS02	C / IDIQ	PICATINNY ARSENAL, NJ	Feb 2016	Aug 2017	45,904	41.83	Y		
IGN CTG M299		2014	NAMMO POCAL INC. / SCRANTON, PA	C / FFP	PICATINNY ARSENAL, NJ	Mar 2014	Sep 2015	24,317	14.35	Y		
IGN CTG M299		2015	NAMMO POCAL INC. / SCRANTON, PA	C / IDIQ	ROCK ISLAND ARSENAL, IL	Feb 2015	Aug 2016	32,981	17.02	Y		
IGN CTG M299		2016	TO BE SELECTED / TBS03	C / IDIQ	ROCK ISLAND ARSENAL, IL	Feb 2016	Aug 2017	45,904	17.36	Y		
CHG PROP 81MM M220		2014	GENERAL DYNAMICS ORD & TAC / MARION, IL	C / IDIQ	PICATINNY ARSENAL, NJ	May 2014	Nov 2015	97,269	10.50	Y		
CHG PROP 81MM M220		2015	TO BE SELECTED / TBS04	C / IDIQ	ROCK ISLAND ARSENAL, IL	Feb 2015	Aug 2016	131,922	12.69	Y		
CHG PROP 81MM M220		2016	TO BE SELECTED / TBS04	C / IDIQ	ROCK ISLAND ARSENAL, IL	Feb 2016	Aug 2017	183,616	12.94	Y		
FIN MORTAR CTG M24 F/81MM		2014	GAYSTON CORPORATION / SPRINGBORO, OH	C / IDIQ	ROCK ISLAND ARSENAL, IL	Apr 2014	Oct 2015	24,317	14.95	Y		
FIN MORTAR CTG M24 F/81MM		2015	TO BE SELECTED / TBS05	C / IDIQ	PICATINNY ARSENAL, NJ	Feb 2015	Aug 2016	32,981	15.81	Y		
FIN MORTAR CTG M24 F/81MM		2016	TO BE SELECTED / TBS05	C / IDIQ	PICATINNY ARSENAL, NJ	Feb 2016	Aug 2017	45,904	16.12	Y		

<sup>(t)</sup> indicates the presence of a P-21

**Remarks:**

FRPC LAP: IDIQ awarded (Feb 11) to multiple contractors. Requirements will be competed among the following contractors: Day and Zimmerman, Camden, AR; Pocal Industries, Scranton, PA; Day and Zimmerman, Parsons, KS; Chemring Ordnance, Perry, FL. FRPC Shell Bodies: IDIQ awarded (Aug 11) to multiple contractors. Requirements will be competed among the following contractors: Medico Industries, Wilkes Barre, PA; Modern Industries, Erie, PA. Ignition Cartridges: IDIQ awarded (Jun 12) to multiple contractors. Requirements will be competed among the following contractors: Pocal Industries, Scranton, PA; DZI Lonestar LLC., Texarkana, TX and American Ordnance, Middletown, IA. M220 Propellant Charges: IDIQ awarded (Dec 12) to multiple contractors. Requirements will be competed among the following contractors: Day and Zimmerman, Camden, AR; American Ordnance, Middletown, IA; and General Dynamics, Marion, IL. Fins: IDIQ awarded (Jul 12) to multiple contractors. Requirements will be competed among the following contractors: Gayston Corp., Springboro, OH and T&A Screw Machine INC., Waterbury, CT.



**UNCLASSIFIED**

<b>Exhibit P-21, Production Schedule:</b> PB 2016 Army		<b>Date:</b> February 2015
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2034A / 01 / 33		<b>P-1 Line Item Number / Title:</b> E76000 / 81MM Mortar, All Types
		<b>Item Number / Title [DODIC]:</b> E69600 / CTG, MORTAR, 81MM FRPC M879 SERIES W/PRACTICE FUZE [C875]

Cost Elements <i>(Units in Thousands)</i>					Fiscal Year 2014												Fiscal Year 2015														
O C C O	M F R #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2013	BAL DUE AS OF 1 OCT	Calendar Year 2014												Calendar Year 2015												B A L
							O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	
LOAD, ASSEMBLE, PACK (LAP)																															
	1	2014	ARMY	23.609	-	23.609																								23.609	
	2	2015	ARMY	32.020	-	32.020																								32.020	
	2	2016	ARMY	44.567	-	44.567																								44.567	
							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	B A L

**UNCLASSIFIED**

<b>Exhibit P-21, Production Schedule:</b> PB 2016 Army		<b>Date:</b> February 2015
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2034A / 01 / 33		<b>P-1 Line Item Number / Title:</b> E76000 / 81MM Mortar, All Types
		<b>Item Number / Title [DODIC]:</b> E69600 / CTG, MORTAR, 81MM FRPC M879 SERIES W/PRACTICE FUZE [C875]

Cost Elements <i>(Units in Thousands)</i>					Fiscal Year 2016												Fiscal Year 2017																				
O C C #	M F R #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2015	BAL DUE AS OF 1 OCT	Calendar Year 2016												Calendar Year 2017																		
							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	B A L						
LOAD, ASSEMBLE, PACK (LAP)																																					
	1	2014	ARMY	23.609	-	23.609	-	-	-	-	-	-	-	-	-	-	12.000	11.609	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	2	2015	ARMY	32.020	-	32.020	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	12.000	12.000	8.020	-	-	-	-	-	-
	2	2016	ARMY	44.567	-	44.567	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	44.567
							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	B A L						

**UNCLASSIFIED**

<b>Exhibit P-21, Production Schedule:</b> PB 2016 Army			<b>Date:</b> February 2015
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2034A / 01 / 33		<b>P-1 Line Item Number / Title:</b> E76000 / 81MM Mortar, All Types	<b>Item Number / Title [DODIC]:</b> E69600 / CTG, MORTAR, 81MM FRPC M879 SERIES W/PRACTICE FUZE [C875]

Cost Elements <i>(Units in Thousands)</i>					Fiscal Year 2018													Fiscal Year 2019													
O C C #	M F R #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2017	BAL DUE AS OF 1 OCT	Calendar Year 2018													Calendar Year 2019											
							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	B A L
LOAD, ASSEMBLE, PACK (LAP)																															
1	2014	ARMY	23.609	23.609	-																										-
2	2015	ARMY	32.020	32.020	-																										-
2	2016	ARMY	44.567	-	44.567	-	-	-	-	-	12.000	12.000	12.000	8.567																-	
						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	B A L	

**UNCLASSIFIED**

<b>Exhibit P-21, Production Schedule:</b> PB 2016 Army		<b>Date:</b> February 2015
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2034A / 01 / 33		<b>P-1 Line Item Number / Title:</b> E76000 / 81MM Mortar, All Types
		<b>Item Number / Title [DODIC]:</b> E69600 / CTG, MORTAR, 81MM FRPC M879 SERIES W/PRACTICE FUZE [C875]

MFR Ref #	MFR Name - Location	Production Rates (Each / Month)			Procurement Leadtime (Months)							
		MSR For 2016	1-8-5 For 2016	MAX For 2016	Initial				Reorder			
					ALT Prior to Oct 1	ALT After Oct 1	Mfg PLT	Total After Oct 1	ALT Prior to Oct 1	ALT After Oct 1	Mfg PLT	Total After Oct 1
1	DAY & ZIMMERMANN LONE STAR - CAMDEN, AR	10,000	12,000	24,000	6	6	24	30	6	6	24	30
2	TO BE SELECTED - TBS01	10,000	12,000	24,000	6	6	24	30	6	6	24	30

"A" in the Delivery Schedule indicates the Contract Award Date.

Note: Due to space limitations, quantities in the Exhibit P-21 delivery calendar are truncated and rounded based on the maximum quantity in the calendar as follows. If the maximum quantity is less than or equal to than 9,999, all quantities are shown as each. If the maximum quantity is between 10,000 and 999,999 all quantities are shown in thousands. If the maximum quantity is between 1,000,000 and 999,999,999 all quantities are shown in millions (rounded to the nearest thousand). If the maximum quantity is equal or greater than 1,000,000,000 all quantities are shown in billions (rounded to the nearest million).

**UNCLASSIFIED**

<b>Exhibit P-5, Cost Analysis: PB 2016 Army</b>		<b>Date:</b> February 2015
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2034A / 01 / 33	<b>P-1 Line Item Number / Title:</b> E76000 / 81MM Mortar, All Types	<b>Item Number / Title [DODIC]:</b> E76100 / CTG, MORTAR, 81MM VL ILLUM M853 SERIES W/MTSQ FUZE [C871]

<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : A	<b>MDAP/MAIS Code:</b>
---	------------------------

<b>Resource Summary</b>	<b>Prior Years</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016 Base</b>	<b>FY 2016 OCO</b>	<b>FY 2016 Total</b>
Procurement Quantity (Units in Each)	-	-	17,870	11,224	-	11,224
Gross/Weapon System Cost (\$ in Millions)	81.079	-	12.937	8.600	-	8.600
Less PY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
Net Procurement (P1) (\$ in Millions)	81.079	-	12.937	8.600	-	8.600
Plus CY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
<b>Total Obligation Authority (\$ in Millions)</b>	<b>81.079</b>	<b>-</b>	<b>12.937</b>	<b>8.600</b>	<b>-</b>	<b>8.600</b>

*(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)*

Initial Spares (\$ in Millions)	-	-	-	-	-	-
Gross/Weapon System Unit Cost (\$ in Dollars)	-	-	-	-	-	-

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or add, due to rounding.

<b>Cost Elements</b>	<b>Prior Years</b>			<b>FY 2014</b>			<b>FY 2015</b>			<b>FY 2016 Base</b>			<b>FY 2016 OCO</b>			<b>FY 2016 Total</b>		
	<b>Unit Cost (\$)</b>	<b>Qty (Each)</b>	<b>Total Cost (\$ M)</b>	<b>Unit Cost (\$)</b>	<b>Qty (Each)</b>	<b>Total Cost (\$ M)</b>	<b>Unit Cost (\$)</b>	<b>Qty (Each)</b>	<b>Total Cost (\$ M)</b>	<b>Unit Cost (\$)</b>	<b>Qty (Each)</b>	<b>Total Cost (\$ M)</b>	<b>Unit Cost (\$)</b>	<b>Qty (Each)</b>	<b>Total Cost (\$ M)</b>	<b>Unit Cost (\$)</b>	<b>Qty (Each)</b>	<b>Total Cost (\$ M)</b>
<b>Hardware Cost</b>																		
<b>Recurring Cost</b>																		
LOAD, ASSEMBLE, PACK (LAP) <sup>(†)</sup>	-	-	-	-	-	-	100.90	17,870	1.803	102.91	11,224	1.155	-	-	-	102.91	11,224	1.155
FUZE MTSQ, M772 <sup>(†)</sup>	-	-	-	-	-	-	197.57	18,406	3.636	201.50	11,560	2.329	-	-	-	201.50	11,560	2.329
BODY TUBE, 81MM ILLUM <sup>(†)</sup>	-	-	-	-	-	-	27.09	18,406	0.499	27.62	11,560	0.319	-	-	-	27.62	11,560	0.319
TAIL CONE, 81MM ILLUM <sup>(†)</sup>	-	-	-	-	-	-	22.45	18,406	0.413	22.89	11,560	0.265	-	-	-	22.89	11,560	0.265
IGN CTG M752 <sup>(†)</sup>	-	-	-	-	-	-	19.69	18,406	0.362	20.08	11,560	0.232	-	-	-	20.08	11,560	0.232
CHG PROP 81MM M219 <sup>(†)</sup>	-	-	-	-	-	-	12.69	73,624	0.934	12.94	46,242	0.598	-	-	-	12.94	46,242	0.598
FIN MORTAR CTG M28 F/81MM M819 RP <sup>(†)</sup>	-	-	-	-	-	-	19.13	18,406	0.352	19.52	11,560	0.226	-	-	-	19.52	11,560	0.226
ILLUM CANDLE VL F/81MM M853A1 <sup>(†)</sup>	-	-	-	-	-	-	153.61	18,406	2.827	156.52	11,560	1.809	-	-	-	156.52	11,560	1.809
PARACHUTE, 81MM <sup>(†)</sup>	-	-	-	-	-	-	31.10	18,406	0.572	31.71	11,560	0.367	-	-	-	31.71	11,560	0.367
FIBER CONTAINER PA 162, 81MM <sup>(†)</sup>	-	-	-	-	-	-	5.74	18,406	0.106	5.85	11,560	0.068	-	-	-	5.85	11,560	0.068

**UNCLASSIFIED**

<b>Exhibit P-5, Cost Analysis: PB 2016 Army</b>		<b>Date:</b> February 2015
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2034A / 01 / 33	<b>P-1 Line Item Number / Title:</b> E76000 / 81MM Mortar, All Types	<b>Item Number / Title [DODIC]:</b> E76100 / CTG, MORTAR, 81MM VL ILLUM M853 SERIES W/MTSQ FUZE [C871]

<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : A	<b>MDAP/MAIS Code:</b>
---	------------------------

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or add, due to rounding.

Cost Elements	Prior Years			FY 2014			FY 2015			FY 2016 Base			FY 2016 OCO			FY 2016 Total		
	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)
METAL CONTAINER PA 157, 81MM <sup>(†)</sup>	-	-	-	-	-	-	51.23	6,255	0.320	52.25	3,928	0.205	-	-	-	52.25	3,928	0.205
<i>Subtotal: Recurring Cost</i>	-	-	-	-	-	-	-	-	11.826	-	-	7.573	-	-	-	-	-	7.573
<i>Subtotal: Hardware Cost</i>	-	-	-	-	-	-	-	-	11.826	-	-	7.573	-	-	-	-	-	7.573
Support Cost																		
PRODUCTION ENGINEERING	-	-	81.079	-	-	-	-	-	0.908	-	-	0.862	-	-	-	-	-	0.862
ACCEPTANCE TESTING	-	-	-	-	-	-	-	-	0.205	-	-	0.165	-	-	-	-	-	0.165
<i>Subtotal: Support Cost</i>	-	-	81.079	-	-	-	-	-	1.113	-	-	1.027	-	-	-	-	-	1.027
<b>Gross/Weapon System Cost</b>	-	-	<b>81.079</b>	-	-	-	-	<b>17,870</b>	<b>12.937</b>	-	<b>11,224</b>	<b>8.600</b>	-	-	-	-	<b>11,224</b>	<b>8.600</b>

(†) indicates the presence of a P-5a

**UNCLASSIFIED**

<b>Exhibit P-5a, Procurement History and Planning: PB 2016 Army</b>							<b>Date:</b> February 2015				
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2034A / 01 / 33			<b>P-1 Line Item Number / Title:</b> E76000 / 81MM Mortar, All Types				<b>Item Number / Title [DODIC]:</b> E76100 / CTG, MORTAR, 81MM VL ILLUM M853 SERIES W/MTSQ FUZE [C871]				

Cost Elements	O C O	FY	Contractor and Location	Method/Type or Funding Vehicle	Location of PCO	Award Date	Date of First Delivery	Qty (Each)	Unit Cost (\$)	Specs Avail Now?	Date Revision Available	RFP Issue Date
LOAD, ASSEMBLE, PACK (LAP) <sup>(†)</sup>		2015	PINE BLUFF ARSENAL / PINE BLUFF, AR	PO	ROCK ISLAND ARSENAL, IL	Feb 2015	Feb 2017	17,870	100.90	Y		
LOAD, ASSEMBLE, PACK (LAP) <sup>(†)</sup>		2016	PINE BLUFF ARSENAL / PINE BLUFF, AR	PO	ROCK ISLAND ARSENAL, IL	Jan 2016	Jan 2018	11,224	102.91	Y		
FUZE MTSQ, M772		2015	JUNGHANS MICROTEC GMBH / DUNNINGEN, GERMANY	PO	ROCK ISLAND ARSENAL, IL	Apr 2015	Dec 2016	18,406	197.57	Y		
FUZE MTSQ, M772		2016	JUNGHANS MICROTEC GMBH / DUNNINGEN, GERMANY	PO	ROCK ISLAND ARSENAL, IL	Apr 2016	Dec 2017	11,560	201.50	Y		
BODY TUBE, 81MM ILLUM		2015	TO BE SELECTED / TBS01	C / FFP	PICATINNY ARSENAL, NJ	Feb 2015	Aug 2016	18,406	27.09	Y		
BODY TUBE, 81MM ILLUM		2016	TO BE SELECTED / TBS01	C / FFP	PICATINNY ARSENAL, NJ	Feb 2016	Aug 2017	11,560	27.62	Y		
TAIL CONE, 81MM ILLUM		2015	TO BE SELECTED / TBS02	C / FFP	PICATINNY ARSENAL, NJ	Feb 2015	Aug 2016	18,406	22.45	Y		
TAIL CONE, 81MM ILLUM		2016	TO BE SELECTED / TBS02	C / FFP	PICATINNY ARSENAL, NJ	Feb 2016	Aug 2017	11,560	22.89	Y		
IGN CTG M752		2015	TO BE SELECTED / TBS03	C / IDIQ	ROCK ISLAND ARSENAL, IL	Apr 2015	Oct 2016	18,406	19.69	Y		
IGN CTG M752		2016	TO BE SELECTED / TBS03	C / IDIQ	ROCK ISLAND ARSENAL, IL	Apr 2016	Oct 2017	11,560	20.08	Y		
CHG PROP 81MM M219		2015	TO BE SELECTED / TBS04	C / IDIQ	ROCK ISLAND ARSENAL, IL	Apr 2015	Oct 2016	73,624	12.69	Y		
CHG PROP 81MM M219		2016	TO BE SELECTED / TBS04	C / IDIQ	ROCK ISLAND ARSENAL, IL	Apr 2016	Oct 2017	46,242	12.94	Y		
FIN MORTAR CTG M28 F/81MM M819 RP		2015	TO BE SELECTED / TBS05	C / FFP	ROCK ISLAND ARSENAL, IL	Apr 2015	Oct 2016	18,406	19.13	Y		
FIN MORTAR CTG M28 F/81MM M819 RP		2016	TO BE SELECTED / TBS05	C / FFP	ROCK ISLAND ARSENAL, IL	Apr 2016	Oct 2017	11,560	19.52	Y		
ILLUM CANDLE VL F/81MM M853A1		2015	CRANE ARMY AMMO ACTIVITY / CRANE, IN	PO	ROCK ISLAND ARSENAL, IL	Feb 2015	Oct 2016	18,406	153.61	Y		
ILLUM CANDLE VL F/81MM M853A1		2016	CRANE ARMY AMMO ACTIVITY / CRANE, IN	PO	ROCK ISLAND ARSENAL, IL	Apr 2016	Dec 2017	11,560	156.52	Y		
PARACHUTE, 81MM		2015	TO BE SELECTED / TBS06	C / FFP	ROCK ISLAND ARSENAL, IL	Feb 2015	Aug 2016	18,406	31.10	Y		
PARACHUTE, 81MM		2016	TO BE SELECTED / TBS06	C / FFP	ROCK ISLAND ARSENAL, IL	Apr 2016	Oct 2017	11,560	31.71	Y		
FIBER CONTAINER PA 162, 81MM		2015	UNITED AMMUNITION CONTAINER / WYNNWOOD, PA	C / FFP	PICATINNY ARSENAL, NJ	Apr 2015	Oct 2016	18,406	5.74	Y		
FIBER CONTAINER PA 162, 81MM		2016	UNITED AMMUNITION CONTAINER / WYNNWOOD, PA	C / FFP	PICATINNY ARSENAL, NJ	Apr 2016	Oct 2017	11,560	5.85	Y		
METAL CONTAINER PA 157, 81MM		2015	BWAY CORPORATION / ATLANTA, GA	C / IDIQ	PICATINNY ARSENAL, NJ	Apr 2015	Oct 2016	6,255	51.23	Y		
METAL CONTAINER PA 157, 81MM		2016	BWAY CORPORATION / ATLANTA, GA	C / IDIQ	PICATINNY ARSENAL, NJ	Apr 2016	Oct 2017	3,928	52.25	Y		

(†) indicates the presence of a P-21

**UNCLASSIFIED**

<b>Exhibit P-5a, Procurement History and Planning:</b> PB 2016 Army		<b>Date:</b> February 2015
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2034A / 01 / 33	<b>P-1 Line Item Number / Title:</b> E76000 / 81MM Mortar, All Types	<b>Item Number / Title [DODIC]:</b> E76100 / CTG, MORTAR, 81MM VL ILLUM M853 SERIES W/MTSQ FUZE [C871]

**Remarks:**  
 81MM Illum Body Tubes and Tail Cones: IDIQ awarded (Aug 11) to multiple contractors. Requirements will be competed among the following contractors: Medico, Wilkes Barre, PA and Lewis Engineering, Marshall, TX. Ignition Cartridges: IDIQ awarded (Jun 12) to multiple contractors. Requirements will be competed among the following contractors: Pocal Industries, Scranton, PA; DZI Lonestar, LLC., Texarka, TX and American Ordnance, Middletown, IA. M28 Fin: IDIQ awarded (Sept 11) to multiple contractors. Requirements will be competed among the following contractors: Gayston Corporation, Springboro, OH and Flexible Concepts, Elkhart, IN. M219 Propellant Charges: IDIQ awarded (Dec 12) to multiple contractors. Requirements will be competed among the following contractors: Day and Zimmerman, Camden, AR; American Ordnance, Middletown, IA and General Dynamics, Marion, IL. 81MM Parachutes: IDIQ awarded (Aug 10) to multiple contractors. Requirements will be competed among the following contractors: North American Aerodynamics INC., Roxboro, NC and Yoland Corp. Jamaica, NY.  
 81MM Illum Body Tubes and Tail Cones: IDIQ awarded (Aug 11) to multiple contractors. Requirements will be competed among the following contractors: Medico, Wilkes Barre, PA and Lewis Engineering, Marshall, TX Ignition Cartridges: IDIQ awarded (Jun 12) to multiple contractors. Requirements will be competed among the following contractors: Pocal Industries, Scranton, PA and American Ordnance, Middletown, IA.



**UNCLASSIFIED**

<b>Exhibit P-21, Production Schedule:</b> PB 2016 Army													<b>Date:</b> February 2015																									
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2034A / 01 / 33													<b>P-1 Line Item Number / Title:</b> E76000 / 81MM Mortar, All Types													<b>Item Number / Title [DODIC]:</b> E76100 / CTG, MORTAR, 81MM VL ILLUM M853 SERIES W/MTSQ FUZE [C871]												

Cost Elements <i>(Units in Thousands)</i>						Fiscal Year 2015													Fiscal Year 2016																
O C C O	M F R #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2014	BAL DUE AS OF 1 OCT	Calendar Year 2015													Calendar Year 2016													B A L		
							O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P					
LOAD, ASSEMBLE, PACK (LAP)																																			
	1	2015	ARMY	17.870	-	17.870																													17.870
	1	2016	ARMY	11.224	-	11.224																													11.224
							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					

**UNCLASSIFIED**

<b>Exhibit P-21, Production Schedule:</b> PB 2016 Army													<b>Date:</b> February 2015																
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2034A / 01 / 33						<b>P-1 Line Item Number / Title:</b> E76000 / 81MM Mortar, All Types												<b>Item Number / Title [DODIC]:</b> E76100 / CTG, MORTAR, 81MM VL ILLUM M853 SERIES W/MTSQ FUZE [C871]											

Cost Elements <i>(Units in Thousands)</i>						Fiscal Year 2017												Fiscal Year 2018													
O C C O	M F R #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2016	BAL DUE AS OF 1 OCT	Calendar Year 2017												Calendar Year 2018												
							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	B A L
LOAD, ASSEMBLE, PACK (LAP)																															
	1	2015	ARMY	17.870	-	17.870	-	-	-	-	4.000	13.870																	-		
	1	2016	ARMY	11.224	-	11.224	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	11.224		-		
							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	B A L

**UNCLASSIFIED**

<b>Exhibit P-21, Production Schedule:</b> PB 2016 Army		<b>Date:</b> February 2015
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2034A / 01 / 33		<b>P-1 Line Item Number / Title:</b> E76000 / 81MM Mortar, All Types
		<b>Item Number / Title [DODIC]:</b> E76100 / CTG, MORTAR, 81MM VL ILLUM M853 SERIES W/MTSQ FUZE [C871]

MFR Ref #	MFR Name - Location	Production Rates (Each / Month)			Procurement Leadtime (Months)							
		MSR For 2016	1-8-5 For 2016	MAX For 2016	Initial				Reorder			
					ALT Prior to Oct 1	ALT After Oct 1	Mfg PLT	Total After Oct 1	ALT Prior to Oct 1	ALT After Oct 1	Mfg PLT	Total After Oct 1
1	PINE BLUFF ARSENAL - PINE BLUFF, AR	12,000	16,000	28,800	6	6	24	30	6	4	24	28

**Remarks:**  
PINE BLUFF PRODUCTION LINE SHARED WITH OTHER 60 & 81MM SMOKE & ILLUM ITEMS

"A" in the Delivery Schedule indicates the Contract Award Date.  
Note: Due to space limitations, quantities in the Exhibit P-21 delivery calendar are truncated and rounded based on the maximum quantity in the calendar as follows. If the maximum quantity is less than or equal to than 9,999, all quantities are shown as each. If the maximum quantity is between 10,000 and 999,999 all quantities are shown in thousands. If the maximum quantity is between 1,000,000 and 999,999,999 all quantities are shown in millions (rounded to the nearest thousand).If the maximum quantity is equal or greater than 1,000,000,000 all quantities are shown in billions (rounded to the nearest million).

**UNCLASSIFIED**

<b>Exhibit P-5, Cost Analysis: PB 2016 Army</b>		<b>Date:</b> February 2015
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2034A / 01 / 33		<b>P-1 Line Item Number / Title:</b> E76000 / 81MM Mortar, All Types
		<b>Item Number / Title [DODIC]:</b> E76200 / CTG, MORTAR, 81MM RP SMOKE M819 SERIES W/MTSQ FUZE [C870]

<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : A	<b>MDAP/MAIS Code:</b>
---	------------------------

Resource Summary	Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total
Procurement Quantity (Units in Each)	-	18,230	12,358	8,379	-	8,379
Gross/Weapon System Cost (\$ in Millions)	58.145	11.621	8.740	6.044	-	6.044
Less PY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
Net Procurement (P1) (\$ in Millions)	58.145	11.621	8.740	6.044	-	6.044
Plus CY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
<b>Total Obligation Authority (\$ in Millions)</b>	<b>58.145</b>	<b>11.621</b>	<b>8.740</b>	<b>6.044</b>	<b>-</b>	<b>6.044</b>

*(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)*

Initial Spares (\$ in Millions)	-	-	-	-	-	-
Gross/Weapon System Unit Cost (\$ in Dollars)	-	-	-	-	-	-

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or add, due to rounding.

Cost Elements	Prior Years			FY 2014			FY 2015			FY 2016 Base			FY 2016 OCO			FY 2016 Total		
	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)
Hardware Cost																		
Recurring Cost																		
LOAD, ASSEMBLE, PACK (LAP) <sup>(†)</sup>	-	-	-	148.43	18,230	2.706	178.21	12,358	2.202	181.76	8,379	1.523	-	-	-	181.76	8,379	1.523
BODY TUBE, 81MM RP SMK <sup>(†)</sup>	-	-	-	24.45	18,777	0.459	38.06	12,729	0.484	38.81	8,630	0.335	-	-	-	38.81	8,630	0.335
FUZE MTSQ, M772 <sup>(†)</sup>	-	-	-	193.85	18,777	3.640	197.57	12,729	2.515	201.50	8,630	1.739	-	-	-	201.50	8,630	1.739
IGN CTG M752 <sup>(†)</sup>	-	-	-	17.95	18,777	0.337	19.69	12,729	0.251	20.08	8,630	0.173	-	-	-	20.08	8,630	0.173
PROPELLANT CHARGE, M218 <sup>(†)</sup>	-	-	-	10.50	75,108	0.789	12.69	50,915	0.646	12.94	34,521	0.447	-	-	-	12.94	34,521	0.447
FIN MORTAR CTG M28 F/81MM M819 RP <sup>(†)</sup>	-	-	-	16.25	18,777	0.305	19.13	12,729	0.244	19.52	8,630	0.168	-	-	-	19.52	8,630	0.168
TAIL CONE, 81MM SMOKE <sup>(†)</sup>	-	-	-	22.06	18,777	0.414	29.31	12,729	0.373	29.89	8,630	0.258	-	-	-	29.89	8,630	0.258
GAMS <sup>(†)</sup>	-	-	-	7.90	37,918	0.300	10.18	25,705	0.262	10.38	17,260	0.179	-	-	-	10.38	17,260	0.179
RED PHOSPHOROUS PELLET <sup>(†)</sup>	-	-	-	12.34	54,690	0.675	12.56	37,074	0.466	12.82	25,137	0.322	-	-	-	12.82	25,137	0.322
FIBER CONTAINER PA 162, 81MM <sup>(†)</sup>	-	-	-	5.39	18,777	0.101	5.74	12,729	0.073	5.85	8,630	0.050	-	-	-	5.85	8,630	0.050

**UNCLASSIFIED**

<b>Exhibit P-5, Cost Analysis: PB 2016 Army</b>		<b>Date:</b> February 2015
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2034A / 01 / 33	<b>P-1 Line Item Number / Title:</b> E76000 / 81MM Mortar, All Types	<b>Item Number / Title [DODIC]:</b> E76200 / CTG, MORTAR, 81MM RP SMOKE M819 SERIES W/MTSQ FUZE [C870]

<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : A	<b>MDAP/MAIS Code:</b>
---	------------------------

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or add, due to rounding.

Cost Elements	Prior Years			FY 2014			FY 2015			FY 2016 Base			FY 2016 OCO			FY 2016 Total		
	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)
METAL CONTAINER PA 157, 81MM <sup>(t)</sup>	-	-	-	48.45	6,381	0.309	51.23	4,325	0.222	52.25	2,932	0.153	-	-	-	52.25	2,932	0.153
<i>Subtotal: Recurring Cost</i>	-	-	-	-	-	10.035	-	-	7.737	-	-	5.348	-	-	-	-	-	5.348
<i>Subtotal: Hardware Cost</i>	-	-	-	-	-	10.035	-	-	7.737	-	-	5.348	-	-	-	-	-	5.348
Support Cost																		
PRODUCTION ENGINEERING	-	-	58.145	-	-	1.095	-	-	0.861	-	-	0.605	-	-	-	-	-	0.605
ACCEPTANCE TESTING	-	-	-	-	-	0.200	-	-	0.141	-	-	0.090	-	-	-	-	-	0.090
FIRST ARTICLE TEST	-	-	-	-	-	0.040	-	-	-	-	-	-	-	-	-	-	-	-
RED PHOSPHOROUS FORMULATION TEST	-	-	-	-	-	0.251	-	-	-	-	-	-	-	-	-	-	-	-
<i>Subtotal: Support Cost</i>	-	-	58.145	-	-	1.586	-	-	1.002	-	-	0.695	-	-	-	-	-	0.695
<b>Gross/Weapon System Cost</b>	-	-	58.145	-	18,230	11.621	-	12,358	8.740	-	8,379	6.044	-	-	-	-	8,379	6.044

(t) indicates the presence of a P-5a

**UNCLASSIFIED**

Exhibit P-5a, Procurement History and Planning: PB 2016 Army								Date: February 2015				
Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 33			P-1 Line Item Number / Title: E76000 / 81MM Mortar, All Types					Item Number / Title [DODIC]: E76200 / CTG, MORTAR, 81MM RP SMOKE M819 SERIES W/MTSQ FUZE [C870]				
Cost Elements	O C O	FY	Contractor and Location	Method/Type or Funding Vehicle	Location of PCO	Award Date	Date of First Delivery	Qty (Each)	Unit Cost (\$)	Specs Avail Now?	Date Revision Available	RFP Issue Date
LOAD, ASSEMBLE, PACK (LAP) <sup>(†)</sup>		2014	PINE BLUFF ARSENAL / PINE BLUFF, AR	PO	ROCK ISLAND ARSENAL, IL	Dec 2013	Dec 2015	18,230	148.43	Y		
LOAD, ASSEMBLE, PACK (LAP) <sup>(†)</sup>		2015	PINE BLUFF ARSENAL / PINE BLUFF, AR	PO	ROCK ISLAND ARSENAL, IL	Feb 2015	Feb 2017	12,358	178.21	Y		
LOAD, ASSEMBLE, PACK (LAP) <sup>(†)</sup>		2016	PINE BLUFF ARSENAL / PINE BLUFF, AR	PO	ROCK ISLAND ARSENAL, IL	Jan 2016	Jan 2018	8,379	181.76	Y		
BODY TUBE, 81MM RP SMK		2014	LEWIS ENGINEERING COMPANY / MARSHALL, TX	C / IDIQ	PICATINNY ARSENAL, NJ	Mar 2014	Sep 2015	18,777	24.45	Y		
BODY TUBE, 81MM RP SMK		2015	TO BE SELECTED / TBS01	C / IDIQ	PICATINNY ARSENAL, NJ	Mar 2015	Sep 2016	12,729	38.06	Y		
BODY TUBE, 81MM RP SMK		2016	TO BE SELECTED / TBS01	C / IDIQ	PICATINNY ARSENAL, NJ	Feb 2016	Aug 2017	8,630	38.81	Y		
FUZE MTSQ, M772		2014	JUNGHANS MICROTEC GMBH / DUNNINGEN, GERMANY	PO	ROCK ISLAND ARSENAL, IL	May 2014	Nov 2015	18,777	193.85	Y		
FUZE MTSQ, M772		2015	JUNGHANS MICROTEC GMBH / DUNNINGEN, GERMANY	PO	ROCK ISLAND ARSENAL, IL	Apr 2015	Dec 2016	12,729	197.57	Y		
FUZE MTSQ, M772		2016	JUNGHANS MICROTEC GMBH / DUNNINGEN, GERMANY	PO	ROCK ISLAND ARSENAL, IL	Feb 2016	Oct 2017	8,630	201.50	Y		
IGN CTG M752		2014	NAMMO POCAL INC. / SCRANTON, PA	C / IDIQ	ROCK ISLAND ARSENAL, IL	Jan 2014	Jul 2015	18,777	17.95	Y		
IGN CTG M752		2015	TO BE SELECTED / TBS02	C / IDIQ	ROCK ISLAND ARSENAL, IL	Apr 2015	Oct 2016	12,729	19.69	Y		
IGN CTG M752		2016	TO BE SELECTED / TBS02	C / IDIQ	ROCK ISLAND ARSENAL, IL	Feb 2016	Aug 2017	8,630	20.08	Y		
PROPELLANT CHARGE, M218		2014	GENERAL DYNAMICS ORD & TAC / MARION, IL	C / IDIQ	ROCK ISLAND ARSENAL, IL	May 2015	Nov 2015	75,108	10.50	Y		
PROPELLANT CHARGE, M218		2015	TO BE SELECTED / TBS03	C / IDIQ	ROCK ISLAND ARSENAL, IL	Apr 2015	Oct 2016	50,915	12.69	Y		
PROPELLANT CHARGE, M218		2016	TO BE SELECTED / TBS03	C / IDIQ	ROCK ISLAND ARSENAL, IL	Feb 2016	Aug 2017	34,521	12.94	Y		
FIN MORTAR CTG M28 F/81MM M819 RP		2014	FLEXIBLE CONCEPTS INC. / ELKHART, IN	C / FFP	ROCK ISLAND ARSENAL, IL	Jan 2014	Jul 2015	18,777	16.25	Y		
FIN MORTAR CTG M28 F/81MM M819 RP		2015	TO BE SELECTED / TBS04	C / FFP	ROCK ISLAND ARSENAL, IL	Apr 2015	Oct 2016	12,729	19.13	Y		
FIN MORTAR CTG M28 F/81MM M819 RP		2016	TO BE SELECTED / TBS04	C / FFP	ROCK ISLAND ARSENAL, IL	Feb 2016	Aug 2017	8,630	19.52	Y		
TAIL CONE, 81MM SMOKE		2014	LEWIS ENGINEERING COMPANY / MARSHALL, TX	C / IDIQ	PICATINNY ARSENAL, NJ	Mar 2014	Sep 2015	18,777	22.06	Y		
TAIL CONE, 81MM SMOKE		2015	TO BE SELECTED / TBS05	C / IDIQ	PICATINNY ARSENAL, NJ	Mar 2015	Sep 2016	12,729	29.31	Y		
TAIL CONE, 81MM SMOKE		2016	TO BE SELECTED / TBS05	C / IDIQ	PICATINNY ARSENAL, NJ	Feb 2016	Aug 2017	8,630	29.89	Y		
GAMS		2014	DESIGN WEST TECHNOLOGIES, / TUSTIN, CA	C / FFP	PICATINNY ARSENAL, NJ	May 2014	Nov 2015	37,918	7.90	Y		

**UNCLASSIFIED**

<b>Exhibit P-5a, Procurement History and Planning: PB 2016 Army</b>							<b>Date:</b> February 2015					
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2034A / 01 / 33			<b>P-1 Line Item Number / Title:</b> E76000 / 81MM Mortar, All Types				<b>Item Number / Title [DODIC]:</b> E76200 / CTG, MORTAR, 81MM RP SMOKE M819 SERIES W/MTSQ FUZE [C870]					

Cost Elements	O C O	FY	Contractor and Location	Method/Type or Funding Vehicle	Location of PCO	Award Date	Date of First Delivery	Qty (Each)	Unit Cost (\$)	Specs Avail Now?	Date Revision Available	RFP Issue Date
GAMS		2015	DESIGN WEST TECHNOLOGIES, / TUSTIN, CA	C / FFP	PICATINNY ARSENAL, NJ	Apr 2015	Oct 2016	25,705	10.18	Y		
GAMS		2016	DESIGN WEST TECHNOLOGIES, / TUSTIN, CA	C / FFP	PICATINNY ARSENAL, NJ	Jan 2016	Jul 2017	17,260	10.38	Y		
RED PHOSPHOROUS PELLET		2014	CLARIANT CORPORATION / CHARLOTTE, NC	C / FFP	ROCK ISLAND ARSENAL, IL	May 2014	Nov 2015	54,690	12.34	Y		
RED PHOSPHOROUS PELLET		2015	CLARIANT CORPORATION / CHARLOTTE, NC	C / FFP	ROCK ISLAND ARSENAL, IL	Apr 2015	Oct 2016	37,074	12.56	Y		
RED PHOSPHOROUS PELLET		2016	CLARIANT CORPORATION / CHARLOTTE, NC	C / FFP	ROCK ISLAND ARSENAL, IL	Feb 2016	Aug 2017	25,137	12.82	Y		
FIBER CONTAINER PA 162, 81MM		2014	UNITED AMMUNITION CONTAINER / WYNNEWOOD, PA	C / FFP	PICATINNY ARSENAL, NJ	Dec 2013	May 2015	18,777	5.39	Y		
FIBER CONTAINER PA 162, 81MM		2015	UNITED AMMUNITION CONTAINER / WYNNEWOOD, PA	C / FFP	PICATINNY ARSENAL, NJ	Apr 2015	Oct 2016	12,729	5.74	Y		
FIBER CONTAINER PA 162, 81MM		2016	UNITED AMMUNITION CONTAINER / WYNNEWOOD, PA	C / FFP	PICATINNY ARSENAL, NJ	Feb 2016	Aug 2017	8,630	5.85	Y		
METAL CONTAINER PA 157, 81MM		2014	BWAY CORPORATION / ATLANTA, GA	C / IDIQ	PICATINNY ARSENAL, NJ	Mar 2014	Sep 2015	6,381	48.45	Y		
METAL CONTAINER PA 157, 81MM		2015	BWAY CORPORATION / ATLANTA, GA	C / IDIQ	PICATINNY ARSENAL, NJ	Apr 2015	Oct 2016	4,325	51.23	Y		
METAL CONTAINER PA 157, 81MM		2016	BWAY CORPORATION / ATLANTA, GA	C / IDIQ	PICATINNY ARSENAL, NJ	Feb 2016	Aug 2017	2,932	52.25	Y		

(t) indicates the presence of a P-21

**Remarks:**

Body Tubes and Tail Cones: IDIQ awarded (Aug 11) to multiple contractors. Requirements will be competed among the following contractors: Lewis Engineering Co., Marshall, TX; Medico Industries Inc., Wilkes Barre, PA and Woodlawn MFG. Inc., Marshall, TX. Ignition Cartridges: IDIQ awarded (Jun 12) to multiple contractors. Requirements will be competed among the following contractors: Pocal Industries, Scranton, PA; DZI Lonestar LLC., Texarkana, TX and American Ordnance, Middletown, IA. Propellant Charges: IDIQ awarded (Dec 12) to multiple contractors. Requirements will be competed among the following contractors: General Dynamics, Marion, IL; Day and Zimmerman, Camden, AR and American Ordnance, Middletown, IA. Fins: IDIQ awarded (Sep 11) to multiple contractors. Requirements will be competed among the following contractors: Flexible Concepts Inc. Elkhart, IN and Gayston Corp., Springboro, OH.

**UNCLASSIFIED**

<b>Exhibit P-21, Production Schedule:</b> PB 2016 Army		<b>Date:</b> February 2015
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2034A / 01 / 33		<b>P-1 Line Item Number / Title:</b> E76000 / 81MM Mortar, All Types
		<b>Item Number / Title [DODIC]:</b> E76200 / CTG, MORTAR, 81MM RP SMOKE M819 SERIES W/MTSQ FUZE [C870]

Cost Elements <i>(Units in Thousands)</i>						Fiscal Year 2014													Fiscal Year 2015													
O C C O	M F R #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2013	BAL DUE AS OF 1 OCT	Calendar Year 2014													Calendar Year 2015												
							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	B A L	
LOAD, ASSEMBLE, PACK (LAP)																																
	1	2014	ARMY	18.230	-	18.230			A -	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	18.230	
	1	2015	ARMY	12.358	-	12.358															A -	-	-	-	-	-	-	-	-	-	12.358	
	1	2015	MC (#)	6.152	-	6.152															A -	-	-	-	-	-	-	-	-	-	6.152	
	<b>1</b>	<b>2015</b>	<b>Total</b>	<b>18.510</b>	<b>-</b>	<b>18.510</b>															-	-	-	-	-	-	-	-	-	-	<b>18.510</b>	
	1	2016	ARMY	8.379	-	8.379																								8.379		
							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	B A L	



**UNCLASSIFIED**

<b>Exhibit P-21, Production Schedule:</b> PB 2016 Army		<b>Date:</b> February 2015
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2034A / 01 / 33		<b>P-1 Line Item Number / Title:</b> E76000 / 81MM Mortar, All Types
		<b>Item Number / Title [DODIC]:</b> E76200 / CTG, MORTAR, 81MM RP SMOKE M819 SERIES W/MTSQ FUZE [C870]

Cost Elements <i>(Units in Thousands)</i>						Fiscal Year 2016														Fiscal Year 2017															
O C C O	M F R #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2015	BAL DUE AS OF 1 OCT	Calendar Year 2016														Calendar Year 2017														B A L
							O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P					
LOAD, ASSEMBLE, PACK (LAP)																																			
	1	2014	ARMY	18.230	-	18.230	-	-	18.230																				-						
	1	2015	ARMY	12.358	-	12.358	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	12.358	-						
	1	2015	MC (#)	6.152	-	6.152	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6.152	-							
	<b>1</b>	<b>2015</b>	<b>Total</b>	<b>18.510</b>	-	<b>18.510</b>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<b>18.510</b>	-								
	1	2016	ARMY	8.379	-	8.379				A	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	8.379							
										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	B A L	

**UNCLASSIFIED**

<b>Exhibit P-21, Production Schedule:</b> PB 2016 Army		<b>Date:</b> February 2015
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2034A / 01 / 33		<b>P-1 Line Item Number / Title:</b> E76000 / 81MM Mortar, All Types
		<b>Item Number / Title [DODIC]:</b> E76200 / CTG, MORTAR, 81MM RP SMOKE M819 SERIES W/MTSQ FUZE [C870]

Cost Elements <i>(Units in Thousands)</i>						Fiscal Year 2018												Fiscal Year 2019													
O C C O	M F R #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2017	BAL DUE AS OF 1 OCT	Calendar Year 2018												Calendar Year 2019												
							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	B A L
LOAD, ASSEMBLE, PACK (LAP)																															
	1	2014	ARMY	18.230	18.230	-																									
	1	2015	ARMY	12.358	12.358	-																									
	1	2015	MC (†)	6.152	6.152	-																									
	<b>1</b>	<b>2015</b>	<b>Total</b>	<b>18.510</b>	<b>18.510</b>	-																									
	1	2016	ARMY	8.379	-	8.379	-	-	-	-	8.379																				
							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	B A L

**UNCLASSIFIED**

<b>Exhibit P-21, Production Schedule:</b> PB 2016 Army		<b>Date:</b> February 2015
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2034A / 01 / 33		<b>P-1 Line Item Number / Title:</b> E76000 / 81MM Mortar, All Types
		<b>Item Number / Title [DODIC]:</b> E76200 / CTG, MORTAR, 81MM RP SMOKE M819 SERIES W/MTSQ FUZE [C870]

MFR Ref #	MFR Name - Location	Production Rates (Each / Month)			Procurement Leadtime (Months)							
		MSR For 2016	1-8-5 For 2016	MAX For 2016	Initial				Reorder			
					ALT Prior to Oct 1	ALT After Oct 1	Mfg PLT	Total After Oct 1	ALT Prior to Oct 1	ALT After Oct 1	Mfg PLT	Total After Oct 1
1	PINE BLUFF ARSENAL - PINE BLUFF, AR	16,000	16,000	28,000	6	6	24	30	6	4	24	28

**Remarks:**  
PINE BLUFF PRODUCTION LINE SHARED WITH OTHER 60 & 81MM SMOKE & ILLUM ITEMS

(\*) Delivery rows marked with this symbol indicate that they are funded through a separate Line Item. See the respective components' exhibits for details, including the full delivery schedule.  
"A" in the Delivery Schedule indicates the Contract Award Date.

Note: Due to space limitations, quantities in the Exhibit P-21 delivery calendar are truncated and rounded based on the maximum quantity in the calendar as follows. If the maximum quantity is less than or equal to than 9,999, all quantities are shown as each. If the maximum quantity is between 10,000 and 999,999 all quantities are shown in thousands. If the maximum quantity is between 1,000,000 and 999,999,999 all quantities are shown in millions (rounded to the nearest thousand). If the maximum quantity is equal or greater than 1,000,000,000 all quantities are shown in billions (rounded to the nearest million).

**UNCLASSIFIED**

**Exhibit P-40, Budget Line Item Justification:** PB 2016 Army **Date:** February 2015

<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2034A: Procurement of Ammunition, Army / BA 01: Ammunition / BSA 33: Mortar Ammunition	<b>P-1 Line Item Number / Title:</b> E25500 / 120MM Mortar, All Types
---	--

ID Code (A=Service Ready, B=Not Service Ready) :			Program Elements for Code B Items:					Other Related Program Elements:				
Resource Summary	Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	To Complete	Total
Procurement Quantity (Units in Each)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (\$ in Millions)	1,783.473	60.780	39.365	64.372	7.000	71.372	62.431	85.493	67.910	90.415	-	2,261.239
Less PY Advance Procurement (\$ in Millions)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P1) (\$ in Millions)	1,783.473	60.780	39.365	64.372	7.000	71.372	62.431	85.493	67.910	90.415	-	2,261.239
Plus CY Advance Procurement (\$ in Millions)	-	-	-	-	-	-	-	-	-	-	-	-
<b>Total Obligation Authority (\$ in Millions)</b>	<b>1,783.473</b>	<b>60.780</b>	<b>39.365</b>	<b>64.372</b>	<b>7.000</b>	<b>71.372</b>	<b>62.431</b>	<b>85.493</b>	<b>67.910</b>	<b>90.415</b>	-	<b>2,261.239</b>
<i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i>												
Initial Spares (\$ in Millions)	-	-	-	-	-	-	-	-	-	-	-	-
Flyaway Unit Cost (\$ in Dollars)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (\$ in Dollars)	-	-	-	-	-	-	-	-	-	-	-	-

**Description:**

This budget line item includes 120mm Mortars, All Types.  
The 120mm Mortar Cartridges are designed for use with the M120, 120mm Towed Mortar System and the M121, Carrier Mortar System. As well as use with the Brigade Combat Team Mortar System.

**(E25502)CTG, MORTAR, 120MM HE M933 SERIES W/PD FUZE**

The M933A1 120mm High Explosive (HE) cartridge with the M783 Point Detonating/ Delay (PD/DLY) Fuze is used against personnel, bunker and light materiel targets. It consists of a Steel Shell Body with Composition B fill, and aluminum M31 Fin Assembly. The propulsion system utilizes the M1020 Ignition Cartridge and four horseshoe-shaped, water-resistant M234 Propelling Charges. The M933A1 HE (Range 200 meter minimum to 7,200 meter maximum) is used with the new M783 dual safety, point detonating/delay fuze. This round is used primarily in training because it is significantly less expensive than the M934A1, the preferred war fighting round. However, the M933A1 is lethal and can be used in combat.  
This item is Code A, approved for service use.

**(E25507)CTG, MORTAR, 120MM FRPC M931 SERIES W/PRACT FUZE**

The M931 is a low-cost, full range, practice round that will replace a percentage of the standard HE rounds used in 120mm mortar training. The M931 FRPC (Range 200 meter minimum to 7,200 meter maximum) has been designed to provide the user with realistic training for 120mm Mortar crews at a fraction of the cost. It is identical in shape, size and weight to the M933A1/M934A1 HE cartridges. The M931 is equipped with M781 PD Practice Fuze. The M781 PD Practice Fuze produces a flash, bang, and smoke signature that provides audio/visual feedback to the mortar crew and forward observer.  
This item is Code A, approved for service use.

**(E91300)CTG, MORTAR, 120MM WP SMOKE M929 SERIES W/MOFM**

The M929 White Phosphorous (WP) Smoke Cartridge is used to provide smoke, with some incendiary effect for various screening missions. The cartridge is filled with 5 lbs of WP. The M929 uses the highly reliable and countermeasure resistant M734A1 multi-option fuze when functions, detonates the burster, which disperses the felt pads which are soaked with WP over the target. The smoke obscuration is generated by a spontaneous reaction between the WP and oxygen. The M929 (Range 200 meter minimum and 7,200 maximum) is range-matched to the 120mm High Explosive (HE) and Illum cartridges  
This item is Code A, approved for service use.

**UNCLASSIFIED**

<b>Exhibit P-40, Budget Line Item Justification:</b> PB 2016 Army		<b>Date:</b> February 2015
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2034A: Procurement of Ammunition, Army / BA 01: Ammunition / BSA 33: Mortar Ammunition		<b>P-1 Line Item Number / Title:</b> E25500 / 120MM Mortar, All Types
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) :	<b>Program Elements for Code B Items:</b>	<b>Other Related Program Elements:</b>

**UNCLASSIFIED**

**Exhibit P-40, Budget Line Item Justification:** PB 2016 Army **Date:** February 2015

<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2034A: Procurement of Ammunition, Army / BA 01: Ammunition / BSA 33: Mortar Ammunition	<b>P-1 Line Item Number / Title:</b> E25500 / 120MM Mortar, All Types
---	--

Exhibits Schedule			Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total
Title*	Exhibits	ID CD	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)
E25502 / CTG, MORTAR, 120MM HE M933 SERIES W/PD FUZE [CA44]	P-5, P-5a, P-21	A	- / 314.986	42,357 / 29.186	23,962 / 16.713	15,264 / 14.782	8,031 / 7.000	23,295 / 21.782
E25507 / CTG, MORTAR, 120MM FRPC M931 SERIES W/PRACT FUZE [CA09]	P-5, P-5a, P-21	A	- / 374.183	43,992 / 19.478	51,343 / 22.652	64,416 / 31.000	- / -	64,416 / 31.000
E91300 / CTG, MORTAR, 120MM WP SMOKE M929 SERIES W/MOFM [CA03]	P-5, P-5a, P-21	A	- / 166.381	9,374 / 12.116	- / -	13,229 / 18.590	- / -	13,229 / 18.590
<b>Total Gross/Weapon System Cost</b>			<b>- / 1,783.473</b>	<b>- / 60.780</b>	<b>- / 39.365</b>	<b>- / 64.372</b>	<b>- / 7.000</b>	<b>- / 71.372</b>

\*Title represents 1) the Number / Title for Items; 2) the Number / Title [DODIC] for Ammunition; and/or 3) the Number / Title (Modification Type) for Modifications.

Note: Totals in this Exhibit P-40 set may not be exact or add due to rounding.

**Justification:**

FY 2016 Base Budget supports critical Army Title 10 war reserve/operational, training, and test requirements IAW DoD Instruction 3000.04 (Munitions Requirements Process) and AR 5-13 (Total Army Munitions Requirements Process and Prioritization System). War reserve requirements support OSD-approved Combatant Commander Operational Plans, Homeland Defense, and other OSD-directed missions. Training requirements support individual and collective training of Active and Reserve Component forces at Army schools, home station, and the combined training centers. Test requirements support the development, fielding, safety, and quality assurance of Army munitions and equipment throughout their life-cycle.

In accordance with Section 1815 of the FY 2008 National Defense Authorization Act (P.L. 110-181), this item is necessary for use by the active and reserve components of the Armed Forces for homeland defense missions, domestic emergency responses, and providing military support to civil authorities.

FY 2016 Base procurement dollars in the amount of \$64.372 million supports production of 92,909 cartridges. FY 2016 OCO procurement dollars in the amount of \$7.000 million supports production of 8,031 cartridges. Funds are required to replenish munitions expended in combat operations in theater.

**E25502 - CTG, MORTAR, 120MM HE M933 SERIES W/PD FUZE**

This is a training standard item used in training and combat. FY 2016 request supports annual training and builds a war reserve inventory in accordance with the Army procurement goals.

TYPE CLASSIFICATION DATE: 2009

FY 2016 Base procurement dollars in the amount of \$14.782 million supports production of 15,264 cartridges.

FY 2016 OCO procurement dollars in the amount of \$7.000 million supports production of 8,031 cartridges. Funds are required to replenish munitions expended in combat operations in theater.

**E25507 - CTG, MORTAR, 120MM FRPC M931 SERIES W/PRACT FUZE**

This is a training unique item not used in combat. FY 2016 request supports annual training and builds a depot level in accordance with the Army procurement goals.

TYPE CLASSIFICATION DATE: 1996

FY 2016 Base procurement dollars in the amount of \$31.000 million supports production of 64,416 cartridges.

**E91300 - CTG, MORTAR, 120MM WP SMOKE M929 SERIES W/MOFM**

This is a training standard item used in training and combat. The request supports annual training and builds a war reserve inventory in accordance with the Army procurement goals.

TYPE CLASSIFICATION DATE: 1996

FY 2016 Base procurement dollars in the amount of \$18.590 million supports production of 13,229 cartridge

**UNCLASSIFIED**

<b>Exhibit P-5, Cost Analysis: PB 2016 Army</b>													<b>Date:</b> February 2015					
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2034A / 01 / 33						<b>P-1 Line Item Number / Title:</b> E25500 / 120MM Mortar, All Types						<b>Item Number / Title [DODIC]:</b> E25502 / CTG, MORTAR, 120MM HE M933 SERIES W/PD FUZE [CA44]						
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : A									<b>MDAP/MAIS Code:</b>									
<b>Resource Summary</b>				<b>Prior Years</b>		<b>FY 2014</b>			<b>FY 2015</b>			<b>FY 2016 Base</b>			<b>FY 2016 OCO</b>		<b>FY 2016 Total</b>	
Procurement Quantity (Units in Each)				-		42,357			23,962			15,264			8,031		23,295	
Gross/Weapon System Cost (\$ in Millions)				314.986		29.186			16.713			14.782			7.000		21.782	
Less PY Advance Procurement (\$ in Millions)				-		-			-			-			-		-	
Net Procurement (P1) (\$ in Millions)				314.986		29.186			16.713			14.782			7.000		21.782	
Plus CY Advance Procurement (\$ in Millions)				-		-			-			-			-		-	
<b>Total Obligation Authority (\$ in Millions)</b>				<b>314.986</b>		<b>29.186</b>			<b>16.713</b>			<b>14.782</b>			<b>7.000</b>		<b>21.782</b>	
<i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i>																		
Initial Spares (\$ in Millions)				-		-			-			-			-		-	
Gross/Weapon System Unit Cost (\$ in Dollars)				-		-			-			-			-		-	
Note: Subtotals or Totals in this Exhibit P-5 may not be exact or add, due to rounding.																		
<b>Cost Elements</b>	<b>Prior Years</b>			<b>FY 2014</b>			<b>FY 2015</b>			<b>FY 2016 Base</b>			<b>FY 2016 OCO</b>			<b>FY 2016 Total</b>		
	<b>Unit Cost (\$)</b>	<b>Qty (Each)</b>	<b>Total Cost (\$ M)</b>	<b>Unit Cost (\$)</b>	<b>Qty (Each)</b>	<b>Total Cost (\$ M)</b>	<b>Unit Cost (\$)</b>	<b>Qty (Each)</b>	<b>Total Cost (\$ M)</b>	<b>Unit Cost (\$)</b>	<b>Qty (Each)</b>	<b>Total Cost (\$ M)</b>	<b>Unit Cost (\$)</b>	<b>Qty (Each)</b>	<b>Total Cost (\$ M)</b>	<b>Unit Cost (\$)</b>	<b>Qty (Each)</b>	<b>Total Cost (\$ M)</b>
Hardware Cost																		
Recurring Cost																		
LOAD, ASSEMBLE, PACK (LAP) <sup>(†)</sup>	-	-	-	144.68	42,357	6.128	153.32	23,962	3.674	156.37	15,264	2.387	156.37	8,031	1.256	156.37	23,295	3.643
FUZE POINT DETONATOR M783 <sup>(†)</sup>	-	-	-	157.42	43,628	6.868	156.55	24,681	3.864	250.00	15,721	3.930	250.00	8,272	2.068	250.00	23,993	5.998
SHELL BODY, 120MM HE <sup>(†)</sup>	-	-	-	93.29	43,628	4.070	101.84	24,681	2.514	103.87	15,721	1.633	103.87	8,272	0.859	103.87	23,993	2.492
IGNITION CARTRIDGE, M1020 <sup>(†)</sup>	-	-	-	20.75	43,628	0.905	23.57	24,681	0.582	24.04	15,721	0.378	24.04	8,272	0.199	24.04	23,993	0.577
PROPELLANT CHARGE, M234A1 <sup>(†)</sup>	-	-	-	16.03	174,511	2.797	16.95	98,723	1.673	22.67	62,887	1.426	22.67	33,088	0.750	22.67	95,975	2.176
FIN ASSEMBLY, M31 <sup>(†)</sup>	-	-	-	38.71	43,628	1.689	39.47	24,681	0.974	40.26	15,721	0.633	40.26	8,272	0.333	40.26	23,993	0.966
FUZE ADAPTER, 120MM <sup>(†)</sup>	-	-	-	9.74	43,628	0.425	12.00	24,681	0.296	22.75	15,721	0.358	22.75	8,272	0.188	22.75	23,993	0.546
COMP B TYPE I GRADE A <sup>(†)</sup>	-	-	-	11.62	296,499	3.445	11.65	90,984	1.060	17.91	137,376	2.460	17.91	72,279	1.295	17.91	209,655	3.755
<i>Subtotal: Recurring Cost</i>	-	-	-	-	-	26.328	-	-	14.637	-	-	13.205	-	-	6.948	-	-	20.152
<i>Subtotal: Hardware Cost</i>	-	-	-	-	-	26.328	-	-	14.637	-	-	13.205	-	-	6.948	-	-	20.152
Support Cost																		

**UNCLASSIFIED**

<b>Exhibit P-5, Cost Analysis: PB 2016 Army</b>		<b>Date:</b> February 2015
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2034A / 01 / 33	<b>P-1 Line Item Number / Title:</b> E25500 / 120MM Mortar, All Types	<b>Item Number / Title [DODIC]:</b> E25502 / CTG, MORTAR, 120MM HE M933 SERIES W/PD FUZE [CA44]
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : A		<b>MDAP/MAIS Code:</b>

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or add, due to rounding.

Cost Elements	Prior Years			FY 2014			FY 2015			FY 2016 Base			FY 2016 OCO			FY 2016 Total		
	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)
PRODUCTION ENGINEERING	-	-	314.986	-	-	2.522	-	-	1.839	-	-	1.478	-	-	-	-	-	1.478
ACCEPTANCE TESTING	-	-	-	-	-	0.337	-	-	0.187	-	-	0.099	-	-	0.052	-	-	0.151
FIRST ARTICLE TEST	-	-	-	-	-	-	-	-	0.050	-	-	-	-	-	-	-	-	-
<i>Subtotal: Support Cost</i>	-	-	314.986	-	-	2.859	-	-	2.076	-	-	1.577	-	-	0.052	-	-	1.629
<b>Gross/Weapon System Cost</b>	-	-	<b>314.986</b>	-	<b>42,357</b>	<b>29.186</b>	-	<b>23,962</b>	<b>16.713</b>	-	<b>15,264</b>	<b>14.782</b>	-	<b>8,031</b>	<b>7.000</b>	-	<b>23,295</b>	<b>21.782</b>

(t) indicates the presence of a P-5a



**UNCLASSIFIED**

Exhibit P-5a, Procurement History and Planning: PB 2016 Army								Date: February 2015				
Appropriation / Budget Activity / Budget Sub Activity:			P-1 Line Item Number / Title:					Item Number / Title [DODIC]:				
2034A / 01 / 33			E25500 / 120MM Mortar, All Types					E25502 / CTG, MORTAR, 120MM HE M933 SERIES W/PD FUZE [CA44]				
Cost Elements	O C O	FY	Contractor and Location	Method/Type or Funding Vehicle	Location of PCO	Award Date	Date of First Delivery	Qty <i>(Each)</i>	Unit Cost <i>(\$)</i>	Specs Avail Now?	Date Revision Available	RFP Issue Date
LOAD, ASSEMBLE, PACK (LAP) <sup>(†)</sup>		2014	GEN DYNAMICS ORD & TAC SYS - / LE GARDEUR, CANADA	C / FFP	PICATINNY ARSENAL, NJ	Jan 2014	Mar 2016	42,357	144.68	Y		
LOAD, ASSEMBLE, PACK (LAP) <sup>(†)</sup>		2015	AMERICAN ORDNANCE LLC (IAAP) / MIDDLETOWN, IA	SS / FFP	PICATINNY ARSENAL, NJ	Aug 2015	Aug 2017	23,962	153.32	Y		
LOAD, ASSEMBLE, PACK (LAP) <sup>(†)</sup>		2016	AMERICAN ORDNANCE LLC (IAAP) / MIDDLETOWN, IA	SS / FFP	PICATINNY ARSENAL, NJ	Mar 2016	Mar 2018	23,295	156.37	Y		
FUZE POINT DETONATOR M783		2014	L-3 FUZING & ORDANCE SYSTEMS / CINCINNATI, OH	C / FFP	PICATINNY ARSENAL, NJ	Mar 2014	Nov 2015	43,628	157.42	Y		
FUZE POINT DETONATOR M783		2015	L-3 FUZING & ORDANCE SYSTEMS / CINCINNATI, OH	C / FFP	PICATINNY ARSENAL, NJ	Feb 2015	Oct 2016	24,681	156.55	Y		
FUZE POINT DETONATOR M783		2016	TO BE SELECTED / TBS01	C / FFP	PICATINNY ARSENAL, NJ	Feb 2016	Oct 2017	23,993	250.00	Y		
SHELL BODY, 120MM HE		2014	MEDICO INDUSTRIES INC. / WILKES BARRE, PA	C / FFP	PICATINNY ARSENAL, NJ	Jan 2014	Sep 2015	43,628	93.29	Y		
SHELL BODY, 120MM HE		2015	MEDICO INDUSTRIES INC. / WILKES BARRE, PA	C / FFP	PICATINNY ARSENAL, NJ	Feb 2015	Aug 2016	24,681	101.84	Y		
SHELL BODY, 120MM HE		2016	MEDICO INDUSTRIES INC. / WILKES BARRE, PA	C / FFP	PICATINNY ARSENAL, NJ	Feb 2016	Aug 2017	23,993	103.87	Y		
IGNITION CARTRIDGE, M1020		2014	NAMMO POCAL INC. / SCRANTON, PA	C / IDIQ	PICATINNY ARSENAL, NJ	Jan 2014	Sep 2015	43,628	20.75	Y		
IGNITION CARTRIDGE, M1020		2015	NAMMO POCAL INC. / SCRANTON, PA	C / IDIQ	PICATINNY ARSENAL, NJ	Apr 2015	Oct 2016	24,681	23.57	Y		
IGNITION CARTRIDGE, M1020		2016	NAMMO POCAL INC. / SCRANTON, PA	C / IDIQ	PICATINNY ARSENAL, NJ	Feb 2016	Aug 2017	23,993	24.04	Y		
PROPELLANT CHARGE, M234A1		2014	AMERICAN ORDNANCE LLC (IAAP) / MIDDLETOWN, IA	C / IDIQ	ROCK ISLAND ARSENAL, IL	Jun 2014	Dec 2015	174,511	16.03	Y		
PROPELLANT CHARGE, M234A1		2015	TO BE SELECTED / TBS02	C / IDIQ	ROCK ISLAND ARSENAL, IL	Apr 2015	Oct 2016	98,723	16.95	Y		
PROPELLANT CHARGE, M234A1		2016	TO BE SELECTED / TBS02	C / IDIQ	ROCK ISLAND ARSENAL, IL	Feb 2016	Aug 2017	95,975	22.67	Y		
FIN ASSEMBLY, M31		2014	MACHINING TECHNOLOGIES INC / SALISBURY, MD	C / FFP	PICATINNY ARSENAL, NJ	Mar 2014	Sep 2015	43,628	38.71	Y		
FIN ASSEMBLY, M31		2015	MACHINING TECHNOLOGIES INC / SALISBURY, MD	C / FFP	PICATINNY ARSENAL, NJ	Apr 2015	Oct 2016	24,681	39.47	Y		
FIN ASSEMBLY, M31		2016	MACHINING TECHNOLOGIES INC / SALISBURY, MD	C / FFP	PICATINNY ARSENAL, NJ	Mar 2016	Sep 2017	23,993	40.26	Y		
FUZE ADAPTER, 120MM		2014	MANUFACTURING SUPPORT / HEBRON, MD	C / FFP	PICATINNY ARSENAL, NJ	Feb 2014	Aug 2015	43,628	9.74	Y		
FUZE ADAPTER, 120MM		2015	TO BE SELECTED / TBS03	C / FFP	PICATINNY ARSENAL, NJ	Apr 2015	Oct 2016	24,681	12.00	Y		
FUZE ADAPTER, 120MM		2016	TO BE SELECTED / TBS03	C / FFP	PICATINNY ARSENAL, NJ	Feb 2016	Aug 2017	23,993	22.75	Y		

**UNCLASSIFIED**

<b>Exhibit P-5a, Procurement History and Planning:</b> PB 2016 Army							<b>Date:</b> February 2015					
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2034A / 01 / 33			<b>P-1 Line Item Number / Title:</b> E25500 / 120MM Mortar, All Types				<b>Item Number / Title [DODIC]:</b> E25502 / CTG, MORTAR, 120MM HE M933 SERIES W/PD FUZE [CA44]					
<b>Cost Elements</b>	<b>O C O</b>	<b>FY</b>	<b>Contractor and Location</b>	<b>Method/Type or Funding Vehicle</b>	<b>Location of PCO</b>	<b>Award Date</b>	<b>Date of First Delivery</b>	<b>Qty (Each)</b>	<b>Unit Cost (\$)</b>	<b>Specs Avail Now?</b>	<b>Date Revision Available</b>	<b>RFP Issue Date</b>
COMP B TYPE I GRADE A		2014	BAE SYSTEMS ORDNANCE SYSTEMS / KINGSPORT, TN	SS / FFP	ROCK ISLAND ARSENAL, IL	Dec 2013	Dec 2014	296,499	11.62	Y		
COMP B TYPE I GRADE A		2015	BAE SYSTEMS ORDNANCE SYSTEMS / KINGSPORT, TN	SS / FFP	ROCK ISLAND ARSENAL, IL	Mar 2015	Mar 2016	90,984	11.65	Y		
COMP B TYPE I GRADE A		2016	BAE SYSTEMS ORDNANCE SYSTEMS / KINGSPORT, TN	SS / FFP	ROCK ISLAND ARSENAL, IL	Mar 2016	Mar 2017	209,655	17.91	Y		

<sup>(t)</sup> indicates the presence of a P-21

**Remarks:**

M234A1 Propellant Chargres: IDIQ awarded (Dec 12) to multiple contractors. Requirements will be competed among the following contractors: Day and Zimmerman, Camden, AR; American Ordnance, Middletown, IA; General Dynamics, Marion, IL.

**UNCLASSIFIED**

<b>Exhibit P-21, Production Schedule:</b> PB 2016 Army															<b>Date:</b> February 2015														
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2034A / 01 / 33										<b>P-1 Line Item Number / Title:</b> E25500 / 120MM Mortar, All Types										<b>Item Number / Title [DODIC]:</b> E25502 / CTG, MORTAR, 120MM HE M933 SERIES W/PD FUZE [CA44]									

Cost Elements <i>(Units in Thousands)</i>						Fiscal Year 2014												Fiscal Year 2015																
O C C O	M F R #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2013	BAL DUE AS OF 1 OCT	Calendar Year 2014												Calendar Year 2015															
							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	B A L			
LOAD, ASSEMBLE, PACK (LAP)																																		
	1	2014	ARMY	42.357	-	42.357				A -	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	42.357
	2	2015	ARMY	23.962	-	23.962																									A -	-	23.962	
	2	2016	ARMY	23.295	-	23.295																												23.295
							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	B A L			

**UNCLASSIFIED**

<b>Exhibit P-21, Production Schedule:</b> PB 2016 Army															<b>Date:</b> February 2015														
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2034A / 01 / 33										<b>P-1 Line Item Number / Title:</b> E25500 / 120MM Mortar, All Types										<b>Item Number / Title [DODIC]:</b> E25502 / CTG, MORTAR, 120MM HE M933 SERIES W/PD FUZE [CA44]									

Cost Elements <i>(Units in Thousands)</i>						Fiscal Year 2016												Fiscal Year 2017																	
O C C #	M F R #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2015	BAL DUE AS OF 1 OCT	Calendar Year 2016												Calendar Year 2017																
							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	B A L				
LOAD, ASSEMBLE, PACK (LAP)																																			
	1	2014	ARMY	42.357	-	42.357	-	-	-	-	-	-	-	12.000	12.000	12.000	6.357	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	2	2015	ARMY	23.962	-	23.962	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	12.000	11.962	-
	2	2016	ARMY	23.295	-	23.295	-	-	-	-	-	-	-	A -	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	23.295	
							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	B A L				

**UNCLASSIFIED**

<b>Exhibit P-21, Production Schedule:</b> PB 2016 Army													<b>Date:</b> February 2015												
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2034A / 01 / 33						<b>P-1 Line Item Number / Title:</b> E25500 / 120MM Mortar, All Types						<b>Item Number / Title [DODIC]:</b> E25502 / CTG, MORTAR, 120MM HE M933 SERIES W/PD FUZE [CA44]													

Cost Elements <i>(Units in Thousands)</i>						Fiscal Year 2018												Fiscal Year 2019													
O C C #	M F R #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2017	BAL DUE AS OF 1 OCT	Calendar Year 2018												Calendar Year 2019												
							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	B A L
LOAD, ASSEMBLE, PACK (LAP)																															
	1	2014	ARMY	42.357	42.357	-																									
	2	2015	ARMY	23.962	23.962	-																									
	2	2016	ARMY	23.295	-	23.295	-	-	-	-	-	-	10.000	8.031	5.264																
							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	B A L

**UNCLASSIFIED**

<b>Exhibit P-21, Production Schedule:</b> PB 2016 Army		<b>Date:</b> February 2015
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2034A / 01 / 33		<b>P-1 Line Item Number / Title:</b> E25500 / 120MM Mortar, All Types
<b>Item Number / Title [DODIC]:</b> E25502 / CTG, MORTAR, 120MM HE M933 SERIES W/PD FUZE [CA44]		

MFR Ref #	MFR Name - Location	Production Rates (Each / Month)			Procurement Leadtime (Months)							
		MSR For 2016	1-8-5 For 2016	MAX For 2016	Initial			Reorder				
					ALT Prior to Oct 1	ALT After Oct 1	Mfg PLT	ALT Prior to Oct 1	ALT After Oct 1	Mfg PLT	Total After Oct 1	
1	GEN DYNAMICS ORD & TAC SYS - - LE GARDEUR, CANADA	6,000	12,000	30,000	6	6	24	30	6	6	24	30
2	AMERICAN ORDNANCE LLC (IAAP) - MIDDLETOWN, IA	6,000	12,000	30,000	6	6	24	30	6	6	24	30

"A" in the Delivery Schedule indicates the Contract Award Date.

Note: Due to space limitations, quantities in the Exhibit P-21 delivery calendar are truncated and rounded based on the maximum quantity in the calendar as follows. If the maximum quantity is less than or equal to than 9,999, all quantities are shown as each. If the maximum quantity is between 10,000 and 999,999 all quantities are shown in thousands. If the maximum quantity is between 1,000,000 and 999,999,999 all quantities are shown in millions (rounded to the nearest thousand). If the maximum quantity is equal or greater than 1,000,000,000 all quantities are shown in billions (rounded to the nearest million).

**UNCLASSIFIED**

<b>Exhibit P-5, Cost Analysis: PB 2016 Army</b>		<b>Date:</b> February 2015
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2034A / 01 / 33		<b>P-1 Line Item Number / Title:</b> E25500 / 120MM Mortar, All Types
		<b>Item Number / Title [DODIC]:</b> E25507 / CTG, MORTAR, 120MM FRPC M931 SERIES W/PRACT FUZE [CA09]

<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : A	<b>MDAP/MAIS Code:</b>
---	------------------------

Resource Summary	Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total
Procurement Quantity (Units in Each)	-	43,992	51,343	64,416	-	64,416
Gross/Weapon System Cost (\$ in Millions)	374.183	19.478	22.652	31.000	-	31.000
Less PY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
Net Procurement (P1) (\$ in Millions)	374.183	19.478	22.652	31.000	-	31.000
Plus CY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
<b>Total Obligation Authority (\$ in Millions)</b>	<b>374.183</b>	<b>19.478</b>	<b>22.652</b>	<b>31.000</b>	<b>-</b>	<b>31.000</b>

*(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)*

Initial Spares (\$ in Millions)	-	-	-	-	-	-
Gross/Weapon System Unit Cost (\$ in Dollars)	-	-	-	-	-	-

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or add, due to rounding.

Cost Elements	Prior Years			FY 2014			FY 2015			FY 2016 Base			FY 2016 OCO			FY 2016 Total		
	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)
Hardware Cost																		
Recurring Cost																		
LOAD, ASSEMBLE, PACK (LAP) <sup>(†)</sup>	-	-	-	90.86	43,992	3.997	120.00	51,343	6.161	122.39	64,416	7.884	-	-	-	122.39	64,416	7.884
FUZE PRACTICE, M781 <sup>(†)</sup>	-	-	-	17.83	45,312	0.808	18.99	52,883	1.004	19.36	66,348	1.284	-	-	-	19.36	66,348	1.284
SHELL BODY, 120MM FRPC <sup>(†)</sup>	-	-	-	87.75	45,312	3.976	96.74	52,883	5.116	98.67	66,348	6.547	-	-	-	98.67	66,348	6.547
IGNITION CARTRIDGE, M1020 <sup>(†)</sup>	-	-	-	20.75	45,312	0.940	23.57	52,883	1.246	24.04	66,348	1.595	-	-	-	24.04	66,348	1.595
PROPELLANT CHARGE, M234A1 <sup>(†)</sup>	-	-	-	16.03	181,247	2.905	16.95	211,533	3.585	22.67	265,393	6.016	-	-	-	22.67	265,393	6.016
FIN ASSEMBLY, M31 <sup>(†)</sup>	-	-	-	38.60	45,312	1.749	39.47	52,883	2.087	40.26	66,348	2.671	-	-	-	40.26	66,348	2.671
FUZE ADAPTER, 120MM <sup>(†)</sup>	-	-	-	8.98	45,312	0.407	12.00	52,883	0.635	22.75	66,348	1.509	-	-	-	22.75	66,348	1.509
<i>Subtotal: Recurring Cost</i>	-	-	-	-	-	14.783	-	-	19.835	-	-	27.507	-	-	-	-	-	27.507
<i>Subtotal: Hardware Cost</i>	-	-	-	-	-	14.783	-	-	19.835	-	-	27.507	-	-	-	-	-	27.507
Support Cost																		
PRODUCTION ENGINEERING	-	-	374.183	-	-	4.373	-	-	2.492	-	-	3.100	-	-	-	-	-	3.100

**UNCLASSIFIED**

<b>Exhibit P-5, Cost Analysis:</b> PB 2016 Army		<b>Date:</b> February 2015
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2034A / 01 / 33	<b>P-1 Line Item Number / Title:</b> E25500 / 120MM Mortar, All Types	<b>Item Number / Title [DODIC]:</b> E25507 / CTG, MORTAR, 120MM FRPC M931 SERIES W/PRACT FUZE [CA09]
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : A		<b>MDAP/MAIS Code:</b>

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or add, due to rounding.

Cost Elements	Prior Years			FY 2014			FY 2015			FY 2016 Base			FY 2016 OCO			FY 2016 Total		
	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)
ACCEPTANCE TESTING	-	-	-	-	-	0.322	-	-	0.325	-	-	0.390	-	-	-	-	-	0.390
<i>Subtotal: Support Cost</i>	-	-	374.183	-	-	4.695	-	-	2.817	-	-	3.490	-	-	-	-	-	3.490
<b>Gross/Weapon System Cost</b>	-	-	374.183	-	43,992	19.478	-	51,343	22.652	-	64,416	31.000	-	-	-	-	64,416	31.000

(t) indicates the presence of a P-5a



**UNCLASSIFIED**

Exhibit P-5a, Procurement History and Planning: PB 2016 Army								Date: February 2015				
Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 33			P-1 Line Item Number / Title: E25500 / 120MM Mortar, All Types					Item Number / Title [DODIC]: E25507 / CTG, MORTAR, 120MM FRPC M931 SERIES W/PRACT FUZE [CA09]				
Cost Elements	O C O	FY	Contractor and Location	Method/Type or Funding Vehicle	Location of PCO	Award Date	Date of First Delivery	Qty (Each)	Unit Cost (\$)	Specs Avail Now?	Date Revision Available	RFP Issue Date
LOAD, ASSEMBLE, PACK (LAP) <sup>(†)</sup>		2014	AMERICAN ORDNANCE LLC (IAAP) / MIDDLETOWN, IA	SS / FFP	PICATINNY ARSENAL, NJ	Jul 2015	Jul 2017	43,992	90.86	Y		
LOAD, ASSEMBLE, PACK (LAP) <sup>(†)</sup>		2015	AMERICAN ORDNANCE LLC (IAAP) / MIDDLETOWN, IA	SS / FFP	PICATINNY ARSENAL, NJ	Aug 2015	Aug 2017	51,343	120.00	Y		
LOAD, ASSEMBLE, PACK (LAP) <sup>(†)</sup>		2016	AMERICAN ORDNANCE LLC (IAAP) / MIDDLETOWN, IA	SS / FFP	PICATINNY ARSENAL, NJ	Mar 2016	Mar 2018	64,416	122.39	Y		
FUZE PRACTICE, M781		2014	NAMMO POCAL INC. / SCRANTON, PA	C / IDIQ	PICATINNY ARSENAL, NJ	Jan 2014	Jul 2015	45,312	17.83	Y		
FUZE PRACTICE, M781		2015	NAMMO POCAL INC. / SCRANTON, PA	C / IDIQ	PICATINNY ARSENAL, NJ	Apr 2015	Oct 2016	52,883	18.99	Y		
FUZE PRACTICE, M781		2016	NAMMO POCAL INC. / SCRANTON, PA	C / IDIQ	PICATINNY ARSENAL, NJ	Feb 2016	Aug 2017	66,348	19.36	Y		
SHELL BODY, 120MM FRPC		2014	MEDICO INDUSTRIES INC. / WILKES BARRE, PA	C / FFP	PICATINNY ARSENAL, NJ	Dec 2013	Jun 2014	45,312	87.75	Y		
SHELL BODY, 120MM FRPC		2015	MEDICO INDUSTRIES INC. / WILKES BARRE, PA	C / FFP	PICATINNY ARSENAL, NJ	Apr 2015	Oct 2016	52,883	96.74	Y		
SHELL BODY, 120MM FRPC		2016	MEDICO INDUSTRIES INC. / WILKES BARRE, PA	C / FFP	PICATINNY ARSENAL, NJ	Feb 2016	Aug 2017	66,348	98.67	Y		
IGNITION CARTRIDGE, M1020		2014	NAMMO POCAL INC. / SCRANTON, PA	C / IDIQ	PICATINNY ARSENAL, NJ	Dec 2014	Jun 2015	45,312	20.75	Y		
IGNITION CARTRIDGE, M1020		2015	NAMMO POCAL INC. / SCRANTON, PA	C / IDIQ	PICATINNY ARSENAL, NJ	Apr 2015	Oct 2016	52,883	23.57	Y		
IGNITION CARTRIDGE, M1020		2016	NAMMO POCAL INC. / SCRANTON, PA	C / IDIQ	PICATINNY ARSENAL, NJ	Feb 2016	Aug 2017	66,348	24.04	Y		
PROPELLANT CHARGE, M234A1		2014	AMERICAN ORDNANCE LLC (IAAP) / MIDDLETOWN, IA	C / IDIQ	ROCK ISLAND ARSENAL, IL	May 2014	Nov 2015	181,247	16.03	Y		
PROPELLANT CHARGE, M234A1		2015	TO BE SELECTED / TBS01	C / IDIQ	ROCK ISLAND ARSENAL, IL	Apr 2015	Oct 2016	211,533	16.95	Y		
PROPELLANT CHARGE, M234A1		2016	TO BE SELECTED / TBS01	C / IDIQ	ROCK ISLAND ARSENAL, IL	Feb 2016	Aug 2017	265,393	22.67	Y		
FIN ASSEMBLY, M31		2014	MACHINING TECHNOLOGIES INC / SALISBURY, MD	C / FFP	PICATINNY ARSENAL, NJ	Dec 2013	Jun 2014	45,312	38.60	Y		
FIN ASSEMBLY, M31		2015	MACHINING TECHNOLOGIES INC / SALISBURY, MD	C / FFP	PICATINNY ARSENAL, NJ	Apr 2015	Oct 2016	52,883	39.47	Y		
FIN ASSEMBLY, M31		2016	MACHINING TECHNOLOGIES INC / SALISBURY, MD	C / FFP	PICATINNY ARSENAL, NJ	Feb 2016	Aug 2017	66,348	40.26	Y		
FUZE ADAPTER, 120MM		2014	MANUFACTURING SUPPORT / HEBRON, MD	C / FFP	PICATINNY ARSENAL, NJ	Feb 2014	Aug 2015	45,312	8.98	Y		
FUZE ADAPTER, 120MM		2015	TO BE SELECTED / TBS02	C / FFP	PICATINNY ARSENAL, NJ	Apr 2015	Oct 2016	52,883	12.00	Y		

**UNCLASSIFIED**

<b>Exhibit P-5a, Procurement History and Planning:</b> PB 2016 Army							<b>Date:</b> February 2015					
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2034A / 01 / 33			<b>P-1 Line Item Number / Title:</b> E25500 / 120MM Mortar, All Types				<b>Item Number / Title [DODIC]:</b> E25507 / CTG, MORTAR, 120MM FRPC M931 SERIES W/PRACT FUZE [CA09]					
<b>Cost Elements</b>	<b>O C O</b>	<b>FY</b>	<b>Contractor and Location</b>	<b>Method/Type or Funding Vehicle</b>	<b>Location of PCO</b>	<b>Award Date</b>	<b>Date of First Delivery</b>	<b>Qty (Each)</b>	<b>Unit Cost (\$)</b>	<b>Specs Avail Now?</b>	<b>Date Revision Available</b>	<b>RFP Issue Date</b>
FUZE ADAPTER, 120MM		2016	TO BE SELECTED / TBS02	C / FFP	PICATINNY ARSENAL, NJ	Feb 2016	Aug 2017	66,348	22.75	Y		

<sup>(t)</sup> indicates the presence of a P-21

**Remarks:**

M234A1 Propellant Charges: IDIQ awarded (Dec 12) to multiple contractors. Requirements will be competed among the following contractors: Day and Zimmerman, Camden, AR; American Ordnance, Middletown, IA and General Dynamics, Marion, IL.

**UNCLASSIFIED**

<b>Exhibit P-21, Production Schedule:</b> PB 2016 Army		<b>Date:</b> February 2015
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2034A / 01 / 33		<b>P-1 Line Item Number / Title:</b> E25500 / 120MM Mortar, All Types
		<b>Item Number / Title [DODIC]:</b> E25507 / CTG, MORTAR, 120MM FRPC M931 SERIES W/PRACT FUZE [CA09]

Cost Elements <i>(Units in Thousands)</i>						Fiscal Year 2014													Fiscal Year 2015																					
O C O	M F R #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2013	BAL DUE AS OF 1 OCT	Calendar Year 2014													Calendar Year 2015																				
							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	B A L									
LOAD, ASSEMBLE, PACK (LAP)																																								
	1	2014	ARMY	43.992	-	43.992																														A	-	-	-	43.992
	1	2015	ARMY	51.343	-	51.343																															A	-	-	51.343
	1	2016	ARMY	64.416	-	64.416																																	64.416	
							O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	A	M	J	J	A	S	B	A	-	-	-	B			
							C	O	E	A	E	A	A	A	U	U	U	E	C	O	V	E	A	E	A	A	A	U	U	A	S	P	A	-	-	-	A			
							T	V	C	N	B	R	P	Y	N	L	G	P	T	V	C	N	B	R	P	Y	N	L	U	G	P	L	-	-	-	L				

**UNCLASSIFIED**

<b>Exhibit P-21, Production Schedule:</b> PB 2016 Army															<b>Date:</b> February 2015														
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2034A / 01 / 33										<b>P-1 Line Item Number / Title:</b> E25500 / 120MM Mortar, All Types										<b>Item Number / Title [DODIC]:</b> E25507 / CTG, MORTAR, 120MM FRPC M931 SERIES W/PRACT FUZE [CA09]									

Cost Elements <i>(Units in Thousands)</i>						Fiscal Year 2016												Fiscal Year 2017																
O C C #	M F R #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2015	BAL DUE AS OF 1 OCT	Calendar Year 2016												Calendar Year 2017															
							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	B A L			
LOAD, ASSEMBLE, PACK (LAP)																																		
1		2014	ARMY	43.992	-	43.992	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	10.000	5.000	5.000	23.992
1		2015	ARMY	51.343	-	51.343	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5.000	5.000	41.343	
1		2016	ARMY	64.416	-	64.416																											64.416	
							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	B A L			

**UNCLASSIFIED**

<b>Exhibit P-21, Production Schedule:</b> PB 2016 Army															<b>Date:</b> February 2015														
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2034A / 01 / 33										<b>P-1 Line Item Number / Title:</b> E25500 / 120MM Mortar, All Types										<b>Item Number / Title [DODIC]:</b> E25507 / CTG, MORTAR, 120MM FRPC M931 SERIES W/PRACT FUZE [CA09]									

Cost Elements <i>(Units in Thousands)</i>					Fiscal Year 2018												Fiscal Year 2019														
O C C #	M F R #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2017	BAL DUE AS OF 1 OCT	Calendar Year 2018												Calendar Year 2019												B A L
							O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	
LOAD, ASSEMBLE, PACK (LAP)																															
	1	2014	ARMY	43.992	20.000	23.992	5.000	5.000	5.000	5.000	3.992																		-		
	1	2015	ARMY	51.343	10.000	41.343	5.000	5.000	5.000	5.000	6.008	5.000	5.000	5.000	.335														-		
	1	2016	ARMY	64.416	-	64.416	-	-	-	-	-	5.000	5.000	5.000	9.665	10.000	10.000	10.000	9.751										-		
							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	B A L

**UNCLASSIFIED**

<b>Exhibit P-21, Production Schedule:</b> PB 2016 Army		<b>Date:</b> February 2015
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2034A / 01 / 33		<b>P-1 Line Item Number / Title:</b> E25500 / 120MM Mortar, All Types
		<b>Item Number / Title [DODIC]:</b> E25507 / CTG, MORTAR, 120MM FRPC M931 SERIES W/PRACT FUZE [CA09]

MFR Ref #	MFR Name - Location	Production Rates (Each / Month)			Procurement Leadtime (Months)							
		MSR For 2016	1-8-5 For 2016	MAX For 2016	Initial				Reorder			
					ALT Prior to Oct 1	ALT After Oct 1	Mfg PLT	Total After Oct 1	ALT Prior to Oct 1	ALT After Oct 1	Mfg PLT	Total After Oct 1
1	AMERICAN ORDNANCE LLC (IAAP) - MIDDLETOWN, IA	10,000	10,000	20,000	6	6	24	30	6	6	24	30

"A" in the Delivery Schedule indicates the Contract Award Date.  
 Note: Due to space limitations, quantities in the Exhibit P-21 delivery calendar are truncated and rounded based on the maximum quantity in the calendar as follows. If the maximum quantity is less than or equal to than 9,999, all quantities are shown as each. If the maximum quantity is between 10,000 and 999,999 all quantities are shown in thousands. If the maximum quantity is between 1,000,000 and 999,999,999 all quantities are shown in millions (rounded to the nearest thousand). If the maximum quantity is equal or greater than 1,000,000,000 all quantities are shown in billions (rounded to the nearest million).

**UNCLASSIFIED**

<b>Exhibit P-5, Cost Analysis: PB 2016 Army</b>		<b>Date:</b> February 2015
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2034A / 01 / 33		<b>P-1 Line Item Number / Title:</b> E25500 / 120MM Mortar, All Types
		<b>Item Number / Title [DODIC]:</b> E91300 / CTG, MORTAR, 120MM WP SMOKE M929 SERIES W/MOFM [CA03]

<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : A	<b>MDAP/MAIS Code:</b>
---	------------------------

Resource Summary	Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total
Procurement Quantity (Units in Each)	-	9,374	-	13,229	-	13,229
Gross/Weapon System Cost (\$ in Millions)	166.381	12.116	-	18.590	-	18.590
Less PY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
Net Procurement (P1) (\$ in Millions)	166.381	12.116	-	18.590	-	18.590
Plus CY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
<b>Total Obligation Authority (\$ in Millions)</b>	<b>166.381</b>	<b>12.116</b>	<b>-</b>	<b>18.590</b>	<b>-</b>	<b>18.590</b>

*(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)*

Initial Spares (\$ in Millions)	-	-	-	-	-	-
Gross/Weapon System Unit Cost (\$ in Dollars)	-	-	-	-	-	-

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or add, due to rounding.

Cost Elements	Prior Years			FY 2014			FY 2015			FY 2016 Base			FY 2016 OCO			FY 2016 Total		
	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)
Hardware Cost																		
Recurring Cost																		
LOAD, ASSEMBLE, PACK (LAP) <sup>(†)</sup>	-	-	-	383.69	9,374	3.597	-	-	-	393.26	13,229	5.202	-	-	-	393.26	13,229	5.202
SHELL BODY, 120MM SMK <sup>(†)</sup>	-	-	-	217.75	9,655	2.102	-	-	-	228.51	13,625	3.113	-	-	-	228.51	13,625	3.113
BURSTER ASSEMBLY, M86 <sup>(†)</sup>	-	-	-	51.89	9,655	0.501	-	-	-	49.37	13,625	0.673	-	-	-	49.37	13,625	0.673
PROPELLANT CHARGE, M234A1 <sup>(†)</sup>	-	-	-	16.03	38,621	0.619	-	-	-	22.67	54,503	1.236	-	-	-	22.67	54,503	1.236
FUZE MOFM, M734A1 <sup>(†)</sup>	-	-	-	248.33	9,655	2.398	-	-	-	334.33	13,625	4.555	-	-	-	334.33	13,625	4.555
IGNITION CARTRIDGE, M1020 <sup>(†)</sup>	-	-	-	20.75	9,655	0.200	-	-	-	24.04	13,625	0.328	-	-	-	24.04	13,625	0.328
BURSTER HOUSING, 120MM SMOKE <sup>(†)</sup>	-	-	-	32.86	9,655	0.317	-	-	-	31.23	13,625	0.426	-	-	-	31.23	13,625	0.426
FIN ASSEMBLY, M31 <sup>(†)</sup>	-	-	-	38.60	9,655	0.373	-	-	-	40.26	13,625	0.549	-	-	-	40.26	13,625	0.549
FIBER CONTAINER PA 167, 120MM <sup>(†)</sup>	-	-	-	11.26	9,655	0.109	-	-	-	11.69	13,625	0.159	-	-	-	11.69	13,625	0.159

**UNCLASSIFIED**

<b>Exhibit P-5, Cost Analysis: PB 2016 Army</b>		<b>Date:</b> February 2015
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2034A / 01 / 33	<b>P-1 Line Item Number / Title:</b> E25500 / 120MM Mortar, All Types	<b>Item Number / Title [DODIC]:</b> E91300 / CTG, MORTAR, 120MM WP SMOKE M929 SERIES W/MOFM [CA03]
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : A		<b>MDAP/MAIS Code:</b>

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or add, due to rounding.

Cost Elements	Prior Years			FY 2014			FY 2015			FY 2016 Base			FY 2016 OCO			FY 2016 Total		
	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)
METAL CONTAINER PA 154, 120MM <sup>(t)</sup>	-	-	-	55.70	4,874	0.271	-	-	-	56.61	6,879	0.389	-	-	-	56.61	6,879	0.389
<i>Subtotal: Recurring Cost</i>	-	-	-	-	-	10.487	-	-	-	-	-	16.630	-	-	-	-	-	16.630
<i>Subtotal: Hardware Cost</i>	-	-	-	-	-	10.487	-	-	-	-	-	16.630	-	-	-	-	-	16.630
Support Cost																		
PRODUCTION ENGINEERING	-	-	166.381	-	-	1.558	-	-	-	-	-	1.860	-	-	-	-	-	1.860
ACCEPTANCE TESTING	-	-	-	-	-	0.071	-	-	-	-	-	0.100	-	-	-	-	-	0.100
<i>Subtotal: Support Cost</i>	-	-	166.381	-	-	1.629	-	-	-	-	-	1.960	-	-	-	-	-	1.960
<b>Gross/Weapon System Cost</b>	-	-	<b>166.381</b>	-	<b>9,374</b>	<b>12.116</b>	-	-	-	-	<b>13,229</b>	<b>18.590</b>	-	-	-	-	<b>13,229</b>	<b>18.590</b>

(t) indicates the presence of a P-5a



**UNCLASSIFIED**

<b>Exhibit P-5a, Procurement History and Planning: PB 2016 Army</b>							<b>Date:</b> February 2015					
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2034A / 01 / 33			<b>P-1 Line Item Number / Title:</b> E25500 / 120MM Mortar, All Types				<b>Item Number / Title [DODIC]:</b> E91300 / CTG, MORTAR, 120MM WP SMOKE M929 SERIES W/MOFM [CA03]					

Cost Elements	O C O	FY	Contractor and Location	Method/Type or Funding Vehicle	Location of PCO	Award Date	Date of First Delivery	Qty (Each)	Unit Cost (\$)	Specs Avail Now?	Date Revision Available	RFP Issue Date
LOAD, ASSEMBLE, PACK (LAP) <sup>(†)</sup>		2014	PINE BLUFF ARSENAL / PINE BLUFF, AR	PO	PICATINNY ARSENAL, NJ	Jan 2014	Jan 2016	9,374	383.69	Y		
LOAD, ASSEMBLE, PACK (LAP) <sup>(†)</sup>		2016	PINE BLUFF ARSENAL / PINE BLUFF, AR	PO	PICATINNY ARSENAL, NJ	Jan 2016	Jan 2018	13,229	393.26	Y		
SHELL BODY, 120MM SMK		2014	MEDICO INDUSTRIES INC. / WILKES BARRE, PA	C / FFP	PICATINNY ARSENAL, NJ	Mar 2014	Sep 2015	9,655	217.75	Y		
SHELL BODY, 120MM SMK		2016	MEDICO INDUSTRIES INC. / WILKES BARRE, PA	C / FFP	PICATINNY ARSENAL, NJ	Mar 2016	Sep 2017	13,625	228.51	Y		
BURSTER ASSEMBLY, M86		2014	CRANE ARMY AMMO ACTIVITY / CRANE, IN	PO	PICATINNY ARSENAL, NJ	Jan 2014	Jul 2015	9,655	51.89	Y		
BURSTER ASSEMBLY, M86		2016	CRANE ARMY AMMO ACTIVITY / CRANE, IN	PO	PICATINNY ARSENAL, NJ	Jan 2016	Jul 2017	13,625	49.37	Y		
PROPELLANT CHARGE, M234A1		2014	AMERICAN ORDNANCE LLC (IAAP) / MIDDLETOWN, IA	C / IDIQ	ROCK ISLAND ARSENAL, IL	May 2014	Nov 2015	38,621	16.03	Y		
PROPELLANT CHARGE, M234A1		2016	TO BE SELECTED / TBS01	C / IDIQ	ROCK ISLAND ARSENAL, IL	Mar 2016	Sep 2017	54,503	22.67	Y		
FUZE MOFM, M734A1		2014	L-3 FUZING & ORDANCE SYSTEMS / CINCINNATI, OH	C / FFP	PICATINNY ARSENAL, NJ	Mar 2014	Sep 2015	9,655	248.33	Y		
FUZE MOFM, M734A1		2016	TO BE SELECTED / TBS02	C / FFP	PICATINNY ARSENAL, NJ	Mar 2016	Nov 2017	13,625	334.33	Y		
IGNITION CARTRIDGE, M1020		2014	NAMMO POCAL INC. / SCRANTON, PA	C / IDIQ	PICATINNY ARSENAL, NJ	Mar 2014	Sep 2015	9,655	20.75	Y		
IGNITION CARTRIDGE, M1020		2016	NAMMO POCAL INC. / SCRANTON, PA	C / IDIQ	PICATINNY ARSENAL, NJ	Mar 2016	Sep 2017	13,625	24.04	Y		
BURSTER HOUSING, 120MM SMOKE		2014	CRANE ARMY AMMO ACTIVITY / CRANE, IN	PO	PICATINNY ARSENAL, NJ	Jan 2014	Jul 2015	9,655	32.86	Y		
BURSTER HOUSING, 120MM SMOKE		2016	CRANE ARMY AMMO ACTIVITY / CRANE, IN	PO	PICATINNY ARSENAL, NJ	Jan 2016	Jul 2017	13,625	31.23	Y		
FIN ASSEMBLY, M31		2014	MACHINING TECHNOLOGIES INC / SALISBURY, MD	C / FFP	PICATINNY ARSENAL, NJ	Mar 2014	Sep 2015	9,655	38.60	Y		
FIN ASSEMBLY, M31		2016	MACHINING TECHNOLOGIES INC / SALISBURY, MD	C / FFP	PICATINNY ARSENAL, NJ	Mar 2016	Sep 2017	13,625	40.26	Y		
FIBER CONTAINER PA 167, 120MM		2014	UNITED AMMUNITION CONTAINER / WYNNEWOOD, PA	C / FFP	PICATINNY ARSENAL, NJ	Mar 2014	Sep 2015	9,655	11.26	Y		
FIBER CONTAINER PA 167, 120MM		2016	UNITED AMMUNITION CONTAINER / WYNNEWOOD, PA	C / FFP	PICATINNY ARSENAL, NJ	Mar 2016	Sep 2017	13,625	11.69	Y		
METAL CONTAINER PA 154, 120MM		2014	BWAY CORPORATION / ATLANTA, GA	C / FFP	PICATINNY ARSENAL, NJ	Mar 2014	Sep 2015	4,874	55.70	Y		

**UNCLASSIFIED**

<b>Exhibit P-5a, Procurement History and Planning:</b> PB 2016 Army							<b>Date:</b> February 2015					
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2034A / 01 / 33			<b>P-1 Line Item Number / Title:</b> E25500 / 120MM Mortar, All Types				<b>Item Number / Title [DODIC]:</b> E91300 / CTG, MORTAR, 120MM WP SMOKE M929 SERIES W/MOFM [CA03]					
Cost Elements	O C O	FY	Contractor and Location	Method/Type or Funding Vehicle	Location of PCO	Award Date	Date of First Delivery	Qty <i>(Each)</i>	Unit Cost <i>(\$)</i>	Specs Avail Now?	Date Revision Available	RFP Issue Date
METAL CONTAINER PA 154, 120MM		2016	BWAY CORPORATION / ATLANTA, GA	C / FFP	PICATINNY ARSENAL, NJ	Mar 2016	Sep 2017	6,879	56.61	Y		

(†) indicates the presence of a P-21

**Remarks:**

Propellant Charges: IDIQ awarded (Dec 12) to multiple contractors. Requirements will be competed among the following contractors: General Dynamics, Marion, IL; Day and Zimmerman, Camden, AR and American Ordnance, Middletown, IA.

**UNCLASSIFIED**

<b>Exhibit P-21, Production Schedule:</b> PB 2016 Army															<b>Date:</b> February 2015														
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2034A / 01 / 33										<b>P-1 Line Item Number / Title:</b> E25500 / 120MM Mortar, All Types										<b>Item Number / Title [DODIC]:</b> E91300 / CTG, MORTAR, 120MM WP SMOKE M929 SERIES W/MOFM [CA03]									

Cost Elements <i>(Units in Thousands)</i>						Fiscal Year 2014												Fiscal Year 2015														
O C C O	M F R #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2013	BAL DUE AS OF 1 OCT	Calendar Year 2014												Calendar Year 2015													
							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	B A L	
LOAD, ASSEMBLE, PACK (LAP)																																
	1	2014	ARMY	9.374	-	9.374				A	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	9.374
	1	2016	ARMY	13.229	-	13.229																									13.229	
							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	B A L	

**UNCLASSIFIED**

<b>Exhibit P-21, Production Schedule:</b> PB 2016 Army				<b>Date:</b> February 2015							
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2034A / 01 / 33				<b>P-1 Line Item Number / Title:</b> E25500 / 120MM Mortar, All Types				<b>Item Number / Title [DODIC]:</b> E91300 / CTG, MORTAR, 120MM WP SMOKE M929 SERIES W/MOFM [CA03]			

Cost Elements (Units in Thousands)						Fiscal Year 2016											Fiscal Year 2017														
O C C #	M F R #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2015	BAL DUE AS OF 1 OCT	Calendar Year 2016											Calendar Year 2017													
							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	B A L
LOAD, ASSEMBLE, PACK (LAP)																															
	1	2014	ARMY	9.374	-	9.374	-	-	-	9.374																				-	
	1	2016	ARMY	13.229	-	13.229				A-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	13.229	
							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	B A L

**UNCLASSIFIED**

<b>Exhibit P-21, Production Schedule:</b> PB 2016 Army															<b>Date:</b> February 2015														
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2034A / 01 / 33										<b>P-1 Line Item Number / Title:</b> E25500 / 120MM Mortar, All Types										<b>Item Number / Title [DODIC]:</b> E91300 / CTG, MORTAR, 120MM WP SMOKE M929 SERIES W/MOFM [CA03]									

Cost Elements <i>(Units in Thousands)</i>						Fiscal Year 2018												Fiscal Year 2019													
O C C O	M F R #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2017	BAL DUE AS OF 1 OCT	Calendar Year 2018												Calendar Year 2019												
							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	B A L
LOAD, ASSEMBLE, PACK (LAP)																															
	1	2014	ARMY	9.374	9.374	-																									
	1	2016	ARMY	13.229	-	13.229	-	-	-	13.229																					
							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	B A L

**UNCLASSIFIED**

<b>Exhibit P-21, Production Schedule:</b> PB 2016 Army		<b>Date:</b> February 2015
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2034A / 01 / 33		<b>P-1 Line Item Number / Title:</b> E25500 / 120MM Mortar, All Types
		<b>Item Number / Title [DODIC]:</b> E91300 / CTG, MORTAR, 120MM WP SMOKE M929 SERIES W/MOFM [CA03]

MFR Ref #	MFR Name - Location	Production Rates (Each / Month)			Procurement Leadtime (Months)							
		MSR For 2016	1-8-5 For 2016	MAX For 2016	Initial			Reorder				
					ALT Prior to Oct 1	ALT After Oct 1	Mfg PLT	ALT Prior to Oct 1	ALT After Oct 1	Mfg PLT	Total After Oct 1	
1	PINE BLUFF ARSENAL - PINE BLUFF, AR	12,000	12,000	24,000	6	6	24	30	6	4	24	28

"A" in the Delivery Schedule indicates the Contract Award Date.  
 Note: Due to space limitations, quantities in the Exhibit P-21 delivery calendar are truncated and rounded based on the maximum quantity in the calendar as follows. If the maximum quantity is less than or equal to than 9,999, all quantities are shown as each. If the maximum quantity is between 10,000 and 999,999 all quantities are shown in thousands. If the maximum quantity is between 1,000,000 and 999,999,999 all quantities are shown in millions (rounded to the nearest thousand). If the maximum quantity is equal or greater than 1,000,000,000 all quantities are shown in billions (rounded to the nearest million).

**UNCLASSIFIED**

**Exhibit P-40, Budget Line Item Justification:** PB 2016 Army **Date:** February 2015

<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2034A: Procurement of Ammunition, Army / BA 01: Ammunition / BSA 35: Tank Ammunition	<b>P-1 Line Item Number / Title:</b> E22203 / Cartridges, Tank, 105MM And 120MM, All Types
---	---

ID Code (A=Service Ready, B=Not Service Ready) :			Program Elements for Code B Items:					Other Related Program Elements:				
Resource Summary	Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	To Complete	Total
Procurement Quantity (Units in Each)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (\$ in Millions)	2,867.623	121.550	101.900	105.541	-	105.541	125.802	125.671	147.171	175.479	-	3,770.737
Less PY Advance Procurement (\$ in Millions)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P1) (\$ in Millions)	2,867.623	121.550	101.900	105.541	-	105.541	125.802	125.671	147.171	175.479	-	3,770.737
Plus CY Advance Procurement (\$ in Millions)	-	-	-	-	-	-	-	-	-	-	-	-
<b>Total Obligation Authority (\$ in Millions)</b>	<b>2,867.623</b>	<b>121.550</b>	<b>101.900</b>	<b>105.541</b>	<b>-</b>	<b>105.541</b>	<b>125.802</b>	<b>125.671</b>	<b>147.171</b>	<b>175.479</b>	<b>-</b>	<b>3,770.737</b>
<i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i>												
Initial Spares (\$ in Millions)	-	-	-	-	-	-	-	-	-	-	-	-
Flyaway Unit Cost (\$ in Dollars)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (\$ in Dollars)	-	-	-	-	-	-	-	-	-	-	-	-

**Description:**

This budget line includes CARTRIDGE, TANK, 105MM and 120MM ALL TYPES:

(E22125) The M724A1E1 Cartridge will replace the (E22100) M724A1 Cartridge and provide the Army with a range limited (7,000 meters, maximum) round which can be safely fired at all training sites. The Cartridge, M724A1E1, 105mm Target Practice Discarding Sabot with Tracer (TPDS-T) is used for gunnery training in the Army's 105mm Stryker Brigade Combat Team (SBCT) Mobile Gun System (MGS). This discarding sabot round is similar in external appearance and is ballistically similar out to 2,000 meters with the M900, Armor Piercing Fin Stabilized Discarding Sabot w/Tracer Cartridge. It is used as a training surrogate for the M900 Cartridge used by the MGS. The M724A1E1 Cartridge consists of a deep drawn steel cartridge case, electric primer, propellant and a projectile consisting of a sub-projectile (steel core, windshield, fin and tracer) and aluminum sabot. This item is Code A, approved for service use.

(E73201) The Cartridge, 120mm, Target Practice Multi Purpose-Tracer (TPMP-T) M1002 is a target practice cartridge that simulates the size, weight, ballistics and the loader's function of setting the nose switch of the High Explosive Multi-Purpose cartridge M830A1. This round is fired from the M256 120mm smoothbore cannon on the M1A1/M1A2 Abrams Tank. The projectile is inert and composed of an aluminum body, steel nose with dummy plastic switch, aluminum tailcone, aluminum sabot, nylon obturators and tracer. The tailcone imparts spin to the projectile in flight for stabilization and provides the mechanism to limit the projectile's maximum range. The M1002 replaces the M831A1 cartridge. Tank crews will conduct live fire training with the cartridge to achieve and maintain gunnery proficiency. This item is Code A, approved for service use.

(E73400) 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 M829 Series Armor Piercing Fin-Stabilized Discarding Sabot with Tracer (APFSDS-T) round. This round is fired from the M256 120mm smoothbore cannon on the M1A1/M1A2 Abrams Tank. The projectile is inert and is composed of a steel core, aluminum fin, aluminum sabots, nylon obturator and tracer. The fin imparts spin to the projectile in flight for stabilization and provides the mechanism to limit the projectile's maximum range. Tank crews will conduct live fire training with the cartridge to achieve and maintain gunnery proficiency. This item is Code A, approved for service use.

(E88106) The 120mm M829E4 Armor Piercing Fin Stabilized, Discarding Sabot with Tracer (APFSDS-T) cartridge is the follow on to the M829A3 APFSDS-T cartridge. The M829E4 is the most effective anti-armor kinetic energy cartridge fired from the M256 120mm smoothbore cannon on the M1A1/M1A2 Abrams Tank. This cartridge has been designed to defeat advances in armor protection, specifically advancement in explosive reactive armor (ERA). The cartridge incorporates advancements in propulsion, using a temperature insensitive propellant, novel penetrator design, and an advanced composite sabot. The projectile system consists of a depleted uranium penetrator mated to a drag reducing windshield and flight stabilizing multi-bladed fin, all secured for launch with a composite sabot. The M829E4 captures several new technologies along with components previously used on previous APFSDS-T cartridges, but incorporates technology advancements to yield significant improvement in performance over previous fielded cartridges. This item is Code A, approved for service use.

**UNCLASSIFIED**

<b>Exhibit P-40, Budget Line Item Justification:</b> PB 2016 Army	<b>Date:</b> February 2015
---	----------------------------

<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2034A: Procurement of Ammunition, Army / BA 01: Ammunition / BSA 35: Tank Ammunition	<b>P-1 Line Item Number / Title:</b> E22203 / Cartridges, Tank, 105MM And 120MM, All Types
---	---

<b>ID Code</b> (A=Service Ready, B=Not Service Ready) :	<b>Program Elements for Code B Items:</b>	<b>Other Related Program Elements:</b>
---	---	--

--	--	--

--	--	--



**UNCLASSIFIED**

**Exhibit P-40, Budget Line Item Justification:** PB 2016 Army **Date:** February 2015

**Appropriation / Budget Activity / Budget Sub Activity:**  
2034A: Procurement of Ammunition, Army / BA 01: Ammunition / BSA 35: Tank Ammunition

**P-1 Line Item Number / Title:**  
E22203 / Cartridges, Tank, 105MM And 120MM, All Types

Exhibits Schedule			Program Elements for Code B Items:			Other Related Program Elements:		
Title*	Exhibits	ID CD	Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total
			Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)
E22125 / CTG, TANK, 105MM TPDS-T M724A1E1(short rg KE trnr) [CA58]	P-5, P-5a, P-21	A	- / -	912 / 7.024	1,127 / 6.103	1,292 / 5.800	- / -	1,292 / 5.800
E73201 / CTG, TANK, 120MM TGT PRACT - TRACER (TP-T), M1002 [CA31]	P-5, P-5a, P-21	A	169,000 / 338.226	4,652 / 22.129	9,266 / 34.647	4,880 / 32.500	- / -	4,880 / 32.500
E73400 / CTG TANK 120MM TPCSDS-T M865 [C785]	P-5	A	3,649,000 / 2,529.397	- / 62.229	- / 19.915	- / 28.263	- / -	- / 28.263
E88106 / CTG, TANK, 120MM APFSDS-T, M829E4 [CA64]	P-5, P-5a, P-21	A	- / -	860 / 30.168	3,485 / 41.235	3,673 / 38.978	- / -	3,673 / 38.978
<b>Total Gross/Weapon System Cost</b>			<b>- / 2,867.623</b>	<b>- / 121.550</b>	<b>- / 101.900</b>	<b>- / 105.541</b>	<b>- / -</b>	<b>- / 105.541</b>

\*Title represents 1) the Number / Title for Items; 2) the Number / Title [DODIC] for Ammunition; and/or 3) the Number / Title (Modification Type) for Modifications.  
Note: Totals in this Exhibit P-40 set may not be exact or add due to rounding.

**Justification:**  
FY 2016 Base Budget supports critical Army Title 10 war reserve/operational, training, and test requirements IAW DoD Instruction 3000.04 (Munitions Requirements Process) and AR 5-13 (Total Army Munitions Requirements Process and Prioritization System). War reserve requirements support OSD-approved Combatant Commander Operational Plans, Homeland Defense, and other OSD-directed missions. Training requirements support individual and collective training of Active and Reserve Component forces at Army schools, home station, and the combined training centers. Test requirements support the development, fielding, safety, and quality assurance of Army munitions and equipment throughout their life-cycle.

In accordance with Section 1815 of the FY 2008 National Defense Authorization Act (P.L. 110-181), this item is necessary for use by the active and reserve components of the Armed Forces for homeland defense missions, domestic emergency responses, and providing military support to civil authorities.

(E22125) M724A1E1 – This is a training unique item not used in combat. The FY 2016 request supports annual training and builds a depot level in accordance with the Army procurement goals. FY 2016 Base procurement dollars in the amount of \$5.800 million supports the procurement of .001 million M724A1E1 cartridges.

(E73201) M1002 (TPMP-T) - This is a training unique item not used in combat. The FY 2016 request supports annual training and builds a depot level in accordance with the Army procurement goals. FY 2016 Base procurement dollars in the amount of \$32.500 million supports the procurement of .005 million M1002 cartridges.

(E73400) M865 (TPCSDS-T) - This is a training unique item not used in combat. The FY 2016 request supports annual training and provides a safer round by incorporating safety initiatives such as a safer case. FY 2016 Base procurement dollars in the amount of \$28.263 million supports recapitalizing M865 cartridges.

(E88106) M829E4 (APFSDS-T) - This is a war reserve item used in combat. The FY 2016 request builds a war reserve inventory in accordance with Army's procurement goals. FY 2016 Base procurement dollars in the amount of \$38.978 million supports .004 million M829E4 cartridges.

**UNCLASSIFIED**

<b>Exhibit P-5, Cost Analysis: PB 2016 Army</b>		<b>Date:</b> February 2015
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2034A / 01 / 35	<b>P-1 Line Item Number / Title:</b> E22203 / Cartridges, Tank, 105MM And 120MM, All Types	<b>Item Number / Title [DODIC]:</b> E22125 / CTG, TANK, 105MM TPDS-T M724A1E1(short rg KE trnr) [CA58]

<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : A				<b>MDAP/MAIS Code:</b>			
<b>Resource Summary</b>		<b>Prior Years</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016 Base</b>	<b>FY 2016 OCO</b>	<b>FY 2016 Total</b>
Procurement Quantity (Units in Each)		-	912	1,127	1,292	-	1,292
Gross/Weapon System Cost (\$ in Millions)		-	7.024	6.103	5.800	-	5.800
Less PY Advance Procurement (\$ in Millions)		-	-	-	-	-	-
Net Procurement (P1) (\$ in Millions)		-	7.024	6.103	5.800	-	5.800
Plus CY Advance Procurement (\$ in Millions)		-	-	-	-	-	-
<b>Total Obligation Authority (\$ in Millions)</b>		-	<b>7.024</b>	<b>6.103</b>	<b>5.800</b>	-	<b>5.800</b>
<i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i>							
Initial Spares (\$ in Millions)		-	-	-	-	-	-
Gross/Weapon System Unit Cost (\$ in Dollars)		-	7,701.75	5,415.26	4,489.16	-	4,489.16

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or add, due to rounding.

Cost Elements	Prior Years			FY 2014			FY 2015			FY 2016 Base			FY 2016 OCO			FY 2016 Total		
	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)
Hardware Cost																		
Recurring Cost																		
COMPLETE ROUND <sup>(†)</sup>	-	-	-	6,234.00	912	5.685	2,819.28	1,127	3.177	2,875.47	1,292	3.715	-	-	-	2,875.47	1,292	3.715
Subtotal: Recurring Cost	-	-	-	-	-	5.685	-	-	3.177	-	-	3.715	-	-	-	-	-	3.715
Subtotal: Hardware Cost	-	-	-	-	-	5.685	-	-	3.177	-	-	3.715	-	-	-	-	-	3.715
Support Cost																		
PRODUCTION ENGINEERING	-	-	-	-	-	1.147	-	-	1.285	-	-	1.673	-	-	-	-	-	1.673
ACCEPTANCE TESTING	-	-	-	-	-	0.060	-	-	0.060	-	-	0.060	-	-	-	-	-	0.060
FIRST ARTICLE TEST	-	-	-	-	-	0.132	-	-	0.106	-	-	0.102	-	-	-	-	-	0.102
PRODUCTION VERIFICATION TEST	-	-	-	-	-	-	-	-	1.475	-	-	0.250	-	-	-	-	-	0.250
Subtotal: Support Cost	-	-	-	-	-	1.339	-	-	2.926	-	-	2.085	-	-	-	-	-	2.085
<b>Gross/Weapon System Cost</b>	-	-	-	<b>7,701.75</b>	<b>912</b>	<b>7.024</b>	<b>5,415.26</b>	<b>1,127</b>	<b>6.103</b>	<b>4,489.16</b>	<b>1,292</b>	<b>5.800</b>	-	-	-	<b>4,489.16</b>	<b>1,292</b>	<b>5.800</b>

(†) indicates the presence of a P-5a

**UNCLASSIFIED**

<b>Exhibit P-5a, Procurement History and Planning:</b> PB 2016 Army							<b>Date:</b> February 2015					
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2034A / 01 / 35			<b>P-1 Line Item Number / Title:</b> E22203 / Cartridges, Tank, 105MM And 120MM, All Types				<b>Item Number / Title [DODIC]:</b> E22125 / CTG, TANK, 105MM TPDS-T M724A1E1(short rg KE trnr) [CA58]					
<b>Cost Elements</b>	<b>O C O</b>	<b>FY</b>	<b>Contractor and Location</b>	<b>Method/Type or Funding Vehicle</b>	<b>Location of PCO</b>	<b>Award Date</b>	<b>Date of First Delivery</b>	<b>Qty (Each)</b>	<b>Unit Cost (\$)</b>	<b>Specs Avail Now?</b>	<b>Date Revision Available</b>	<b>RFP Issue Date</b>
COMPLETE ROUND <sup>(†)</sup>		2014	ALLIANT TECHSYSTEMS INC. / PLYMOUTH, MN	C / FFP	PICATINNY ARSENAL, NJ	Aug 2014	Sep 2015	912	6,234.00	Y		
COMPLETE ROUND <sup>(†)</sup>		2015	TO BE SELECTED / TBS01	C / FFP	PICATINNY ARSENAL, NJ	Mar 2015	Mar 2016	1,127	2,819.28	Y		
COMPLETE ROUND <sup>(†)</sup>		2016	TO BE SELECTED / TBS01	C / FFP	PICATINNY ARSENAL, NJ	Mar 2016	Mar 2017	1,292	2,875.47	Y		

<sup>(†)</sup> indicates the presence of a P-21

**Remarks:**

This is a training unique item not used in combat. The FY 2016 request supports annual training and builds a depot level in accordance with the Army procurement goals. FY 2016 Base procurement dollars in the amount of \$5.800 million supports .001 million M724A1E1 cartridges.

This item is Code A, approved for service use.

UNCLASSIFIED

Exhibit P-21, Production Schedule: PB 2016 Army Date: February 2015

Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 35 P-1 Line Item Number / Title: E22203 / Cartridges, Tank, 105MM And 120MM, All Types Item Number / Title [DODIC]: E22125 / CTG, TANK, 105MM TPDS-T M724A1E1(short rg KE trnr) [CA58]

Cost Elements (Units in Each)				Fiscal Year 2014													Fiscal Year 2015															
O C C #	M F R #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2013	BAL DUE AS OF 1 OCT	Calendar Year 2014													Calendar Year 2015												
							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	B A L	
COMPLETE ROUND																																
1		2014	ARMY	912	-	912												A	-	-	-	-	-	-	-	-	-	912	-			
2		2015	ARMY	1,127	-	1,127																						A	-	1,127		
2		2016	ARMY	1,292	-	1,292																								1,292		
							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	B A L	

**UNCLASSIFIED**

<b>Exhibit P-21, Production Schedule:</b> PB 2016 Army															<b>Date:</b> February 2015														
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2034A / 01 / 35										<b>P-1 Line Item Number / Title:</b> E22203 / Cartridges, Tank, 105MM And 120MM, All Types										<b>Item Number / Title [DODIC]:</b> E22125 / CTG, TANK, 105MM TPDS-T M724A1E1(short rg KE trnr) [CA58]									

Cost Elements <i>(Units in Each)</i>						Fiscal Year 2016												Fiscal Year 2017													
O C C O	M F R #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2015	BAL DUE AS OF 1 OCT	Calendar Year 2016												Calendar Year 2017												B A L
							O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	
COMPLETE ROUND																															
	1	2014	ARMY	912	912	-																									
	2	2015	ARMY	1,127	-	1,127	-	-	-	-	-	-	1,127																		
	2	2016	ARMY	1,292	-	1,292							A -	-	-	-	-	-	-	-	-	-	-	-	-	1,292					
							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	B A L

**UNCLASSIFIED**

<b>Exhibit P-21, Production Schedule:</b> PB 2016 Army		<b>Date:</b> February 2015
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2034A / 01 / 35		<b>P-1 Line Item Number / Title:</b> E22203 / Cartridges, Tank, 105MM And 120MM, All Types
		<b>Item Number / Title [DODIC]:</b> E22125 / CTG, TANK, 105MM TPDS-T M724A1E1(short rg KE trnr) [CA58]

MFR Ref #	MFR Name - Location	Production Rates (Each / Month)			Procurement Leadtime (Months)							
		MSR For 2016	1-8-5 For 2016	MAX For 2016	Initial				Reorder			
					ALT Prior to Oct 1	ALT After Oct 1	Mfg PLT	Total After Oct 1	ALT Prior to Oct 1	ALT After Oct 1	Mfg PLT	Total After Oct 1
1	ALLIANT TECHSYSTEMS INC. - PLYMOUTH, MN	1,000	2,000	3,000	7	11	12	23	6	6	12	18
2	TO BE SELECTED - TBS01	1,000	2,000	3,000	7	11	12	23	6	6	12	18

"A" in the Delivery Schedule indicates the Contract Award Date.  
 Note: Due to space limitations, quantities in the Exhibit P-21 delivery calendar are truncated and rounded based on the maximum quantity in the calendar as follows. If the maximum quantity is less than or equal to than 9,999, all quantities are shown as each. If the maximum quantity is between 10,000 and 999,999 all quantities are shown in thousands. If the maximum quantity is between 1,000,000 and 999,999,999 all quantities are shown in millions (rounded to the nearest thousand). If the maximum quantity is equal or greater than 1,000,000,000 all quantities are shown in billions (rounded to the nearest million).

**UNCLASSIFIED**

<b>Exhibit P-5, Cost Analysis: PB 2016 Army</b>		<b>Date:</b> February 2015
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2034A / 01 / 35	<b>P-1 Line Item Number / Title:</b> E22203 / Cartridges, Tank, 105MM And 120MM, All Types	<b>Item Number / Title [DODIC]:</b> E73201 / CTG, TANK, 120MM TGT PRACT - TRACER (TP-T), M1002 [CA31]

<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : A	<b>MDAP/MAIS Code:</b>
---	------------------------

<b>Resource Summary</b>	<b>Prior Years</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016 Base</b>	<b>FY 2016 OCO</b>	<b>FY 2016 Total</b>
Procurement Quantity ( <i>Units in Each</i> )	169,000	4,652	9,266	4,880	-	4,880
Gross/Weapon System Cost ( <i>\$ in Millions</i> )	338.226	22.129	34.647	32.500	-	32.500
Less PY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-
Net Procurement (P1) ( <i>\$ in Millions</i> )	338.226	22.129	34.647	32.500	-	32.500
Plus CY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-
<b>Total Obligation Authority</b> ( <i>\$ in Millions</i> )	<b>338.226</b>	<b>22.129</b>	<b>34.647</b>	<b>32.500</b>	<b>-</b>	<b>32.500</b>

*(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)*

Initial Spares ( <i>\$ in Millions</i> )	-	-	-	-	-	-
Gross/Weapon System Unit Cost ( <i>\$ in Dollars</i> )	2,001.34	4,756.88	3,739.15	6,659.84	-	6,659.84

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or add, due to rounding.

<b>Cost Elements</b>	<b>Prior Years</b>			<b>FY 2014</b>			<b>FY 2015</b>			<b>FY 2016 Base</b>			<b>FY 2016 OCO</b>			<b>FY 2016 Total</b>		
	<b>Unit Cost</b> (\$)	<b>Qty</b> (Each)	<b>Total Cost</b> (\$ M)	<b>Unit Cost</b> (\$)	<b>Qty</b> (Each)	<b>Total Cost</b> (\$ M)	<b>Unit Cost</b> (\$)	<b>Qty</b> (Each)	<b>Total Cost</b> (\$ M)	<b>Unit Cost</b> (\$)	<b>Qty</b> (Each)	<b>Total Cost</b> (\$ M)	<b>Unit Cost</b> (\$)	<b>Qty</b> (Each)	<b>Total Cost</b> (\$ M)	<b>Unit Cost</b> (\$)	<b>Qty</b> (Each)	<b>Total Cost</b> (\$ M)
<b>Hardware Cost</b>																		
Recurring Cost																		
COMPLETE ROUND <sup>(†)</sup>	-	-	-	2,288.80	4,652	10.647	2,842.08	9,266	26.335	2,896.06	4,880	14.133	-	-	-	2,896.06	4,880	14.133
<i>Subtotal: Recurring Cost</i>	-	-	-	-	-	10.647	-	-	26.335	-	-	14.133	-	-	-	-	-	14.133
<i>Subtotal: Hardware Cost</i>	-	-	-	-	-	10.647	-	-	26.335	-	-	14.133	-	-	-	-	-	14.133
<b>Support Cost</b>																		
PRODUCTION ENGINEERING	-	-	338.226	-	-	3.863	-	-	2.974	-	-	3.251	-	-	-	-	-	3.251
QUALITY ASSURANCE	-	-	-	-	-	0.025	-	-	0.007	-	-	0.008	-	-	-	-	-	0.008
ACCEPTANCE TESTING	-	-	-	-	-	0.965	-	-	0.842	-	-	0.872	-	-	-	-	-	0.872
RPD596 QUALIFICATION	-	-	-	-	-	3.150	-	-	1.695	-	-	2.910	-	-	-	-	-	2.910
TRACER IMPROVEMENT	-	-	-	-	-	0.841	-	-	0.642	-	-	-	-	-	-	-	-	-
HERO PRIMER	-	-	-	-	-	1.539	-	-	1.259	-	-	-	-	-	-	-	-	-
PRIMER IMPROVEMENT	-	-	-	-	-	1.099	-	-	0.893	-	-	1.410	-	-	-	-	-	1.410
RECAPITALIZATION M1002	-	-	-	-	-	-	-	-	-	-	-	9.916	-	-	-	-	-	9.916
<i>Subtotal: Support Cost</i>	-	-	338.226	-	-	11.482	-	-	8.312	-	-	18.367	-	-	-	-	-	18.367

**UNCLASSIFIED**

<b>Exhibit P-5, Cost Analysis:</b> PB 2016 Army		<b>Date:</b> February 2015
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2034A / 01 / 35		<b>P-1 Line Item Number / Title:</b> E22203 / Cartridges, Tank, 105MM And 120MM, All Types
		<b>Item Number / Title [DODIC]:</b> E73201 / CTG, TANK, 120MM TGT PRACT - TRACER (TP-T), M1002 [CA31]
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : A		<b>MDAP/MAIS Code:</b>

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or add, due to rounding.

Cost Elements	Prior Years			FY 2014			FY 2015			FY 2016 Base			FY 2016 OCO			FY 2016 Total		
	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)
Gross/Weapon System Cost	2,001.34	169,000	338.226	4,756.88	4,652	22.129	3,739.15	9,266	34.647	6,659.84	4,880	32.500	-	-	-	6,659.84	4,880	32.500

(t) indicates the presence of a P-5a



**UNCLASSIFIED**

<b>Exhibit P-5a, Procurement History and Planning:</b> PB 2016 Army							<b>Date:</b> February 2015					
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2034A / 01 / 35			<b>P-1 Line Item Number / Title:</b> E22203 / Cartridges, Tank, 105MM And 120MM, All Types				<b>Item Number / Title [DODIC]:</b> E73201 / CTG, TANK, 120MM TGT PRACT - TRACER (TP-T), M1002 [CA31]					

Cost Elements	O C O	FY	Contractor and Location	Method/Type or Funding Vehicle	Location of PCO	Award Date	Date of First Delivery	Qty <i>(Each)</i>	Unit Cost <i>(\$)</i>	Specs Avail Now?	Date Revision Available	RFP Issue Date
COMPLETE ROUND <sup>(†)</sup>		2014	ALLIANT TECHSYSTEMS INC. / PLYMOUTH, MN	SS / FFP	ROCK ISLAND ARSENAL, IL	Mar 2014	Sep 2015	2,326	2,288.80	Y		
COMPLETE ROUND <sup>(†)</sup>		2014	GENERAL DYNAMICS ORD AND TACT / ST PETERSBURG, FL	SS / FFP	ROCK ISLAND ARSENAL, IL	Mar 2014	Oct 2015	2,326	2,288.80	Y		
COMPLETE ROUND <sup>(†)</sup>		2015	ALLIANT TECHSYSTEMS INC. / PLYMOUTH, MN	SS / FFP	ROCK ISLAND ARSENAL, IL	Mar 2015	Feb 2016	4,633	2,842.08	Y		
COMPLETE ROUND <sup>(†)</sup>		2015	GENERAL DYNAMICS ORD AND TACT / ST PETERSBURG, FL	SS / FFP	ROCK ISLAND ARSENAL, IL	Mar 2015	Feb 2016	4,633	2,842.08	Y		
COMPLETE ROUND <sup>(†)</sup>		2016	ALLIANT TECHSYSTEMS INC. / PLYMOUTH, MN	SS / FFP	ROCK ISLAND ARSENAL, IL	Mar 2016	Feb 2017	2,440	2,896.06	Y		
COMPLETE ROUND <sup>(†)</sup>		2016	GENERAL DYNAMICS ORD AND TACT / ST PETERSBURG, FL	SS / FFP	ROCK ISLAND ARSENAL, IL	Mar 2016	Feb 2017	2,440	2,896.06	Y		

<sup>(†)</sup> indicates the presence of a P-21

**Remarks:**  
FY 2014, FY 2015, and FY 2016 hardware unit prices are an average unit price for multiple producers. FY 2014, FY 2015, and FY 2016 complete round is awarded as an option to the FY 2012 contract.

This is a training unique item not used in combat. The FY 2016 request supports annual training and builds a depot level in accordance with the Army procurement goals. FY 2016 Base procurement dollars in the amount of \$32.500 million supports .005 million M1002 cartridges.

This item is Code A, approved for service use.

**UNCLASSIFIED**

<b>Exhibit P-21, Production Schedule:</b> PB 2016 Army		<b>Date:</b> February 2015
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2034A / 01 / 35		<b>P-1 Line Item Number / Title:</b> E22203 / Cartridges, Tank, 105MM And 120MM, All Types
<b>Item Number / Title [DODIC]:</b> E73201 / CTG, TANK, 120MM TGT PRACT - TRACER (TP-T), M1002 [CA31]		

Cost Elements (Units in Each)							Fiscal Year 2014															Fiscal Year 2015															
O C C O	M F R #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2013	BAL DUE AS OF 1 OCT	Calendar Year 2014															Calendar Year 2015															B A L
							O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P							
COMPLETE ROUND																																					
	1	2014	ARMY	2,326	-	2,326							A -	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2,326	-						
	2	2014	ARMY	2,326	-	2,326							A -	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2,326						
	1	2015	ARMY	4,633	-	4,633																		A -	-	-	-	-	-	-	4,633						
	1	2015	MC (*)	513	-	513																		A -	-	-	-	-	-	-	513						
	<b>1</b>	<b>2015</b>	<b>Total</b>	<b>5,146</b>	<b>-</b>	<b>5,146</b>																			-	-	-	-	-	-	<b>5,146</b>						
	2	2015	ARMY	4,633	-	4,633																		A -	-	-	-	-	-	-	4,633						
	2	2015	MC (*)	513	-	513																		A -	-	-	-	-	-	-	513						
	<b>2</b>	<b>2015</b>	<b>Total</b>	<b>5,146</b>	<b>-</b>	<b>5,146</b>																		-	-	-	-	-	-	<b>5,146</b>							
	1	2016	ARMY	2,440	-	2,440																									2,440						
	2	2016	ARMY	2,440	-	2,440																									2,440						
O C C O	M F R #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2013	BAL DUE AS OF 1 OCT	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	B A L						

**UNCLASSIFIED**

<b>Exhibit P-21, Production Schedule:</b> PB 2016 Army												<b>Date:</b> February 2015											
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2034A / 01 / 35						<b>P-1 Line Item Number / Title:</b> E22203 / Cartridges, Tank, 105MM And 120MM, All Types						<b>Item Number / Title [DODIC]:</b> E73201 / CTG, TANK, 120MM TGT PRACT - TRACER (TP-T), M1002 [CA31]											

Cost Elements <i>(Units in Each)</i>						Fiscal Year 2016												Fiscal Year 2017													
O C C O	M F R #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2015	BAL DUE AS OF 1 OCT	Calendar Year 2016												Calendar Year 2017												B A L
							O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	
COMPLETE ROUND																															
	1	2014	ARMY	2,326	2,326	-																								-	
	2	2014	ARMY	2,326	-	2,326	2,326																							-	
	1	2015	ARMY	4,633	-	4,633	-	-	-	-	-	387	386	386	386	386	386	386	386	386	386	386	386	386	386	386	386	386	-		
	1	2015	MC (+)	513	-	513	-	-	-	-	52	42	42	42	42	42	42	42	42	42	42	42	42	42	42	42	42	42	-		
	<b>1</b>	<b>2015</b>	<b>Total</b>	<b>5,146</b>	<b>-</b>	<b>5,146</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>439</b>	<b>428</b>	<b>428</b>	<b>428</b>	<b>428</b>	<b>428</b>	<b>428</b>	<b>428</b>	<b>428</b>	<b>428</b>	<b>428</b>	<b>428</b>	<b>428</b>	<b>428</b>	<b>428</b>	<b>428</b>	<b>428</b>	<b>427</b>	<b>-</b>		
	2	2015	ARMY	4,633	-	4,633	-	-	-	-	387	386	386	386	386	386	386	386	386	386	386	386	386	386	386	386	386	386	-		
	2	2015	MC (+)	513	-	513	-	-	-	-	52	42	42	42	42	42	42	42	42	42	42	42	42	42	42	42	42	42	-		
	<b>2</b>	<b>2015</b>	<b>Total</b>	<b>5,146</b>	<b>-</b>	<b>5,146</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>439</b>	<b>428</b>	<b>428</b>	<b>428</b>	<b>428</b>	<b>428</b>	<b>428</b>	<b>428</b>	<b>428</b>	<b>428</b>	<b>428</b>	<b>428</b>	<b>428</b>	<b>428</b>	<b>428</b>	<b>428</b>	<b>427</b>	<b>-</b>			
	1	2016	ARMY	2,440	-	2,440																							812		
	2	2016	ARMY	2,440	-	2,440																							812		
							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	B A L

**UNCLASSIFIED**

<b>Exhibit P-21, Production Schedule:</b> PB 2016 Army		<b>Date:</b> February 2015
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2034A / 01 / 35		<b>P-1 Line Item Number / Title:</b> E22203 / Cartridges, Tank, 105MM And 120MM, All Types
		<b>Item Number / Title [DODIC]:</b> E73201 / CTG, TANK, 120MM TGT PRACT - TRACER (TP-T), M1002 [CA31]

Cost Elements <i>(Units in Each)</i>						Fiscal Year 2018												Fiscal Year 2019													
O C C O	M F R #	FY	SERVICE	PROC QTY	ACCEP T P R I O R T O 1 O C T 2 0 1 7	BAL D U E A S O F 1 O C T	Calendar Year 2018												Calendar Year 2019												
							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	B A L
COMPLETE ROUND																															
	1	2014	ARMY	2,326	2,326	-																									
	2	2014	ARMY	2,326	2,326	-																									
	1	2015	ARMY	4,633	4,633	-																									
	1	2015	MC (+)	513	513	-																									
	<b>1</b>	<b>2015</b>	<b>Total</b>	<b>5,146</b>	<b>5,146</b>	<b>-</b>																									
	2	2015	ARMY	4,633	4,633	-																									
	2	2015	MC (+)	513	513	-																									
	<b>2</b>	<b>2015</b>	<b>Total</b>	<b>5,146</b>	<b>5,146</b>	<b>-</b>																									
	1	2016	ARMY	2,440	1,628	812	203	203	203	203																					
	2	2016	ARMY	2,440	1,628	812	203	203	203	203																					
							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	B A L

**UNCLASSIFIED**

<b>Exhibit P-21, Production Schedule:</b> PB 2016 Army		<b>Date:</b> February 2015
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2034A / 01 / 35		<b>P-1 Line Item Number / Title:</b> E22203 / Cartridges, Tank, 105MM And 120MM, All Types
		<b>Item Number / Title [DODIC]:</b> E73201 / CTG, TANK, 120MM TGT PRACT - TRACER (TP-T), M1002 [CA31]

MFR Ref #	MFR Name - Location	Production Rates (Each / Month)			Procurement Leadtime (Months)							
		MSR For 2016	1-8-5 For 2016	MAX For 2016	Initial				Reorder			
					ALT Prior to Oct 1	ALT After Oct 1	Mfg PLT	Total After Oct 1	ALT Prior to Oct 1	ALT After Oct 1	Mfg PLT	Total After Oct 1
1	ALLIANT TECHSYSTEMS INC. - PLYMOUTH, MN	500	11,000	33,000	6	6	11	17	6	6	11	17
2	GENERAL DYNAMICS ORD AND TACT - ST PETERSBURG, FL	500	11,000	33,000	6	6	11	17	6	6	11	17

**Remarks:**  
M1002 & M865 LINE SHARE AT IOWA AAP.

(‡) Delivery rows marked with this symbol indicate that they are funded through a separate Line Item. See the respective components' exhibits for details, including the full delivery schedule.  
"A" in the Delivery Schedule indicates the Contract Award Date.

Note: Due to space limitations, quantities in the Exhibit P-21 delivery calendar are truncated and rounded based on the maximum quantity in the calendar as follows. If the maximum quantity is less than or equal to than 9,999, all quantities are shown as each. If the maximum quantity is between 10,000 and 999,999 all quantities are shown in thousands. If the maximum quantity is between 1,000,000 and 999,999,999 all quantities are shown in millions (rounded to the nearest thousand). If the maximum quantity is equal or greater than 1,000,000,000 all quantities are shown in billions (rounded to the nearest million).

**UNCLASSIFIED**

<b>Exhibit P-5, Cost Analysis: PB 2016 Army</b>		<b>Date:</b> February 2015
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2034A / 01 / 35	<b>P-1 Line Item Number / Title:</b> E22203 / Cartridges, Tank, 105MM And 120MM, All Types	<b>Item Number / Title [DODIC]:</b> E73400 / CTG TANK 120MM TPCSDS-T M865 [C785]

<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : A	<b>MDAP/MAIS Code:</b>
---	------------------------

<b>Resource Summary</b>	<b>Prior Years</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016 Base</b>	<b>FY 2016 OCO</b>	<b>FY 2016 Total</b>
Procurement Quantity ( <i>Units in Each</i> )	3,649,000	-	-	-	-	-
Gross/Weapon System Cost ( <i>\$ in Millions</i> )	2,529.397	62.229	19.915	28.263	-	28.263
Less PY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-
Net Procurement (P1) ( <i>\$ in Millions</i> )	2,529.397	62.229	19.915	28.263	-	28.263
Plus CY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-
<b>Total Obligation Authority</b> ( <i>\$ in Millions</i> )	<b>2,529.397</b>	<b>62.229</b>	<b>19.915</b>	<b>28.263</b>	<b>-</b>	<b>28.263</b>

*(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)*

Initial Spares ( <i>\$ in Millions</i> )	-	-	-	-	-	-
Gross/Weapon System Unit Cost ( <i>\$ in Dollars</i> )	693.18	-	-	-	-	-

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or add, due to rounding.

<b>Cost Elements</b>	<b>Prior Years</b>			<b>FY 2014</b>			<b>FY 2015</b>			<b>FY 2016 Base</b>			<b>FY 2016 OCO</b>			<b>FY 2016 Total</b>		
	<b>Unit Cost</b> (\$)	<b>Qty</b> (Each)	<b>Total Cost</b> (\$ M)	<b>Unit Cost</b> (\$)	<b>Qty</b> (Each)	<b>Total Cost</b> (\$ M)	<b>Unit Cost</b> (\$)	<b>Qty</b> (Each)	<b>Total Cost</b> (\$ M)	<b>Unit Cost</b> (\$)	<b>Qty</b> (Each)	<b>Total Cost</b> (\$ M)	<b>Unit Cost</b> (\$)	<b>Qty</b> (Each)	<b>Total Cost</b> (\$ M)	<b>Unit Cost</b> (\$)	<b>Qty</b> (Each)	<b>Total Cost</b> (\$ M)
<b>Support Cost</b>																		
PRODUCTION ENGINEERING	-	-	2,529.397	-	-	2.383	-	-	0.809	-	-	1.130	-	-	-	-	-	1.130
ACCEPTANCE TESTING	-	-	-	-	-	1.553	-	-	-	-	-	-	-	-	-	-	-	-
QUALITY ASSURANCE	-	-	-	-	-	0.013	-	-	0.010	-	-	0.010	-	-	-	-	-	0.010
NRE SUPPORT	-	-	-	-	-	1.269	-	-	1.789	-	-	1.717	-	-	-	-	-	1.717
RECAPITALIZATION-M865	-	-	-	-	-	54.953	-	-	12.390	-	-	22.619	-	-	-	-	-	22.619
QUALIFICATION OF LONGER M865 PROJECTILE	-	-	-	-	-	1.763	-	-	2.620	-	-	0.601	-	-	-	-	-	0.601
CTG CASE IMPROVEMENT	-	-	-	-	-	0.095	-	-	1.219	-	-	1.050	-	-	-	-	-	1.050
HERO PRIMER	-	-	-	-	-	0.200	-	-	1.078	-	-	1.136	-	-	-	-	-	1.136
<i>Subtotal: Support Cost</i>	-	-	2,529.397	-	-	62.229	-	-	19.915	-	-	28.263	-	-	-	-	-	28.263
<b>Gross/Weapon System Cost</b>	<b>693.18</b>	<b>3,649,000</b>	<b>2,529.397</b>	-	-	<b>62.229</b>	-	-	<b>19.915</b>	-	-	<b>28.263</b>	-	-	-	-	-	<b>28.263</b>

**UNCLASSIFIED**

<b>Exhibit P-5, Cost Analysis: PB 2016 Army</b>		<b>Date:</b> February 2015
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2034A / 01 / 35		<b>P-1 Line Item Number / Title:</b> E22203 / Cartridges, Tank, 105MM And 120MM, All Types
		<b>Item Number / Title [DODIC]:</b> E88106 / CTG, TANK, 120MM APFSDS-T, M829E4 [CA64]

<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : A	<b>MDAP/MAIS Code:</b>
---	------------------------

Resource Summary	Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total
Procurement Quantity (Units in Each)	-	860	3,485	3,673	-	3,673
Gross/Weapon System Cost (\$ in Millions)	-	30.168	41.235	38.978	-	38.978
Less PY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
Net Procurement (P1) (\$ in Millions)	-	30.168	41.235	38.978	-	38.978
Plus CY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
<b>Total Obligation Authority (\$ in Millions)</b>	-	<b>30.168</b>	<b>41.235</b>	<b>38.978</b>	-	<b>38.978</b>

*(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)*

Initial Spares (\$ in Millions)	-	-	-	-	-	-
Gross/Weapon System Unit Cost (\$ in Dollars)	-	35,079.07	11,832.14	10,612.03	-	10,612.03

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or add, due to rounding.

Cost Elements	Prior Years			FY 2014			FY 2015			FY 2016 Base			FY 2016 OCO			FY 2016 Total		
	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)
Hardware Cost																		
Recurring Cost																		
COMPLETE ROUND <sup>(†)</sup>	-	-	-	26,221.00	860	22.550	10,291.68	3,485	35.867	9,430.86	3,673	34.640	-	-	-	9,430.86	3,673	34.640
Subtotal: Recurring Cost	-	-	-	-	-	22.550	-	-	35.867	-	-	34.640	-	-	-	-	-	34.640
Subtotal: Hardware Cost	-	-	-	-	-	22.550	-	-	35.867	-	-	34.640	-	-	-	-	-	34.640
Support Cost																		
PRODUCTION ENGINEERING	-	-	-	-	-	3.197	-	-	4.510	-	-	3.731	-	-	-	-	-	3.731
ACCEPTANCE TESTING	-	-	-	-	-	0.250	-	-	0.250	-	-	0.250	-	-	-	-	-	0.250
FIRST ARTICLE TEST	-	-	-	-	-	1.461	-	-	0.158	-	-	0.157	-	-	-	-	-	0.157
SABOT ALTERNATE MATERIAL	-	-	-	-	-	0.119	-	-	-	-	-	-	-	-	-	-	-	-
PRODUCTION VERIFICATION TEST	-	-	-	-	-	-	-	-	0.450	-	-	0.200	-	-	-	-	-	0.200
DEPLETED URANIUM CLEANUP	-	-	-	-	-	1.500	-	-	-	-	-	-	-	-	-	-	-	-
LIVE FIRE SUPPORT	-	-	-	-	-	1.091	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: Support Cost	-	-	-	-	-	7.618	-	-	5.368	-	-	4.338	-	-	-	-	-	4.338
<b>Gross/Weapon System Cost</b>	-	-	-	<b>35,079.07</b>	<b>860</b>	<b>30.168</b>	<b>11,832.14</b>	<b>3,485</b>	<b>41.235</b>	<b>10,612.03</b>	<b>3,673</b>	<b>38.978</b>	-	-	-	<b>10,612.03</b>	<b>3,673</b>	<b>38.978</b>

<sup>(†)</sup> indicates the presence of a P-5a

**UNCLASSIFIED**

<b>Exhibit P-5a, Procurement History and Planning:</b> PB 2016 Army							<b>Date:</b> February 2015					
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2034A / 01 / 35			<b>P-1 Line Item Number / Title:</b> E22203 / Cartridges, Tank, 105MM And 120MM, All Types				<b>Item Number / Title [DODIC]:</b> E88106 / CTG, TANK, 120MM APFSDS-T, M829E4 [CA64]					
<b>Cost Elements</b>	<b>O C O</b>	<b>FY</b>	<b>Contractor and Location</b>	<b>Method/Type or Funding Vehicle</b>	<b>Location of PCO</b>	<b>Award Date</b>	<b>Date of First Delivery</b>	<b>Qty (Each)</b>	<b>Unit Cost (\$)</b>	<b>Specs Avail Now?</b>	<b>Date Revision Available</b>	<b>RFP Issue Date</b>
COMPLETE ROUND <sup>(†)</sup>		2014	ALLIANT TECHSYSTEMS INC. / PLYMOUTH, MN	SS / FFP	PICATINNY ARSENAL, NJ	Jul 2014	Mar 2015	860	26,221.00	Y		
COMPLETE ROUND <sup>(†)</sup>		2015	ALLIANT TECHSYSTEMS INC. / PLYMOUTH, MN	SS / FFP	PICATINNY ARSENAL, NJ	Mar 2015	May 2016	3,485	10,291.68	Y		
COMPLETE ROUND <sup>(†)</sup>		2016	ALLIANT TECHSYSTEMS INC. / PLYMOUTH, MN	SS / FFP	PICATINNY ARSENAL, NJ	Mar 2016	May 2017	3,673	9,430.86	Y		

<sup>(†)</sup> indicates the presence of a P-21

**Remarks:**

This is a war reserve item used in combat. The FY 2016 request builds a war reserve inventory in accordance with Army's procurement goals. FY 2016 Base procurement dollars in the amount of \$38.978 million supports .004 million M829E4 cartridges.

TYPE CLASSIFICATION DATE: 2014

This item is Code A, approved for service use.







**UNCLASSIFIED**

<b>Exhibit P-21, Production Schedule:</b> PB 2016 Army															<b>Date:</b> February 2015														
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2034A / 01 / 35										<b>P-1 Line Item Number / Title:</b> E22203 / Cartridges, Tank, 105MM And 120MM, All Types										<b>Item Number / Title [DODIC]:</b> E88106 / CTG, TANK, 120MM APFSDS-T, M829E4 [CA64]									

Cost Elements <i>(Units in Each)</i>						Fiscal Year 2018												Fiscal Year 2019													
O C C O	M F R #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2017	BAL DUE AS OF 1 OCT	Calendar Year 2018												Calendar Year 2019												B A L
							O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	
COMPLETE ROUND																															
	1	2014	ARMY	860	860	-																									
	1	2015	ARMY	3,485	3,485	-																									
	1	2016	ARMY	3,673	1,531	2,142	306	306	306	306	306	306	306																		
							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	

**UNCLASSIFIED**

<b>Exhibit P-21, Production Schedule:</b> PB 2016 Army		<b>Date:</b> February 2015
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2034A / 01 / 35		<b>P-1 Line Item Number / Title:</b> E22203 / Cartridges, Tank, 105MM And 120MM, All Types
		<b>Item Number / Title [DODIC]:</b> E88106 / CTG, TANK, 120MM APFSDS-T, M829E4 [CA64]

MFR Ref #	MFR Name - Location	Production Rates (Each / Month)			Procurement Leadtime (Months)							
		MSR For 2016	1-8-5 For 2016	MAX For 2016	Initial			Reorder				
					ALT Prior to Oct 1	ALT After Oct 1	Mfg PLT	ALT Prior to Oct 1	ALT After Oct 1	Mfg PLT	Total After Oct 1	
1	ALLIANT TECHSYSTEMS INC. - PLYMOUTH, MN	1,000	3,000	5,000	6	9	15	24	6	6	14	20

"A" in the Delivery Schedule indicates the Contract Award Date.

Note: Due to space limitations, quantities in the Exhibit P-21 delivery calendar are truncated and rounded based on the maximum quantity in the calendar as follows. If the maximum quantity is less than or equal to than 9,999, all quantities are shown as each. If the maximum quantity is between 10,000 and 999,999 all quantities are shown in thousands. If the maximum quantity is between 1,000,000 and 999,999,999 all quantities are shown in millions (rounded to the nearest thousand). If the maximum quantity is equal or greater than 1,000,000,000 all quantities are shown in billions (rounded to the nearest million).

**UNCLASSIFIED**

**Exhibit P-40, Budget Line Item Justification:** PB 2016 Army **Date:** February 2015

<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2034A: Procurement of Ammunition, Army / BA 01: Ammunition / BSA 37: Artillery Ammunition	<b>P-1 Line Item Number / Title:</b> E15101 / Artillery Cartridges, 75MM & 105MM, All Types
--	--

ID Code (A=Service Ready, B=Not Service Ready) :	Program Elements for Code B Items:						Other Related Program Elements:					
Resource Summary	Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	To Complete	Total
Procurement Quantity (Units in Each)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (\$ in Millions)	2,970.921	51.225	47.455	57.756	5.000	62.756	57.907	65.483	64.577	62.473	-	3,382.797
Less PY Advance Procurement (\$ in Millions)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P1) (\$ in Millions)	2,970.921	51.225	47.455	57.756	5.000	62.756	57.907	65.483	64.577	62.473	-	3,382.797
Plus CY Advance Procurement (\$ in Millions)	-	-	-	-	-	-	-	-	-	-	-	-
<b>Total Obligation Authority (\$ in Millions)</b>	<b>2,970.921</b>	<b>51.225</b>	<b>47.455</b>	<b>57.756</b>	<b>5.000</b>	<b>62.756</b>	<b>57.907</b>	<b>65.483</b>	<b>64.577</b>	<b>62.473</b>	-	<b>3,382.797</b>

*(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)*

Initial Spares (\$ in Millions)	-	-	-	-	-	-	-	-	-	-	-	-
Flyaway Unit Cost (\$ in Dollars)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (\$ in Dollars)	-	-	-	-	-	-	-	-	-	-	-	-

**Description:**

(E15101)Artillery Cartridges, 75MM And 105MM, All Types  
This budget line includes Cartridge, Artillery, 75mm & 105mm, All Types.

(E15200)CTG, ARTY, 75MM BLANK, M337A1

The 75mm M337A2 is a non-tactical blank cartridge fired from a M116 Howitzer that is used in burial, retreat ceremonies and VIP Salutes. It consists of a cartridge case containing loosely packed black powder and a press-fitted percussion primer. A fiberglass wad is inserted over the black powder and a polystyrene closing cup is cemented in place with a polyester resin adhesive. When the firing pin of the weapon strikes the primer, a flash is generated which ignites the black powder charge producing flash, smoke, and a loud report to simulate weapon firing. This item is Code A, approved for service use.

(E21200)CTG, ARTY, 105MM BLANK M395

The 105mm M395 blank cartridge is a non-tactical cartridge fired from a M119 Series Towed Howitzer that is used in burial, retreat ceremonies and VIP Salutes as well as simulation of battlefield noise used for training exercises. It is assembled with a loose 770 gram black powder charge retained by a glass-fibre closing wad and a polystyrene closing cup glued in place by an epoxy resin. The base of the case is fitted with an M61 percussion element and a primer. Detonation of the case contents creates sound, flash and smoke. This item is Code A, approved for service use.

(E21501)CTG, ARTY, 105MM HE, M1 W/O FUZE

The 105mm M1 High Explosive (HE) cartridge contains a HE fill and is used primarily for training although some cartridges are expended in combat operations for fragmentation and blast. The cartridge is loaded with an M67 propellant charge, consisting of seven numbered increment bags sewn together in numerical order. Projectile function is dependent upon the fuze used and may function on impact (instantaneous or delay), above ground at a predetermined height or in proximity to the target area. Fuze function detonates the HE projectile filler resulting in projectile fragmentation and blast. Range varies from 3.5 to 11.3 kilometers, depending on the number of charge bags used. The program remanufactures/recapitalizes the remaining unserviceable cartridges through replacement of M67 Prop Charge and Primer at a reduced cost over new production to provide a cost effective training cartridge. This item is Code A, approved for service use. Funding for the 105MM HE, M1 program in FY2015 and FY16 is for recapitalization.

(E21610)CTG, ARTY, 105MM HE-BB PFF M1130A1 W/O FUZE

**UNCLASSIFIED**

<b>Exhibit P-40, Budget Line Item Justification:</b> PB 2016 Army		<b>Date:</b> February 2015
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2034A: Procurement of Ammunition, Army / BA 01: Ammunition / BSA 37: Artillery Ammunition		<b>P-1 Line Item Number / Title:</b> E15101 / Artillery Cartridges, 75MM & 105MM, All Types
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) :	<b>Program Elements for Code B Items:</b>	<b>Other Related Program Elements:</b>
<p>The 105mm M1130A1 High Explosive (HE) cartridge fired from a M119 Series Towed Howitzer contains a HE fill and is primarily used in combat operations for missions that are fired at long range (maximum range is 17.5 kilometers) and high quadrant elevation. Firing rounds at high quadrant elevation is required to engage targets beyond the tall crests of mountainous terrain. The projectile warhead is composed of natural fragmenting steel with an inner liner that provides increased lethality against personnel and soft targets as well as increased accuracy due to its aerodynamic shape. The cartridge also consists of insensitive munition (IM) explosive filler that reduces vulnerability to unplanned stimuli. The M1130A1 Cartridge is compatible with the M782 MOFA and the M767ETSQ series fuzes. The program upgrades current M1130 cartridges by replacing the M67 propellant with the M350 propellant that extends the range an additional 4 kilometers.</p> <p>This item is Code B, not approved for service use.</p> <p>(E21705)CTG, ARTY, 105MM IR ILLUM M1064 W/O FUZE</p> <p>The 105mm M1064 Infrared (IR) Illuminating Cartridge is compatible with the M762 series ET fuze, M67 propelling charge, and is packaged in the PA117 Shipping Container. The XM1064 consists of a 40 gram expelling charge, illuminant canister and parachute assembly. Upon fuze function, the expelling charge simultaneously ignites the illuminate while ejecting it from the projectile. Once dispensed, fins on the canister assist in reducing the spin rate while the parachute provides a descent rate of 12 m/s. The Infrared Illumination greatly enhances the effectiveness of night vision devices providing front line units with temporary battlefield infrared illumination to observe the movements and maneuvers of enemy forces under the cover of darkness.</p> <p>The item is Code A approved for service use.</p>		

**UNCLASSIFIED**

**Exhibit P-40, Budget Line Item Justification:** PB 2016 Army **Date:** February 2015

<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2034A: Procurement of Ammunition, Army / BA 01: Ammunition / BSA 37: Artillery Ammunition	<b>P-1 Line Item Number / Title:</b> E15101 / Artillery Cartridges, 75MM & 105MM, All Types
--	--

Exhibits Schedule			Program Elements for Code B Items:			Other Related Program Elements:		
Title*	Exhibits	ID CD	Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total
			Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)
E15200 / CTG, ARTY, 75MM BLANK, M337A1	P-40a	A	- / 55.019	- / -	- / 4.435	- / -	- / -	- / -
E21200 / CTG, ARTY, 105MM BLANK M395	P-40a	A	- / 24.475	- / 4.000	- / -	- / -	- / -	- / -
E21610 / CTG, ARTY, 105MM, EXT RANGE HE-BB PFF, M1130A1 W/O	P-40a	B	- / -	- / 3.332	- / -	- / -	- / -	- / -
E21501 / CTG, ARTY, 105MM HE, M1 W/O FUZE [C445]	P-5	A	- / 2,635.174	- / 42.493	- / 36.613	- / 57.756	- / 5.000	- / 62.756
E21702 / CTG, ARTY, 105MM VL ILLUM M314 W/O FUZE	P-5	A	- / 30.091	- / 1.400	- / -	- / -	- / -	- / -
E21705 / CTG, ARTY, 105MM IR ILLUM M1064 W/O FUZE [CA53]	P-5	A	- / 18.957	- / -	- / 6.407	- / -	- / -	- / -
<b>Total Gross/Weapon System Cost</b>			<b>- / 2,970.921</b>	<b>- / 51.225</b>	<b>- / 47.455</b>	<b>- / 57.756</b>	<b>- / 5.000</b>	<b>- / 62.756</b>

\*Title represents 1) the Number / Title for Items; 2) the Number / Title [DODIC] for Ammunition; and/or 3) the Number / Title (Modification Type) for Modifications.  
 Note: Totals in this Exhibit P-40 set may not be exact or add due to rounding.

**Justification:**  
 FY 2016 Base Budget supports critical Army Title 10 war reserve/operational, training, and test requirements IAW DoD Instruction 3000.04 (Munitions Requirements Process) and AR 5-13 (Total Army Munitions Requirements Process and Prioritization System). War reserve requirements support OSD-approved Combatant Commander Operational Plans, Homeland Defense, and other OSD-directed missions. Training requirements support individual and collective training of Active and Reserve Component forces at Army schools, home station, and the combined training centers. Test requirements support the development, fielding, safety, and quality assurance of Army munitions and equipment throughout their life-cycle.

In accordance with Section 1815 of the FY 2008 National Defense Authorization Act (P.L. 110-181), this item is necessary for use by the active and reserve components of the Armed Forces for homeland defense missions, domestic emergency responses, and providing military support to civil authorities.

FY 2016 Base procurement dollars in the amount of \$57.756 million supports production of 246,000 RECAP Cartridges. FY16 OCO procurement dollars in the amount of \$5.000 million supports 21,000 RECAP Cartridges. Funds are required to replenish munitions expended in combat operations in theater.

E15200 - CTG, ARTY, 75MM BLANK, M337A1  
 This is a training unique item not used in combat. FY 2015 request supports annual training and builds a depot level inventory in accordance with the Army procurement goals.  
 TYPE CLASSIFICATION DATE: 1975

E21200 - CTG, ARTY, 105MM BLANK M395  
 This is a training unique item not used in combat.  
 TYPE CLASSIFICATION: 1962

E21501 - CTG, ARTY, 105MM HE, M1 W/O FUZE  
 This program will remanufacture/recapitalize unserviceable rounds in the inventory.  
 This is a training standard item used in both training and combat. FY 2016 procurement supports annual training and builds a war reserve inventory in accordance with the Army procurement goals.  
 TYPE CLASSIFICATION DATE: 1966

E21610 - CTG, ARTY, 105MM, EXT RANGE HE-BB PFF, M1130A1 W/O  
 This is a war reserve item used in combat.

**UNCLASSIFIED**

<b>Exhibit P-40, Budget Line Item Justification:</b> PB 2016 Army		<b>Date:</b> February 2015
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2034A: Procurement of Ammunition, Army / BA 01: Ammunition / BSA 37: Artillery Ammunition		<b>P-1 Line Item Number / Title:</b> E15101 / Artillery Cartridges, 75MM & 105MM, All Types
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) :	<b>Program Elements for Code B Items:</b>	<b>Other Related Program Elements:</b>
<p>E21702 - CTG, ARTY, 105MM VL ILLUM M314 W/O FUZE This item is a training standard item used in both training and combat. The procurement supports annual training and builds a war reserve inventory in accordance with the Army's procurement goals. TYPE CLASSIFICATION: 1970</p> <p>E21705 - CTG, ARTY, 105MM IR ILLUM M1064 W/O FUZE This item is a training standard item used in both training and combat. Procurement supports annual training and builds a war reserve inventory in accordance with the Army procurement goals. TYPE CLASSIFICATION DATE: 2009</p>		



**UNCLASSIFIED**

<b>Exhibit P-40a, Budget Item Justification For Aggregated Items:</b> PB 2016 Army															<b>Date:</b> February 2015				
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2034A / 01 / 37					<b>P-1 Line Item Number / Title:</b> E15101 / Artillery Cartridges, 75MM & 105MM, All Types										<b>Aggregated Items Title:</b> Various				

Note: Subtotals or Totals in this Exhibit P-40a may not be exact or add, due to rounding.

Item Number / Title [DODIC]	ID CD	MDAP/MAIS Code	Prior Years			FY 2014			FY 2015			FY 2016 Base			FY 2016 OCO			FY 2016 Total		
			Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)
<b>CTG, ARTY, 75MM BLANK, M337A1</b>																				
E15200 / CTG, ARTY, 75MM BLANK, M337A1	A		-	-	55.019	-	-	-	-	-	4.435	-	-	-	-	-	-	-	-	-
E21200 / CTG, ARTY, 105MM BLANK M395	A		-	-	24.475	-	-	4.000	-	-	-	-	-	-	-	-	-	-	-	-
E21610 / CTG, ARTY, 105MM, EXT RANGE HE-BB PFF, M1130A1 W/O	B		-	-	-	-	-	3.332	-	-	-	-	-	-	-	-	-	-	-	-
<i>Subtotal: CTG, ARTY, 75MM BLANK, M337A1</i>			-	-	79.494	-	-	7.332	-	-	4.435	-	-	-	-	-	-	-	-	-
<b>Total</b>			-	-	79.494	-	-	7.332	-	-	4.435	-	-	-	-	-	-	-	-	-

**UNCLASSIFIED**

<b>Exhibit P-5, Cost Analysis: PB 2016 Army</b>		<b>Date:</b> February 2015
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2034A / 01 / 37	<b>P-1 Line Item Number / Title:</b> E15101 / Artillery Cartridges, 75MM & 105MM, All Types	<b>Item Number / Title [DODIC]:</b> E21501 / CTG, ARTY, 105MM HE, M1 W/O FUZE [C445]

<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : A				<b>MDAP/MAIS Code:</b>				
<b>Resource Summary</b>			<b>Prior Years</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016 Base</b>	<b>FY 2016 OCO</b>	<b>FY 2016 Total</b>
Procurement Quantity (Units in Each)			-	-	-	-	-	-
Gross/Weapon System Cost (\$ in Millions)			2,635.174	42.493	36.613	57.756	5.000	62.756
Less PY Advance Procurement (\$ in Millions)			-	-	-	-	-	-
Net Procurement (P1) (\$ in Millions)			2,635.174	42.493	36.613	57.756	5.000	62.756
Plus CY Advance Procurement (\$ in Millions)			-	-	-	-	-	-
<b>Total Obligation Authority (\$ in Millions)</b>			<b>2,635.174</b>	<b>42.493</b>	<b>36.613</b>	<b>57.756</b>	<b>5.000</b>	<b>62.756</b>
<i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i>								
Initial Spares (\$ in Millions)			-	-	-	-	-	-
Gross/Weapon System Unit Cost (\$ in Dollars)			-	-	-	-	-	-

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or add, due to rounding.

Cost Elements	Prior Years			FY 2014			FY 2015			FY 2016 Base			FY 2016 OCO			FY 2016 Total		
	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)
Support Cost																		
RECAPITALIZATION	-	-	2,635.174	-	-	42.493	-	-	36.613	-	-	57.756	-	-	5.000	-	-	62.756
<i>Subtotal: Support Cost</i>	-	-	2,635.174	-	-	42.493	-	-	36.613	-	-	57.756	-	-	5.000	-	-	62.756
<b>Gross/Weapon System Cost</b>	-	-	<b>2,635.174</b>	-	-	<b>42.493</b>	-	-	<b>36.613</b>	-	-	<b>57.756</b>	-	-	<b>5.000</b>	-	-	<b>62.756</b>

**UNCLASSIFIED**

<b>Exhibit P-5, Cost Analysis: PB 2016 Army</b>		<b>Date:</b> February 2015
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2034A / 01 / 37	<b>P-1 Line Item Number / Title:</b> E15101 / Artillery Cartridges, 75MM & 105MM, All Types	<b>Item Number / Title [DODIC]:</b> E21702 / CTG, ARTY, 105MM VL ILLUM M314 W/O FUZE

<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : A				<b>MDAP/MAIS Code:</b>			
<b>Resource Summary</b>		<b>Prior Years</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016 Base</b>	<b>FY 2016 OCO</b>	<b>FY 2016 Total</b>
Procurement Quantity ( <i>Units in Each</i> )		-	-	-	-	-	-
Gross/Weapon System Cost ( <i>\$ in Millions</i> )		30.091	1.400	-	-	-	-
Less PY Advance Procurement ( <i>\$ in Millions</i> )		-	-	-	-	-	-
Net Procurement (P1) ( <i>\$ in Millions</i> )		30.091	1.400	-	-	-	-
Plus CY Advance Procurement ( <i>\$ in Millions</i> )		-	-	-	-	-	-
<b>Total Obligation Authority</b> ( <i>\$ in Millions</i> )		<b>30.091</b>	<b>1.400</b>	-	-	-	-
<i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i>							
Initial Spares ( <i>\$ in Millions</i> )		-	-	-	-	-	-
Gross/Weapon System Unit Cost ( <i>\$ in Dollars</i> )		-	-	-	-	-	-

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or add, due to rounding.

Cost Elements	Prior Years			FY 2014			FY 2015			FY 2016 Base			FY 2016 OCO			FY 2016 Total		
	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)
Support Cost																		
PRODUCTION ENGINEERING	-	-	-	-	-	1.400	-	-	-	-	-	-	-	-	-	-	-	-
ACCEPTANCE TESTING	-	-	30.091	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Subtotal: Support Cost</i>	-	-	30.091	-	-	1.400	-	-	-	-	-	-	-	-	-	-	-	-
<b>Gross/Weapon System Cost</b>	-	-	<b>30.091</b>	-	-	<b>1.400</b>	-	-	-	-	-	-	-	-	-	-	-	-

**UNCLASSIFIED**

<b>Exhibit P-5, Cost Analysis: PB 2016 Army</b>		<b>Date:</b> February 2015
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2034A / 01 / 37	<b>P-1 Line Item Number / Title:</b> E15101 / Artillery Cartridges, 75MM & 105MM, All Types	<b>Item Number / Title [DODIC]:</b> E21705 / CTG, ARTY, 105MM IR ILLUM M1064 W/O FUZE [CA53]

<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : A	<b>MDAP/MAIS Code:</b>
---	------------------------

<b>Resource Summary</b>	<b>Prior Years</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016 Base</b>	<b>FY 2016 OCO</b>	<b>FY 2016 Total</b>
Procurement Quantity (Units in Each)	-	-	-	-	-	-
Gross/Weapon System Cost (\$ in Millions)	18.957	-	6.407	-	-	-
Less PY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
Net Procurement (P1) (\$ in Millions)	18.957	-	6.407	-	-	-
Plus CY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
<b>Total Obligation Authority (\$ in Millions)</b>	<b>18.957</b>	<b>-</b>	<b>6.407</b>	<b>-</b>	<b>-</b>	<b>-</b>

*(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)*

Initial Spares (\$ in Millions)	-	-	-	-	-	-
Gross/Weapon System Unit Cost (\$ in Dollars)	-	-	-	-	-	-

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or add, due to rounding.

<b>Cost Elements</b>	<b>Prior Years</b>			<b>FY 2014</b>			<b>FY 2015</b>			<b>FY 2016 Base</b>			<b>FY 2016 OCO</b>			<b>FY 2016 Total</b>		
	<b>Unit Cost (\$)</b>	<b>Qty (Each)</b>	<b>Total Cost (\$ M)</b>	<b>Unit Cost (\$)</b>	<b>Qty (Each)</b>	<b>Total Cost (\$ M)</b>	<b>Unit Cost (\$)</b>	<b>Qty (Each)</b>	<b>Total Cost (\$ M)</b>	<b>Unit Cost (\$)</b>	<b>Qty (Each)</b>	<b>Total Cost (\$ M)</b>	<b>Unit Cost (\$)</b>	<b>Qty (Each)</b>	<b>Total Cost (\$ M)</b>	<b>Unit Cost (\$)</b>	<b>Qty (Each)</b>	<b>Total Cost (\$ M)</b>
Support Cost																		
RECAPITALIZATION	-	-	18.957	-	-	-	-	-	6.407	-	-	-	-	-	-	-	-	-
Subtotal: Support Cost	-	-	18.957	-	-	-	-	-	6.407	-	-	-	-	-	-	-	-	-
<b>Gross/Weapon System Cost</b>	-	-	<b>18.957</b>	-	-	-	-	-	<b>6.407</b>	-	-	-	-	-	-	-	-	-

**UNCLASSIFIED**

**Exhibit P-40, Budget Line Item Justification:** PB 2016 Army **Date:** February 2015

<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2034A: Procurement of Ammunition, Army / BA 01: Ammunition / BSA 37: Artillery Ammunition	<b>P-1 Line Item Number / Title:</b> E89500 / ARTILLERY PROJECTILE, 155MM, ALL TYPES
--	---

ID Code (A=Service Ready, B=Not Service Ready) :	Program Elements for Code B Items:						Other Related Program Elements:					
Resource Summary	Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	To Complete	Total
Procurement Quantity (Units in Each)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (\$ in Millions)	3,423.935	47.902	62.023	77.995	10.000	87.995	98.055	90.876	119.109	92.872	-	4,022.767
Less PY Advance Procurement (\$ in Millions)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P1) (\$ in Millions)	3,423.935	47.902	62.023	77.995	10.000	87.995	98.055	90.876	119.109	92.872	-	4,022.767
Plus CY Advance Procurement (\$ in Millions)	-	-	-	-	-	-	-	-	-	-	-	-
<b>Total Obligation Authority (\$ in Millions)</b>	<b>3,423.935</b>	<b>47.902</b>	<b>62.023</b>	<b>77.995</b>	<b>10.000</b>	<b>87.995</b>	<b>98.055</b>	<b>90.876</b>	<b>119.109</b>	<b>92.872</b>	<b>-</b>	<b>4,022.767</b>

*(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)*

Initial Spares (\$ in Millions)	-	-	-	-	-	-	-	-	-	-	-	-
Flyaway Unit Cost (\$ in Dollars)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (\$ in Dollars)	-	-	-	-	-	-	-	-	-	-	-	-

**Description:**

(E89500)ARTILLERY PROJECTILE, 155MM, ALL TYPES

This budget line includes Projectiles, Artillery, 155mm, All Types.

(E21618)PROJ, ARTY, 155MM EXT RANGE MARKING RD M110A3

The 155mm Smoke White Phosphorous (WP) M110A3 Artillery Round utilizes projectile bodies generated from the current M483 Dual Purpose Improved Conventional Munition (DPICM) demilitarization program and incorporates a more producible WP Bulk-filled Canister with 15.0 lbs of WP that provides smoke spotting capability to a maximum range of 22.5 kilometers providing increased operational effectiveness and improved training .

This item is Code A, approved for service use.

(E26904)Proj, Arty, 155MM IR ILLUM M1123

The 155mm M1123 Infrared Illumination projectile is used with night vision devices to illuminate a designated target area to a maximum range of 17.5 kilometers. The projectile has a hollow, steel-forged body containing an illumination canister, a canister expelling charge in the nose and a drogue parachute in the base. The illumination canister contains the main parachute and lines, the illumination candle assembly and secondary expelling charge and a delay element holder. The outer shell of the canister is fitted with four longitudinal fins. The projectile uses an Electronic Time Fuze. When the fuze functions, the primary expelling charge ignites forcing the drogue parachute and canister assembly against the base plate, rupturing the base pins and expelling the canister and parachute. The drogue parachute deploys and the canister fins extend. The expelling charge also ignites the delay element in the canister nose. The delay element ignites the secondary expelling charge within the canister after 8 seconds igniting the candle and expelling the main parachute. With the main parachute open, the illuminate candle descends at 15 feet per second and burns for 120 seconds. The M1123 Provides Infrared battlefield illumination that is 2.4x larger in diameter than the M1066 Infrared Illuminating projectile.

This item is Code A, approved for service use.

(E26904)PROJ, ARTY, 155MM VL ILLUM M1124

The 155MM Visual Light Illumination M1124 fired from 155mm howitzers is used to illuminate the battlefield to a maximum range of 17.5 kilometers. The projectile has a hollow, steel-forged body containing an illumination canister, a canister expelling charge in the nose and a drogue parachute in the base. The illuminate canister contains the main parachute and lines, the illuminate candle assembly and secondary expelling charge and a delay element holder. The outer shell of the canister is fitted with four longitudinal fins. The projectile uses a Mechanical or Electronic Time fuze. When the fuze functions, the primary expelling charge ignites forcing the drogue parachute and canister assembly against the base plate, rupturing the base pins and expelling the canister and parachute. The drogue parachute then deploys and the

**UNCLASSIFIED**

<b>Exhibit P-40, Budget Line Item Justification:</b> PB 2016 Army		<b>Date:</b> February 2015
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2034A: Procurement of Ammunition, Army / BA 01: Ammunition / BSA 37: Artillery Ammunition		<b>P-1 Line Item Number / Title:</b> E89500 / ARTILLERY PROJECTILE, 155MM, ALL TYPES
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) :	<b>Program Elements for Code B Items:</b>	<b>Other Related Program Elements:</b>
<p>canister fins extend. The expelling charge also ignites the delay element in the canister nose. The delay element ignites the secondary expelling charge within the canister after 8 seconds igniting the candle and expelling the main parachute. With the main parachute open, the illumination candle descends at 15 feet per second and burns for 120 seconds producing approximately 1,000,000 candlepower. This item is Code A, approved for service use.</p> <p>(E27603)PROJ, ARTY, 155MM HE IM TRAINING M1122 The 155mm M1122 High Explosive (HE) projectile will be the primary HE round used for training. The M1122 is a lower cost HE training round. The M1122 will replace the M804A1 and M107 Projectiles for training. It utilizes M483A1 DPICM metal parts from an ongoing M483A1 demil effort, is filled with high density concrete to simulate the weight of the M795 HE Projectile, and incorporates several Insensitive Munitions (IM) technologies (IMX-101 explosive fill, PBXN-9 Supplementary Charge, Meltable Fuze Well Liner and Meltable Fuze Plug) to increase survivability and safety. The M1122 will replicate the flight characteristics of the wartime M795 HE projectile with a maximum range of 22.5 kilometers. This item is Code A, approved for service use.</p> <p>(E66800)PROJ, ARTY, 155MM HE, M795 The M795 High Explosive (HE) Projectile is the primary HE round used for warfare operations with maximum range of 22.5 kilometers. The M795 incorporates Insensitive Munitions (IM) technologies that reduces vulnerability from unplanned stimuli e.g. fire/heat, shock and impact, while maintaining or exceeding the same level of effectiveness in combat. The 155mm M795 has a high fragmentation steel (HF1) body projectile filled with 23.8 pounds of IMX101 Explosive fill, PBXN-9 Supplementary Charge, and Meltable Fuze Plug. The projectile can use several different fuzes (impact, mechanical time, electronic time and short intrusion proximity). It is used for conventional fire support for harassment and interdiction, fragmentation and blast effect. The M795 projectile is employed against personnel, trucks, electronic surveillance and target acquisition devices, supply points, command and control and communications (C3) installations, and mechanized and armored forces. This item is Code A, approved for service use.</p>		

**UNCLASSIFIED**

**Exhibit P-40, Budget Line Item Justification:** PB 2016 Army **Date:** February 2015

**Appropriation / Budget Activity / Budget Sub Activity:**  
2034A: Procurement of Ammunition, Army / BA 01: Ammunition / BSA 37: Artillery Ammunition

**P-1 Line Item Number / Title:**  
E89500 / ARTILLERY PROJECTILE, 155MM, ALL TYPES

ID Code (A=Service Ready, B=Not Service Ready) :			Program Elements for Code B Items:			Other Related Program Elements:		
Exhibits Schedule			Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total
Title*	Exhibits	ID CD	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)
E21618 / PROJ, ARTY, 155MM EXT RANGE SPOTTING RD M110A3 [DZ09]	P-5, P-5a, P-21	A	- / -	- / -	6,324 / 6.294	- / -	- / -	- / -
E26900 / PROJ, ARTY, 155MM VL ILLUM, M485 / M1124 [DA57]	P-5, P-5a, P-21	A	- / 278.812	- / -	7,557 / 11.119	- / -	- / -	- / -
E26904 / PROJ, ARTY, 155MM IR ILLUM M1066 / M1123 [DA56]	P-5, P-5a, P-21	A	- / 22.558	11,107 / 16.216	8,427 / 12.419	8,334 / 12.600	- / -	8,334 / 12.600
E27603 / PROJ, ARTY, 155MM HE IM TRAINING M1122 [DA51]	P-5, P-5a, P-21	A	- / 26.146	19,864 / 11.917	18,238 / 11.277	70,832 / 40.514	- / -	70,832 / 40.514
E66800 / PROJ, ARTY, 155MM HE, M795 [DA54]	P-5, P-5a, P-21	A	- / 285.463	13,891 / 19.769	12,595 / 20.914	13,611 / 24.881	6,078 / 10.000	19,689 / 34.881
<b>Total Gross/Weapon System Cost</b>			<b>- / 3,423.935</b>	<b>- / 47.902</b>	<b>- / 62.023</b>	<b>- / 77.995</b>	<b>- / 10.000</b>	<b>- / 87.995</b>

\*Title represents 1) the Number / Title for Items; 2) the Number / Title [DODIC] for Ammunition; and/or 3) the Number / Title (Modification Type) for Modifications.

Note: Totals in this Exhibit P-40 set may not be exact or add due to rounding.

**Justification:**

FY 2016 Base Budget supports critical Army Title 10 war reserve/operational, training, and test requirements IAW DoD Instruction 3000.04 (Munitions Requirements Process) and AR 5-13 (Total Army Munitions Requirements Process and Prioritization System). War reserve requirements support OSD-approved Combatant Commander Operational Plans, Homeland Defense, and other OSD-directed missions. Training requirements support individual and collective training of Active and Reserve Component forces at Army schools, home station, and the combined training centers. Test requirements support the development, fielding, safety, and quality assurance of Army munitions and equipment throughout their life-cycle.

In accordance with Section 1815 of the FY 2008 National Defense Authorization Act (P.L. 110-181), this item is necessary for use by the active and reserve components of the Armed Forces for homeland defense missions, domestic emergency responses, and providing military support to civil authorities.

FY 2016 Base procurement dollars in the amount of \$77.995 million supports production of 92,777 projectiles. FY 2016 OCO procurement dollars in the amount of \$10.000 million supports 6,078 projectiles. Funds are required to replenish munitions expended in combat operations in theater.

E21618 - PROJ, ARTY, 155MM EXT RANGE SPOTTING RD M110A3

This item is a training standard item used in both training and combat. Request supports annual training and build a war reserve inventory in accordance with the Army procurement goals. TYPE CLASSIFICATION DATE: 1972

E26900 - PROJ, ARTY, 155MM VL ILLUM, M485 / M1124

This is a training standard item used in training and combat. Request supports annual training and builds a war reserve inventory in accordance with the Army's procurement goals. TYPE CLASSIFICATION DATE: 1970

E26901 - PROJ, ARTY, 155MM IR ILLUM M1066 / M1123

This item is a training standard item used in both training and combat. FY 2016 procurement supports annual training and builds a war reserve inventory in accordance with the Army procurement goals. TYPE CLASSIFICATION: 2010

FY 2016 Base procurement dollars in the amount of \$12.600 million supports production of 8,334 cartridges.

E27603 - PROJ, ARTY, 155MM HE IM TRAINING M1122

This is a training unique item not used in combat. FY 2016 request supports annual training and builds a depot level inventory in accordance with the Army procurement goals. TYPE CLASSIFICATION DATE: 2010

FY 2016 Base procurement dollars in the amount of \$40.514 million supports production of 70,832 cartridges.

**UNCLASSIFIED**

<b>Exhibit P-40, Budget Line Item Justification:</b> PB 2016 Army		<b>Date:</b> February 2015
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2034A: Procurement of Ammunition, Army / BA 01: Ammunition / BSA 37: Artillery Ammunition		<b>P-1 Line Item Number / Title:</b> E89500 / ARTILLERY PROJECTILE, 155MM, ALL TYPES
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) :	<b>Program Elements for Code B Items:</b>	<b>Other Related Program Elements:</b>
<p>E66800 - PROJ, ARTY, 155MM HE, M795 This is a war reserve item used in combat. FY 2016 request builds a war reserve inventory in accordance with Army's procurement goals. TYPE CLASSIFICATION DATE: 1982 FY 2016 Base procurement dollars in the amount of \$24.881 million supports production of 13,611 cartridges. FY 2016 OCO procurement dollars in the amount of \$10.000 million supports production of 6,078 cartridges. Funds are required to replenish munitions expended in combat operations in theater.</p>		



**UNCLASSIFIED**

<b>Exhibit P-5, Cost Analysis: PB 2016 Army</b>		<b>Date:</b> February 2015
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2034A / 01 / 37	<b>P-1 Line Item Number / Title:</b> E89500 / ARTILLERY PROJECTILE, 155MM, ALL TYPES	<b>Item Number / Title [DODIC]:</b> E21618 / PROJ, ARTY, 155MM EXT RANGE SPOTTING RD M110A3 [DZ09]

<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : A	<b>MDAP/MAIS Code:</b>
---	------------------------

<b>Resource Summary</b>	<b>Prior Years</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016 Base</b>	<b>FY 2016 OCO</b>	<b>FY 2016 Total</b>
Procurement Quantity (Units in Each)	-	-	6,324	-	-	-
Gross/Weapon System Cost (\$ in Millions)	-	-	6.294	-	-	-
Less PY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
Net Procurement (P1) (\$ in Millions)	-	-	6.294	-	-	-
Plus CY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
<b>Total Obligation Authority (\$ in Millions)</b>	-	-	<b>6.294</b>	-	-	-

*(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)*

Initial Spares (\$ in Millions)	-	-	-	-	-	-
Gross/Weapon System Unit Cost (\$ in Dollars)	-	-	-	-	-	-

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or add, due to rounding.

<b>Cost Elements</b>	<b>Prior Years</b>			<b>FY 2014</b>			<b>FY 2015</b>			<b>FY 2016 Base</b>			<b>FY 2016 OCO</b>			<b>FY 2016 Total</b>		
	<b>Unit Cost (\$)</b>	<b>Qty (Each)</b>	<b>Total Cost (\$ M)</b>	<b>Unit Cost (\$)</b>	<b>Qty (Each)</b>	<b>Total Cost (\$ M)</b>	<b>Unit Cost (\$)</b>	<b>Qty (Each)</b>	<b>Total Cost (\$ M)</b>	<b>Unit Cost (\$)</b>	<b>Qty (Each)</b>	<b>Total Cost (\$ M)</b>	<b>Unit Cost (\$)</b>	<b>Qty (Each)</b>	<b>Total Cost (\$ M)</b>	<b>Unit Cost (\$)</b>	<b>Qty (Each)</b>	<b>Total Cost (\$ M)</b>
<b>Hardware Cost</b>																		
<b>Recurring Cost</b>																		
Load, Assemble, Pack (Lap) <sup>(†)</sup>	-	-	-	-	-	-	312.60	6,324	1.977	-	-	-	-	-	-	-	-	-
SMOKE CANNISTER ASSEMBLY <sup>(†)</sup>	-	-	-	-	-	-	356.72	6,514	2.324	-	-	-	-	-	-	-	-	-
Plug, Lifting, Meltable For Im <sup>(†)</sup>	-	-	-	-	-	-	19.11	6,514	0.124	-	-	-	-	-	-	-	-	-
DOWNLOAD, CLEAN AND INSPECT <sup>(†)</sup>	-	-	-	-	-	-	98.34	6,640	0.653	-	-	-	-	-	-	-	-	-
MODIFIED SUPPLEMENTAL CHARGE, PBXN9 <sup>(†)</sup>	-	-	-	-	-	-	32.35	6,514	0.211	-	-	-	-	-	-	-	-	-
<i>Subtotal: Recurring Cost</i>	-	-	-	-	-	-	-	-	5.289	-	-	-	-	-	-	-	-	-
<i>Subtotal: Hardware Cost</i>	-	-	-	-	-	-	-	-	5.289	-	-	-	-	-	-	-	-	-
<b>Support Cost</b>																		
Production Engineering	-	-	-	-	-	-	-	-	0.741	-	-	-	-	-	-	-	-	-
Acceptance Testing	-	-	-	-	-	-	-	-	0.135	-	-	-	-	-	-	-	-	-
PRODUCTION QUALIFICATION TEST	-	-	-	-	-	-	-	-	0.129	-	-	-	-	-	-	-	-	-
<i>Subtotal: Support Cost</i>	-	-	-	-	-	-	-	-	1.005	-	-	-	-	-	-	-	-	-

**UNCLASSIFIED**

<b>Exhibit P-5, Cost Analysis:</b> PB 2016 Army		<b>Date:</b> February 2015
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2034A / 01 / 37		<b>P-1 Line Item Number / Title:</b> E89500 / ARTILLERY PROJECTILE, 155MM, ALL TYPES
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : A		<b>MDAP/MAIS Code:</b>
<b>Item Number / Title [DODIC]:</b> E21618 / PROJ, ARTY, 155MM EXT RANGE SPOTTING RD M110A3 [DZ09]		

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or add, due to rounding.

Cost Elements	Prior Years			FY 2014			FY 2015			FY 2016 Base			FY 2016 OCO			FY 2016 Total		
	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)
Gross/Weapon System Cost	-	-	-	-	-	-	-	6,324	6.294	-	-	-	-	-	-	-	-	-

(t) indicates the presence of a P-5a

**UNCLASSIFIED**

<b>Exhibit P-5a, Procurement History and Planning:</b> PB 2016 Army							<b>Date:</b> February 2015					
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2034A / 01 / 37			<b>P-1 Line Item Number / Title:</b> E89500 / ARTILLERY PROJECTILE, 155MM, ALL TYPES				<b>Item Number / Title [DODIC]:</b> E21618 / PROJ, ARTY, 155MM EXT RANGE SPOTTING RD M110A3 [DZ09]					

Cost Elements	O C O	FY	Contractor and Location	Method/Type or Funding Vehicle	Location of PCO	Award Date	Date of First Delivery	Qty <i>(Each)</i>	Unit Cost <i>(\$)</i>	Specs Avail Now?	Date Revision Available	RFP Issue Date
Load, Assemble, Pack (Lap) <sup>(†)</sup>		2015	PINE BLUFF ARSENAL / PINE BLUFF, AR	SS / FFP	PICATINNY ARSENAL, NJ	Mar 2015	Mar 2017	6,324	312.60	Y		
SMOKE CANNISTER ASSEMBLY		2015	CRANE ARMY AMMO ACTIVITY / CRANE, IN	PO	ROCK ISLAND ARSENAL, IL	Mar 2015	Sep 2016	6,514	356.72	Y		
Plug, Lifting, Meltable For Im		2015	POLYMER TECHNOLOGIES, INC / CLIFTON, NJ	C / FFP	PICATINNY ARSENAL, NJ	Mar 2015	Sep 2016	6,514	19.11	Y		
DOWNLOAD, CLEAN AND INSPECT		2015	TO BE SELECTED / TBS01	PO	PICATINNY ARSENAL, NJ	Mar 2015	Sep 2016	6,640	98.34	Y		
MODIFIED SUPPLEMENTAL CHARGE, PBXN9		2015	TO BE SELECTED / TBS02	C / FFP	PICATINNY ARSENAL, NJ	Mar 2015	Sep 2016	6,514	32.35	Y		

<sup>(†)</sup> indicates the presence of a P-21

**UNCLASSIFIED**

<b>Exhibit P-21, Production Schedule:</b> PB 2016 Army														<b>Date:</b> February 2015													
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2034A / 01 / 37							<b>P-1 Line Item Number / Title:</b> E89500 / ARTILLERY PROJECTILE, 155MM, ALL TYPES														<b>Item Number / Title [DODIC]:</b> E21618 / PROJ, ARTY, 155MM EXT RANGE SPOTTING RD M110A3 [DZ09]						

Cost Elements <i>(Units in Thousands)</i>							Fiscal Year 2015														Fiscal Year 2016													
O C C O	M F R #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2014	BAL DUE AS OF 1 OCT	Calendar Year 2015														Calendar Year 2016													
							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	B A L			

Load, Assemble, Pack (Lap)																															
1	2015	ARMY	6.324	-	6.324										A	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6.324

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	B A L							

**UNCLASSIFIED**

<b>Exhibit P-21, Production Schedule:</b> PB 2016 Army															<b>Date:</b> February 2015														
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2034A / 01 / 37										<b>P-1 Line Item Number / Title:</b> E89500 / ARTILLERY PROJECTILE, 155MM, ALL TYPES										<b>Item Number / Title [DODIC]:</b> E21618 / PROJ, ARTY, 155MM EXT RANGE SPOTTING RD M110A3 [DZ09]									

Cost Elements <i>(Units in Thousands)</i>						Fiscal Year 2017												Fiscal Year 2018													
O C C O	M F R #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2016	BAL DUE AS OF 1 OCT	Calendar Year 2017												Calendar Year 2018												
							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	B A L
Load, Assemble, Pack (Lap)																															
	1	2015	ARMY	6.324	-	6.324	-	-	-	-	-	-	-	-	6.324																
							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	B A L

**UNCLASSIFIED**

<b>Exhibit P-21, Production Schedule:</b> PB 2016 Army				<b>Date:</b> February 2015							
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2034A / 01 / 37				<b>P-1 Line Item Number / Title:</b> E89500 / ARTILLERY PROJECTILE, 155MM, ALL TYPES				<b>Item Number / Title [DODIC]:</b> E21618 / PROJ, ARTY, 155MM EXT RANGE SPOTTING RD M110A3 [DZ09]			

MFR Ref #	MFR Name - Location	Production Rates (Each / Month)			Procurement Leadtime (Months)							
		MSR For 2016	1-8-5 For 2016	MAX For 2016	Initial			Reorder				
					ALT Prior to Oct 1	ALT After Oct 1	Mfg PLT	ALT Prior to Oct 1	ALT After Oct 1	Mfg PLT	Total After Oct 1	
1	PINE BLUFF ARSENAL - PINE BLUFF, AR	5,000	10,000	15,000	6	6	24	30	3	6	24	30

"A" in the Delivery Schedule indicates the Contract Award Date.

Note: Due to space limitations, quantities in the Exhibit P-21 delivery calendar are truncated and rounded based on the maximum quantity in the calendar as follows. If the maximum quantity is less than or equal to than 9,999, all quantities are shown as each. If the maximum quantity is between 10,000 and 999,999 all quantities are shown in thousands. If the maximum quantity is between 1,000,000 and 999,999,999 all quantities are shown in millions (rounded to the nearest thousand). If the maximum quantity is equal or greater than 1,000,000,000 all quantities are shown in billions (rounded to the nearest million).

**UNCLASSIFIED**

<b>Exhibit P-5, Cost Analysis: PB 2016 Army</b>		<b>Date:</b> February 2015
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2034A / 01 / 37	<b>P-1 Line Item Number / Title:</b> E89500 / ARTILLERY PROJECTILE, 155MM, ALL TYPES	<b>Item Number / Title [DODIC]:</b> E26900 / PROJ, ARTY, 155MM VL ILLUM, M485 / M1124 [DA57]

<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : A	<b>MDAP/MAIS Code:</b>
---	------------------------

<b>Resource Summary</b>	<b>Prior Years</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016 Base</b>	<b>FY 2016 OCO</b>	<b>FY 2016 Total</b>
Procurement Quantity (Units in Each)	-	-	7,557	-	-	-
Gross/Weapon System Cost (\$ in Millions)	278.812	-	11.119	-	-	-
Less PY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
Net Procurement (P1) (\$ in Millions)	278.812	-	11.119	-	-	-
Plus CY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
<b>Total Obligation Authority (\$ in Millions)</b>	<b>278.812</b>	<b>-</b>	<b>11.119</b>	<b>-</b>	<b>-</b>	<b>-</b>

*(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)*

Initial Spares (\$ in Millions)	-	-	-	-	-	-
Gross/Weapon System Unit Cost (\$ in Dollars)	-	-	-	-	-	-

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or add, due to rounding.

<b>Cost Elements</b>	<b>Prior Years</b>			<b>FY 2014</b>			<b>FY 2015</b>			<b>FY 2016 Base</b>			<b>FY 2016 OCO</b>			<b>FY 2016 Total</b>		
	<b>Unit Cost (\$)</b>	<b>Qty (Each)</b>	<b>Total Cost (\$ M)</b>	<b>Unit Cost (\$)</b>	<b>Qty (Each)</b>	<b>Total Cost (\$ M)</b>	<b>Unit Cost (\$)</b>	<b>Qty (Each)</b>	<b>Total Cost (\$ M)</b>	<b>Unit Cost (\$)</b>	<b>Qty (Each)</b>	<b>Total Cost (\$ M)</b>	<b>Unit Cost (\$)</b>	<b>Qty (Each)</b>	<b>Total Cost (\$ M)</b>	<b>Unit Cost (\$)</b>	<b>Qty (Each)</b>	<b>Total Cost (\$ M)</b>
<b>Hardware Cost</b>																		
<b>Recurring Cost</b>																		
LOAD, ASSEMBLE, PACK (LAP) <sup>(†)</sup>	-	-	-	-	-	-	290.49	7,557	2.195	-	-	-	-	-	-	-	-	-
DOWNLOAD, CLEAN AND INSPECT <sup>(†)</sup>	-	-	-	-	-	-	98.34	7,935	0.780	-	-	-	-	-	-	-	-	-
METAL PARTS SETS <sup>(†)</sup>	-	-	-	-	-	-	322.51	7,557	2.437	-	-	-	-	-	-	-	-	-
ILLUM CANNISTER, 155MM <sup>(†)</sup>	-	-	-	-	-	-	379.76	7,708	2.927	-	-	-	-	-	-	-	-	-
CANISTER MPTS ASSY, 155MM ILLUM <sup>(†)</sup>	-	-	-	-	-	-	58.49	7,708	0.451	-	-	-	-	-	-	-	-	-
CANISTER BASE ASSY, 155MM ILLUM <sup>(†)</sup>	-	-	-	-	-	-	18.30	7,708	0.141	-	-	-	-	-	-	-	-	-
M10 EXPULSION CHARGE ASSEMBLY <sup>(†)</sup>	-	-	-	-	-	-	16.28	7,708	0.125	-	-	-	-	-	-	-	-	-
PARACHUTE MAIN, 155MM ILLUM <sup>(†)</sup>	-	-	-	-	-	-	46.38	7,708	0.357	-	-	-	-	-	-	-	-	-

**UNCLASSIFIED**

<b>Exhibit P-5, Cost Analysis: PB 2016 Army</b>		<b>Date:</b> February 2015
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2034A / 01 / 37		<b>P-1 Line Item Number / Title:</b> E89500 / ARTILLERY PROJECTILE, 155MM, ALL TYPES
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : A		<b>MDAP/MAIS Code:</b>
<b>Item Number / Title [DODIC]:</b> E26900 / PROJ, ARTY, 155MM VL ILLUM, M485 / M1124 [DA57]		

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or add, due to rounding.

Cost Elements	Prior Years			FY 2014			FY 2015			FY 2016 Base			FY 2016 OCO			FY 2016 Total		
	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)
PARACHUTE MAIN SUPPORTS, 155MM ILLUM <sup>(t)</sup>	-	-	-	-	-	-	3.12	30,833	0.096	-	-	-	-	-	-	-	-	-
PARACHUTE DROGUE ASSEMBLY, 155MM ILLUM <sup>(t)</sup>	-	-	-	-	-	-	20.29	7,708	0.156	-	-	-	-	-	-	-	-	-
DELAY ELEMENT, 155MM ILLUM <sup>(t)</sup>	-	-	-	-	-	-	32.42	7,708	0.250	-	-	-	-	-	-	-	-	-
WOOD PALLET (HEAT TREATED) <sup>(t)</sup>	-	-	-	-	-	-	86.63	982	0.085	-	-	-	-	-	-	-	-	-
<i>Subtotal: Recurring Cost</i>	-	-	-	-	-	-	-	-	10.002	-	-	-	-	-	-	-	-	-
<i>Subtotal: Hardware Cost</i>	-	-	-	-	-	-	-	-	10.002	-	-	-	-	-	-	-	-	-
<b>Support Cost</b>																		
PRODUCTION ENGINEERING	-	-	278.812	-	-	-	-	-	1.051	-	-	-	-	-	-	-	-	-
ACCEPTANCE TESTING	-	-	-	-	-	-	-	-	0.066	-	-	-	-	-	-	-	-	-
<i>Subtotal: Support Cost</i>	-	-	278.812	-	-	-	-	-	1.117	-	-	-	-	-	-	-	-	-
<b>Gross/Weapon System Cost</b>	-	-	<b>278.812</b>	-	-	-	-	<b>7,557</b>	<b>11.119</b>	-	-	-	-	-	-	-	-	-

(t) indicates the presence of a P-5a



**UNCLASSIFIED**

Exhibit P-5a, Procurement History and Planning: PB 2016 Army								Date: February 2015				
Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 37			P-1 Line Item Number / Title: E89500 / ARTILLERY PROJECTILE, 155MM, ALL TYPES					Item Number / Title [DODIC]: E26900 / PROJ, ARTY, 155MM VL ILLUM, M485 / M1124 [DA57]				
Cost Elements	O C O	FY	Contractor and Location	Method/Type or Funding Vehicle	Location of PCO	Award Date	Date of First Delivery	Qty (Each)	Unit Cost (\$)	Specs Avail Now?	Date Revision Available	RFP Issue Date
LOAD, ASSEMBLE, PACK (LAP) <sup>(†)</sup>		2015	PINE BLUFF ARSENAL / PINE BLUFF, AR	PO	PICATINNY ARSENAL, NJ	Mar 2015	Mar 2017	7,557	290.49	Y		
DOWNLOAD, CLEAN AND INSPECT		2015	TO BE SELECTED / TBS01	PO	PICATINNY ARSENAL, NJ	Mar 2015	Sep 2016	7,935	98.34	Y		
METAL PARTS SETS		2015	CRANE ARMY AMMO ACTIVITY / CRANE, IN	PO	PICATINNY ARSENAL, NJ	Feb 2015	Aug 2016	7,557	322.51	Y		
ILLUM CANNISTER, 155MM		2015	CRANE ARMY AMMO ACTIVITY / CRANE, IN	PO	ROCK ISLAND ARSENAL, IL	Feb 2015	Oct 2016	7,708	379.76	Y		
CANISTER MPTS ASSY, 155MM ILLUM		2015	TO BE SELECTED / TBS02	C / IDIQ	PICATINNY ARSENAL, NJ	Mar 2015	Sep 2016	7,708	58.49	Y		
CANISTER BASE ASSY, 155MM ILLUM		2015	TO BE SELECTED / TBS03	C / IDIQ	PICATINNY ARSENAL, NJ	Mar 2015	Nov 2016	7,708	18.30	Y		
M10 EXPULSION CHARGE ASSEMBLY		2015	CRANE ARMY AMMO ACTIVITY / CRANE, IN	PO	ROCK ISLAND ARSENAL, IL	Mar 2015	Sep 2016	7,708	16.28	Y		
PARACHUTE MAIN, 155MM ILLUM		2015	TO BE SELECTED / TBS04	C / IDIQ	ROCK ISLAND ARSENAL, IL	Mar 2015	Sep 2016	7,708	46.38	Y		
PARACHUTE MAIN SUPPORTS, 155MM ILLUM		2015	CRANE ARMY AMMO ACTIVITY / CRANE, IN	PO	ROCK ISLAND ARSENAL, IL	Mar 2015	Nov 2016	30,833	3.12	Y		
PARACHUTE DROGUE ASSEMBLY, 155MM ILLUM		2015	TO BE SELECTED / TBS05	C / IDIQ	ROCK ISLAND ARSENAL, IL	Mar 2015	Oct 2016	7,708	20.29	Y		
DELAY ELEMENT, 155MM ILLUM		2015	CRANE ARMY AMMO ACTIVITY / CRANE, IN	PO	ROCK ISLAND ARSENAL, IL	Feb 2015	Aug 2016	7,708	32.42	Y		
WOOD PALLET (HEAT TREATED)		2015	PINE BLUFF ARSENAL / PINE BLUFF, AR	PO	ROCK ISLAND ARSENAL, IL	Mar 2015	Sep 2016	982	86.63	Y		

<sup>(†)</sup> indicates the presence of a P-21

**Remarks:**

Canister Base Assembly: IDIQ contract awarded to multiple contractors. Requirements competed among the following contractors: Woodlawn MFG INC., Marshall, TX and Bailey Tooling and MFG CO., Lancaster, TX. Parachute Main: IDIQ contract awarded to multiple contractors. Requirements competed among the following contractors: Production Products MFG., Buffalo, MO; North American Aerodynamics INC., Roxboro, NC and Yoland Corp INC., Brooklyn, NY. Parachute Drogue Assembly: IDIQ contract awarded to multiple contractors. Requirements will be competed among the following contractors: North American Aerodynamics INC., Roxboro, NC and Yoland Corp INC., Brooklyn, NY.

**UNCLASSIFIED**

Exhibit P-21, Production Schedule: PB 2016 Army																							Date: February 2015										
Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 37										P-1 Line Item Number / Title: E89500 / ARTILLERY PROJECTILE, 155MM, ALL TYPES										Item Number / Title [DODIC]: E26900 / PROJ, ARTY, 155MM VL ILLUM, M485 / M1124 [DA57]													
Cost Elements (Units in Thousands)						Fiscal Year 2015													Fiscal Year 2016														
O C C #	M F R #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2014	BAL DUE AS OF 1 OCT	Calendar Year 2015													Calendar Year 2016													
							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	B A L		
LOAD, ASSEMBLE, PACK (LAP)																																	
1		2015	ARMY	7.557	-	7.557																											
1		2015	MC (†)	3.738	-	3.738																											
1		<b>2015</b>	<b>Total</b>	<b>11.295</b>	<b>-</b>	<b>11.295</b>																											
							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	B A L		

**UNCLASSIFIED**

<b>Exhibit P-21, Production Schedule:</b> PB 2016 Army															<b>Date:</b> February 2015														
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2034A / 01 / 37										<b>P-1 Line Item Number / Title:</b> E89500 / ARTILLERY PROJECTILE, 155MM, ALL TYPES										<b>Item Number / Title [DODIC]:</b> E26900 / PROJ, ARTY, 155MM VL ILLUM, M485 / M1124 [DA57]									

Cost Elements <i>(Units in Thousands)</i>						Fiscal Year 2017												Fiscal Year 2018													
O C C #	M F R #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2016	BAL DUE AS OF 1 OCT	Calendar Year 2017												Calendar Year 2018												B A L
							O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	
LOAD, ASSEMBLE, PACK (LAP)																															
	1	2015	ARMY	7.557	-	7.557	-	-	-	-	-	-	2.000	2.000	3.557																-
	1	2015	MC (†)	3.738	-	3.738	-	-	-	-	-	-	2.000	1.738	-																-
	1	2015	<b>Total</b>	<b>11.295</b>	-	<b>11.295</b>	-	-	-	-	-	-	<b>4.000</b>	<b>3.738</b>	<b>3.557</b>																-
							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	B A L

**UNCLASSIFIED**

<b>Exhibit P-21, Production Schedule:</b> PB 2016 Army								<b>Date:</b> February 2015				
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2034A / 01 / 37				<b>P-1 Line Item Number / Title:</b> E89500 / ARTILLERY PROJECTILE, 155MM, ALL TYPES				<b>Item Number / Title [DODIC]:</b> E26900 / PROJ, ARTY, 155MM VL ILLUM, M485 / M1124 [DA57]				
		<b>Production Rates (Each / Month)</b>			<b>Procurement Leadtime (Months)</b>							
<b>MFR Ref #</b>	<b>MFR Name - Location</b>	<b>MSR For 2016</b>	<b>1-8-5 For 2016</b>	<b>MAX For 2016</b>	<b>Initial</b>			<b>Reorder</b>				
					<b>ALT Prior to Oct 1</b>	<b>ALT After Oct 1</b>	<b>Mfg PLT</b>	<b>Total After Oct 1</b>	<b>ALT Prior to Oct 1</b>	<b>ALT After Oct 1</b>	<b>Mfg PLT</b>	<b>Total After Oct 1</b>
1	PINE BLUFF ARSENAL - PINE BLUFF, AR	2,000	4,000	10,000	6	6	24	30	4	3	24	27

(‡) Delivery rows marked with this symbol indicate that they are funded through a separate Line Item. See the respective components' exhibits for details, including the full delivery schedule.

"A" in the Delivery Schedule indicates the Contract Award Date.

Note: Due to space limitations, quantities in the Exhibit P-21 delivery calendar are truncated and rounded based on the maximum quantity in the calendar as follows. If the maximum quantity is less than or equal to than 9,999, all quantities are shown as each. If the maximum quantity is between 10,000 and 999,999 all quantities are shown in thousands. If the maximum quantity is between 1,000,000 and 999,999,999 all quantities are shown in millions (rounded to the nearest thousand). If the maximum quantity is equal or greater than 1,000,000,000 all quantities are shown in billions (rounded to the nearest million).

**UNCLASSIFIED**

<b>Exhibit P-5, Cost Analysis: PB 2016 Army</b>						<b>Date:</b> February 2015			
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2034A / 01 / 37				<b>P-1 Line Item Number / Title:</b> E89500 / ARTILLERY PROJECTILE, 155MM, ALL TYPES			<b>Item Number / Title [DODIC]:</b> E26904 / PROJ, ARTY, 155MM IR ILLUM M1066 / M1123 [DA56]		
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : A						<b>MDAP/MAIS Code:</b>			
<b>Resource Summary</b>				<b>Prior Years</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016 Base</b>	<b>FY 2016 OCO</b>	<b>FY 2016 Total</b>
Procurement Quantity (Units in Each)				-	11,107	8,427	8,334	-	8,334
Gross/Weapon System Cost (\$ in Millions)				22.558	16.216	12.419	12.600	-	12.600
Less PY Advance Procurement (\$ in Millions)				-	-	-	-	-	-
Net Procurement (P1) (\$ in Millions)				22.558	16.216	12.419	12.600	-	12.600
Plus CY Advance Procurement (\$ in Millions)				-	-	-	-	-	-
<b>Total Obligation Authority (\$ in Millions)</b>				<b>22.558</b>	<b>16.216</b>	<b>12.419</b>	<b>12.600</b>	<b>-</b>	<b>12.600</b>
<i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i>									
Initial Spares (\$ in Millions)				-	-	-	-	-	-
Gross/Weapon System Unit Cost (\$ in Dollars)				-	-	-	1,511.88	-	1,511.88

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or add, due to rounding.

Cost Elements	Prior Years			FY 2014			FY 2015			FY 2016 Base			FY 2016 OCO			FY 2016 Total		
	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)
Hardware Cost																		
Recurring Cost																		
LOAD, ASSEMBLE, PACK (LAP) <sup>(†)</sup>	-	-	-	261.04	11,107	2.899	290.49	8,427	2.448	295.58	8,334	2.463	-	-	-	295.58	8,334	2.463
DOWNLOAD, CLEAN AND INSPECT <sup>(†)</sup>	-	-	-	82.50	11,662	0.962	98.34	8,848	0.870	100.30	8,750	0.878	-	-	-	100.30	8,750	0.878
METAL PARTS SETS <sup>(†)</sup>	-	-	-	305.37	11,107	3.392	322.51	8,427	2.718	328.93	8,334	2.741	-	-	-	328.93	8,334	2.741
ILLUM CANNISTER, 155MM <sup>(†)</sup>	-	-	-	322.96	11,329	3.659	379.76	8,596	3.264	387.32	8,500	3.292	-	-	-	387.32	8,500	3.292
CANISTER MPTS ASSY, 155MM ILLUM <sup>(†)</sup>	-	-	-	57.57	11,329	0.652	58.49	8,596	0.503	59.65	8,500	0.507	-	-	-	59.65	8,500	0.507
CANISTER BASE ASSY, 155MM ILLUM <sup>(†)</sup>	-	-	-	14.03	11,329	0.159	18.30	8,596	0.157	18.66	8,500	0.159	-	-	-	18.66	8,500	0.159
PARACHUTE MAIN, 155MM ILLUM <sup>(†)</sup>	-	-	-	34.18	11,329	0.387	46.38	8,596	0.399	47.30	8,500	0.402	-	-	-	47.30	8,500	0.402
PARACHUTE MAIN SUPPORTS, 155MM ILLUM <sup>(†)</sup>	-	-	-	3.10	45,317	0.140	3.12	34,382	0.107	3.18	34,002	0.108	-	-	-	3.18	34,002	0.108
PARACHUTE DROGUE	-	-	-	17.18	11,329	0.195	20.29	8,596	0.174	20.69	8,500	0.176	-	-	-	20.69	8,500	0.176

**UNCLASSIFIED**

<b>Exhibit P-5, Cost Analysis: PB 2016 Army</b>		<b>Date:</b> February 2015
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2034A / 01 / 37		<b>P-1 Line Item Number / Title:</b> E89500 / ARTILLERY PROJECTILE, 155MM, ALL TYPES
		<b>Item Number / Title [DODIC]:</b> E26904 / PROJ, ARTY, 155MM IR ILLUM M1066 / M1123 [DA56]
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : A		<b>MDAP/MAIS Code:</b>

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or add, due to rounding.

Cost Elements	Prior Years			FY 2014			FY 2015			FY 2016 Base			FY 2016 OCO			FY 2016 Total		
	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)
ASSEMBLY, 155MM ILLUM <sup>(t)</sup>																		
WOOD PALLET (HEAT TREATED) <sup>(t)</sup>	-	-	-	84.93	1,444	0.123	86.63	1,096	0.095	88.35	1,083	0.096	-	-	-	88.35	1,083	0.096
M10 EXPULSION CHARGE ASSEMBLY <sup>(t)</sup>	-	-	-	15.50	11,329	0.176	16.28	8,596	0.140	16.59	8,500	0.141	-	-	-	16.59	8,500	0.141
DELAY ELEMENT, 155MM ILLUM <sup>(t)</sup>	-	-	-	35.46	11,329	0.402	32.42	8,596	0.279	38.27	8,500	0.325	-	-	-	38.27	8,500	0.325
<i>Subtotal: Recurring Cost</i>	-	-	-	-	-	13.146	-	-	11.154	-	-	11.288	-	-	-	-	-	11.288
<i>Subtotal: Hardware Cost</i>	-	-	-	-	-	13.146	-	-	11.154	-	-	11.288	-	-	-	-	-	11.288
Support Cost																		
PRODUCTION ENGINEERING	-	-	22.558	-	-	2.905	-	-	1.170	-	-	1.262	-	-	-	-	-	1.262
ACCEPTANCE TESTING	-	-	-	-	-	0.165	-	-	0.095	-	-	0.050	-	-	-	-	-	0.050
<i>Subtotal: Support Cost</i>	-	-	22.558	-	-	3.070	-	-	1.265	-	-	1.312	-	-	-	-	-	1.312
<b>Gross/Weapon System Cost</b>	-	-	22.558	-	11,107	16.216	-	8,427	12.419	1,511.88	8,334	12.600	-	-	-	1,511.88	8,334	12.600

<sup>(t)</sup> indicates the presence of a P-5a

**UNCLASSIFIED**

Exhibit P-5a, Procurement History and Planning: PB 2016 Army								Date: February 2015				
Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 37			P-1 Line Item Number / Title: E89500 / ARTILLERY PROJECTILE, 155MM, ALL TYPES					Item Number / Title [DODIC]: E26904 / PROJ, ARTY, 155MM IR ILLUM M1066 / M1123 [DA56]				
Cost Elements	O C O	FY	Contractor and Location	Method/Type or Funding Vehicle	Location of PCO	Award Date	Date of First Delivery	Qty (Each)	Unit Cost (\$)	Specs Avail Now?	Date Revision Available	RFP Issue Date
LOAD, ASSEMBLE, PACK (LAP) <sup>(†)</sup>		2014	PINE BLUFF ARSENAL / PINE BLUFF, AR	PO	PICATINNY ARSENAL, NJ	Nov 2013	Nov 2015	11,107	261.04	Y		
LOAD, ASSEMBLE, PACK (LAP) <sup>(†)</sup>		2015	PINE BLUFF ARSENAL / PINE BLUFF, AR	PO	PICATINNY ARSENAL, NJ	Mar 2015	Mar 2017	8,427	290.49	Y		
LOAD, ASSEMBLE, PACK (LAP) <sup>(†)</sup>		2016	PINE BLUFF ARSENAL / PINE BLUFF, AR	PO	PICATINNY ARSENAL, NJ	Mar 2016	Mar 2018	8,334	295.58	Y		
DOWNLOAD, CLEAN AND INSPECT		2014	MCALESTER ARMY AMMUNITION / MCALESTER, OK	PO	PICATINNY ARSENAL, NJ	Nov 2013	May 2015	11,662	82.50	Y		
DOWNLOAD, CLEAN AND INSPECT		2015	TO BE SELECTED / TBS01	PO	PICATINNY ARSENAL, NJ	Mar 2015	Sep 2016	8,848	98.34	Y		
DOWNLOAD, CLEAN AND INSPECT		2016	TO BE SELECTED / TBS01	PO	PICATINNY ARSENAL, NJ	Mar 2016	Sep 2017	8,750	100.30	Y		
METAL PARTS SETS		2014	CRANE ARMY AMMO ACTIVITY / CRANE, IN	PO	PICATINNY ARSENAL, NJ	Nov 2013	May 2015	11,107	305.37	Y		
METAL PARTS SETS		2015	CRANE ARMY AMMO ACTIVITY / CRANE, IN	PO	PICATINNY ARSENAL, NJ	Feb 2015	Aug 2016	8,427	322.51	Y		
METAL PARTS SETS		2016	CRANE ARMY AMMO ACTIVITY / CRANE, IN	PO	PICATINNY ARSENAL, NJ	Jan 2016	Jul 2017	8,334	328.93	Y		
ILLUM CANNISTER, 155MM		2014	CRANE ARMY AMMO ACTIVITY / CRANE, IN	PO	ROCK ISLAND ARSENAL, IL	Nov 2013	May 2015	11,329	322.96	Y		
ILLUM CANNISTER, 155MM		2015	CRANE ARMY AMMO ACTIVITY / CRANE, IN	PO	ROCK ISLAND ARSENAL, IL	Feb 2015	Oct 2016	8,596	379.76	Y		
ILLUM CANNISTER, 155MM		2016	CRANE ARMY AMMO ACTIVITY / CRANE, IN	PO	ROCK ISLAND ARSENAL, IL	Jan 2016	Sep 2017	8,500	387.32	Y		
CANISTER MPTS ASSY, 155MM ILLUM		2014	BAILEY TOOLING & / LANCASTER, TX	C / IDIQ	PICATINNY ARSENAL, NJ	Dec 2013	Sep 2014	11,329	57.57	Y		
CANISTER MPTS ASSY, 155MM ILLUM		2015	TO BE SELECTED / TBS02	C / IDIQ	PICATINNY ARSENAL, NJ	Mar 2015	Nov 2016	8,596	58.49	Y		
CANISTER MPTS ASSY, 155MM ILLUM		2016	TO BE SELECTED / TBS02	C / IDIQ	PICATINNY ARSENAL, NJ	Feb 2016	Oct 2017	8,500	59.65	Y		
CANISTER BASE ASSY, 155MM ILLUM		2014	BAILEY TOOLING & / LANCASTER, TX	C / IDIQ	PICATINNY ARSENAL, NJ	Dec 2013	Aug 2014	11,329	14.03	Y		
CANISTER BASE ASSY, 155MM ILLUM		2015	TO BE SELECTED / TBS03	C / IDIQ	PICATINNY ARSENAL, NJ	Mar 2015	Nov 2016	8,596	18.30	Y		
CANISTER BASE ASSY, 155MM ILLUM		2016	TO BE SELECTED / TBS03	C / IDIQ	PICATINNY ARSENAL, NJ	Feb 2016	Oct 2017	8,500	18.66	Y		
PARACHUTE MAIN, 155MM ILLUM		2014	YOLAND CORPORATION, INC. / BROOKLYN, NY	C / IDIQ	ROCK ISLAND ARSENAL, IL	Dec 2013	Sep 2014	11,329	34.18	Y		

**UNCLASSIFIED**

**Exhibit P-5a, Procurement History and Planning: PB 2016 Army** **Date:** February 2015

<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2034A / 01 / 37	<b>P-1 Line Item Number / Title:</b> E89500 / ARTILLERY PROJECTILE, 155MM, ALL TYPES	<b>Item Number / Title [DODIC]:</b> E26904 / PROJ, ARTY, 155MM IR ILLUM M1066 / M1123 [DA56]
--	---	---

Cost Elements	O C O	FY	Contractor and Location	Method/Type or Funding Vehicle	Location of PCO	Award Date	Date of First Delivery	Qty <i>(Each)</i>	Unit Cost <i>(\$)</i>	Specs Avail Now?	Date Revision Available	RFP Issue Date
PARACHUTE MAIN, 155MM ILLUM		2015	TO BE SELECTED / TBS04	C / IDIQ	ROCK ISLAND ARSENAL, IL	Mar 2015	Sep 2016	8,596	46.38	Y		
PARACHUTE MAIN, 155MM ILLUM		2016	TO BE SELECTED / TBS04	C / IDIQ	ROCK ISLAND ARSENAL, IL	Feb 2016	Aug 2017	8,500	47.30	Y		
PARACHUTE MAIN SUPPORTS, 155MM ILLUM		2014	CRANE ARMY AMMO ACTIVITY / CRANE, IN	PO	ROCK ISLAND ARSENAL, IL	Apr 2014	Oct 2015	45,317	3.10	Y		
PARACHUTE MAIN SUPPORTS, 155MM ILLUM		2015	CRANE ARMY AMMO ACTIVITY / CRANE, IN	PO	ROCK ISLAND ARSENAL, IL	Feb 2015	Oct 2016	34,382	3.12	Y		
PARACHUTE MAIN SUPPORTS, 155MM ILLUM		2016	CRANE ARMY AMMO ACTIVITY / CRANE, IN	PO	ROCK ISLAND ARSENAL, IL	Jan 2016	Sep 2017	34,002	3.18	Y		
PARACHUTE DROGUE ASSEMBLY, 155MM ILLUM		2014	YOLAND CORPORATION, INC. / BROOKLYN, NY	C / IDIQ	ROCK ISLAND ARSENAL, IL	Dec 2013	Jun 2014	11,329	17.18	Y		
PARACHUTE DROGUE ASSEMBLY, 155MM ILLUM		2015	TO BE SELECTED / TBS05	C / IDIQ	ROCK ISLAND ARSENAL, IL	Mar 2015	Sep 2016	8,596	20.29	Y		
PARACHUTE DROGUE ASSEMBLY, 155MM ILLUM		2016	TO BE SELECTED / TBS05	C / IDIQ	ROCK ISLAND ARSENAL, IL	Feb 2016	Aug 2017	8,500	20.69	Y		
WOOD PALLET (HEAT TREATED)		2014	PINE BLUFF ARSENAL / PINE BLUFF, AR	PO	ROCK ISLAND ARSENAL, IL	Dec 2013	Sep 2015	1,444	84.93	Y		
WOOD PALLET (HEAT TREATED)		2015	PINE BLUFF ARSENAL / PINE BLUFF, AR	PO	ROCK ISLAND ARSENAL, IL	Mar 2015	Sep 2016	1,096	86.63	Y		
WOOD PALLET (HEAT TREATED)		2016	PINE BLUFF ARSENAL / PINE BLUFF, AR	PO	ROCK ISLAND ARSENAL, IL	Jan 2016	Jul 2017	1,083	88.35	Y		
M10 EXPULSION CHARGE ASSEMBLY		2014	CRANE ARMY AMMO ACTIVITY / CRANE, IN	PO	ROCK ISLAND ARSENAL, IL	Mar 2014	Sep 2015	11,329	15.50	Y		
M10 EXPULSION CHARGE ASSEMBLY		2015	CRANE ARMY AMMO ACTIVITY / CRANE, IN	PO	ROCK ISLAND ARSENAL, IL	Mar 2015	Sep 2016	8,596	16.28	Y		
M10 EXPULSION CHARGE ASSEMBLY		2016	CRANE ARMY AMMO ACTIVITY / CRANE, IN	PO	ROCK ISLAND ARSENAL, IL	Jan 2016	Jul 2017	8,500	16.59	Y		
DELAY ELEMENT, 155MM ILLUM		2014	CRANE ARMY AMMO ACTIVITY / CRANE, IN	PO	ROCK ISLAND ARSENAL, IL	Nov 2013	May 2015	11,329	35.46	Y		
DELAY ELEMENT, 155MM ILLUM		2015	CRANE ARMY AMMO ACTIVITY / CRANE, IN	PO	ROCK ISLAND ARSENAL, IL	Feb 2015	Aug 2016	8,596	32.42	Y		
DELAY ELEMENT, 155MM ILLUM		2016	CRANE ARMY AMMO ACTIVITY / CRANE, IN	PO	ROCK ISLAND ARSENAL, IL	Jan 2016	Jul 2017	8,500	38.27	Y		

<sup>(†)</sup> indicates the presence of a P-21

**Remarks:**



**UNCLASSIFIED**

<b>Exhibit P-5a, Procurement History and Planning:</b> PB 2016 Army		<b>Date:</b> February 2015
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2034A / 01 / 37	<b>P-1 Line Item Number / Title:</b> E89500 / ARTILLERY PROJECTILE, 155MM, ALL TYPES	<b>Item Number / Title [DODIC]:</b> E26904 / PROJ, ARTY, 155MM IR ILLUM M1066 / M1123 [DA56]

Canister Base Assembly: IDIQ contract awarded to multiple contractors. Requirements competed among the following contractors: Woodlawn MFG INC., Marshall, TX and Bailey Tooling and MFG CO., Lancaster, TX. Parachute Main: IDIQ contract awarded to multiple contractors. Requirements competed among the following contractors: Production Products MFG., Buffalo, MO; North American Aerodynamics INC., Roxboro, NC and Yoland Corp INC., Brooklyn, NY. Parachute Drogue Assembly: IDIQ contract awarded to multiple contractors. Requirements will be competed among the following contractors: North American Aerodynamics INC., Roxboro, NC and Yoland Corp INC., Brooklyn, NY.

**UNCLASSIFIED**

<b>Exhibit P-21, Production Schedule:</b> PB 2016 Army															<b>Date:</b> February 2015														
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2034A / 01 / 37										<b>P-1 Line Item Number / Title:</b> E89500 / ARTILLERY PROJECTILE, 155MM, ALL TYPES										<b>Item Number / Title [DODIC]:</b> E26904 / PROJ, ARTY, 155MM IR ILLUM M1066 / M1123 [DA56]									

Cost Elements <i>(Units in Thousands)</i>						Fiscal Year 2014												Fiscal Year 2015													
O C C #	M F R #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2013	BAL DUE AS OF 1 OCT	Calendar Year 2014												Calendar Year 2015												B A L
							O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	
LOAD, ASSEMBLE, PACK (LAP)																															
1		2014	ARMY	11.107	-	11.107		A	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	11.107		
1		2015	ARMY	8.427	-	8.427																							8.427		
1		2015	MC (†)	5.454	-	5.454																							5.454		
1		2015	<b>Total</b>	<b>13.881</b>	-	<b>13.881</b>																							<b>13.881</b>		
1		2016	ARMY	8.334	-	8.334																							8.334		
							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	B A L

**UNCLASSIFIED**

**Exhibit P-21, Production Schedule:** PB 2016 Army **Date:** February 2015

<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2034A / 01 / 37	<b>P-1 Line Item Number / Title:</b> E89500 / ARTILLERY PROJECTILE, 155MM, ALL TYPES	<b>Item Number / Title [DODIC]:</b> E26904 / PROJ, ARTY, 155MM IR ILLUM M1066 / M1123 [DA56]
--	---	--

Cost Elements <i>(Units in Thousands)</i>						Fiscal Year 2016														Fiscal Year 2017												
O C C O	M F R #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2015	BAL DUE AS OF 1 OCT	Calendar Year 2016														Calendar Year 2017											
							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	B A L	
LOAD, ASSEMBLE, PACK (LAP)																																
	1	2014	ARMY	11.107	-	11.107	-	11.107																						-		
	1	2015	ARMY	8.427	-	8.427	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	8.427	-		
	1	2015	MC (†)	5.454	-	5.454	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5.454	-			
	1	2015	<b>Total</b>	<b>13.881</b>	-	<b>13.881</b>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<b>13.881</b>	-			
	1	2016	ARMY	8.334	-	8.334																							8.334			

**UNCLASSIFIED**

<b>Exhibit P-21, Production Schedule:</b> PB 2016 Army														<b>Date:</b> February 2015																											
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2034A / 01 / 37														<b>P-1 Line Item Number / Title:</b> E89500 / ARTILLERY PROJECTILE, 155MM, ALL TYPES														<b>Item Number / Title [DODIC]:</b> E26904 / PROJ, ARTY, 155MM IR ILLUM M1066 / M1123 [DA56]													

Cost Elements <i>(Units in Thousands)</i>						Fiscal Year 2018														Fiscal Year 2019														
O C C O	M F R #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2017	BAL DUE AS OF 1 OCT	Calendar Year 2018														Calendar Year 2019													
							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	B A L			
LOAD, ASSEMBLE, PACK (LAP)																																		
	1	2014	ARMY	11.107	11.107	-																												
	1	2015	ARMY	8.427	8.427	-																												
	1	2015	MC (†)	5.454	5.454	-																												
	1	2015	<b>Total</b>	<b>13.881</b>	<b>13.881</b>	-																												
	1	2016	ARMY	8.334	-	8.334	-	-	-	-	-	-	8.334																					
							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	B A L			

**UNCLASSIFIED**

<b>Exhibit P-21, Production Schedule:</b> PB 2016 Army								<b>Date:</b> February 2015				
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2034A / 01 / 37				<b>P-1 Line Item Number / Title:</b> E89500 / ARTILLERY PROJECTILE, 155MM, ALL TYPES				<b>Item Number / Title [DODIC]:</b> E26904 / PROJ, ARTY, 155MM IR ILLUM M1066 / M1123 [DA56]				
		<b>Production Rates (Each / Month)</b>			<b>Procurement Leadtime (Months)</b>							
<b>MFR Ref #</b>	<b>MFR Name - Location</b>	<b>MSR For 2016</b>	<b>1-8-5 For 2016</b>	<b>MAX For 2016</b>	<b>Initial</b>			<b>Reorder</b>				
					<b>ALT Prior to Oct 1</b>	<b>ALT After Oct 1</b>	<b>Mfg PLT</b>	<b>Total After Oct 1</b>	<b>ALT Prior to Oct 1</b>	<b>ALT After Oct 1</b>	<b>Mfg PLT</b>	<b>Total After Oct 1</b>
1	PINE BLUFF ARSENAL - PINE BLUFF, AR	10,000	15,000	20,000	6	6	24	30	6	6	24	30

(‡) Delivery rows marked with this symbol indicate that they are funded through a separate Line Item. See the respective components' exhibits for details, including the full delivery schedule.

"A" in the Delivery Schedule indicates the Contract Award Date.

Note: Due to space limitations, quantities in the Exhibit P-21 delivery calendar are truncated and rounded based on the maximum quantity in the calendar as follows. If the maximum quantity is less than or equal to than 9,999, all quantities are shown as each. If the maximum quantity is between 10,000 and 999,999 all quantities are shown in thousands. If the maximum quantity is between 1,000,000 and 999,999,999 all quantities are shown in millions (rounded to the nearest thousand). If the maximum quantity is equal or greater than 1,000,000,000 all quantities are shown in billions (rounded to the nearest million).

**UNCLASSIFIED**

<b>Exhibit P-5, Cost Analysis: PB 2016 Army</b>		<b>Date:</b> February 2015
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2034A / 01 / 37	<b>P-1 Line Item Number / Title:</b> E89500 / ARTILLERY PROJECTILE, 155MM, ALL TYPES	<b>Item Number / Title [DODIC]:</b> E27603 / PROJ, ARTY, 155MM HE IM TRAINING M1122 [DA51]

<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : A	<b>MDAP/MAIS Code:</b>
---	------------------------

<b>Resource Summary</b>	<b>Prior Years</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016 Base</b>	<b>FY 2016 OCO</b>	<b>FY 2016 Total</b>
Procurement Quantity (Units in Each)	-	19,864	18,238	70,832	-	70,832
Gross/Weapon System Cost (\$ in Millions)	26.146	11.917	11.277	40.514	-	40.514
Less PY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
Net Procurement (P1) (\$ in Millions)	26.146	11.917	11.277	40.514	-	40.514
Plus CY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
<b>Total Obligation Authority (\$ in Millions)</b>	<b>26.146</b>	<b>11.917</b>	<b>11.277</b>	<b>40.514</b>	<b>-</b>	<b>40.514</b>

*(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)*

Initial Spares (\$ in Millions)	-	-	-	-	-	-
Gross/Weapon System Unit Cost (\$ in Dollars)	-	-	-	-	-	-

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or add, due to rounding.

<b>Cost Elements</b>	<b>Prior Years</b>			<b>FY 2014</b>			<b>FY 2015</b>			<b>FY 2016 Base</b>			<b>FY 2016 OCO</b>			<b>FY 2016 Total</b>		
	<b>Unit Cost (\$)</b>	<b>Qty (Each)</b>	<b>Total Cost (\$ M)</b>	<b>Unit Cost (\$)</b>	<b>Qty (Each)</b>	<b>Total Cost (\$ M)</b>	<b>Unit Cost (\$)</b>	<b>Qty (Each)</b>	<b>Total Cost (\$ M)</b>	<b>Unit Cost (\$)</b>	<b>Qty (Each)</b>	<b>Total Cost (\$ M)</b>	<b>Unit Cost (\$)</b>	<b>Qty (Each)</b>	<b>Total Cost (\$ M)</b>	<b>Unit Cost (\$)</b>	<b>Qty (Each)</b>	<b>Total Cost (\$ M)</b>
<b>Hardware Cost</b>																		
<b>Recurring Cost</b>																		
LOAD, ASSEMBLE, PACK (LAP) <sup>(†)</sup>	-	-	-	370.11	19,864	7.352	377.51	18,238	6.885	385.03	70,832	27.272	-	-	-	385.03	70,832	27.272
EXPLOSIVE FILL IMX-101 <sup>(†)</sup>	-	-	-	20.64	59,592	1.230	21.04	54,714	1.151	22.05	212,496	4.686	-	-	-	22.05	212,496	4.686
PLUG, LIFTING, MELTABLE FOR IM <sup>(†)</sup>	-	-	-	17.45	20,261	0.354	19.11	18,603	0.356	19.49	72,248	1.408	-	-	-	19.49	72,248	1.408
SUPPLEMENTAL CHARGE, PBXNg <sup>(†)</sup>	-	-	-	23.77	20,261	0.482	25.16	18,603	0.468	25.66	72,248	1.854	-	-	-	25.66	72,248	1.854
WOODEN PALLETS, IMX101 <sup>(†)</sup>	-	-	-	100.86	2,582	0.260	89.62	2,371	0.212	91.40	9,208	0.842	-	-	-	91.40	9,208	0.842
<i>Subtotal: Recurring Cost</i>	-	-	-	-	-	9.677	-	-	9.072	-	-	36.062	-	-	-	-	-	36.062
<i>Subtotal: Hardware Cost</i>	-	-	-	-	-	9.677	-	-	9.072	-	-	36.062	-	-	-	-	-	36.062
<b>Support Cost</b>																		
PRODUCTION ENGINEERING	-	-	26.146	-	-	2.089	-	-	2.055	-	-	4.052	-	-	-	-	-	4.052
ACCEPTANCE TESTING	-	-	-	-	-	0.150	-	-	0.150	-	-	0.400	-	-	-	-	-	0.400
<i>Subtotal: Support Cost</i>	-	-	26.146	-	-	2.239	-	-	2.205	-	-	4.452	-	-	-	-	-	4.452
<b>Gross/Weapon System Cost</b>	-	-	<b>26.146</b>	-	<b>19,864</b>	<b>11.917</b>	-	<b>18,238</b>	<b>11.277</b>	-	<b>70,832</b>	<b>40.514</b>	-	-	-	-	<b>70,832</b>	<b>40.514</b>

**UNCLASSIFIED**

<b>Exhibit P-5, Cost Analysis:</b> PB 2016 Army		<b>Date:</b> February 2015
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2034A / 01 / 37	<b>P-1 Line Item Number / Title:</b> E89500 / ARTILLERY PROJECTILE, 155MM, ALL TYPES	<b>Item Number / Title [DODIC]:</b> E27603 / PROJ, ARTY, 155MM HE IM TRAINING M1122 [DA51]
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : A	<b>MDAP/MAIS Code:</b>	

(†) indicates the presence of a P-5a

**UNCLASSIFIED**

<b>Exhibit P-5a, Procurement History and Planning: PB 2016 Army</b>							<b>Date:</b> February 2015					
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2034A / 01 / 37			<b>P-1 Line Item Number / Title:</b> E89500 / ARTILLERY PROJECTILE, 155MM, ALL TYPES				<b>Item Number / Title [DODIC]:</b> E27603 / PROJ, ARTY, 155MM HE IM TRAINING M1122 [DA51]					

Cost Elements	O C O	FY	Contractor and Location	Method/Type or Funding Vehicle	Location of PCO	Award Date	Date of First Delivery	Qty <i>(Each)</i>	Unit Cost <i>(\$)</i>	Specs Avail Now?	Date Revision Available	RFP Issue Date
LOAD, ASSEMBLE, PACK (LAP) <sup>(†)</sup>		2014	MCALESTER ARMY AMMUNITION / MCALESTER, OK	PO	PICATINNY ARSENAL, NJ	Mar 2015	Feb 2017	19,864	370.11	Y		
LOAD, ASSEMBLE, PACK (LAP) <sup>(†)</sup>		2015	MCALESTER ARMY AMMUNITION / MCALESTER, OK	PO	PICATINNY ARSENAL, NJ	Mar 2015	Mar 2017	18,238	377.51	Y		
LOAD, ASSEMBLE, PACK (LAP) <sup>(†)</sup>		2016	MCALESTER ARMY AMMUNITION / MCALESTER, OK	PO	PICATINNY ARSENAL, NJ	Mar 2016	Mar 2018	70,832	385.03	Y		
EXPLOSIVE FILL IMX-101		2014	BAE SYSTEMS ORDNANCE SYSTEMS / KINGSPORT, TN	SS / FFP	ROCK ISLAND ARSENAL, IL	Jul 2014	Mar 2016	59,592	20.64	Y		
EXPLOSIVE FILL IMX-101		2015	BAE SYSTEMS ORDNANCE SYSTEMS / KINGSPORT, TN	SS / FFP	ROCK ISLAND ARSENAL, IL	Mar 2015	Nov 2016	54,714	21.04	Y		
EXPLOSIVE FILL IMX-101		2016	BAE SYSTEMS ORDNANCE SYSTEMS / KINGSPORT, TN	SS / FFP	ROCK ISLAND ARSENAL, IL	Feb 2016	Oct 2017	212,496	22.05	Y		
PLUG, LIFTING, MELTABLE FOR IM		2014	POLYMER TECHNOLOGIES, INC / CLIFTON, NJ	C / FFP	PICATINNY ARSENAL, NJ	Dec 2013	Jun 2015	20,261	17.45	Y		
PLUG, LIFTING, MELTABLE FOR IM		2015	POLYMER TECHNOLOGIES, INC / CLIFTON, NJ	C / FFP	PICATINNY ARSENAL, NJ	Mar 2015	Sep 2016	18,603	19.11	Y		
PLUG, LIFTING, MELTABLE FOR IM		2016	POLYMER TECHNOLOGIES, INC / CLIFTON, NJ	C / FFP	PICATINNY ARSENAL, NJ	Mar 2016	Sep 2017	72,248	19.49	Y		
SUPPLEMENTAL CHARGE, PBXN9		2014	CHEMRING ORDNANCE, INC. / PERRY, FL	C / IDIQ	ROCK ISLAND ARSENAL, IL	Feb 2014	Aug 2015	20,261	23.77	Y		
SUPPLEMENTAL CHARGE, PBXN9		2015	TO BE SELECTED / TBS01	C / IDIQ	ROCK ISLAND ARSENAL, IL	Mar 2015	Sep 2016	18,603	25.16	Y		
SUPPLEMENTAL CHARGE, PBXN9		2016	TO BE SELECTED / TBS01	C / IDIQ	ROCK ISLAND ARSENAL, IL	Feb 2016	Aug 2017	72,248	25.66	Y		
WOODEN PALLETS, IMX101		2014	KNOX CNTY ASSOC RETARDED / VINCENNES, IN	C / FFP	ROCK ISLAND ARSENAL, IL	Dec 2013	Sep 2015	2,582	100.86	Y		
WOODEN PALLETS, IMX101		2015	KNOX CNTY ASSOC RETARDED / VINCENNES, IN	C / FFP	ROCK ISLAND ARSENAL, IL	Mar 2015	Sep 2016	2,371	89.62	Y		
WOODEN PALLETS, IMX101		2016	KNOX CNTY ASSOC RETARDED / VINCENNES, IN	C / FFP	ROCK ISLAND ARSENAL, IL	Mar 2016	Sep 2017	9,208	91.40	Y		

<sup>(†)</sup> indicates the presence of a P-21

**Remarks:**

Supplemental Charge, PBXN9 is and IDIQ contract awarded to multiple contractors. Requirements will be competed among the following contractors: DZI Lonestar LLC., Texarkana, TX and Chemring Ordnance, INC., Perry FL.





**UNCLASSIFIED**

<b>Exhibit P-21, Production Schedule:</b> PB 2016 Army	<b>Date:</b> February 2015
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2034A / 01 / 37	<b>P-1 Line Item Number / Title:</b> E89500 / ARTILLERY PROJECTILE, 155MM, ALL TYPES
<b>Item Number / Title [DODIC]:</b> E27603 / PROJ, ARTY, 155MM HE IM TRAINING M1122 [DA51]	

Cost Elements <i>(Units in Thousands)</i>						Fiscal Year 2016													Fiscal Year 2017																						
O C C #	M F R #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2015	BAL DUE AS OF 1 OCT	Calendar Year 2016													Calendar Year 2017																					
							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	B A L										
LOAD, ASSEMBLE, PACK (LAP)																																									
1		2014	ARMY	19.864	-	19.864	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5.000	2.500	2.500	2.500	2.500	2.500	2.500	2.364	-		
1		2015	ARMY	18.238	-	18.238	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.500	2.500	2.500	2.500	2.500	2.500	2.636	3.102	-			
1		2016	ARMY	70.832	-	70.832																																			70.832
							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	B A L										

**UNCLASSIFIED**

<b>Exhibit P-21, Production Schedule: PB 2016 Army</b>													<b>Date:</b> February 2015																			
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2034A / 01 / 37						<b>P-1 Line Item Number / Title:</b> E89500 / ARTILLERY PROJECTILE, 155MM, ALL TYPES													<b>Item Number / Title [DODIC]:</b> E27603 / PROJ, ARTY, 155MM HE IM TRAINING M1122 [DA51]													

Cost Elements <i>(Units in Thousands)</i>						Fiscal Year 2018													Fiscal Year 2019														
O C C #	M F R #	FY	SERVICE	PROC QTY	ACCEP T P R I O R T O 1 O C T 2 0 1 7	BAL D U E A S O F 1 O C T	Calendar Year 2018													Calendar Year 2019													
							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	B A L		
LOAD, ASSEMBLE, PACK (LAP)																																	
1		2014	ARMY	19.864	19.864	-																							-				
1		2015	ARMY	18.238	18.238	-																							-				
1		2016	ARMY	70.832	-	70.832	-	-	-	-	-	-	-	-	13.000	13.000	13.000	13.000	13.000	5.832											-		
							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	B A L		

**UNCLASSIFIED**

<b>Exhibit P-21, Production Schedule:</b> PB 2016 Army		<b>Date:</b> February 2015
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2034A / 01 / 37		<b>P-1 Line Item Number / Title:</b> E89500 / ARTILLERY PROJECTILE, 155MM, ALL TYPES
		<b>Item Number / Title [DODIC]:</b> E27603 / PROJ, ARTY, 155MM HE IM TRAINING M1122 [DA51]

MFR Ref #	MFR Name - Location	Production Rates (Each / Month)			Procurement Leadtime (Months)							
		MSR For 2016	1-8-5 For 2016	MAX For 2016	Initial				Reorder			
					ALT Prior to Oct 1	ALT After Oct 1	Mfg PLT	Total After Oct 1	ALT Prior to Oct 1	ALT After Oct 1	Mfg PLT	Total After Oct 1
1	MCALESTER ARMY AMMUNITION - MCALESTER, OK	1,000	5,000	13,000	6	12	24	36	6	6	24	30

"A" in the Delivery Schedule indicates the Contract Award Date.  
 Note: Due to space limitations, quantities in the Exhibit P-21 delivery calendar are truncated and rounded based on the maximum quantity in the calendar as follows. If the maximum quantity is less than or equal to than 9,999, all quantities are shown as each. If the maximum quantity is between 10,000 and 999,999 all quantities are shown in thousands. If the maximum quantity is between 1,000,000 and 999,999,999 all quantities are shown in millions (rounded to the nearest thousand). If the maximum quantity is equal or greater than 1,000,000,000 all quantities are shown in billions (rounded to the nearest million).

**UNCLASSIFIED**

<b>Exhibit P-5, Cost Analysis: PB 2016 Army</b>		<b>Date:</b> February 2015
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2034A / 01 / 37		<b>P-1 Line Item Number / Title:</b> E89500 / ARTILLERY PROJECTILE, 155MM, ALL TYPES
		<b>Item Number / Title [DODIC]:</b> E66800 / PROJ, ARTY, 155MM HE, M795 [DA54]

<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : A	<b>MDAP/MAIS Code:</b>
---	------------------------

Resource Summary		Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total
Procurement Quantity (Units in Each)		-	13,891	12,595	13,611	6,078	19,689
Gross/Weapon System Cost (\$ in Millions)		285.463	19.769	20.914	24.881	10.000	34.881
Less PY Advance Procurement (\$ in Millions)		-	-	-	-	-	-
Net Procurement (P1) (\$ in Millions)		285.463	19.769	20.914	24.881	10.000	34.881
Plus CY Advance Procurement (\$ in Millions)		-	-	-	-	-	-
<b>Total Obligation Authority (\$ in Millions)</b>		<b>285.463</b>	<b>19.769</b>	<b>20.914</b>	<b>24.881</b>	<b>10.000</b>	<b>34.881</b>

*(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)*

Initial Spares (\$ in Millions)	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (\$ in Dollars)	-	-	-	-	-	-	-

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or add, due to rounding.

Cost Elements	Prior Years			FY 2014			FY 2015			FY 2016 Base			FY 2016 OCO			FY 2016 Total		
	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)
<b>Hardware Cost</b>																		
<b>Recurring Cost</b>																		
LOAD, ASSEMBLE, PACK (LAP) <sup>(†)</sup>	-	-	-	330.96	13,891	4.597	342.18	12,595	4.310	349.00	13,611	4.750	349.00	6,078	2.121	349.00	19,689	6.871
METAL PARTS - M795 <sup>(†)</sup>	-	-	-	341.61	14,169	4.840	485.64	12,940	6.284	495.32	13,883	6.877	495.32	6,200	3.071	495.32	20,083	9.948
PLUG, LIFTING, MELTABLE FOR IM <sup>(†)</sup>	-	-	-	17.45	14,169	0.247	19.11	12,940	0.247	19.49	13,883	0.271	19.49	6,200	0.121	19.49	20,083	0.391
SUPPLEMENTAL CHARGE, PBXNg <sup>(†)</sup>	-	-	-	23.77	14,169	0.337	25.16	12,940	0.326	25.66	13,890	0.356	25.66	6,200	0.159	25.66	20,090	0.515
WOODEN PALLETS, IMX101 <sup>(†)</sup>	-	-	-	100.88	1,806	0.182	89.62	1,637	0.147	91.40	1,769	0.162	91.40	790	0.072	91.40	2,559	0.234
EXPLOSIVE FILL IMX-101 <sup>(†)</sup>	-	-	-	15.58	458,403	7.142	21.04	415,635	8.745	22.05	449,163	9.904	22.05	200,574	4.423	22.05	649,737	14.327
<i>Subtotal: Recurring Cost</i>	-	-	-	-	-	17.346	-	-	20.058	-	-	22.319	-	-	9.967	-	-	32.286
<i>Subtotal: Hardware Cost</i>	-	-	-	-	-	17.346	-	-	20.058	-	-	22.319	-	-	9.967	-	-	32.286
<b>Support Cost</b>																		
PRODUCTION ENGINEERING	-	-	285.463	-	-	2.190	-	-	0.777	-	-	2.489	-	-	0.001	-	-	2.490
ACCEPTANCE TESTING	-	-	-	-	-	0.042	-	-	0.078	-	-	0.072	-	-	0.032	-	-	0.104
REQUEST FOR EQUITABLE ADJUSTMENT	-	-	-	-	-	0.192	-	-	-	-	-	-	-	-	-	-	-	-

**UNCLASSIFIED**

<b>Exhibit P-5, Cost Analysis:</b> PB 2016 Army		<b>Date:</b> February 2015
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2034A / 01 / 37	<b>P-1 Line Item Number / Title:</b> E89500 / ARTILLERY PROJECTILE, 155MM, ALL TYPES	<b>Item Number / Title [DODIC]:</b> E66800 / PROJ, ARTY, 155MM HE, M795 [DA54]
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : A		<b>MDAP/MAIS Code:</b>

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or add, due to rounding.

Cost Elements	Prior Years			FY 2014			FY 2015			FY 2016 Base			FY 2016 OCO			FY 2016 Total		
	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)
<i>Subtotal: Support Cost</i>	-	-	285.463	-	-	2.424	-	-	0.855	-	-	2.561	-	-	0.033	-	-	2.594
<b>Gross/Weapon System Cost</b>	-	-	285.463	-	13,891	19.769	-	12,595	20.914	-	13,611	24.881	-	6,078	10.000	-	19,689	34.881

(†) indicates the presence of a P-5a

**UNCLASSIFIED**

Exhibit P-5a, Procurement History and Planning: PB 2016 Army								Date: February 2015				
Appropriation / Budget Activity / Budget Sub Activity: 2034A / 01 / 37			P-1 Line Item Number / Title: E89500 / ARTILLERY PROJECTILE, 155MM, ALL TYPES					Item Number / Title [DODIC]: E66800 / PROJ, ARTY, 155MM HE, M795 [DA54]				
Cost Elements	O C O	FY	Contractor and Location	Method/Type or Funding Vehicle	Location of PCO	Award Date	Date of First Delivery	Qty (Each)	Unit Cost (\$)	Specs Avail Now?	Date Revision Available	RFP Issue Date
LOAD, ASSEMBLE, PACK (LAP) <sup>(†)</sup>		2014	AMERICAN ORDNANCE LLC (IAAP) / MIDDLETOWN, IA	SS / FFP	ROCK ISLAND ARSENAL, IL	Dec 2013	Dec 2015	13,891	330.96	Y		
LOAD, ASSEMBLE, PACK (LAP) <sup>(†)</sup>		2015	AMERICAN ORDNANCE LLC (IAAP) / MIDDLETOWN, IA	SS / FFP	ROCK ISLAND ARSENAL, IL	Aug 2015	Aug 2017	12,595	342.18	Y		
LOAD, ASSEMBLE, PACK (LAP) <sup>(†)</sup>		2016	AMERICAN ORDNANCE LLC (IAAP) / MIDDLETOWN, IA	SS / FFP	ROCK ISLAND ARSENAL, IL	Mar 2016	Mar 2018	19,689	349.00	Y		
METAL PARTS - M795		2014	GENERAL DYNAMICS ORD AND TACT / SCRANTON, PA	C / FFP	PICATINNY ARSENAL, NJ	Dec 2013	Jun 2015	14,169	341.61	Y		
METAL PARTS - M795		2015	TO BE SELECTED / TBS01	C / FFP	PICATINNY ARSENAL, NJ	Feb 2015	Aug 2016	12,940	485.64	Y		
METAL PARTS - M795		2016	TO BE SELECTED / TBS01	C / FFP	PICATINNY ARSENAL, NJ	Feb 2016	Aug 2017	20,083	495.32	Y		
PLUG, LIFTING, MELTABLE FOR IM		2014	POLYMER TECHNOLOGIES, INC / CLIFTON, NJ	C / FFP	PICATINNY ARSENAL, NJ	Dec 2013	Jun 2015	14,169	17.45	Y		
PLUG, LIFTING, MELTABLE FOR IM		2015	POLYMER TECHNOLOGIES, INC / CLIFTON, NJ	C / FFP	PICATINNY ARSENAL, NJ	Mar 2015	Sep 2016	12,940	19.11	Y		
PLUG, LIFTING, MELTABLE FOR IM		2016	POLYMER TECHNOLOGIES, INC / CLIFTON, NJ	C / FFP	PICATINNY ARSENAL, NJ	Mar 2016	Sep 2017	20,083	19.49	Y		
SUPPLEMENTAL CHARGE, PBXN9		2014	CHEMRING ORDNANCE, INC. / PERRY, FL	C / IDIQ	ROCK ISLAND ARSENAL, IL	Mar 2014	Sep 2015	14,169	23.77	Y		
SUPPLEMENTAL CHARGE, PBXN9		2015	TO BE SELECTED / TBS02	C / IDIQ	ROCK ISLAND ARSENAL, IL	Mar 2015	Sep 2016	12,940	25.16	Y		
SUPPLEMENTAL CHARGE, PBXN9		2016	TO BE SELECTED / TBS02	C / IDIQ	ROCK ISLAND ARSENAL, IL	Feb 2016	Aug 2017	20,090	25.66	Y		
WOODEN PALLETS, IMX101		2014	KNOX CNTY ASSOC RETARDED / VINCENNES, IN	C / FFP	ROCK ISLAND ARSENAL, IL	Dec 2013	Jun 2015	1,806	100.88	Y		
WOODEN PALLETS, IMX101		2015	KNOX CNTY ASSOC RETARDED / VINCENNES, IN	C / FFP	ROCK ISLAND ARSENAL, IL	Mar 2015	Sep 2016	1,637	89.62	Y		
WOODEN PALLETS, IMX101		2016	KNOX CNTY ASSOC RETARDED / VINCENNES, IN	C / FFP	ROCK ISLAND ARSENAL, IL	Mar 2016	Sep 2017	2,559	91.40	Y		
EXPLOSIVE FILL IMX-101		2014	BAE SYSTEMS ORDNANCE SYSTEMS / KINGSPORT, TN	SS / FFP	ROCK ISLAND ARSENAL, IL	Jul 2014	Sep 2015	458,403	15.58	Y		
EXPLOSIVE FILL IMX-101		2015	BAE SYSTEMS ORDNANCE SYSTEMS / KINGSPORT, TN	SS / FFP	ROCK ISLAND ARSENAL, IL	Mar 2015	Sep 2016	415,635	21.04	Y		
EXPLOSIVE FILL IMX-101		2016	BAE SYSTEMS ORDNANCE SYSTEMS / KINGSPORT, TN	SS / FFP	ROCK ISLAND ARSENAL, IL	Feb 2016	Oct 2017	649,737	22.05	Y		

<sup>(†)</sup> indicates the presence of a P-21

**Remarks:**

Supplemental Charge, PBXN9: IDIQ contract awarded to multiple contractors. Requirements will be competed among the following contractors: Chemring Ordnance, INC., Perry FL and DZI Lonestar LLC., Texarkana TX.

**UNCLASSIFIED**

<b>Exhibit P-5a, Procurement History and Planning:</b> PB 2016 Army		<b>Date:</b> February 2015
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2034A / 01 / 37	<b>P-1 Line Item Number / Title:</b> E89500 / ARTILLERY PROJECTILE, 155MM, ALL TYPES	<b>Item Number / Title [DODIC]:</b> E66800 / PROJ, ARTY, 155MM HE, M795 [DA54]

--	--	--



**UNCLASSIFIED**

<b>Exhibit P-21, Production Schedule:</b> PB 2016 Army		Date: February 2015
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2034A / 01 / 37	<b>P-1 Line Item Number / Title:</b> E89500 / ARTILLERY PROJECTILE, 155MM, ALL TYPES	<b>Item Number / Title [DODIC]:</b> E66800 / PROJ, ARTY, 155MM HE, M795 [DA54]

Cost Elements <i>(Units in Thousands)</i>					Fiscal Year 2014													Fiscal Year 2015																		
O C C O	M F R #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2013	BAL DUE AS OF 1 OCT	Calendar Year 2014													Calendar Year 2015																
							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	B A L					
LOAD, ASSEMBLE, PACK (LAP)																																				
1	2014	ARMY	13.891	-	13.891				A -																										13.891	
1	2015	ARMY	12.595	-	12.595																													A -	-	12.595
1	2015	MC (†)	16.780	-	16.780																												A -	-	16.780	
1	2015	<b>Total</b>	<b>29.375</b>	-	<b>29.375</b>																														<b>29.375</b>	
1	2016	ARMY	19.689	-	19.689																															19.689
1	2016	MC (†)	64.145	-	64.145																															64.145
1	2016	<b>Total</b>	<b>83.834</b>	-	<b>83.834</b>																															<b>83.834</b>

O C C O	M F R #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2013	BAL DUE AS OF 1 OCT	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	B A L
------------------	------------------	----	---------	-------------	--	------------------------------	-------------	-------------	-------------	-------------	-------------	-------------	-------------	-------------	-------------	-------------	-------------	-------------	-------------	-------------	-------------	-------------	-------------	-------------	-------------	-------------	-------------	-------------	-------------	-------------	-------------

**UNCLASSIFIED**

<b>Exhibit P-21, Production Schedule:</b> PB 2016 Army	<b>Date:</b> February 2015
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2034A / 01 / 37	<b>P-1 Line Item Number / Title:</b> E89500 / ARTILLERY PROJECTILE, 155MM, ALL TYPES
<b>Item Number / Title [DODIC]:</b> E66800 / PROJ, ARTY, 155MM HE, M795 [DA54]	

Cost Elements <i>(Units in Thousands)</i>						Fiscal Year 2016											Fiscal Year 2017														
O C C O	M F R #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2015	BAL DUE AS OF 1 OCT	Calendar Year 2016											Calendar Year 2017													
							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	B A L
LOAD, ASSEMBLE, PACK (LAP)																															
1	2014	ARMY		13.891	-	13.891	-	-	3.925	2.710	1.900	1.900	1.900	1.556																-	
1	2015	ARMY		12.595	-	12.595	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6.222	3.000	3.373
1	2015	MC (†)		16.780	-	16.780	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3.635	7.000	6.145	
<b>1</b>	<b>2015</b>	<b>Total</b>		<b>29.375</b>	<b>-</b>	<b>29.375</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>9.857</b>	<b>10.000</b>	<b>9.518</b>	
1	2016	ARMY		19.689	-	19.689																								19.689	
1	2016	MC (†)		64.145	-	64.145																								64.145	
<b>1</b>	<b>2016</b>	<b>Total</b>		<b>83.834</b>	<b>-</b>	<b>83.834</b>																								<b>83.834</b>	

**UNCLASSIFIED**

<b>Exhibit P-21, Production Schedule:</b> PB 2016 Army														<b>Date:</b> February 2015													
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2034A / 01 / 37										<b>P-1 Line Item Number / Title:</b> E89500 / ARTILLERY PROJECTILE, 155MM, ALL TYPES										<b>Item Number / Title [DODIC]:</b> E66800 / PROJ, ARTY, 155MM HE, M795 [DA54]							

Cost Elements (Units in Thousands)					Fiscal Year 2018												Fiscal Year 2019														
O C C #	M F R #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2017	BAL DUE AS OF 1 OCT	Calendar Year 2018												Calendar Year 2019												B A L
							O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	
LOAD, ASSEMBLE, PACK (LAP)																															
1		2014	ARMY	13.891	13.891	-																							-		
1		2015	ARMY	12.595	9.222	3.373	3.373																						-		
1		2015	MC (†)	16.780	10.635	6.145	6.145																						-		
1		2015	<b>Total</b>	<b>29.375</b>	<b>19.857</b>	<b>9.518</b>	<b>9.518</b>																						-		
1		2016	ARMY	19.689	-	19.689	-	-	-	-	-	5.000	5.000	3.578	2.500	2.500	1.111	-	-	-								-			
1		2016	MC (†)	64.145	-	64.145	-	-	-	-	-	5.000	5.000	6.402	7.500	7.500	8.845	10.000	9.953	3.945								-			
1		2016	<b>Total</b>	<b>83.834</b>	-	<b>83.834</b>	-	-	-	-	-	<b>10.000</b>	<b>10.000</b>	<b>9.980</b>	<b>10.000</b>	<b>10.000</b>	<b>9.956</b>	<b>10.000</b>	<b>9.953</b>	<b>3.945</b>								-			
							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	B A L

**UNCLASSIFIED**

<b>Exhibit P-21, Production Schedule:</b> PB 2016 Army		<b>Date:</b> February 2015
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2034A / 01 / 37		<b>P-1 Line Item Number / Title:</b> E89500 / ARTILLERY PROJECTILE, 155MM, ALL TYPES
		<b>Item Number / Title [DODIC]:</b> E66800 / PROJ, ARTY, 155MM HE, M795 [DA54]

MFR Ref #	MFR Name - Location	Production Rates (Each / Month)			Procurement Leadtime (Months)							
		MSR For 2016	1-8-5 For 2016	MAX For 2016	Initial				Reorder			
					ALT Prior to Oct 1	ALT After Oct 1	Mfg PLT	Total After Oct 1	ALT Prior to Oct 1	ALT After Oct 1	Mfg PLT	Total After Oct 1
1	AMERICAN ORDNANCE LLC (IAAP) - MIDDLETOWN, IA	5,000	10,000	15,000	6	6	24	30	6	6	24	30

(±) Delivery rows marked with this symbol indicate that they are funded through a separate Line Item. See the respective components' exhibits for details, including the full delivery schedule.  
 "A" in the Delivery Schedule indicates the Contract Award Date.  
 Note: Due to space limitations, quantities in the Exhibit P-21 delivery calendar are truncated and rounded based on the maximum quantity in the calendar as follows. If the maximum quantity is less than or equal to than 9,999, all quantities are shown as each. If the maximum quantity is between 10,000 and 999,999 all quantities are shown in thousands. If the maximum quantity is between 1,000,000 and 999,999,999 all quantities are shown in millions (rounded to the nearest thousand). If the maximum quantity is equal or greater than 1,000,000,000 all quantities are shown in billions (rounded to the nearest million).

**UNCLASSIFIED**

**Exhibit P-40, Budget Line Item Justification:** PB 2016 Army **Date:** February 2015

<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2034A: Procurement of Ammunition, Army / BA 01: Ammunition / BSA 37: Artillery Ammunition	<b>P-1 Line Item Number / Title:</b> E80100 / Proj 155mm Extended Range M982
--	---

<b>ID Code</b> (A=Service Ready, B=Not Service Ready) :	<b>Program Elements for Code B Items:</b>	<b>Other Related Program Elements:</b> 0604814A
---	---	---

<b>Line Item MDAP/MAIS Code:</b>	<b>Item MDAP/MAIS Code(s):</b> 366
----------------------------------	------------------------------------

Resource Summary	Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	To Complete	Total
Procurement Quantity ( <i>Units in Each</i> )	5,147	994	422	476	-	476	-	-	-	-	-	7,039
Gross/Weapon System Cost ( <i>\$ in Millions</i> )	557.183	77.326	35.672	45.518	-	45.518	-	-	-	-	-	715.699
Less PY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P1) ( <i>\$ in Millions</i> )	557.183	77.326	35.672	45.518	-	45.518	-	-	-	-	-	715.699
Plus CY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-	-	-	-	-	-	-
<b>Total Obligation Authority (<i>\$ in Millions</i>)</b>	<b>557.183</b>	<b>77.326</b>	<b>35.672</b>	<b>45.518</b>	<b>-</b>	<b>45.518</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>715.699</b>

*(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)*

Initial Spares ( <i>\$ in Millions</i> )	-	-	-	-	-	-	-	-	-	-	-	-
Flyaway Unit Cost ( <i>\$ in Dollars</i> )	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost ( <i>\$ in Dollars</i> )	108,253.93	77,792.76	84,530.81	95,626.05	-	95,626.05	-	-	-	-	-	101,676.23

**Description:**

This budget line item includes the Excalibur family of munitions for the use in the M777A2 Lightweight 155mm Howitzer (LW155), the M109A6 Paladin Howitzer, the M109A7 paladin PIM Howitzer and the Swedish Archer Howitzer.

Excalibur is a Precision Guided Extended Range 155mm Artillery projectile providing Brigade Combat Teams an organic precision fires capability. Additionally it provides improved fire support capability due to its increased range of 40.5 kilometers and demonstrated accuracy of <3 meters radial miss distances, which enables a first round effect on target reducing the number of rounds required while reducing collateral damage. Excalibur is compatible with the M777A2 Lightweight 155mm Howitzer (LW155), the M109A6 Paladin Howitzer, the M109A7 Paladin PIM Howitzer, and the Swedish Archer Howitzer. Excalibur provides a 35% range increase over current Rocket Assisted Projectiles with a <10 meter circular error probable requirement at all ranges. Excalibur is also highly resistant to Global Positioning System (GPS) jamming. This item is Code A, approved for service use.

**UNCLASSIFIED**

**Exhibit P-40, Budget Line Item Justification:** PB 2016 Army **Date:** February 2015

**Appropriation / Budget Activity / Budget Sub Activity:**  
2034A: Procurement of Ammunition, Army / BA 01: Ammunition / BSA 37: Artillery Ammunition

**P-1 Line Item Number / Title:**  
E80100 / Proj 155mm Extended Range M982

**ID Code** (A=Service Ready, B=Not Service Ready) : **Program Elements for Code B Items:** **Other Related Program Elements:** 0604814A

**Line Item MDAP/MAIS Code:** **Item MDAP/MAIS Code(s):** 366

Exhibits Schedule			Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total
Title*	Exhibits	ID CD	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)
E80103 / PROJ, ARTY, 155MM EXTENDED RANGE M982-U EXCALIBUR [DA58]	P-5, P-5a, P-21	A	5,147 / 557.183	994 / 77.326	422 / 35.672	476 / 45.518	- / -	476 / 45.518
<b>Total Gross/Weapon System Cost</b>			<b>5,147 / 557.183</b>	<b>994 / 77.326</b>	<b>422 / 35.672</b>	<b>476 / 45.518</b>	<b>- / -</b>	<b>476 / 45.518</b>

\*Title represents 1) the Number / Title for Items; 2) the Number / Title [DODIC] for Ammunition; and/or 3) the Number / Title (Modification Type) for Modifications.

Note: Totals in this Exhibit P-40 set may not be exact or add due to rounding.

**Justification:**

In accordance with Section 1815 of the FY2008 National Defense Authorization Act (P.L. 110-181), this item is necessary for use by the active and reserve components of the Armed Forces for homeland defense missions, domestic emergency responses, and providing military support to civil authorities.

Excalibur Increments Ia-1 and Ia-2 are currently fielded and in use by units throughout Afghanistan and deployed globally to support other Military Contingency Operations. Excalibur is an International Cooperative Development program, teamed with the Kingdom of Sweden (KoS), which contributed resources towards the development in accordance with an established Project Agreement. Excalibur Increment Ia-1 was initially fielded to units in Iraq and Afghanistan in response to an urgent need request in support of Operation Iraqi Freedom (as of September 2010 re-named to Operation New Dawn) and Operation Enduring Freedom. Increment Ia-2 was fielded in early FY 2012 and greatly increases range from 25.2 kilometers to 40.5 kilometers. The Excalibur guided projectile program is using an incremental development approach to provide a combat capability to the Soldier as quickly as possible while delivering advanced capabilities at lower costs. Excalibur Increment Ib will provide further performance improvements while significantly lowering unit costs.

Increment Ib completed a successful Initial Operational Test and Evaluation in February 2014 as well as a Full Rate Production Decision Review in June 2014. The Excalibur Increment Ib projectile was Type Classified and Full Material Released in June 2014.

This is a war reserve item currently being used in combat. The FY 2016 request builds a war reserve inventory in accordance with the Army procurement goals. FY 2016 Base procurement dollars in the amount of \$45.518 million supports the procurement of 476 Increment Ib projectiles.

**UNCLASSIFIED**

<b>Exhibit P-5, Cost Analysis: PB 2016 Army</b>		<b>Date:</b> February 2015
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2034A / 01 / 37	<b>P-1 Line Item Number / Title:</b> E80100 / Proj 155mm Extended Range M982	<b>Item Number / Title [DODIC]:</b> E80103 / PROJ, ARTY, 155MM EXTENDED RANGE M982-U EXCALIBUR [DA58]

<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : A	<b>MDAP/MAIS Code:</b> 366
---	----------------------------

<b>Resource Summary</b>	<b>Prior Years</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016 Base</b>	<b>FY 2016 OCO</b>	<b>FY 2016 Total</b>
Procurement Quantity ( <i>Units in Each</i> )	5,147	994	422	476	-	476
Gross/Weapon System Cost ( <i>\$ in Millions</i> )	557.183	77.326	35.672	45.518	-	45.518
Less PY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-
Net Procurement (P1) ( <i>\$ in Millions</i> )	557.183	77.326	35.672	45.518	-	45.518
Plus CY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-
<b>Total Obligation Authority</b> ( <i>\$ in Millions</i> )	<b>557.183</b>	<b>77.326</b>	<b>35.672</b>	<b>45.518</b>	<b>-</b>	<b>45.518</b>

*(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)*

Initial Spares ( <i>\$ in Millions</i> )	-	-	-	-	-	-
Gross/Weapon System Unit Cost ( <i>\$ in Dollars</i> )	108,253.93	77,792.76	84,530.81	95,626.05	-	95,626.05

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or add, due to rounding.

<b>Cost Elements</b>	<b>Prior Years</b>			<b>FY 2014</b>			<b>FY 2015</b>			<b>FY 2016 Base</b>			<b>FY 2016 OCO</b>			<b>FY 2016 Total</b>		
	<b>Unit Cost</b> (\$)	<b>Qty</b> (Each)	<b>Total Cost</b> (\$ M)	<b>Unit Cost</b> (\$)	<b>Qty</b> (Each)	<b>Total Cost</b> (\$ M)	<b>Unit Cost</b> (\$)	<b>Qty</b> (Each)	<b>Total Cost</b> (\$ M)	<b>Unit Cost</b> (\$)	<b>Qty</b> (Each)	<b>Total Cost</b> (\$ M)	<b>Unit Cost</b> (\$)	<b>Qty</b> (Each)	<b>Total Cost</b> (\$ M)	<b>Unit Cost</b> (\$)	<b>Qty</b> (Each)	<b>Total Cost</b> (\$ M)
<b>Hardware Cost</b>																		
Recurring Cost																		
COMPLETE ROUND <sup>(†)</sup>	106,100.70	5,147	546.100	68,412.00	994	68.002	68,448.00	422	28.885	68,412.00	476	32.564	-	-	-	68,412.00	476	32.564
CONTAINER, EXCALIBUR <sup>(†)</sup>	2,139.00	5,147	11.009	2,183.00	994	2.170	2,183.00	422	0.921	2,183.00	476	1.039	-	-	-	2,183.00	476	1.039
<i>Subtotal: Recurring Cost</i>	-	-	557.110	-	-	70.171	-	-	29.806	-	-	33.603	-	-	-	-	-	33.603
<i>Subtotal: Hardware Cost</i>	-	-	557.110	-	-	70.171	-	-	29.806	-	-	33.603	-	-	-	-	-	33.603
<b>Support Cost</b>																		
PRODUCTION ENGINEERING	-	-	0.058	-	-	5.793	-	-	5.139	-	-	5.614	-	-	-	-	-	5.614
QUALITY ASSURANCE	-	-	0.004	-	-	0.728	-	-	0.512	-	-	0.651	-	-	-	-	-	0.651
ACCEPTANCE TESTING	-	-	0.012	-	-	0.633	-	-	0.215	-	-	0.350	-	-	-	-	-	0.350
CONTRACT CLOSEOUT	-	-	-	-	-	-	-	-	-	-	-	5.300	-	-	-	-	-	5.300
<i>Subtotal: Support Cost</i>	-	-	0.074	-	-	7.154	-	-	5.866	-	-	11.915	-	-	-	-	-	11.915
<b>Gross/Weapon System Cost</b>	<b>108,253.93</b>	<b>5,147</b>	<b>557.183</b>	<b>77,792.76</b>	<b>994</b>	<b>77.326</b>	<b>84,530.81</b>	<b>422</b>	<b>35.672</b>	<b>95,626.05</b>	<b>476</b>	<b>45.518</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>95,626.05</b>	<b>476</b>	<b>45.518</b>

(†) indicates the presence of a P-5a

**UNCLASSIFIED**

<b>Exhibit P-5a, Procurement History and Planning:</b> PB 2016 Army							<b>Date:</b> February 2015					
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2034A / 01 / 37			<b>P-1 Line Item Number / Title:</b> E80100 / Proj 155mm Extended Range M982				<b>Item Number / Title [DODIC]:</b> E80103 / PROJ, ARTY, 155MM EXTENDED RANGE M982-U EXCALIBUR [DA58]					

Cost Elements	O C O	FY	Contractor and Location	Method/Type or Funding Vehicle	Location of PCO	Award Date	Date of First Delivery	Qty <i>(Each)</i>	Unit Cost <i>(\$)</i>	Specs Avail Now?	Date Revision Available	RFP Issue Date
COMPLETE ROUND <sup>(†)</sup>		2014	RAYTHEON MISSILE SYSTEMS CO / TUCSON	C / FFP	PICATINNY ARSENAL, NJ	Dec 2013	May 2015	994	68,412.00	Y		
COMPLETE ROUND <sup>(†)</sup>		2015	RAYTHEON MISSILE SYSTEMS CO / TUCSON	C / FFP	PICATINNY ARSENAL, NJ	Mar 2015	Jan 2016	422	68,448.00	Y		
COMPLETE ROUND <sup>(†)</sup>		2016	RAYTHEON MISSILE SYSTEMS CO / TUCSON	C / FFP	PICATINNY ARSENAL, NJ	Jan 2016	Nov 2016	476	68,412.00	Y		
CONTAINER, EXCALIBUR		2014	RAYTHEON MISSILE SYSTEMS / TUCSON	C / FFP	PICATINNY ARSENAL, NJ	Dec 2013	May 2015	994	2,183.00	Y		
CONTAINER, EXCALIBUR		2015	RAYTHEON MISSILE SYSTEMS / TUCSON	C / FFP	PICATINNY ARSENAL, NJ	Mar 2015	Jan 2016	422	2,183.00	Y		
CONTAINER, EXCALIBUR		2016	RAYTHEON MISSILE SYSTEMS / TUCSON	C / FFP	PICATINNY ARSENAL, NJ	Jan 2016	Sep 2016	476	2,183.00	Y		

<sup>(†)</sup> indicates the presence of a P-21

**Remarks:**  
FY2014 - FY2016 are options of competitive contract original awarded in 2008.



**UNCLASSIFIED**

<b>Exhibit P-21, Production Schedule:</b> PB 2016 Army				<b>Date:</b> February 2015							
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2034A / 01 / 37				<b>P-1 Line Item Number / Title:</b> E80100 / Proj 155mm Extended Range M982				<b>Item Number / Title [DODIC]:</b> E80103 / PROJ, ARTY, 155MM EXTENDED RANGE M982-U EXCALIBUR [DA58]			

Cost Elements <i>(Units in Each)</i>				Fiscal Year 2014														Fiscal Year 2015																
O C C O	M F R #	FY	SERVICE	PROC QTY	ACCEP T P R I O R T O 1 O C T 2 0 1 3	BAL D U E A S O F 1 O C T	Calendar Year 2014														Calendar Year 2015													
							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	B A L			

COMPLETE ROUND																																			
Prior Years Deliveries: 5147																																			
1	2014	ARMY	994	-	994			A	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	12	125	125	125	125	482	
1	2015	ARMY	422	-	422																														422
1	2016	ARMY	476	-	476																														476

								O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	B
								C	O	E	A	E	A	A	A	U	U	U	E	C	O	V	E	A	E	A	A	U	U	U	E	A
								T	V	C	N	B	R	R	Y	N	L	G	P	T	V	C	N	B	R	R	Y	N	L	G	P	A

**UNCLASSIFIED**

<b>Exhibit P-21, Production Schedule:</b> PB 2016 Army														<b>Date:</b> February 2015															
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2034A / 01 / 37										<b>P-1 Line Item Number / Title:</b> E80100 / Proj 155mm Extended Range M982										<b>Item Number / Title [DODIC]:</b> E80103 / PROJ, ARTY, 155MM EXTENDED RANGE M982-U EXCALIBUR [DA58]									

Cost Elements <i>(Units in Each)</i>				Fiscal Year 2016														Fiscal Year 2017																	
O C C O	M F R #	FY	SERVICE	PROC QTY	ACCEP T O 1 OCT 2015	BAL DUE AS OF 1 OCT	Calendar Year 2016														Calendar Year 2017														
							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	B A L				
COMPLETE ROUND																																			
Prior Years Deliveries: 5147																																			
	1	2014	ARMY	994	512	482	125	125	125	107																								-	
	1	2015	ARMY	422	-	422	-	-	-	12	70	60	40	40	40	40	40	40	40																-
	1	2016	ARMY	476	-	476				A -	-	-	-	-	-	-	-	-	44	44	44	43	43	43	43	43	43	43	43	43	43	43		-	
							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	B A L				

**UNCLASSIFIED**

<b>Exhibit P-21, Production Schedule:</b> PB 2016 Army		<b>Date:</b> February 2015
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2034A / 01 / 37		<b>P-1 Line Item Number / Title:</b> E80100 / Proj 155mm Extended Range M982
<b>Item Number / Title [DODIC]:</b> E80103 / PROJ, ARTY, 155MM EXTENDED RANGE M982-U EXCALIBUR [DA58]		

MFR Ref #	MFR Name - Location	Production Rates (Each / Month)			Procurement Leadtime (Months)							
		MSR For 2016	1-8-5 For 2016	MAX For 2016	Initial			Reorder				
					ALT Prior to Oct 1	ALT After Oct 1	Mfg PLT	ALT Prior to Oct 1	ALT After Oct 1	Mfg PLT	Total After Oct 1	
1	RAYTHEON MISSILE SYSTEMS CO - TUCSON	40	125	250	3	18	12	30	3	8	10	18

"A" in the Delivery Schedule indicates the Contract Award Date.  
 Note: Due to space limitations, quantities in the Exhibit P-21 delivery calendar are truncated and rounded based on the maximum quantity in the calendar as follows. If the maximum quantity is less than or equal to than 9,999, all quantities are shown as each. If the maximum quantity is between 10,000 and 999,999 all quantities are shown in thousands. If the maximum quantity is between 1,000,000 and 999,999,999 all quantities are shown in millions (rounded to the nearest thousand). If the maximum quantity is equal or greater than 1,000,000,000 all quantities are shown in billions (rounded to the nearest million).

**UNCLASSIFIED**

**Exhibit P-40, Budget Line Item Justification:** PB 2016 Army **Date:** February 2015

<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2034A: Procurement of Ammunition, Army / BA 01: Ammunition / BSA 37: Artillery Ammunition	<b>P-1 Line Item Number / Title:</b> E27501 / Artillery Propellants, Fuzes and Primers, All
--	--

ID Code (A=Service Ready, B=Not Service Ready) :		Program Elements for Code B Items:					Other Related Program Elements:					
Resource Summary	Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	To Complete	Total
Procurement Quantity (Units in Each)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (\$ in Millions)	3,970.283	35.205	78.010	78.024	2.000	80.024	101.148	106.592	109.757	112.523	-	4,593.542
Less PY Advance Procurement (\$ in Millions)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P1) (\$ in Millions)	3,970.283	35.205	78.010	78.024	2.000	80.024	101.148	106.592	109.757	112.523	-	4,593.542
Plus CY Advance Procurement (\$ in Millions)	-	-	-	-	-	-	-	-	-	-	-	-
<b>Total Obligation Authority (\$ in Millions)</b>	<b>3,970.283</b>	<b>35.205</b>	<b>78.010</b>	<b>78.024</b>	<b>2.000</b>	<b>80.024</b>	<b>101.148</b>	<b>106.592</b>	<b>109.757</b>	<b>112.523</b>	-	<b>4,593.542</b>
<i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i>												
Initial Spares (\$ in Millions)	-	-	-	-	-	-	-	-	-	-	-	-
Flyaway Unit Cost (\$ in Dollars)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (\$ in Dollars)	-	-	-	-	-	-	-	-	-	-	-	-

**Description:**

(E27501)Artillery Propellants, Fuzes and Primers, All Types.

(ER8021)ARTY, 155MM PROP CHG, MACS M232 SERIES

The Modular Artillery Charge System (MACS) M232 "High Zone" is intended for use with all United States 155mm cannon field artillery systems. The M232 "High Zone" increment is designed to achieve ranges from 10 to 40 kilometers. Each MACS increment includes propellant, an ignition system, and a combustible case. Performance enhancing additives are included in the M232 "High Zone" increment. Packaging permits long-term storage and helps protect the items from unplanned stimuli.

This item is Code A, approved for service use

(E62208)ARTY, FUZE PD M739A1

The M739A1 Point Detonating (PD) and Delay Fuze is the Army's preferred, primary fuze for 105mm and 155mm projectiles to address point detonating/delay artillery functions. The M739A1 fuze contains an Impact Delay Module (IDM) assembly. The IDM provides fuze initiation delay based upon the completion of mechanical actions caused by projectile deceleration and will function immediately after passing through the target.

This item is Code A, approved for service use.

(E63000) ARTY, 155MM PRIMER PERCUSSION M82 SERIES

The M82 Percussion Primer is intended for use with all United States 155mm cannon field artillery systems. The M82 Series Percussion Primer is used to initiate the burning of propellant charges and consists of a cylindrical brass case with an extraction flange which contains a base plunger, an ignition element which contains Primer #34 and a container loaded with 22 grains of black powder.

This item is Code A, approved for service use.

(E99250)ARTY, FUZE, PRECISION GUIDANCE KIT (PGK)

The Precision Guidance Kit (PGK) is a Global Positioning System (GPS) guidance kit with point detonating and height of burst fuzing functions. PGK provides near precision accuracy and efficiency for 155mm M795 and M549A1 high explosive (HE) projectiles. Using an integrated GPS receiver, the PGK corrects the inherent errors associated with ballistic firing solutions and reduces the number of projectiles required to execute fire missions. This item is Code A, approved for service use.

**UNCLASSIFIED**

<b>Exhibit P-40, Budget Line Item Justification:</b> PB 2016 Army		<b>Date:</b> February 2015
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2034A: Procurement of Ammunition, Army / BA 01: Ammunition / BSA 37: Artillery Ammunition		<b>P-1 Line Item Number / Title:</b> E27501 / Artillery Propellants, Fuzes and Primers, All
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) :	<b>Program Elements for Code B Items:</b>	<b>Other Related Program Elements:</b>

--	--	--

**UNCLASSIFIED**

**Exhibit P-40, Budget Line Item Justification:** PB 2016 Army **Date:** February 2015

**Appropriation / Budget Activity / Budget Sub Activity:**  
2034A: Procurement of Ammunition, Army / BA 01: Ammunition / BSA 37: Artillery Ammunition

**P-1 Line Item Number / Title:**  
E27501 / Artillery Propellants, Fuzes and Primers, All

Exhibits Schedule			Program Elements for Code B Items:			Other Related Program Elements:		
Title*	Exhibits	ID CD	Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total
			Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)
E62208 / ARTY, FUZE PD M739A1 [N340]	P-5, P-5a, P-21	A	- / 152.893	103,612 / 8.739	236,710 / 19.911	229,261 / 20.700	24,612 / 2.000	253,873 / 22.700
E63000 / ARTY, 155MM PRIMER PERCUSSION M82 Series	P-40a	A	- / 37.783	- / -	- / -	- / 2.000	- / -	- / 2.000
E99250 / ARTY, FUZE, PRECISION GUIDANCE KIT (PGK) [NA29]	P-5, P-5a, P-21	A	- / 92.131	- / 26.466	- / 45.285	- / 55.324	- / -	- / 55.324
ER8021 / ARTY, 155MM PROP CHG, MACS M232 SERIES [DA13]	P-5, P-5a, P-21	A	- / 587.558	- / -	77,389 / 12.814	- / -	- / -	- / -
<b>Total Gross/Weapon System Cost</b>			<b>- / 3,970.283</b>	<b>- / 35.205</b>	<b>- / 78.010</b>	<b>- / 78.024</b>	<b>- / 2.000</b>	<b>- / 80.024</b>

\*Title represents 1) the Number / Title for Items; 2) the Number / Title [DODIC] for Ammunition; and/or 3) the Number / Title (Modification Type) for Modifications.  
Note: Totals in this Exhibit P-40 set may not be exact or add due to rounding.

**Justification:**  
FY 2016 Base Budget supports critical Army Title 10 war reserve/operational, training, and test requirements IAW DoD Instruction 3000.04 (Munitions Requirements Process) and AR 5-13 (Total Army Munitions Requirements Process and Prioritization System). War reserve requirements support OSD-approved Combatant Commander Operational Plans, Homeland Defense, and other OSD-directed missions. Training requirements support individual and collective training of Active and Reserve Component forces at Army schools, home station, and the combined training centers. Test requirements support the development, fielding, safety, and quality assurance of Army munitions and equipment throughout their life-cycle.

In accordance with Section 1815 of the FY 2008 National Defense Authorization Act (P.L. 110-181), this item is necessary for use by the active and reserve components of the Armed Forces for homeland defense missions, domestic emergency responses, and providing military support to civil authorities.

FY 2016 Base procurement dollars in the amount of \$78.024 million supports production of 229,261 propellant, primers and fuzes. FY 2016 OCO procurement dollars in the amount of \$2.000 million supports production of 24,612 M739A1 PD Artillery Fuzes. Funds are required to replenish munitions expended in combat operations in theater.

E62208 - ARTY, FUZE PD M739A1  
This is a training standard item used in training and combat. The FY 2016 supports annual training and a builds a war reserve inventory in accordance with the Army procurement goals.  
TYPE CLASSIFICATION: 1982  
FY 2016 Base procurement dollars in the amount of \$20.700 million supports production of 229,261 cartridges.  
FY 2016 OCO procurement dollars in the amount of \$2.000 million supports production of 24,612 cartridges. Funds are required to replenish munitions expended in combat operations in theater.

E63000 - ARTY, 155MM PRIMER PERCUSSION M82 Series  
Material Change Program (MCP) was approved in FY14 to address known reliability issues because the M82 was originally designed to withstand maximum pressures up to 45,000-psi but 155mm propelling charges developed after the 1980's can generate pressures up to 60,000-psi at top-charge where the primer can remain stuck in the cannon's breech after firing. The M82E1 (strengthen existing design) is the first spiral improvement with ECP date of 4QFY15 and estimated price of \$15 each (per Engineering Estimate). The M82E2 (incorporate combustible case technology) is the second spiral improvement with ECP date of 2QFY17 and estimated price of \$20 each (per Engineering Estimate).  
Procurement will be dual-purpose to fulfill War Reserve and to support Training as needed.

ER8021 - ARTY, 155MM PROP CHG, MACS M232 SERIES  
This item is a training standard item used in both training and combat. Request supports annual training and builds a war reserve inventory in accordance with the Army procurement goals.  
TYPE CLASSIFICATION DATE: 2001

**UNCLASSIFIED**

<b>Exhibit P-5, Cost Analysis: PB 2016 Army</b>		<b>Date:</b> February 2015
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2034A / 01 / 37		<b>P-1 Line Item Number / Title:</b> E27501 / Artillery Propellants, Fuzes and Primers, All
		<b>Item Number / Title [DODIC]:</b> E62208 / ARTY, FUZE PD M739A1 [N340]

<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : A	<b>MDAP/MAIS Code:</b>
---	------------------------

Resource Summary	Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total
Procurement Quantity (Units in Each)	-	103,612	236,710	229,261	24,612	253,873
Gross/Weapon System Cost (\$ in Millions)	152.893	8.739	19.911	20.700	2.000	22.700
Less PY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
Net Procurement (P1) (\$ in Millions)	152.893	8.739	19.911	20.700	2.000	22.700
Plus CY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
<b>Total Obligation Authority (\$ in Millions)</b>	<b>152.893</b>	<b>8.739</b>	<b>19.911</b>	<b>20.700</b>	<b>2.000</b>	<b>22.700</b>

*(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)*

Initial Spares (\$ in Millions)	-	-	-	-	-	-
Gross/Weapon System Unit Cost (\$ in Dollars)	-	-	-	-	-	-

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or add, due to rounding.

Cost Elements	Prior Years			FY 2014			FY 2015			FY 2016 Base			FY 2016 OCO			FY 2016 Total		
	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)
Hardware Cost																		
Recurring Cost																		
COMPLETE ROUND <sup>(t)</sup>	-	-	-	71.23	103,612	7.380	72.48	236,710	17.157	76.21	229,261	17.472	76.21	24,612	1.876	76.21	253,873	19.348
Subtotal: Recurring Cost	-	-	-	-	-	7.380	-	-	17.157	-	-	17.472	-	-	1.876	-	-	19.348
Subtotal: Hardware Cost	-	-	-	-	-	7.380	-	-	17.157	-	-	17.472	-	-	1.876	-	-	19.348
Support Cost																		
PRODUCTION ENGINEERING	-	-	152.893	-	-	0.859	-	-	1.729	-	-	2.070	-	-	-	-	-	2.070
ACCEPTANCE TESTING	-	-	-	-	-	0.500	-	-	1.025	-	-	1.158	-	-	0.124	-	-	1.282
Subtotal: Support Cost	-	-	152.893	-	-	1.359	-	-	2.754	-	-	3.228	-	-	0.124	-	-	3.352
<b>Gross/Weapon System Cost</b>	-	-	<b>152.893</b>	-	<b>103,612</b>	<b>8.739</b>	-	<b>236,710</b>	<b>19.911</b>	-	<b>229,261</b>	<b>20.700</b>	-	<b>24,612</b>	<b>2.000</b>	-	<b>253,873</b>	<b>22.700</b>

(t) indicates the presence of a P-5a

**UNCLASSIFIED**

<b>Exhibit P-5a, Procurement History and Planning:</b> PB 2016 Army							<b>Date:</b> February 2015					
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2034A / 01 / 37			<b>P-1 Line Item Number / Title:</b> E27501 / Artillery Propellants, Fuzes and Primers, All				<b>Item Number / Title [DODIC]:</b> E62208 / ARTY, FUZE PD M739A1 [N340]					

Cost Elements	O C O	FY	Contractor and Location	Method/Type or Funding Vehicle	Location of PCO	Award Date	Date of First Delivery	Qty <i>(Each)</i>	Unit Cost <i>(\$)</i>	Specs Avail Now?	Date Revision Available	RFP Issue Date
COMPLETE ROUND <sup>(†)</sup>		2014	ACTION MANUFACTURING COMPANY / BRISTOL, PA	C / FFP	PICATINNY ARSENAL, NJ	Mar 2014	Apr 2016	103,612	71.23	Y		
COMPLETE ROUND <sup>(†)</sup>		2015	ACTION MANUFACTURING COMPANY / BRISTOL, PA	C / FFP	PICATINNY ARSENAL, NJ	Mar 2015	Feb 2017	236,710	72.48	Y		
COMPLETE ROUND <sup>(†)</sup>		2016	ACTION MANUFACTURING COMPANY / BRISTOL, PA	C / FFP	PICATINNY ARSENAL, NJ	Mar 2016	Sep 2017	253,873	76.21	Y		

<sup>(†)</sup> indicates the presence of a P-21





**UNCLASSIFIED**

<b>Exhibit P-21, Production Schedule:</b> PB 2016 Army															<b>Date:</b> February 2015														
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2034A / 01 / 37										<b>P-1 Line Item Number / Title:</b> E27501 / Artillery Propellants, Fuzes and Primers, All										<b>Item Number / Title [DODIC]:</b> E62208 / ARTY, FUZE PD M739A1 [N340]									

Cost Elements <i>(Units in Thousands)</i>						Fiscal Year 2016															Fiscal Year 2017																					
O C C O	M F R #	FY	SERVICE	PROC QTY	ACCEP T P R I O R T O 1 O C T 2 0 1 5	BAL D U E A S O F 1 O C T	Calendar Year 2016															Calendar Year 2017																				
							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	B A L											
COMPLETE ROUND																																										
1		2014	ARMY	103.612	-	103.612	-	-	-	-	-	-	-	12.000	12.000	12.000	12.000	12.000	12.000	12.000	12.000	12.000	12.000	12.000	7.612	-																-
1		2014	MC (†)	225.876	-	225.876	-	-	-	-	-	-	-	10.000	10.000	10.000	11.520	28.000	28.000	28.000	28.000	28.000	28.000	32.356	40.000																-	
1		2014	AFSO (†)	39.997	-	39.997	-	-	-	-	-	-	-	-	-	12.000	12.000	15.997	-	-	-	-	-	-	-	-																-
<b>1</b>		<b>2014</b>	<b>Total</b>	<b>369.485</b>	-	<b>369.485</b>	-	-	-	-	-	-	-	<b>22.000</b>	<b>22.000</b>	<b>34.000</b>	<b>35.520</b>	<b>55.997</b>	<b>40.000</b>	<b>40.000</b>	<b>40.000</b>	<b>39.968</b>	<b>40.000</b>																-			
1		2015	ARMY	236.710	-	236.710	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	40.000	40.000	40.000	40.000	40.000	36.710	-	-	-						
1		2015	MC (†)	26.805	-	26.805	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	18.030	8.775	-						
1		2015	AFSO (†)	21.726	-	21.726	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	21.726	-	-						
<b>1</b>		<b>2015</b>	<b>Total</b>	<b>285.241</b>	-	<b>285.241</b>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<b>40.000</b>	<b>40.000</b>	<b>40.000</b>	<b>40.000</b>	<b>40.000</b>	<b>36.710</b>	<b>39.756</b>	<b>8.775</b>	-						
1		2016	ARMY	253.873	-	253.873								A -	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	20.000	233.873					
1		2016	MC (†)	119.298	-	119.298								A -	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	11.050	108.248					
1		2016	AFSO (†)	23.859	-	23.859								A -	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	23.859					
<b>1</b>		<b>2016</b>	<b>Total</b>	<b>397.030</b>	-	<b>397.030</b>								-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<b>31.050</b>	<b>365.980</b>					
							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	B A L											

**UNCLASSIFIED**

<b>Exhibit P-21, Production Schedule:</b> PB 2016 Army				<b>Date:</b> February 2015							
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2034A / 01 / 37				<b>P-1 Line Item Number / Title:</b> E27501 / Artillery Propellants, Fuzes and Primers, All				<b>Item Number / Title [DODIC]:</b> E62208 / ARTY, FUZE PD M739A1 [N340]			

Cost Elements <i>(Units in Thousands)</i>						Fiscal Year 2018										Fiscal Year 2019															
O C C O	M F R #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2017	BAL DUE AS OF 1 OCT	Calendar Year 2018										Calendar Year 2019														
							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	B A L
COMPLETE ROUND																															
	1	2014	ARMY	103.612	103.612	-																							-		
	1	2014	MC (†)	225.876	225.876	-																							-		
	1	2014	AFSO (†)	39.997	39.997	-																							-		
	<b>1</b>	<b>2014</b>	<b>Total</b>	<b>369.485</b>	<b>369.485</b>	-																							-		
	1	2015	ARMY	236.710	236.710	-																							-		
	1	2015	MC (†)	26.805	26.805	-																							-		
	1	2015	AFSO (†)	21.726	21.726	-																							-		
	<b>1</b>	<b>2015</b>	<b>Total</b>	<b>285.241</b>	<b>285.241</b>	-																							-		
	1	2016	ARMY	253.873	20.000	233.873	20.000	20.000	20.000	20.000	20.000	27.890	40.000	40.000	5.983														-		
	1	2016	MC (†)	119.298	11.050	108.248	20.000	20.000	20.000	20.000	8.248	-	-	-	-														-		
	1	2016	AFSO (†)	23.859	-	23.859	-	-	-	-	-	11.750	12.109	-	-	-													-		
	<b>1</b>	<b>2016</b>	<b>Total</b>	<b>397.030</b>	<b>31.050</b>	<b>365.980</b>	<b>40.000</b>	<b>40.000</b>	<b>40.000</b>	<b>40.000</b>	<b>40.000</b>	<b>39.998</b>	<b>39.999</b>	<b>40.000</b>	<b>40.000</b>	<b>5.983</b>													-		
							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	B A L

**UNCLASSIFIED**

<b>Exhibit P-21, Production Schedule:</b> PB 2016 Army							<b>Date:</b> February 2015					
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2034A / 01 / 37				<b>P-1 Line Item Number / Title:</b> E27501 / Artillery Propellants, Fuzes and Primers, All				<b>Item Number / Title [DODIC]:</b> E62208 / ARTY, FUZE PD M739A1 [N340]				

MFR Ref #	MFR Name - Location	Production Rates (Each / Month)			Procurement Leadtime (Months)							
		MSR For 2016	1-8-5 For 2016	MAX For 2016	Initial			Reorder				
					ALT Prior to Oct 1	ALT After Oct 1	Mfg PLT	ALT Prior to Oct 1	ALT After Oct 1	Mfg PLT	Total After Oct 1	
1	ACTION MANUFACTURING COMPANY - BRISTOL, PA	20,000	40,000	80,000	6	6	24	30	6	6	24	30

(‡) Delivery rows marked with this symbol indicate that they are funded through a separate Line Item. See the respective components' exhibits for details, including the full delivery schedule.

"A" in the Delivery Schedule indicates the Contract Award Date.

Note: Due to space limitations, quantities in the Exhibit P-21 delivery calendar are truncated and rounded based on the maximum quantity in the calendar as follows. If the maximum quantity is less than or equal to than 9,999, all quantities are shown as each. If the maximum quantity is between 10,000 and 999,999 all quantities are shown in thousands. If the maximum quantity is between 1,000,000 and 999,999,999 all quantities are shown in millions (rounded to the nearest thousand). If the maximum quantity is equal or greater than 1,000,000,000 all quantities are shown in billions (rounded to the nearest million).

**UNCLASSIFIED**

**Exhibit P-40a, Budget Item Justification For Aggregated Items:** PB 2016 Army **Date:** February 2015

<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2034A / 01 / 37	<b>P-1 Line Item Number / Title:</b> E27501 / Artillery Propellants, Fuzes and Primers, All	<b>Aggregated Items Title:</b> Various
--	--	---

Note: Subtotals or Totals in this Exhibit P-40a may not be exact or add, due to rounding.

Item Number / Title [DODIC]	ID CD	MDAP/MAIS Code	Prior Years			FY 2014			FY 2015			FY 2016 Base			FY 2016 OCO			FY 2016 Total		
			Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)
<b>ARTY, 155MM PRIMER PERCUSSION M82 Series</b>																				
E63000 / ARTY, 155MM PRIMER PERCUSSION M82 Series	A		-	-	37.783	-	-	-	-	-	-	-	-	2.000	-	-	-	-	-	2.000
<i>Subtotal: ARTY, 155MM PRIMER PERCUSSION M82 Series</i>			-	-	37.783	-	-	-	-	-	-	-	-	2.000	-	-	-	-	-	2.000
<b>Total</b>			-	-	37.783	-	-	-	-	-	-	-	-	2.000	-	-	-	-	-	2.000

**UNCLASSIFIED**

<b>Exhibit P-5, Cost Analysis: PB 2016 Army</b>		<b>Date:</b> February 2015
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2034A / 01 / 37		<b>P-1 Line Item Number / Title:</b> E27501 / Artillery Propellants, Fuzes and Primers, All
		<b>Item Number / Title [DODIC]:</b> E99250 / ARTY, FUZE, PRECISION GUIDANCE KIT (PGK) [NA29]

<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : A				<b>MDAP/MAIS Code:</b>					
Resource Summary				Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total
Procurement Quantity (Units in Each)				-	-	-	-	-	-
Gross/Weapon System Cost (\$ in Millions)				92.131	26.466	45.285	55.324	-	55.324
Less PY Advance Procurement (\$ in Millions)				-	-	-	-	-	-
Net Procurement (P1) (\$ in Millions)				92.131	26.466	45.285	55.324	-	55.324
Plus CY Advance Procurement (\$ in Millions)				-	-	-	-	-	-
<b>Total Obligation Authority (\$ in Millions)</b>				<b>92.131</b>	<b>26.466</b>	<b>45.285</b>	<b>55.324</b>	<b>-</b>	<b>55.324</b>
<i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i>									
Initial Spares (\$ in Millions)				-	-	-	-	-	-
Gross/Weapon System Unit Cost (\$ in Dollars)				-	-	-	-	-	-

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or add, due to rounding.

Cost Elements	Prior Years			FY 2014			FY 2015			FY 2016 Base			FY 2016 OCO			FY 2016 Total		
	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)
Hardware Cost																		
Recurring Cost																		
COMPLETE ROUND <sup>(†)</sup>	-	-	-	8,938.00	1,593	14.238	8,617.00	2,621	22.585	9,558.00	4,306	41.157	-	-	-	9,558.00	4,306	41.157
Subtotal: Recurring Cost	-	-	-	-	-	14.238	-	-	22.585	-	-	41.157	-	-	-	-	-	41.157
Subtotal: Hardware Cost	-	-	-	-	-	14.238	-	-	22.585	-	-	41.157	-	-	-	-	-	41.157
Support Cost																		
PRODUCTION ENGINEERING	-	-	92.131	-	-	6.674	-	-	6.950	-	-	7.308	-	-	-	-	-	7.308
ACCEPTANCE TESTING	-	-	-	-	-	1.060	-	-	1.450	-	-	1.775	-	-	-	-	-	1.775
NEW EQUIPMENT TRAINING	-	-	-	-	-	2.494	-	-	2.300	-	-	2.200	-	-	-	-	-	2.200
TECH DATA LICENSE RIGHTS	-	-	-	-	-	2.000	-	-	10.000	-	-	-	-	-	-	-	-	-
ENGINEERING CHANGE PROPOSAL	-	-	-	-	-	-	-	-	2.000	-	-	2.884	-	-	-	-	-	2.884
Subtotal: Support Cost	-	-	92.131	-	-	12.228	-	-	22.700	-	-	14.167	-	-	-	-	-	14.167
<b>Gross/Weapon System Cost</b>	<b>-</b>	<b>-</b>	<b>92.131</b>	<b>-</b>	<b>-</b>	<b>26.466</b>	<b>-</b>	<b>-</b>	<b>45.285</b>	<b>-</b>	<b>-</b>	<b>55.324</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>55.324</b>

(†) indicates the presence of a P-5a

**UNCLASSIFIED**

<b>Exhibit P-5a, Procurement History and Planning:</b> PB 2016 Army								<b>Date:</b> February 2015				
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2034A / 01 / 37			<b>P-1 Line Item Number / Title:</b> E27501 / Artillery Propellants, Fuzes and Primers, All					<b>Item Number / Title [DODIC]:</b> E99250 / ARTY, FUZE, PRECISION GUIDANCE KIT (PGK) [NA29]				
<b>Cost Elements</b>	<b>O C O</b>	<b>FY</b>	<b>Contractor and Location</b>	<b>Method/Type or Funding Vehicle</b>	<b>Location of PCO</b>	<b>Award Date</b>	<b>Date of First Delivery</b>	<b>Qty (Each)</b>	<b>Unit Cost (\$)</b>	<b>Specs Avail Now?</b>	<b>Date Revision Available</b>	<b>RFP Issue Date</b>
COMPLETE ROUND <sup>(†)</sup>		2014	ALLIANT TECHSYSTEMS INC. / PLYMOUTH, MN	SS / FFP	PICATINNY ARSENAL, NJ	Feb 2015	Feb 2016	1,593	8,938.00	Y		
COMPLETE ROUND <sup>(†)</sup>		2015	ALLIANT TECHSYSTEMS INC. / PLYMOUTH, MN	SS / FFP	PICATINNY ARSENAL, NJ	Feb 2015	Apr 2016	2,621	8,617.00	Y		
COMPLETE ROUND <sup>(†)</sup>		2016	ALLIANT TECHSYSTEMS INC. / PLYMOUTH, MN	SS / FFP	PICATINNY ARSENAL, NJ	Feb 2016	Feb 2017	4,306	9,558.00	Y		

<sup>(†)</sup> indicates the presence of a P-21

**UNCLASSIFIED**

Exhibit P-21, Production Schedule: PB 2016 Army																							Date: February 2015									
Appropriation / Budget Activity / Budget Sub Activity:										P-1 Line Item Number / Title:										Item Number / Title [DODIC]:												
2034A / 01 / 37										E27501 / Artillery Propellants, Fuzes and Primers, All										E99250 / ARTY, FUZE, PRECISION GUIDANCE KIT (PGK) [NA29]												
Cost Elements (Units in Thousands)							Fiscal Year 2015										Fiscal Year 2016															
O C C O	M F R #	FY	SERVICE	PROC QTY	ACCEP T P R I O R T O 1 O C T 2 0 1 4	BAL D U E A S O F 1 O C T	Calendar Year 2015										Calendar Year 2016															
							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	B A L	
COMPLETE ROUND																																
	1	2014	ARMY	1.593	-	1.593																										
	1	2014	MC (†)	2.185	-	2.185																								.101	2.084	
	1	2014	FMS (†)	5.865	-	5.865												.084	.048												.651	1.782
	<b>1</b>	<b>2014</b>	<b>Total</b>	<b>9.643</b>	-	<b>9.643</b>												<b>.084</b>	<b>.048</b>											<b>.752</b>	<b>3.866</b>	
	1	2015	ARMY	2.621	-	2.621																										
	1	2015	MC (†)	.534	-	.534																										
	<b>1</b>	<b>2015</b>	<b>Total</b>	<b>3.155</b>	-	<b>3.155</b>																										
	1	2016	ARMY	4.306	-	4.306																										
	1	2016	MC (†)	2.070	-	2.070																										
	<b>1</b>	<b>2016</b>	<b>Total</b>	<b>6.376</b>	-	<b>6.376</b>																										
							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	B A L	



**UNCLASSIFIED**

<b>Exhibit P-21, Production Schedule:</b> PB 2016 Army													<b>Date:</b> February 2015																									
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2034A / 01 / 37													<b>P-1 Line Item Number / Title:</b> E27501 / Artillery Propellants, Fuzes and Primers, All													<b>Item Number / Title [DODIC]:</b> E99250 / ARTY, FUZE, PRECISION GUIDANCE KIT (PGK) [NA29]												

Cost Elements <i>(Units in Thousands)</i>					Fiscal Year 2017													Fiscal Year 2018																			
O C C O	M F R #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2016	BAL DUE AS OF 1 OCT	Calendar Year 2017													Calendar Year 2018																	
							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	B A L						
COMPLETE ROUND																																					
	1	2014	ARMY	1.593	1.593	-	-	-	-	-																										-	
	1	2014	MC (†)	2.185	.101	2.084	1.100	.984	-	-																											-
	1	2014	FMS (†)	5.865	4.083	1.782	-	-	.682	1.100																											-
	1	2014	<b>Total</b>	<b>9.643</b>	<b>5.777</b>	<b>3.866</b>	<b>1.100</b>	<b>.984</b>	<b>.682</b>	<b>1.100</b>																											-
	1	2015	ARMY	2.621	2.621	-	-	-	-																												-
	1	2015	MC (†)	.534	-	.534	-	.116	.418																												-
	1	2015	<b>Total</b>	<b>3.155</b>	<b>2.621</b>	<b>.534</b>	-	<b>.116</b>	<b>.418</b>																												-
	1	2016	ARMY	4.306	-	4.306	-	-	-	-	.359	.359	.359	.359	.359	.359	.359	.359	.359	.359	.359	.359	.358	.358												-	
	1	2016	MC (†)	2.070	-	2.070	-	-	-	-	.173	.173	.173	.173	.173	.173	.173	.172	.172	.172	.172	.172	.172	.172												-	
	1	2016	<b>Total</b>	<b>6.376</b>	-	<b>6.376</b>	-	-	-	-	<b>.532</b>	<b>.532</b>	<b>.532</b>	<b>.532</b>	<b>.532</b>	<b>.532</b>	<b>.531</b>	<b>.531</b>	<b>.531</b>	<b>.531</b>	<b>.531</b>	<b>.530</b>	<b>.530</b>													-	
							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	B A L						

**UNCLASSIFIED**

<b>Exhibit P-21, Production Schedule:</b> PB 2016 Army		<b>Date:</b> February 2015
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2034A / 01 / 37		<b>P-1 Line Item Number / Title:</b> E27501 / Artillery Propellants, Fuzes and Primers, All
		<b>Item Number / Title [DODIC]:</b> E99250 / ARTY, FUZE, PRECISION GUIDANCE KIT (PGK) [NA29]

MFR Ref #	MFR Name - Location	Production Rates (Each / Month)			Procurement Leadtime (Months)							
		MSR For 2016	1-8-5 For 2016	MAX For 2016	Initial				Reorder			
					ALT Prior to Oct 1	ALT After Oct 1	Mfg PLT	Total After Oct 1	ALT Prior to Oct 1	ALT After Oct 1	Mfg PLT	Total After Oct 1
1	ALLIANT TECHSYSTEMS INC. - PLYMOUTH, MN	300	1,100	2,200	13	9	20	29	12	8	12	20

(‡) Delivery rows marked with this symbol indicate that they are funded through a separate Line Item. See the respective components' exhibits for details, including the full delivery schedule.

"A" in the Delivery Schedule indicates the Contract Award Date.

Note: Due to space limitations, quantities in the Exhibit P-21 delivery calendar are truncated and rounded based on the maximum quantity in the calendar as follows. If the maximum quantity is less than or equal to than 9,999, all quantities are shown as each. If the maximum quantity is between 10,000 and 999,999 all quantities are shown in thousands. If the maximum quantity is between 1,000,000 and 999,999,999 all quantities are shown in millions (rounded to the nearest thousand). If the maximum quantity is equal or greater than 1,000,000,000 all quantities are shown in billions (rounded to the nearest million).

**UNCLASSIFIED**

<b>Exhibit P-5, Cost Analysis: PB 2016 Army</b>													<b>Date:</b> February 2015								
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2034A / 01 / 37						<b>P-1 Line Item Number / Title:</b> E27501 / Artillery Propellants, Fuzes and Primers, All						<b>Item Number / Title [DODIC]:</b> ER8021 / ARTY, 155MM PROP CHG, MACS M232 SERIES [DA13]									
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : A									<b>MDAP/MAIS Code:</b>												
<b>Resource Summary</b>				<b>Prior Years</b>			<b>FY 2014</b>			<b>FY 2015</b>			<b>FY 2016 Base</b>			<b>FY 2016 OCO</b>			<b>FY 2016 Total</b>		
Procurement Quantity (Units in Each)				-			-			77,389			-			-			-		
Gross/Weapon System Cost (\$ in Millions)				587.558			-			12.814			-			-			-		
Less PY Advance Procurement (\$ in Millions)				-			-			-			-			-			-		
Net Procurement (P1) (\$ in Millions)				587.558			-			12.814			-			-			-		
Plus CY Advance Procurement (\$ in Millions)				-			-			-			-			-			-		
<b>Total Obligation Authority (\$ in Millions)</b>				<b>587.558</b>			<b>-</b>			<b>12.814</b>			<b>-</b>			<b>-</b>			<b>-</b>		
<i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i>																					
Initial Spares (\$ in Millions)				-			-			-			-			-			-		
Gross/Weapon System Unit Cost (\$ in Dollars)				-			-			-			-			-			-		
Note: Subtotals or Totals in this Exhibit P-5 may not be exact or add, due to rounding.																					
<b>Cost Elements</b>		<b>Prior Years</b>			<b>FY 2014</b>			<b>FY 2015</b>			<b>FY 2016 Base</b>			<b>FY 2016 OCO</b>			<b>FY 2016 Total</b>				
		<b>Unit Cost (\$)</b>	<b>Qty (Each)</b>	<b>Total Cost (\$ M)</b>	<b>Unit Cost (\$)</b>	<b>Qty (Each)</b>	<b>Total Cost (\$ M)</b>	<b>Unit Cost (\$)</b>	<b>Qty (Each)</b>	<b>Total Cost (\$ M)</b>	<b>Unit Cost (\$)</b>	<b>Qty (Each)</b>	<b>Total Cost (\$ M)</b>	<b>Unit Cost (\$)</b>	<b>Qty (Each)</b>	<b>Total Cost (\$ M)</b>	<b>Unit Cost (\$)</b>	<b>Qty (Each)</b>	<b>Total Cost (\$ M)</b>		
Hardware Cost																					
Recurring Cost																					
LOAD, ASSEMBLE, PACK (LAP) <sup>(†)</sup>		-	-	-	-	-	18.54	77,389	1.435	-	-	-	-	-	-	-	-	-	-		
COMBUSTIBLE CASES - M232A1 <sup>(†)</sup>		-	-	-	-	-	41.00	79,711	3.268	-	-	-	-	-	-	-	-	-	-		
PROPELLANT, M31A2 <sup>(†)</sup>		-	-	-	-	-	17.30	373,015	6.453	-	-	-	-	-	-	-	-	-	-		
*CONTAINER, M232A1 <sup>(†)</sup>		-	-	-	-	-	39.39	16,252	0.640	-	-	-	-	-	-	-	-	-	-		
*IGNITION PROPELLANT, MACS <sup>(†)</sup>		-	-	-	-	-	8.94	4,953	0.044	-	-	-	-	-	-	-	-	-	-		
BLACK POWDER <sup>(†)</sup>		-	-	-	-	-	14.75	4,643	0.068	-	-	-	-	-	-	-	-	-	-		
<i>Subtotal: Recurring Cost</i>		-	-	-	-	-	-	-	11.909	-	-	-	-	-	-	-	-	-	-		
<i>Subtotal: Hardware Cost</i>		-	-	-	-	-	-	-	11.909	-	-	-	-	-	-	-	-	-	-		
Support Cost																					
PRODUCTION ENGINEERING		-	-	587.558	-	-	-	-	1.451	-	-	-	-	-	-	-	-	-	-		
ACCEPTANCE TESTING		-	-	-	-	-	-	-	0.139	-	-	-	-	-	-	-	-	-	-		
*GOVERNMENT FURNISHED MATERIAL		-	-	-	-	-	-	-	-0.684	-	-	-	-	-	-	-	-	-	-		

**UNCLASSIFIED**

<b>Exhibit P-5, Cost Analysis:</b> PB 2016 Army		<b>Date:</b> February 2015
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2034A / 01 / 37		<b>P-1 Line Item Number / Title:</b> E27501 / Artillery Propellants, Fuzes and Primers, All
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : A		<b>MDAP/MAIS Code:</b>
<b>Item Number / Title [DODIC]:</b> ER8021 / ARTY, 155MM PROP CHG, MACS M232 SERIES [DA13]		

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or add, due to rounding.

Cost Elements	Prior Years			FY 2014			FY 2015			FY 2016 Base			FY 2016 OCO			FY 2016 Total		
	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)
<i>Subtotal: Support Cost</i>	-	-	587.558	-	-	-	-	-	0.906	-	-	-	-	-	-	-	-	-
<b>Gross/Weapon System Cost</b>	-	-	<b>587.558</b>	-	-	-	-	<b>77,389</b>	<b>12.814</b>	-	-	-	-	-	-	-	-	-

(†) indicates the presence of a P-5a

**UNCLASSIFIED**

<b>Exhibit P-5a, Procurement History and Planning:</b> PB 2016 Army							<b>Date:</b> February 2015					
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2034A / 01 / 37			<b>P-1 Line Item Number / Title:</b> E27501 / Artillery Propellants, Fuzes and Primers, All				<b>Item Number / Title [DODIC]:</b> ER8021 / ARTY, 155MM PROP CHG, MACS M232 SERIES [DA13]					

Cost Elements	O C O	FY	Contractor and Location	Method/Type or Funding Vehicle	Location of PCO	Award Date	Date of First Delivery	Qty <i>(Each)</i>	Unit Cost <i>(\$)</i>	Specs Avail Now?	Date Revision Available	RFP Issue Date
LOAD, ASSEMBLE, PACK (LAP) <sup>(†)</sup>		2015	TO BE SELECTED / TBS01	C / IDIQ	PICATINNY ARSENAL, NJ	Mar 2015	Jul 2017	77,389	18.54	Y		
COMBUSTIBLE CASES - M232A1		2015	TO BE SELECTED / TBS02	C / FFP	PICATINNY ARSENAL, NJ	Mar 2015	Sep 2016	79,711	41.00	Y		
PROPELLANT, M31A2		2015	GEN DYNAMICS ORDNANCE AND / SALABERRY-DE- VALLEYFIELD, CANADA	C / FFP	PICATINNY ARSENAL, NJ	Mar 2015	Nov 2016	373,015	17.30	Y		
*CONTAINER, M232A1		2015	GOVERNMENT FURNISHED MATERIAL / STOCK ISSUE,	GFM	ROCK ISLAND ARSENAL, IL	Oct 2014	Oct 2014	16,252	39.39			
*IGNITION PROPELLANT, MACS		2015	GOVERNMENT FURNISHED MATERIAL / STOCK ISSUE,	GFM	PICATINNY ARSENAL, NJ	Oct 2014	Oct 2014	4,953	8.94			
BLACK POWDER		2015	GOEX POWDER, INC. / MINDEN, LA	SS / FFP	ROCK ISLAND ARSENAL, IL	Mar 2015	Sep 2016	4,643	14.75	Y		

<sup>(†)</sup> indicates the presence of a P-21



**UNCLASSIFIED**

<b>Exhibit P-21, Production Schedule:</b> PB 2016 Army															<b>Date:</b> February 2015														
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2034A / 01 / 37										<b>P-1 Line Item Number / Title:</b> E27501 / Artillery Propellants, Fuzes and Primers, All										<b>Item Number / Title [DODIC]:</b> ER8021 / ARTY, 155MM PROP CHG, MACS M232 SERIES [DA13]									

Cost Elements <i>(Units in Thousands)</i>						Fiscal Year 2017												Fiscal Year 2018													
O C C #	M F R #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2016	BAL DUE AS OF 1 OCT	Calendar Year 2017												Calendar Year 2018												B A L
							O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	
LOAD, ASSEMBLE, PACK (LAP)																															
	1	2015	ARMY	77.389	-	77.389	-	-	-	-	-	-	-	-	-	-	6.450	6.449	6.449	6.449	6.449	6.449	6.449	6.449	6.449	6.449	6.449	6.449	6.449	-	
	1	2015	MC (†)	28.800	-	28.800	-	-	-	-	-	-	-	-	-	-	2.400	2.400	2.400	2.400	2.400	2.400	2.400	2.400	2.400	2.400	2.400	2.400	2.400	-	
	1	2015	<b>Total</b>	<b>106.189</b>	-	<b>106.189</b>	-	-	-	-	-	-	-	-	-	-	<b>8.850</b>	<b>8.849</b>	<b>8.849</b>	<b>8.849</b>	<b>8.849</b>	<b>8.849</b>	<b>8.849</b>	<b>8.849</b>	<b>8.849</b>	<b>8.849</b>	<b>8.849</b>	<b>8.849</b>	<b>8.849</b>	-	
							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	B A L

**UNCLASSIFIED**

<b>Exhibit P-21, Production Schedule:</b> PB 2016 Army				<b>Date:</b> February 2015							
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2034A / 01 / 37				<b>P-1 Line Item Number / Title:</b> E27501 / Artillery Propellants, Fuzes and Primers, All				<b>Item Number / Title [DODIC]:</b> ER8021 / ARTY, 155MM PROP CHG, MACS M232 SERIES [DA13]			

MFR Ref #	MFR Name - Location	Production Rates (Each / Month)			Procurement Leadtime (Months)							
		MSR For 2016	1-8-5 For 2016	MAX For 2016	Initial				Reorder			
					ALT Prior to Oct 1	ALT After Oct 1	Mfg PLT	Total After Oct 1	ALT Prior to Oct 1	ALT After Oct 1	Mfg PLT	Total After Oct 1
1	TO BE SELECTED - TBS01	15,000	25,000	62,000	6	6	24	30	6	6	24	30

(‡) Delivery rows marked with this symbol indicate that they are funded through a separate Line Item. See the respective components' exhibits for details, including the full delivery schedule.  
 "A" in the Delivery Schedule indicates the Contract Award Date.  
 Note: Due to space limitations, quantities in the Exhibit P-21 delivery calendar are truncated and rounded based on the maximum quantity in the calendar as follows. If the maximum quantity is less than or equal to than 9,999, all quantities are shown as each. If the maximum quantity is between 10,000 and 999,999 all quantities are shown in thousands. If the maximum quantity is between 1,000,000 and 999,999,999 all quantities are shown in millions (rounded to the nearest thousand). If the maximum quantity is equal or greater than 1,000,000,000 all quantities are shown in billions (rounded to the nearest million).



**UNCLASSIFIED**

**Exhibit P-40, Budget Line Item Justification:** PB 2016 Army **Date:** February 2015

**Appropriation / Budget Activity / Budget Sub Activity:** 2034A: Procurement of Ammunition, Army / BA 01: Ammunition / BSA 45: Rockets **P-1 Line Item Number / Title:** EA4000 / Shoulder Launched Munitions, All Types

ID Code (A=Service Ready, B=Not Service Ready) :		Program Elements for Code B Items:					Other Related Program Elements:					
Resource Summary	Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	To Complete	Total
Procurement Quantity (Units in Each)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (\$ in Millions)	3.393	1.012	0.945	7.500	-	7.500	26.361	-	-	-	-	39.211
Less PY Advance Procurement (\$ in Millions)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P1) (\$ in Millions)	3.393	1.012	0.945	7.500	-	7.500	26.361	-	-	-	-	39.211
Plus CY Advance Procurement (\$ in Millions)	-	-	-	-	-	-	-	-	-	-	-	-
<b>Total Obligation Authority (\$ in Millions)</b>	<b>3.393</b>	<b>1.012</b>	<b>0.945</b>	<b>7.500</b>	<b>-</b>	<b>7.500</b>	<b>26.361</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>39.211</b>

*(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)*

Initial Spares (\$ in Millions)	-	-	-	-	-	-	-	-	-	-	-	-
Flyaway Unit Cost (\$ in Dollars)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (\$ in Dollars)	-	-	-	-	-	-	-	-	-	-	-	-

**Description:**

This budget line includes Shoulder Launched Munitions, All Types.

(E36401) Charge, Backblast Sim, F/SUBCAL ADPTR553B CARLGUST - The 7.62MM 553B Sub-Caliber Backblast Simulator is a charge which produces a real-feel backblast for user. This item is Code A, approved for service use.

(E36402) Cap, Percussion, W/HLDR, F/SUBCAL ADPTR553B CARLGUST - The 7.62MM 553B Sub-Caliber Cap with Holder maintains the position of the individual components of the 553B Sub-Caliber Adapter System.

(E36403) CTG, 7.62MM Tracer, F/SUBCAL ADPTR CARL GUSTAF - The 7.62MM 553B Sub-Caliber Adapter makes it possible to raise the level of proficiency and reduce training costs to a low level both at the firing range and during live firing exercises.

(E36404) CTG, Gun, HEDP 502, 84MM CARL GUSTAF (MAAWS) - For rapid response forces that must have the ability to combat many types of threat, the 84 mm HEDP 502 (High Explosive Dual Purpose) is effective against light-armored vehicles, concrete and brick walls, field fortifications, and bunkers.

(E36405) CTG, Gun, HE 441D, 84MM CARL GUSTAF (MAAWS) - For combating troops in the open, behind cover, or in slit trenches as well as soft-skinned vehicles and similar types of targets, the 84 mm HE 441D (High Explosive) can be set for impact or air burst detonation.

(E36406) CTG, Gun, TGT PRAC-TR 141, 84MM CARL GUSTAF (MAAWS) - The 84 mm TPT 141 (Training Practice Tracer) is the ideal training round for reducing training costs but still retaining the right weapon "feel" and live firing experience.

(E36901) ROCKET, PRACTICE, 21MM SUBCALIBER for Shoulder Launched Munitions (SLM) simulates the firing of unguided shoulder fired munitions. It simulates the tactical munitions flight trajectory, but with less noise and backblast. It is currently used by Navy and Marine Corps to simulate the M72 LAW. It has also been adapted to the M141 Bunker Defeat Munition (BDM) and is used in New Equipment Training (NET)/Mobile Training Teams (MTT).

**UNCLASSIFIED**

<b>Exhibit P-40, Budget Line Item Justification:</b> PB 2016 Army		<b>Date:</b> February 2015
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2034A: Procurement of Ammunition, Army / BA 01: Ammunition / BSA 45: Rockets		<b>P-1 Line Item Number / Title:</b> EA4000 / Shoulder Launched Munitions, All Types
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) :	<b>Program Elements for Code B Items:</b>	<b>Other Related Program Elements:</b>

**UNCLASSIFIED**

**Exhibit P-40, Budget Line Item Justification:** PB 2016 Army **Date:** February 2015

**Appropriation / Budget Activity / Budget Sub Activity:** 2034A: Procurement of Ammunition, Army / BA 01: Ammunition / BSA 45: Rockets **P-1 Line Item Number / Title:** EA4000 / Shoulder Launched Munitions, All Types

ID Code (A=Service Ready, B=Not Service Ready) :			Program Elements for Code B Items:			Other Related Program Elements:		
Exhibits Schedule			Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total
Title*	Exhibits	ID CD	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)
E36401 / CHARGE, BACKBLAST SIM, F/SUBCAL ADPTR553B CARLGUST	P-40a	A	- / -	- / -	- / -	150,235 / 1.000	- / -	150,235 / 1.000
E36402 / CAP, PERCUSSION W/HLDR F/SUBCAL ADPTR553B CARLGUST	P-40a	A	- / -	- / -	- / -	1,211,271 / 1.000	- / -	1,211,271 / 1.000
E36403 / CTG, 7.62MM TRACER 553 F/SUBCAL ADAPTR CARL GUSTAF	P-40a	A	- / -	- / -	- / -	379,215 / 1.000	- / -	379,215 / 1.000
E36404 / CTG, GUN, HEDP 502, 84MM CARL GUSTAF (MAAWS)	P-40a	A	- / -	- / -	- / -	497 / 1.500	- / -	497 / 1.500
E36405 / CTG, GUN, HE 441D, 84MM CARL GUSTAF (MAAWS)	P-40a	A	- / -	- / -	- / -	545 / 1.500	- / -	545 / 1.500
E36406 / CTG, GUN, TGT PRAC-TR 141, 84MM CARL GUSTAF(MAAWS)	P-40a	A	- / -	- / -	- / -	1,986 / 1.500	- / -	1,986 / 1.500
E36901 / ROCKET, PRACTICE, 21MM SUBCALIBER FOR SLM	P-40a	A	31,768 / 3.393	9,024 / 1.012	6,858 / 0.945	- / -	- / -	- / -
<b>Total Gross/Weapon System Cost</b>			<b>- / 3.393</b>	<b>- / 1.012</b>	<b>- / 0.945</b>	<b>- / 7.500</b>	<b>- / -</b>	<b>- / 7.500</b>

\*Title represents 1) the Number / Title for Items; 2) the Number / Title [DODIC] for Ammunition; and/or 3) the Number / Title (Modification Type) for Modifications.

Note: Totals in this Exhibit P-40 set may not be exact or add due to rounding.

**Justification:**

FY 2016 Base Budget supports critical Army Title 10 war reserve/operational, training, and test requirements IAW DoD Instruction 3000.04 (Munitions Requirements Process) and AR 5-13 (Total Army Munitions Requirements Process and Prioritization System). War reserve requirements support OSD-approved Combatant Commander Operational Plans, Homeland Defense, and other OSD-directed missions. Training requirements support individual and collective training of Active and Reserve Component forces at Army schools, home station, and the combined training centers. Test requirements support the development, fielding, safety, and quality assurance of Army munitions and equipment throughout their life-cycle.

In accordance with Section 1815 of the FY 2008 National Defense Authorization Act (P.L. 110-181), this item is necessary for use by the active and reserve components of the Armed Forces for homeland defense missions, domestic emergency responses, and providing military support to civil authorities.

FY 2016 Base procurement dollars in the amount of \$7.500 million supports procurement of 6 variants of Shoulder Launched Munitions.

(E36401) Charge, Backblast Sim, F/SUBCAL ADPTR553B CARLGUST - This is a training unique item not used in combat. The FY 2016 request supports annual training and builds a war reserve inventory in accordance with the Army Procurement goals. In accordance with Section 1815 of the FY 2008 National Defense Authorization Act (P.L. 110-181), this item is necessary for use by the active and reserve components of the Armed Forces for homeland defense missions, domestic emergency responses, and providing military support to civil authorities. FY2016 Base procurement dollars in the amount of \$1.000 million supports the procurement of 150,235 SP Backblast Simulators.

(E36402) Cap, Percussion, W/HLDR, F/SUBCAL ADPTR553B CARLGUST - This is a training unique item not used in combat. The FY 2016 request supports annual training and builds a war reserve inventory in accordance with the Army Procurement goals. In accordance with Section 1815 of the FY 2008 National Defense Authorization Act (P.L. 110-181), this item is necessary for use by the active and reserve components of the Armed Forces for homeland defense missions, domestic emergency responses, and providing military support to civil authorities. FY2016 Base procurement dollars in the amount of \$1.000 million supports the procurement of 1,211,271 CAP, Percussion Adapter rounds.

(E36403) CTG, 7.62MM Tracer, F/SUBCAL ADPTR CARL GUSTAF - This is a training unique item not used in combat. The FY 2016 request supports annual training and builds a war reserve inventory in accordance with the Army Procurement goals. In accordance with Section 1815 of the FY 2008 National Defense Authorization Act (P.L. 110-181), this item is necessary for use by the active and reserve components of the Armed Forces for homeland defense missions, domestic emergency responses, and providing military support to civil authorities. FY2016 Base procurement dollars in the amount of \$1.000 million supports the procurement of 379,215 CTG, 7.62MM TRACER Adapter rounds.

(E36404) CTG, Gun, HEDP 502, 84MM CARL GUSTAF (MAAWS) - This is a training standard (item used in both training and combat). The FY 2016 request supports annual training and builds a war reserve inventory in accordance with the Army Procurement goals. In accordance with Section 1815 of the FY 2008 National Defense Authorization Act (P.L. 110-181), this item is necessary for use by the active and

**UNCLASSIFIED**

<b>Exhibit P-40, Budget Line Item Justification:</b> PB 2016 Army		<b>Date:</b> February 2015
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2034A: Procurement of Ammunition, Army / BA 01: Ammunition / BSA 45: Rockets		<b>P-1 Line Item Number / Title:</b> EA4000 / Shoulder Launched Munitions, All Types
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) :	<b>Program Elements for Code B Items:</b>	<b>Other Related Program Elements:</b>
<p>reserve components of the Armed Forces for homeland defense missions, domestic emergency responses, and providing military support to civil authorities. FY2016 Base procurement dollars in the amount of \$1.500 million supports the procurement of 497 CTG, GUN, HEDP 502, 84MM rounds.</p> <p>(E36405) CTG, Gun, HE 441D, 84MM CARL GUSTAF (MAAWS) - This is a training standard used in both training and combat. The FY 2016 request supports annual training and builds a war reserve inventory in accordance with the Army Procurement goals. In accordance with Section 1815 of the FY 2008 National Defense Authorization Act (P.L. 110-181), this item is necessary for use by the active and reserve components of the Armed Forces for homeland defense missions, domestic emergency responses, and providing military support to civil authorities. FY2016 Base procurement dollars in the amount of \$1.500 million supports the procurement of 545 CTG, GUN, HE 441D, 84MM rounds.</p> <p>(E36406) CTG, Gun, TGT PRAC-TR 141, 84MM CARL GUSTAF (MAAWS) - This is a training standard used in both training and combat. The FY 2016 request supports annual training and builds a war reserve inventory in accordance with the Army Procurement goals. In accordance with Section 1815 of the FY 2008 National Defense Authorization Act (P.L. 110-181), this item is necessary for use by the active and reserve components of the Armed Forces for homeland defense missions, domestic emergency responses, and providing military support to civil authorities. FY2016 Base procurement dollars in the amount of \$1.500 million supports the procurement of 1986 CTG, GUN, TGT PRAC-TR, 84MM rounds.</p> <p>(E36901) ROCKET, PRACTICE, 21MM SUBCALIBER for Shoulder Launched Munitions (SLM) This item is Code A, approved for service use. This is a training unique item not used in combat. Procurement supports annual training and builds a war reserve inventory in accordance with Army's procurement goals. In accordance with Section 1815 of the FY 2008 National Defense Authorization Act (P.L. 110-181), this item is necessary for use by the active and reserve components of the Armed Forces for homeland defense missions, domestic emergency responses, and providing military support to civil authorities.</p>		

**UNCLASSIFIED**

<b>Exhibit P-40a, Budget Item Justification For Aggregated Items: PB 2016 Army</b>															<b>Date:</b> February 2015				
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2034A / 01 / 45							<b>P-1 Line Item Number / Title:</b> EA4000 / Shoulder Launched Munitions, All Types								<b>Aggregated Items Title:</b> Various				

Note: Subtotals or Totals in this Exhibit P-40a may not be exact or add, due to rounding.

Item Number / Title [DODIC]	ID CD	MDAP/MAIS Code	Prior Years			FY 2014			FY 2015			FY 2016 Base			FY 2016 OCO			FY 2016 Total		
			Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)
<b>CHARGE, BACKBLAST SIM, F/SUBCAL ADPTR553B CARLGUST</b>																				
E36401 / CHARGE, BACKBLAST SIM, F/SUBCAL ADPTR553B CARLGUST	A		-	-	-	-	-	-	-	-	6.66	150,235	1.000	-	-	-	6.66	150,235	1.000	
E36402 / CAP, PERCUSSION W/HLDR F/SUBCAL ADPTR553B CARLGUST	A		-	-	-	-	-	-	-	-	0.83	1,211,271	1.000	-	-	-	0.83	1,211,271	1.000	
E36403 / CTG, 7.62MM TRACER 553 F/SUBCAL ADAPTR CARL GUSTAF	A		-	-	-	-	-	-	-	-	2.64	379,215	1.000	-	-	-	2.64	379,215	1.000	
E36404 / CTG, GUN, HEDP 502, 84MM CARL GUSTAF (MAAWS)	A		-	-	-	-	-	-	-	-	3,018.11	497	1.500	-	-	-	3,018.11	497	1.500	
E36405 / CTG, GUN, HE 441D, 84MM CARL GUSTAF (MAAWS)	A		-	-	-	-	-	-	-	-	2,752.29	545	1.500	-	-	-	2,752.29	545	1.500	
E36406 / CTG, GUN, TGT PRAC-TR 141, 84MM CARL GUSTAF(MAAWS)	A		-	-	-	-	-	-	-	-	755.29	1,986	1.500	-	-	-	755.29	1,986	1.500	
E36901 / ROCKET, PRACTICE, 21MM SUBCALIBER FOR SLM	A		106.81	31,768	3.393	112.15	9,024	1.012	137.80	6,858	0.945	-	-	-	-	-	-	-	-	-
<i>Subtotal: CHARGE, BACKBLAST SIM, F/SUBCAL ADPTR553B CARLGUST</i>			-	-	3.393	-	-	1.012	-	-	0.945	-	-	7.500	-	-	-	-	-	7.500
<b>Total</b>			-	-	<b>3.393</b>	-	-	<b>1.012</b>	-	-	<b>0.945</b>	-	-	<b>7.500</b>	-	-	-	-	-	<b>7.500</b>

**UNCLASSIFIED**

**Exhibit P-40, Budget Line Item Justification:** PB 2016 Army **Date:** February 2015

**Appropriation / Budget Activity / Budget Sub Activity:** 2034A: Procurement of Ammunition, Army / BA 01: Ammunition / BSA 45: Rockets **P-1 Line Item Number / Title:** E37300 / Rocket, Hydra 70, All Types

ID Code (A=Service Ready, B=Not Service Ready) : A			Program Elements for Code B Items:					Other Related Program Elements:				
Resource Summary	Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	To Complete	Total
Procurement Quantity (Units in Each)	-	100,058	39,632	16,356	109,407	125,763	56,696	67,877	42,401	29,787	Continuing	Continuing
Gross/Weapon System Cost (\$ in Millions)	2,170.031	165.476	94.191	33.653	136.341	169.994	76.478	92.788	65.071	72.206	Continuing	Continuing
Less PY Advance Procurement (\$ in Millions)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P1) (\$ in Millions)	2,170.031	165.476	94.191	33.653	136.341	169.994	76.478	92.788	65.071	72.206	Continuing	Continuing
Plus CY Advance Procurement (\$ in Millions)	-	-	-	-	-	-	-	-	-	-	-	-
<b>Total Obligation Authority (\$ in Millions)</b>	<b>2,170.031</b>	<b>165.476</b>	<b>94.191</b>	<b>33.653</b>	<b>136.341</b>	<b>169.994</b>	<b>76.478</b>	<b>92.788</b>	<b>65.071</b>	<b>72.206</b>	<b>Continuing</b>	<b>Continuing</b>

*(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)*

Initial Spares (\$ in Millions)	-	-	-	-	-	-	-	-	-	-	-	-
Flyaway Unit Cost (\$ in Dollars)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (\$ in Dollars)	-	1,653.80	2,376.64	2,057.53	1,246.18	1,351.70	1,348.91	1,367.00	1,534.66	2,424.08	Continuing	Continuing

**Description:**

This budget line procures all Hydra-70 rocket types in support of operational, training and war reserve requirements. The system provides combat overmatch capability and ensures the availability of munitions to support combat operations. This system of aerial rockets is used by Army aircraft (AH-64A/D Apache, OH-58D Kiowa Warrior and Special Operations aircraft) to perform a number of roles including anti-materiel, anti-personnel, air-to-ground suppression and illumination. This Hydra-70 rocket funding supports the entire Hydra-70 Rocket System to include resolution of obsolescence, safety, reliability, weapon integration activities, potential test sets, engineering changes, production issues and guidance section repair kits.

NOTE: QTY EA

**UNCLASSIFIED**

**Exhibit P-40, Budget Line Item Justification:** PB 2016 Army **Date:** February 2015

**Appropriation / Budget Activity / Budget Sub Activity:** 2034A: Procurement of Ammunition, Army / BA 01: Ammunition / BSA 45: Rockets **P-1 Line Item Number / Title:** E37300 / Rocket, Hydra 70, All Types

ID Code (A=Service Ready, B=Not Service Ready) : A			Program Elements for Code B Items:			Other Related Program Elements:		
Exhibits Schedule			Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total
Title*	Exhibits	ID CD	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)
E05302 / ROCKET HYDRA 70 FLECHETTE M255A1	P-5, P-5a, P-21	A	- / 228.889	10,040 / 23.873	3,839 / 8.499	- / -	- / -	- / -
E37308 / ROCKET SMOKE 2.75 M156 W/FUZE M423 W/MTR 66	P-5, P-5a, P-21		- / 2.982	- / -	2,258 / 7.265	- / -	- / -	- / -
E37315 / Rocket Hydra, Guidance Section	P-40a		- / -	- / -	135 / 3.973	- / -	- / -	- / -
E37330 / ROCKET HYDRA 70 SMOKE M264	P-40a		- / 26.892	- / -	671 / 2.600	- / -	- / -	- / -
E37413 / AMMO-Hydra, Aviation Rocket Procurement, Guided	P-40a		- / -	- / -	- / -	99 / 2.990	- / -	99 / 2.990
E37335 / ROCKET HYDRA 70 HE/PD M151/M423	P-5, P-5a, P-21	A	- / 239.668	10,080 / 21.205	23,857 / 43.724	- / -	- / -	- / -
E37337 / ROCKET HYDRA 70 SIG PRAC M274	P-5, P-5a, P-21	A	- / 1,572.854	74,592 / 92.157	4,389 / 9.037	- / -	- / -	- / -
E37338 / Rocket, Hydra 70, Flare Infrared (IR) M278	P-5, P-5a, P-21		- / 52.329	- / -	3,132 / 13.372	- / -	- / -	- / -
E37412 / AMMO-Hydra, Aviation Rocket Procurement, Unguided	P-5, P-5a, P-21		- / -	- / -	- / -	16,257 / 30.663	109,407 / 136.341	125,664 / 167.004
E52200 / ROCKET HYDRA 70 ILLUM M257	P-5	A	- / 46.417	5,346 / 28.241	1,351 / 5.721	- / -	- / -	- / -
<b>Total Gross/Weapon System Cost</b>			<b>- / 2,170.031</b>	<b>100,058 / 165.476</b>	<b>39,632 / 94.191</b>	<b>16,356 / 33.653</b>	<b>109,407 / 136.341</b>	<b>125,763 / 169.994</b>

\*Title represents 1) the Number / Title for Items; 2) the Number / Title [DODIC] for Ammunition; and/or 3) the Number / Title (Modification Type) for Modifications.

Note: Totals in this Exhibit P-40 set may not be exact or add due to rounding.

**Justification:**

The Hydra-70 Product Office is the procurement agent for all services, for all variants of 2.75 Rockets. This budget activity includes both training standard items and items that may be used in both training and combat. The Fiscal Year (FY) 2016 procurement supports annual training and builds a war reserve inventory in accordance with the Army's procurement goals. FY 2016 Base procurement dollars in the amount of \$33.653 million will procure 16,356 Hydra-70 Rockets. FY 2016 Overseas Contingency Operations (OCO) procurement dollars in the amount of \$136.341 million will procure 109,407 Hydra-70 Rockets. The Army intends to convert any price advantage created through contract negotiations, other service procurement, and/or Foreign Military Sales (FMS) into an increase of the Army's procurement of Hydra-70 Rockets. Pricing and quantities in FY 2016-2020 is uncertain due to an unknown Mk90 grain price planned for negotiation in FY 2015. The P-40/P-5 estimates are based on forecasted Mk90 grain pricing and will be updated once a contract has been awarded.

"In accordance with Section 1815 of the FY 2008 National Defense Authorization Act (P.L. 110-181), this item is necessary for use by the active and reserve components of the Armed Forces for homeland defense missions, domestic emergency responses, and providing military support to civil authorities."

**Rocket Hydra-70 Flechette M255A1:**

Beginning in FY2016, Rocket Hydra-70 Flechette M255A1 will be procured under budget line AMMO-Hydra, Aviation Rocket Procurement, Unguided, APE E37412000.

This is a training standard item used in both training and combat. The FY 2015 requests supports annual training and builds a war reserve inventory in accordance with the Army's procurement goals.

**Rocket Smoke 2.75 M156 w/fuze M423 w/mtr 66:**

Beginning in FY2016, Rocket Smoke 2.75 M156 w/fuze M423 w/mtr 66 will be procured under budget line AMMO-Hydra, Aviation Rocket Procurement, Unguided, APE E37412000.

This is a training standard item used in both training and combat. The FY 2015 requests supports annual training and builds a war reserve inventory in accordance with the Army's procurement goals.

**UNCLASSIFIED**

<b>Exhibit P-40, Budget Line Item Justification:</b> PB 2016 Army		<b>Date:</b> February 2015
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2034A: Procurement of Ammunition, Army / BA 01: Ammunition / BSA 45: Rockets		<b>P-1 Line Item Number / Title:</b> E37300 / Rocket, Hydra 70, All Types
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : A	<b>Program Elements for Code B Items:</b>	<b>Other Related Program Elements:</b>
<p>Rocket Hydra, Guidance Section:</p> <p>The FY2015 procurement provides the Army the potential for achieving a precision engagement capability at a significantly reduced cost across its portfolio of armed helicopter rocket and missile munitions. The laser guided rocket is expected to provide an increase number of stowed kills per mission and reduce collateral damage.</p> <p>In FY 2015 the Army will procure Navy Program of Record guidance kits for Hydra-70 rockets to support existing theater requirements.</p> <p>Beginning in FY 2016, Rocket Hydra, Guidance Section will be procured under budget line AMMO-Hydra, Aviation Rocket Procurement, Guided, APE E37413000.</p> <p>Rocket Hydra 70 Smoke M264:</p> <p>Beginning in FY2016, Rocket Hydra 70 Smoke M264 will be procured under budget line AMMO-Hydra, Aviation Rocket Procurement, Unguided, APE E37412000.</p> <p>This is a training standard item used in both training and combat. The FY 2015 requests supports annual training and builds a war reserve inventory in accordance with the Army's procurement goals.</p> <p>Rocket Hydra 70 HE/PD M151/M423:</p> <p>Beginning in FY2016, Rocket Hydra 70 HE/PD M151/M423 will be procured under budget line AMMO-Hydra, Aviation Rocket Procurement, Unguided, APE E37412000.</p> <p>This is a training standard item used in both training and combat. The FY 2015 requests supports annual training and builds a war reserve inventory in accordance with the Army's procurement goals.</p> <p>Rocket Hydra 70 Sig Prac M274:</p> <p>Beginning in FY2016, Rocket Hydra 70 Sig Prac M274 will be procured under budget line AMMO-Hydra, Aviation Rocket Procurement, Unguided, APE E37412000.</p> <p>This is a training unique item not used in combat. The FY 2015 requests supports annual training and builds a war reserve inventory in accordance with the Army's procurement goals.</p> <p>Rocket Hydra 70 Flare Infrared (IR) M278:</p> <p>Beginning in FY2016, Rocket Hydra 70 Flare Infrared (IR) M278 will be procured under budget line AMMO-Hydra, Aviation Rocket Procurement, Unguided, APE E37412000.</p> <p>This is a training standard item used in both training and combat. The FY 2015 requests supports annual training and builds a war reserve inventory in accordance with the Army's procurement goals.</p> <p>Rocket Hydra 70 Illum M257:</p> <p>Beginning in FY2016, Rocket Hydra 70 Illum M257 will be procured under budget line AMMO-Hydra, Aviation Rocket Procurement, Unguided, APE E37412000.</p> <p>This is a training standard item used in both training and combat. The FY 2015 requests supports annual training and builds a war reserve inventory in accordance with the Army's procurement goals.</p>		



**UNCLASSIFIED**

<b>Exhibit P-40, Budget Line Item Justification:</b> PB 2016 Army		<b>Date:</b> February 2015
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2034A: Procurement of Ammunition, Army / BA 01: Ammunition / BSA 45: Rockets		<b>P-1 Line Item Number / Title:</b> E37300 / Rocket, Hydra 70, All Types
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : A	<b>Program Elements for Code B Items:</b>	<b>Other Related Program Elements:</b>
<p>AMMO-Hydra, Aviation Rocket Procurement, Unguided (E37412):</p> <p>The Hydra-70 Product Office is the procurement agent for all services, for all variants of 2.75 Rockets. This budget activity includes both training standard items and items that may be used in both training and combat. The FY 2015 requests supports annual training and builds a war reserve inventory in accordance with the Army's procurement goals. The Fiscal Year (FY) 2016 procurement supports annual training and builds a war reserve inventory in accordance with the Army's procurement goals. FY 2016 base procurement dollars in the amount of \$30.663 million will procure 16,257 Hydra-70 Rockets. FY 2016 Overseas Contingency Operations (OCO) procurement dollars in the amount of \$136,341 million will procure 109,407 Hydra-70 Rockets. The Army intends to convert any price advantage created through contract negotiations, other service procurement and/or Foreign Military Sales (FMS) into an increase of the Army's procurement of Hydra-70 Rockets. Pricing and quantities in FY 2016-2020 is uncertain due to an unknown Mk90 grain price planned for negotiation in FY2015. The P-40/P-5 estimates are based upon forecasted grain pricing and will be updated once a contract has been awarded.</p> <p>AMMO-Hydra, Aviation Rocket Procurement, Guided (E37413):</p> <p>The Fiscal Year (FY) 2016 procurement provides the Army the potential for achieving a precision engagement capability at a significantly reduced cost across its portfolio of armed helicopter rocket and missile munitions. The laser guided rocket is expected to provide an increased number of stowed kills per mission and reduce collateral damage. FY 2016 base funding in the amount of \$2.990 million will procure 99 guidance sections. The Army intends to convert any price advantage created through contract negotiations, other service procurements and/or Foreign Military Sales (FMS) into an increase of the Army's procurement of Hydra-70 Guided Rockets.</p> <p>Procurement funding is requested in FY 2016-FY 2020 in order to support further evaluation and theater requirements pending a decision on an enduring guided rocket capability.</p>		

**UNCLASSIFIED**

<b>Exhibit P-5, Cost Analysis: PB 2016 Army</b>		<b>Date:</b> February 2015
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2034A / 01 / 45	<b>P-1 Line Item Number / Title:</b> E37300 / Rocket, Hydra 70, All Types	<b>Item Number / Title [DODIC]:</b> E05302 / ROCKET HYDRA 70 FLECHETTE M255A1

<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : A	<b>MDAP/MAIS Code:</b>
---	------------------------

<b>Resource Summary</b>	<b>Prior Years</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016 Base</b>	<b>FY 2016 OCO</b>	<b>FY 2016 Total</b>
Procurement Quantity <i>(Units in Each)</i>	-	10,040	3,839	-	-	-
Gross/Weapon System Cost <i>(\$ in Millions)</i>	228.889	23.873	8.499	-	-	-
Less PY Advance Procurement <i>(\$ in Millions)</i>	-	-	-	-	-	-
Net Procurement (P1) <i>(\$ in Millions)</i>	228.889	23.873	8.499	-	-	-
Plus CY Advance Procurement <i>(\$ in Millions)</i>	-	-	-	-	-	-
<b>Total Obligation Authority</b> <i>(\$ in Millions)</i>	<b>228.889</b>	<b>23.873</b>	<b>8.499</b>	-	-	-

*(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)*

Initial Spares <i>(\$ in Millions)</i>	-	-	-	-	-	-
Gross/Weapon System Unit Cost <i>(\$ in Dollars)</i>	-	2,377.79	2,213.86	-	-	-

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or add, due to rounding.

<b>Cost Elements</b>	<b>Prior Years</b>			<b>FY 2014</b>			<b>FY 2015</b>			<b>FY 2016 Base</b>			<b>FY 2016 OCO</b>			<b>FY 2016 Total</b>		
	<b>Unit Cost</b> (\$)	<b>Qty</b> (Each)	<b>Total Cost</b> (\$ M)	<b>Unit Cost</b> (\$)	<b>Qty</b> (Each)	<b>Total Cost</b> (\$ M)	<b>Unit Cost</b> (\$)	<b>Qty</b> (Each)	<b>Total Cost</b> (\$ M)	<b>Unit Cost</b> (\$)	<b>Qty</b> (Each)	<b>Total Cost</b> (\$ M)	<b>Unit Cost</b> (\$)	<b>Qty</b> (Each)	<b>Total Cost</b> (\$ M)	<b>Unit Cost</b> (\$)	<b>Qty</b> (Each)	<b>Total Cost</b> (\$ M)
Flyaway Cost																		
Recurring Cost																		
Complete Round <sup>(†)</sup>	-	-	228.889	1,956.00	10,040	19.638	1,505.00	3,839	5.777	-	-	-	-	-	-	-	-	-
Prod/Sys Engineering/ Program Management	-	-	-	-	-	2.536	-	-	1.427	-	-	-	-	-	-	-	-	-
Component Eng Spt (Other Gov't Agencies)	-	-	-	-	-	1.699	-	-	1.294	-	-	-	-	-	-	-	-	-
<i>Subtotal: Recurring Cost</i>	-	-	<i>228.889</i>	-	-	<i>23.873</i>	-	-	<i>8.499</i>	-	-	-	-	-	-	-	-	-
<i>Subtotal: Flyaway Cost</i>	-	-	<i>228.889</i>	-	-	<i>23.873</i>	-	-	<i>8.499</i>	-	-	-	-	-	-	-	-	-
<b>Gross/Weapon System Cost</b>	-	-	<b>228.889</b>	<b>2,377.79</b>	<b>10,040</b>	<b>23.873</b>	<b>2,213.86</b>	<b>3,839</b>	<b>8.499</b>	-	-	-	-	-	-	-	-	-

<sup>(†)</sup> indicates the presence of a P-5a

**UNCLASSIFIED**

<b>Exhibit P-5a, Procurement History and Planning:</b> PB 2016 Army							<b>Date:</b> February 2015					
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2034A / 01 / 45			<b>P-1 Line Item Number / Title:</b> E37300 / Rocket, Hydra 70, All Types				<b>Item Number / Title [DODIC]:</b> E05302 / ROCKET HYDRA 70 FLECHETTE M255A1					
<b>Cost Elements</b>	<b>O C O</b>	<b>FY</b>	<b>Contractor and Location</b>	<b>Method/Type or Funding Vehicle</b>	<b>Location of PCO</b>	<b>Award Date</b>	<b>Date of First Delivery</b>	<b>Qty (Each)</b>	<b>Unit Cost (\$)</b>	<b>Specs Avail Now?</b>	<b>Date Revision Available</b>	<b>RFP Issue Date</b>
Complete Round <sup>(†)</sup>		2014	General Dynamics / Williston	SS / FFP	AMCOM, Redstone Arsenal, AL	Sep 2014	Mar 2016	10,040	1,956.00	Y		Apr 2013
Complete Round <sup>(†)</sup>		2015	General Dynamics / Williston	SS / FFP	AMCOM, Redstone Arsenal, AL	Mar 2015	Sep 2016	3,839	1,505.00	Y		Apr 2013

<sup>(†)</sup> indicates the presence of a P-21

**Remarks:**

Sole Source/Firm Fixed Price (SS/FFP)

FY 2015 is a contract option year.

**UNCLASSIFIED**

<b>Exhibit P-21, Production Schedule:</b> PB 2016 Army														<b>Date:</b> February 2015															
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2034A / 01 / 45							<b>P-1 Line Item Number / Title:</b> E37300 / Rocket, Hydra 70, All Types											<b>Item Number / Title [DODIC]:</b> E05302 / ROCKET HYDRA 70 FLECHETTE M255A1											

Cost Elements <i>(Units in Thousands)</i>						Fiscal Year 2014											Fiscal Year 2015														
O C C O	M F R #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2013	BAL DUE AS OF 1 OCT	Calendar Year 2014											Calendar Year 2015													
							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	B A L
Complete Round																															
	1	2014	ARMY	10.040	-	10.040												A	-	-	-	-	-	-	-	-	-	-	-	10.040	
	1	2015	ARMY	3.839	-	3.839																								3.839	
							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	B A L

**UNCLASSIFIED**

<b>Exhibit P-21, Production Schedule:</b> PB 2016 Army														<b>Date:</b> February 2015															
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2034A / 01 / 45										<b>P-1 Line Item Number / Title:</b> E37300 / Rocket, Hydra 70, All Types										<b>Item Number / Title [DODIC]:</b> E05302 / ROCKET HYDRA 70 FLECHETTE M255A1									

Cost Elements <i>(Units in Thousands)</i>						Fiscal Year 2016														Fiscal Year 2017														
O C C #	M F R #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2015	BAL DUE AS OF 1 OCT	Calendar Year 2016														Calendar Year 2017													
							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	B A L			
Complete Round																																		
1		2014	ARMY	10.040	-	10.040	-	-	-	-	-	-	-	-	-	1.008	-	1.008	1.008	1.008	1.008	-	-	1.000	1.000	1.000	1.000	1.000				-		
1		2015	ARMY	3.839	-	3.839	-	-	-	-	-	-	-	-	-	-	-	1.839	1.000	1.000													-	
							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	B A L			

**UNCLASSIFIED**

<b>Exhibit P-21, Production Schedule:</b> PB 2016 Army				<b>Date:</b> February 2015					
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2034A / 01 / 45			<b>P-1 Line Item Number / Title:</b> E37300 / Rocket, Hydra 70, All Types				<b>Item Number / Title [DODIC]:</b> E05302 / ROCKET HYDRA 70 FLECHETTE M255A1		

MFR Ref #	MFR Name - Location	Production Rates (Each / Month)			Procurement Leadtime (Months)							
		MSR For 2016	1-8-5 For 2016	MAX For 2016	Initial				Reorder			
					ALT Prior to Oct 1	ALT After Oct 1	Mfg PLT	Total After Oct 1	ALT Prior to Oct 1	ALT After Oct 1	Mfg PLT	Total After Oct 1
1	General Dynamics - Williston		5	10	6	7	22	29	6	5	18	23

**Remarks:**  
 Note: QTY EA for Delivery Schedule. Contractor minimum sustainment rate for the total of all variants is 80,000 rockets annually. The production rate shown in the table is a per variant monthly rate x 1000. Minimum production rate for MFR 1 is 300, database rounds down to 0. FY 2015 is a contract option year.

"A" in the Delivery Schedule indicates the Contract Award Date.  
 Note: Due to space limitations, quantities in the Exhibit P-21 delivery calendar are truncated and rounded based on the maximum quantity in the calendar as follows. If the maximum quantity is less than or equal to than 9,999, all quantities are shown as each. If the maximum quantity is between 10,000 and 999,999 all quantities are shown in thousands. If the maximum quantity is between 1,000,000 and 999,999,999 all quantities are shown in millions (rounded to the nearest thousand). If the maximum quantity is equal or greater than 1,000,000,000 all quantities are shown in billions (rounded to the nearest million).

**UNCLASSIFIED**

<b>Exhibit P-5, Cost Analysis: PB 2016 Army</b>		<b>Date:</b> February 2015
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2034A / 01 / 45	<b>P-1 Line Item Number / Title:</b> E37300 / Rocket, Hydra 70, All Types	<b>Item Number / Title [DODIC]:</b> E37308 / ROCKET SMOKE 2.75 M156 W/FUZE M423 W/MTR 66

<b>ID Code</b> (A=Service Ready, B=Not Service Ready) :	<b>MDAP/MAIS Code:</b>
---	------------------------

<b>Resource Summary</b>	<b>Prior Years</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016 Base</b>	<b>FY 2016 OCO</b>	<b>FY 2016 Total</b>
Procurement Quantity (Units in Each)	-	-	2,258	-	-	-
Gross/Weapon System Cost (\$ in Millions)	2.982	-	7.265	-	-	-
Less PY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
Net Procurement (P1) (\$ in Millions)	2.982	-	7.265	-	-	-
Plus CY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
<b>Total Obligation Authority (\$ in Millions)</b>	<b>2.982</b>	<b>-</b>	<b>7.265</b>	<b>-</b>	<b>-</b>	<b>-</b>

*(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)*

Initial Spares (\$ in Millions)	-	-	-	-	-	-
Gross/Weapon System Unit Cost (\$ in Dollars)	-	-	3,217.45	-	-	-

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or add, due to rounding.

<b>Cost Elements</b>	<b>Prior Years</b>			<b>FY 2014</b>			<b>FY 2015</b>			<b>FY 2016 Base</b>			<b>FY 2016 OCO</b>			<b>FY 2016 Total</b>		
	<b>Unit Cost (\$)</b>	<b>Qty (Each)</b>	<b>Total Cost (\$ M)</b>	<b>Unit Cost (\$)</b>	<b>Qty (Each)</b>	<b>Total Cost (\$ M)</b>	<b>Unit Cost (\$)</b>	<b>Qty (Each)</b>	<b>Total Cost (\$ M)</b>	<b>Unit Cost (\$)</b>	<b>Qty (Each)</b>	<b>Total Cost (\$ M)</b>	<b>Unit Cost (\$)</b>	<b>Qty (Each)</b>	<b>Total Cost (\$ M)</b>	<b>Unit Cost (\$)</b>	<b>Qty (Each)</b>	<b>Total Cost (\$ M)</b>
Flyaway Cost																		
Recurring Cost																		
Complete Round <sup>(†)</sup>	-	-	-	-	-	-	2,236.00	2,258	5.048	-	-	-	-	-	-	-	-	-
Prod/Sys Engineering/ Program Management	-	-	-	-	-	-	-	-	1.112	-	-	-	-	-	-	-	-	-
Component Eng Spt (Other Gov't Agencies)	-	-	2.982	-	-	-	-	-	1.104	-	-	-	-	-	-	-	-	-
<i>Subtotal: Recurring Cost</i>	-	-	2.982	-	-	-	-	-	7.265	-	-	-	-	-	-	-	-	-
<i>Subtotal: Flyaway Cost</i>	-	-	2.982	-	-	-	-	-	7.265	-	-	-	-	-	-	-	-	-
<b>Gross/Weapon System Cost</b>	-	-	<b>2.982</b>	-	-	-	<b>3,217.45</b>	<b>2,258</b>	<b>7.265</b>	-	-	-	-	-	-	-	-	-

<sup>(†)</sup> indicates the presence of a P-5a

**UNCLASSIFIED**

<b>Exhibit P-5a, Procurement History and Planning:</b> PB 2016 Army							<b>Date:</b> February 2015					
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2034A / 01 / 45			<b>P-1 Line Item Number / Title:</b> E37300 / Rocket, Hydra 70, All Types				<b>Item Number / Title [DODIC]:</b> E37308 / ROCKET SMOKE 2.75 M156 W/FUZE M423 W/MTR 66					
<b>Cost Elements</b>	<b>O C O</b>	<b>FY</b>	<b>Contractor and Location</b>	<b>Method/Type or Funding Vehicle</b>	<b>Location of PCO</b>	<b>Award Date</b>	<b>Date of First Delivery</b>	<b>Qty (Each)</b>	<b>Unit Cost (\$)</b>	<b>Specs Avail Now?</b>	<b>Date Revision Available</b>	<b>RFP Issue Date</b>
Complete Round <sup>(†)</sup>		2015	General Dynamics / Williston, VT	SS / FFP	AMCOM, Redstone Arsenal, AL	Mar 2015	Sep 2016	2,258	2,236.00	Y		Apr 2013

<sup>(†)</sup> indicates the presence of a P-21

**Remarks:**  
REMARKS: Sole Source/Firm Fixed Price (SS/FFP)  
  
FY 2015 is a contract option year.





**UNCLASSIFIED**

<b>Exhibit P-21, Production Schedule:</b> PB 2016 Army		<b>Date:</b> February 2015
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2034A / 01 / 45		<b>P-1 Line Item Number / Title:</b> E37300 / Rocket, Hydra 70, All Types
		<b>Item Number / Title [DODIC]:</b> E37308 / ROCKET SMOKE 2.75 M156 W/FUZE M423 W/MTR 66

MFR Ref #	MFR Name - Location	Production Rates (Each / Month)			Procurement Leadtime (Months)							
		MSR For 2016	1-8-5 For 2016	MAX For 2016	Initial				Reorder			
					ALT Prior to Oct 1	ALT After Oct 1	Mfg PLT	Total After Oct 1	ALT Prior to Oct 1	ALT After Oct 1	Mfg PLT	Total After Oct 1
1	General Dynamics - Williston, VT		5	10	6	7	22	29	6	5	18	23

**Remarks:**  
 Note: QTY EA for Delivery Schedule. Contractor minimum sustainment rate for the total of all variants is 80,000 rockets annually. The production rate shown in the table is a per variant monthly rate x 1000. Minimum production rate for MFR 1 is 300, database rounds down to 0. FY 2015 is a contract option year.

"A" in the Delivery Schedule indicates the Contract Award Date.  
 Note: Due to space limitations, quantities in the Exhibit P-21 delivery calendar are truncated and rounded based on the maximum quantity in the calendar as follows. If the maximum quantity is less than or equal to than 9,999, all quantities are shown as each. If the maximum quantity is between 10,000 and 999,999 all quantities are shown in thousands. If the maximum quantity is between 1,000,000 and 999,999,999 all quantities are shown in millions (rounded to the nearest thousand). If the maximum quantity is equal or greater than 1,000,000,000 all quantities are shown in billions (rounded to the nearest million).

**UNCLASSIFIED**

<b>Exhibit P-40a, Budget Item Justification For Aggregated Items:</b> PB 2016 Army															<b>Date:</b> February 2015				
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2034A / 01 / 45						<b>P-1 Line Item Number / Title:</b> E37300 / Rocket, Hydra 70, All Types									<b>Aggregated Items Title:</b> Various				

Note: Subtotals or Totals in this Exhibit P-40a may not be exact or add, due to rounding.

Item Number / Title [DODIC]	ID CD	MDAP/MAIS Code	Prior Years			FY 2014			FY 2015			FY 2016 Base			FY 2016 OCO			FY 2016 Total		
			Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)
<b>Rocket Hydra, Guidance Section</b>																				
E37315 / Rocket Hydra, Guidance Section			-	-	-	-	-	-	29,429.63	135	3.973	-	-	-	-	-	-	-	-	-
E37330 / ROCKET HYDRA 70 SMOKE M264			-	-	26.892	-	-	-	3,874.81	671	2.600	-	-	-	-	-	-	-	-	-
E37413 / AMMO-Hydra, Aviation Rocket Procurement, Guided			-	-	-	-	-	-	-	-	-	30,202.02	99	2.990	-	-	-	30,202.02	99	2.990
<i>Subtotal: Rocket Hydra, Guidance Section</i>			-	-	26.892	-	-	-	-	-	6.573	-	-	2.990	-	-	-	-	-	2.990
<b>Total</b>			-	-	26.892	-	-	-	-	-	6.573	-	-	2.990	-	-	-	-	-	2.990

**UNCLASSIFIED**

<b>Exhibit P-5, Cost Analysis: PB 2016 Army</b>		<b>Date:</b> February 2015
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2034A / 01 / 45	<b>P-1 Line Item Number / Title:</b> E37300 / Rocket, Hydra 70, All Types	<b>Item Number / Title [DODIC]:</b> E37335 / ROCKET HYDRA 70 HE/PD M151/M423

<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : A	<b>MDAP/MAIS Code:</b>
---	------------------------

<b>Resource Summary</b>	<b>Prior Years</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016 Base</b>	<b>FY 2016 OCO</b>	<b>FY 2016 Total</b>
Procurement Quantity (Units in Each)	-	10,080	23,857	-	-	-
Gross/Weapon System Cost (\$ in Millions)	239.668	21.205	43.724	-	-	-
Less PY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
Net Procurement (P1) (\$ in Millions)	239.668	21.205	43.724	-	-	-
Plus CY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
<b>Total Obligation Authority (\$ in Millions)</b>	<b>239.668</b>	<b>21.205</b>	<b>43.724</b>	<b>-</b>	<b>-</b>	<b>-</b>

*(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)*

Initial Spares (\$ in Millions)	-	-	-	-	-	-
Gross/Weapon System Unit Cost (\$ in Dollars)	-	2,103.67	1,832.75	-	-	-

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or add, due to rounding.

<b>Cost Elements</b>	<b>Prior Years</b>			<b>FY 2014</b>			<b>FY 2015</b>			<b>FY 2016 Base</b>			<b>FY 2016 OCO</b>			<b>FY 2016 Total</b>		
	<b>Unit Cost (\$)</b>	<b>Qty (Each)</b>	<b>Total Cost (\$ M)</b>	<b>Unit Cost (\$)</b>	<b>Qty (Each)</b>	<b>Total Cost (\$ M)</b>	<b>Unit Cost (\$)</b>	<b>Qty (Each)</b>	<b>Total Cost (\$ M)</b>	<b>Unit Cost (\$)</b>	<b>Qty (Each)</b>	<b>Total Cost (\$ M)</b>	<b>Unit Cost (\$)</b>	<b>Qty (Each)</b>	<b>Total Cost (\$ M)</b>	<b>Unit Cost (\$)</b>	<b>Qty (Each)</b>	<b>Total Cost (\$ M)</b>
Flyaway Cost																		
Recurring Cost																		
Complete Round <sup>(†)</sup>	-	-	239.668	1,683.00	10,080	16.964	1,150.00	23,857	27.436	-	-	-	-	-	-	-	-	-
Prod/Sys Engineering/ Program Management	-	-	-	-	-	2.539	-	-	8.544	-	-	-	-	-	-	-	-	-
Component Eng Spt (Other Gov't Agencies)	-	-	-	-	-	1.701	-	-	7.744	-	-	-	-	-	-	-	-	-
<i>Subtotal: Recurring Cost</i>	-	-	239.668	-	-	21.205	-	-	43.724	-	-	-	-	-	-	-	-	-
<i>Subtotal: Flyaway Cost</i>	-	-	239.668	-	-	21.205	-	-	43.724	-	-	-	-	-	-	-	-	-
<b>Gross/Weapon System Cost</b>	-	-	<b>239.668</b>	<b>2,103.67</b>	<b>10,080</b>	<b>21.205</b>	<b>1,832.75</b>	<b>23,857</b>	<b>43.724</b>	-	-	-	-	-	-	-	-	-

<sup>(†)</sup> indicates the presence of a P-5a

**UNCLASSIFIED**

<b>Exhibit P-5a, Procurement History and Planning:</b> PB 2016 Army							<b>Date:</b> February 2015					
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2034A / 01 / 45			<b>P-1 Line Item Number / Title:</b> E37300 / Rocket, Hydra 70, All Types				<b>Item Number / Title [DODIC]:</b> E37335 / ROCKET HYDRA 70 HE/PD M151/M423					

Cost Elements	O C O	FY	Contractor and Location	Method/Type or Funding Vehicle	Location of PCO	Award Date	Date of First Delivery	Qty <i>(Each)</i>	Unit Cost <i>(\$)</i>	Specs Avail Now?	Date Revision Available	RFP Issue Date
Complete Round <sup>(†)</sup>		2014	General Dynamics / Williston	SS / FFP	AMCOM, Redstone Arsenal, AL	Sep 2014	Mar 2016	10,080	1,683.00	Y		Apr 2013
Complete Round <sup>(†)</sup>		2015	General Dynamics / Williston	SS / FFP	AMCOM, Redstone Arsenal, AL	Mar 2015	Sep 2016	23,857	1,150.00	Y		Apr 2013

<sup>(†)</sup> indicates the presence of a P-21

**Remarks:**

Sole Source/Firm Fixed Price (SS/FFP)

FY 15 is a contract option year.



**UNCLASSIFIED**

<b>Exhibit P-21, Production Schedule:</b> PB 2016 Army															<b>Date:</b> February 2015														
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2034A / 01 / 45										<b>P-1 Line Item Number / Title:</b> E37300 / Rocket, Hydra 70, All Types										<b>Item Number / Title [DODIC]:</b> E37335 / ROCKET HYDRA 70 HE/PD M151/M423									

Cost Elements <i>(Units in Thousands)</i>						Fiscal Year 2016												Fiscal Year 2017															
O C C O	M F R #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2015	BAL DUE AS OF 1 OCT	Calendar Year 2016												Calendar Year 2017														
							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	B A L		
Complete Round																																	
	1	2014	ARMY	10.080	-	10.080	-	-	-	-	-	-	1.008	-	1.008	1.008	1.008	1.008	1.008	1.008	1.008	1.008	1.008	1.008	1.008	1.008	1.008	1.008	1.008	-	-		
	1	2015	ARMY	23.857	-	23.857	-	-	-	-	-	-	-	-	-	2.857	2.000	2.000	2.000	2.000	2.000	2.000	2.000	2.000	2.000	2.000	2.000	2.000	2.000	1.000	-	-	
	1	2015	FMS (†)	21.648	-	21.648	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.776	-	-	-	-	-	-	19.872
	1	2015	<b>Total</b>	<b>45.505</b>	-	<b>45.505</b>	-	-	-	-	-	-	-	-	-	<b>2.857</b>	<b>2.000</b>	<b>2.000</b>	<b>2.000</b>	<b>2.000</b>	<b>2.000</b>	<b>2.000</b>	<b>2.000</b>	<b>2.000</b>	<b>3.776</b>	<b>2.000</b>	<b>2.000</b>	<b>2.000</b>	<b>2.000</b>	<b>1.000</b>	-	<b>19.872</b>	
							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	B A L		





**UNCLASSIFIED**

<b>Exhibit P-21, Production Schedule:</b> PB 2016 Army				<b>Date:</b> February 2015					
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2034A / 01 / 45			<b>P-1 Line Item Number / Title:</b> E37300 / Rocket, Hydra 70, All Types				<b>Item Number / Title [DODIC]:</b> E37335 / ROCKET HYDRA 70 HE/PD M151/M423		

MFR Ref #	MFR Name - Location	Production Rates (Each / Month)			Procurement Leadtime (Months)							
		MSR For 2016	1-8-5 For 2016	MAX For 2016	Initial				Reorder			
					ALT Prior to Oct 1	ALT After Oct 1	Mfg PLT	Total After Oct 1	ALT Prior to Oct 1	ALT After Oct 1	Mfg PLT	Total After Oct 1
1	General Dynamics - Williston		15	30	6	7	22	29	6	5	18	23

**Remarks:**  
 Note: QTY EA for Delivery Schedule. Contractor minimum sustainment rate for the total of all variants is 80,000 rockets annually. The production rate shown in the table is a per variant monthly rate x 1000. Minimum production rate for MFR 1 is 300, database rounds down to 0. FY 2015 is a contract option year.

(\*) Delivery rows marked with this symbol indicate that they are funded through a separate Line Item. See the respective components' exhibits for details, including the full delivery schedule.

"A" in the Delivery Schedule indicates the Contract Award Date.

Note: Due to space limitations, quantities in the Exhibit P-21 delivery calendar are truncated and rounded based on the maximum quantity in the calendar as follows. If the maximum quantity is less than or equal to than 9,999, all quantities are shown as each. If the maximum quantity is between 10,000 and 999,999 all quantities are shown in thousands. If the maximum quantity is between 1,000,000 and 999,999,999 all quantities are shown in millions (rounded to the nearest thousand). If the maximum quantity is equal or greater than 1,000,000,000 all quantities are shown in billions (rounded to the nearest million).

**UNCLASSIFIED**

<b>Exhibit P-5, Cost Analysis: PB 2016 Army</b>		<b>Date:</b> February 2015
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2034A / 01 / 45	<b>P-1 Line Item Number / Title:</b> E37300 / Rocket, Hydra 70, All Types	<b>Item Number / Title [DODIC]:</b> E37337 / ROCKET HYDRA 70 SIG PRAC M274

<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : A	<b>MDAP/MAIS Code:</b>
---	------------------------

<b>Resource Summary</b>	<b>Prior Years</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016 Base</b>	<b>FY 2016 OCO</b>	<b>FY 2016 Total</b>
Procurement Quantity ( <i>Units in Each</i> )	-	74,592	4,389	-	-	-
Gross/Weapon System Cost ( <i>\$ in Millions</i> )	1,572.854	92.157	9.037	-	-	-
Less PY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-
Net Procurement (P1) ( <i>\$ in Millions</i> )	1,572.854	92.157	9.037	-	-	-
Plus CY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-
<b>Total Obligation Authority</b> ( <i>\$ in Millions</i> )	<b>1,572.854</b>	<b>92.157</b>	<b>9.037</b>	-	-	-

*(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)*

Initial Spares ( <i>\$ in Millions</i> )	-	-	-	-	-	-
Gross/Weapon System Unit Cost ( <i>\$ in Dollars</i> )	-	1,235.48	2,059.01	-	-	-

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or add, due to rounding.

<b>Cost Elements</b>	<b>Prior Years</b>			<b>FY 2014</b>			<b>FY 2015</b>			<b>FY 2016 Base</b>			<b>FY 2016 OCO</b>			<b>FY 2016 Total</b>		
	<b>Unit Cost</b> (\$)	<b>Qty</b> (Each)	<b>Total Cost</b> (\$ M)	<b>Unit Cost</b> (\$)	<b>Qty</b> (Each)	<b>Total Cost</b> (\$ M)	<b>Unit Cost</b> (\$)	<b>Qty</b> (Each)	<b>Total Cost</b> (\$ M)	<b>Unit Cost</b> (\$)	<b>Qty</b> (Each)	<b>Total Cost</b> (\$ M)	<b>Unit Cost</b> (\$)	<b>Qty</b> (Each)	<b>Total Cost</b> (\$ M)	<b>Unit Cost</b> (\$)	<b>Qty</b> (Each)	<b>Total Cost</b> (\$ M)
Flyaway Cost																		
Recurring Cost																		
Complete Round <sup>(†)</sup>	-	-	1,572.854	1,033.00	74,592	77.053	1,134.00	4,389	4.977	-	-	-	-	-	-	-	-	-
Prod/Sys Engineering/ Program Management	-	-	-	-	-	5.957	-	-	2.128	-	-	-	-	-	-	-	-	-
Component Eng Spt (Other Gov't Agencies)	-	-	-	-	-	9.146	-	-	1.932	-	-	-	-	-	-	-	-	-
<i>Subtotal: Recurring Cost</i>	-	-	<i>1,572.854</i>	-	-	<i>92.157</i>	-	-	<i>9.037</i>	-	-	-	-	-	-	-	-	-
<i>Subtotal: Flyaway Cost</i>	-	-	<i>1,572.854</i>	-	-	<i>92.157</i>	-	-	<i>9.037</i>	-	-	-	-	-	-	-	-	-
<b>Gross/Weapon System Cost</b>	-	-	<b>1,572.854</b>	<b>1,235.48</b>	<b>74,592</b>	<b>92.157</b>	<b>2,059.01</b>	<b>4,389</b>	<b>9.037</b>	-	-	-	-	-	-	-	-	-

<sup>(†)</sup> indicates the presence of a P-5a

**UNCLASSIFIED**

<b>Exhibit P-5a, Procurement History and Planning:</b> PB 2016 Army							<b>Date:</b> February 2015					
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2034A / 01 / 45			<b>P-1 Line Item Number / Title:</b> E37300 / Rocket, Hydra 70, All Types				<b>Item Number / Title [DODIC]:</b> E37337 / ROCKET HYDRA 70 SIG PRAC M274					
Cost Elements	O C O	FY	Contractor and Location	Method/Type or Funding Vehicle	Location of PCO	Award Date	Date of First Delivery	Qty <i>(Each)</i>	Unit Cost <i>(\$)</i>	Specs Avail Now?	Date Revision Available	RFP Issue Date
Complete Round <sup>(†)</sup>		2014	General Dynamics / Williston	SS / FFP	AMCOM, Redstone Arsenal, AL	Sep 2014	Mar 2016	74,592	1,033.00	Y		Apr 2013
Complete Round <sup>(†)</sup>		2015	General Dynamics / Williston	SS / FFP	AMCOM, Redstone Arsenal, AL	Mar 2015	Sep 2016	4,389	1,134.00	Y		Apr 2013

<sup>(†)</sup> indicates the presence of a P-21

**Remarks:**

Sole Source/Firm Fixed Price (SS/FFP)

FY 2015 is a contract option year.

**UNCLASSIFIED**

<b>Exhibit P-21, Production Schedule:</b> PB 2016 Army															<b>Date:</b> February 2015														
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2034A / 01 / 45										<b>P-1 Line Item Number / Title:</b> E37300 / Rocket, Hydra 70, All Types										<b>Item Number / Title [DODIC]:</b> E37337 / ROCKET HYDRA 70 SIG PRAC M274									

Cost Elements <i>(Units in Thousands)</i>						Fiscal Year 2014												Fiscal Year 2015														
O C C #	M F R #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2013	BAL DUE AS OF 1 OCT	Calendar Year 2014												Calendar Year 2015												B A L	
							O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P		
Complete Round																																
	1	2014	ARMY <sup>(I)</sup>	74.592	-	74.592													A	-	-	-	-	-	-	-	-	-	-	-	-	74.592
	1	2015	ARMY <sup>(II)</sup>	4.389	-	4.389																										4.389
							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	B A L	

**UNCLASSIFIED**

<b>Exhibit P-21, Production Schedule:</b> PB 2016 Army															<b>Date:</b> February 2015														
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2034A / 01 / 45										<b>P-1 Line Item Number / Title:</b> E37300 / Rocket, Hydra 70, All Types										<b>Item Number / Title [DODIC]:</b> E37337 / ROCKET HYDRA 70 SIG PRAC M274									

Cost Elements <i>(Units in Thousands)</i>						Fiscal Year 2016												Fiscal Year 2017													
O C C #	M F R #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2015	BAL DUE AS OF 1 OCT	Calendar Year 2016												Calendar Year 2017												
							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	B A L
Complete Round																															
	1	2014	ARMY (I)	74.592	-	74.592	-	-	-	-	-	-	-	-	6.000	-	7.008	7.008	7.008	7.728	8.880	-	6.000	6.000	6.000	6.000	6.960	-			
	1	2015	ARMY (II)	4.389	-	4.389	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.389	1.000	1.000								
							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	B A L

**UNCLASSIFIED**

<b>Exhibit P-21, Production Schedule:</b> PB 2016 Army				<b>Date:</b> February 2015					
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2034A / 01 / 45			<b>P-1 Line Item Number / Title:</b> E37300 / Rocket, Hydra 70, All Types				<b>Item Number / Title [DODIC]:</b> E37337 / ROCKET HYDRA 70 SIG PRAC M274		

MFR Ref #	MFR Name - Location	Production Rates (Each / Month)			Procurement Leadtime (Months)							
		MSR For 2016	1-8-5 For 2016	MAX For 2016	Initial				Reorder			
					ALT Prior to Oct 1	ALT After Oct 1	Mfg PLT	Total After Oct 1	ALT Prior to Oct 1	ALT After Oct 1	Mfg PLT	Total After Oct 1
1	General Dynamics - Williston		25	35	6	7	22	29	6	5	18	23

**Remarks:**  
 Note: QTY EA for Delivery Schedule. Contractor minimum sustainment rate for the total of all variants is 80,000 rockets annually. The production rate shown in the table is a per variant monthly rate x 1000. Minimum production rate for MFR 1 is 300, database rounds down to 0. FY 2015 is a contract option year.

"A" in the Delivery Schedule indicates the Contract Award Date.  
 Note: Due to space limitations, quantities in the Exhibit P-21 delivery calendar are truncated and rounded based on the maximum quantity in the calendar as follows. If the maximum quantity is less than or equal to than 9,999, all quantities are shown as each. If the maximum quantity is between 10,000 and 999,999 all quantities are shown in thousands. If the maximum quantity is between 1,000,000 and 999,999,999 all quantities are shown in millions (rounded to the nearest thousand). If the maximum quantity is equal or greater than 1,000,000,000 all quantities are shown in billions (rounded to the nearest million).

**Service/Agency Suffixes:**  
 (I) BASE  
 (II) BASE

**UNCLASSIFIED**

<b>Exhibit P-5, Cost Analysis: PB 2016 Army</b>		<b>Date:</b> February 2015
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2034A / 01 / 45		<b>P-1 Line Item Number / Title:</b> E37300 / Rocket, Hydra 70, All Types
		<b>Item Number / Title [DODIC]:</b> E37338 / Rocket, Hydra 70, Flare Infrared (IR) M278

<b>ID Code</b> (A=Service Ready, B=Not Service Ready) :	<b>MDAP/MAIS Code:</b>
---	------------------------

Resource Summary	Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total
Procurement Quantity (Units in Each)	-	-	3,132	-	-	-
Gross/Weapon System Cost (\$ in Millions)	52.329	-	13.372	-	-	-
Less PY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
Net Procurement (P1) (\$ in Millions)	52.329	-	13.372	-	-	-
Plus CY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
<b>Total Obligation Authority (\$ in Millions)</b>	<b>52.329</b>	<b>-</b>	<b>13.372</b>	<b>-</b>	<b>-</b>	<b>-</b>

*(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)*

Initial Spares (\$ in Millions)	-	-	-	-	-	-
Gross/Weapon System Unit Cost (\$ in Dollars)	-	-	4,269.48	-	-	-

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or add, due to rounding.

Cost Elements	Prior Years			FY 2014			FY 2015			FY 2016 Base			FY 2016 OCO			FY 2016 Total		
	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)
Flyaway Cost																		
Recurring Cost																		
Complete Round <sup>(†)</sup>	-	-	52.329	-	-	-	3,551.00	3,132	11.121	-	-	-	-	-	-	-	-	-
Prod/Sys Engineering/Program Management	-	-	-	-	-	-	-	-	1.180	-	-	-	-	-	-	-	-	-
Component Eng Spt (Other Gov't Agencies)	-	-	-	-	-	-	-	-	1.070	-	-	-	-	-	-	-	-	-
<i>Subtotal: Recurring Cost</i>	-	-	52.329	-	-	-	-	-	13.372	-	-	-	-	-	-	-	-	-
<i>Subtotal: Flyaway Cost</i>	-	-	52.329	-	-	-	-	-	13.372	-	-	-	-	-	-	-	-	-
<b>Gross/Weapon System Cost</b>	-	-	<b>52.329</b>	-	-	-	<b>4,269.48</b>	<b>3,132</b>	<b>13.372</b>	-	-	-	-	-	-	-	-	-

<sup>(†)</sup> indicates the presence of a P-5a

**UNCLASSIFIED**

<b>Exhibit P-5a, Procurement History and Planning:</b> PB 2016 Army							<b>Date:</b> February 2015					
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2034A / 01 / 45			<b>P-1 Line Item Number / Title:</b> E37300 / Rocket, Hydra 70, All Types				<b>Item Number / Title [DODIC]:</b> E37338 / Rocket, Hydra 70, Flare Infrared (IR) M278					
Cost Elements	O C O	FY	Contractor and Location	Method/Type or Funding Vehicle	Location of PCO	Award Date	Date of First Delivery	Qty <i>(Each)</i>	Unit Cost <i>(\$)</i>	Specs Avail Now?	Date Revision Available	RFP Issue Date
Complete Round <sup>(†)</sup>		2015	General Dynamics / Williston, VT	SS / FFP	AMCOM, Redstone Arsenal, AL	Mar 2015	Sep 2016	3,132	3,551.00	Y		Apr 2013

<sup>(†)</sup> indicates the presence of a P-21

**Remarks:**  
Sole Source/Firm Fixed Price (SS/FFP)



**UNCLASSIFIED**

<b>Exhibit P-21, Production Schedule:</b> PB 2016 Army																							<b>Date:</b> February 2015										
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2034A / 01 / 45										<b>P-1 Line Item Number / Title:</b> E37300 / Rocket, Hydra 70, All Types										<b>Item Number / Title [DODIC]:</b> E37338 / Rocket, Hydra 70, Flare Infrared (IR) M278													
<b>Cost Elements</b> <i>(Units in Thousands)</i>						<b>Fiscal Year 2015</b>													<b>Fiscal Year 2016</b>														
O C C O	M F R #	FY	SERVICE	PROC QTY	ACCEP T P R I O R T O 1 O C T 2 0 1 4	BAL D U E A S O F 1 O C T	<b>Calendar Year 2015</b>													<b>Calendar Year 2016</b>													
							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	B A L		
Complete Round																																	
	1	2015	ARMY	3.132	-	3.132									A	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.132	1.000		
							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	B A L		

UNCLASSIFIED

<b>Exhibit P-21, Production Schedule:</b> PB 2016 Army															<b>Date:</b> February 2015														
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2034A / 01 / 45										<b>P-1 Line Item Number / Title:</b> E37300 / Rocket, Hydra 70, All Types										<b>Item Number / Title [DODIC]:</b> E37338 / Rocket, Hydra 70, Flare Infrared (IR) M278									

Cost Elements <i>(Units in Thousands)</i>					Fiscal Year 2017												Fiscal Year 2018													
O C O	M F R #	FY	SERVICE	PROC QTY	ACCEP T PRIOR TO 1 OCT 2016	BAL DUE AS OF 1 OCT	Calendar Year 2017												Calendar Year 2018											
							O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P
Complete Round																														
	1	2015	ARMY	3.132	2.132	1.000	1.000																					-		

**UNCLASSIFIED**

<b>Exhibit P-21, Production Schedule:</b> PB 2016 Army		<b>Date:</b> February 2015
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2034A / 01 / 45		<b>P-1 Line Item Number / Title:</b> E37300 / Rocket, Hydra 70, All Types
		<b>Item Number / Title [DODIC]:</b> E37338 / Rocket, Hydra 70, Flare Infrared (IR) M278

MFR Ref #	MFR Name - Location	Production Rates (Each / Month)			Procurement Leadtime (Months)							
		MSR For 2016	1-8-5 For 2016	MAX For 2016	Initial				Reorder			
					ALT Prior to Oct 1	ALT After Oct 1	Mfg PLT	Total After Oct 1	ALT Prior to Oct 1	ALT After Oct 1	Mfg PLT	Total After Oct 1
1	General Dynamics - Williston, VT		15	25	6	7	22	29	6	3	18	21

**Remarks:**  
 Note: QTY EA for Delivery Schedule. Contractor minimum sustainment rate for the total of all variants is 80,000 rockets annually. The production rate shown in the table is a per variant monthly rate x 1000. Minimum production rate for MFR 1 is 300, database rounds down to 0. FY 2015 is a contract option year.

"A" in the Delivery Schedule indicates the Contract Award Date.  
 Note: Due to space limitations, quantities in the Exhibit P-21 delivery calendar are truncated and rounded based on the maximum quantity in the calendar as follows. If the maximum quantity is less than or equal to than 9,999, all quantities are shown as each. If the maximum quantity is between 10,000 and 999,999 all quantities are shown in thousands. If the maximum quantity is between 1,000,000 and 999,999,999 all quantities are shown in millions (rounded to the nearest thousand). If the maximum quantity is equal or greater than 1,000,000,000 all quantities are shown in billions (rounded to the nearest million).

**UNCLASSIFIED**

<b>Exhibit P-5, Cost Analysis: PB 2016 Army</b>		<b>Date:</b> February 2015
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2034A / 01 / 45	<b>P-1 Line Item Number / Title:</b> E37300 / Rocket, Hydra 70, All Types	<b>Item Number / Title [DODIC]:</b> E37412 / AMMO-Hydra, Aviation Rocket Procurement, Unguided

<b>ID Code</b> (A=Service Ready, B=Not Service Ready) :	<b>MDAP/MAIS Code:</b>
---	------------------------

<b>Resource Summary</b>	<b>Prior Years</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016 Base</b>	<b>FY 2016 OCO</b>	<b>FY 2016 Total</b>
Procurement Quantity ( <i>Units in Each</i> )	-	-	-	16,257	109,407	125,664
Gross/Weapon System Cost ( <i>\$ in Millions</i> )	-	-	-	30.663	136.341	167.004
Less PY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-
Net Procurement (P1) ( <i>\$ in Millions</i> )	-	-	-	30.663	136.341	167.004
Plus CY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-
<b>Total Obligation Authority</b> ( <i>\$ in Millions</i> )	-	-	-	<b>30.663</b>	<b>136.341</b>	<b>167.004</b>

*(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)*

Initial Spares ( <i>\$ in Millions</i> )	-	-	-	-	-	-
Gross/Weapon System Unit Cost ( <i>\$ in Dollars</i> )	-	-	-	1,886.14	1,246.18	1,328.97

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or add, due to rounding.

<b>Cost Elements</b>	<b>Prior Years</b>			<b>FY 2014</b>			<b>FY 2015</b>			<b>FY 2016 Base</b>			<b>FY 2016 OCO</b>			<b>FY 2016 Total</b>		
	<b>Unit Cost</b> (\$)	<b>Qty</b> (Each)	<b>Total Cost</b> (\$ M)	<b>Unit Cost</b> (\$)	<b>Qty</b> (Each)	<b>Total Cost</b> (\$ M)	<b>Unit Cost</b> (\$)	<b>Qty</b> (Each)	<b>Total Cost</b> (\$ M)	<b>Unit Cost</b> (\$)	<b>Qty</b> (Each)	<b>Total Cost</b> (\$ M)	<b>Unit Cost</b> (\$)	<b>Qty</b> (Each)	<b>Total Cost</b> (\$ M)	<b>Unit Cost</b> (\$)	<b>Qty</b> (Each)	<b>Total Cost</b> (\$ M)
Flyaway Cost																		
Recurring Cost																		
Complete Round <sup>(†)</sup>	-	-	-	-	-	-	-	-	-	1,191.98	16,257	19.378	1,072.00	109,407	117.284	1,087.52	125,664	136.662
Prod/Sys Engineering/ Program Management	-	-	-	-	-	-	-	-	-	-	-	5.577	-	-	9.837	-	-	15.414
Component Eng Spt (Other Gov't Agencies)	-	-	-	-	-	-	-	-	-	-	-	5.708	-	-	9.220	-	-	14.928
<i>Subtotal: Recurring Cost</i>	-	-	-	-	-	-	-	-	-	-	-	30.663	-	-	136.341	-	-	167.004
<i>Subtotal: Flyaway Cost</i>	-	-	-	-	-	-	-	-	-	-	-	30.663	-	-	136.341	-	-	167.004
<b>Gross/Weapon System Cost</b>	-	-	-	-	-	-	-	-	-	<b>1,886.14</b>	<b>16,257</b>	<b>30.663</b>	<b>1,246.18</b>	<b>109,407</b>	<b>136.341</b>	<b>1,328.97</b>	<b>125,664</b>	<b>167.004</b>

<sup>(†)</sup> indicates the presence of a P-5a

**UNCLASSIFIED**

<b>Exhibit P-5a, Procurement History and Planning:</b> PB 2016 Army							<b>Date:</b> February 2015					
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2034A / 01 / 45			<b>P-1 Line Item Number / Title:</b> E37300 / Rocket, Hydra 70, All Types				<b>Item Number / Title [DODIC]:</b> E37412 / AMMO-Hydra, Aviation Rocket Procurement, Unguided					

Cost Elements	O C O	FY	Contractor and Location	Method/Type or Funding Vehicle	Location of PCO	Award Date	Date of First Delivery	Qty <i>(Each)</i>	Unit Cost <i>(\$)</i>	Specs Avail Now?	Date Revision Available	RFP Issue Date
Complete Round <sup>(†)</sup>		2016	General Dynamics / Williston, VT	SS / FFP	Base	Mar 2016	Sep 2017	16,257	1.19	Y		Apr 2013
Complete Round <sup>(†)</sup>		2016	Gen Dynamics / Williston, VT	SS / FFP	OCO	Mar 2016	Sep 2017	109,407	1.07	Y		Apr 2013

<sup>(†)</sup> indicates the presence of a P-21

**Remarks:**  
REMARKS: Sole Source/Firm Fixed Price (SS/FFP)

FY 2016, is contract option year.

**UNCLASSIFIED**

<b>Exhibit P-21, Production Schedule:</b> PB 2016 Army																<b>Date:</b> February 2015																	
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2034A / 01 / 45										<b>P-1 Line Item Number / Title:</b> E37300 / Rocket, Hydra 70, All Types										<b>Item Number / Title [DODIC]:</b> E37412 / AMMO-Hydra, Aviation Rocket Procurement, Unguided													

Cost Elements <i>(Units in Thousands)</i>						Fiscal Year 2016														Fiscal Year 2017															
O C C O	M F R #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2015	BAL DUE AS OF 1 OCT	Calendar Year 2016														Calendar Year 2017														
							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	B A L				
Complete Round																																			
	1	2016	ARMY (III)	16.257	-	16.257											A	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.257	14.000
	2	2016	ARMY (IV)	109.407	-	109.407											A	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	10.407	99.000
							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	B A L				

**UNCLASSIFIED**

<b>Exhibit P-21, Production Schedule:</b> PB 2016 Army															<b>Date:</b> February 2015														
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2034A / 01 / 45										<b>P-1 Line Item Number / Title:</b> E37300 / Rocket, Hydra 70, All Types										<b>Item Number / Title [DODIC]:</b> E37412 / AMMO-Hydra, Aviation Rocket Procurement, Unguided									

Cost Elements <i>(Units in Thousands)</i>					Fiscal Year 2018												Fiscal Year 2019														
O C C #	M F R #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2017	BAL DUE AS OF 1 OCT	Calendar Year 2018												Calendar Year 2019												
							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	B A L
Complete Round																															
	1	2016	ARMY (III)	16.257	2.257	14.000	2.000	2.000	2.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000													-	
	2	2016	ARMY (IV)	109.407	10.407	99.000	9.000	9.000	9.000	9.000	9.000	9.000	9.000	9.000	9.000	9.000	9.000													-	
							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	B A L

**UNCLASSIFIED**

<b>Exhibit P-21, Production Schedule:</b> PB 2016 Army		<b>Date:</b> February 2015
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2034A / 01 / 45		<b>P-1 Line Item Number / Title:</b> E37300 / Rocket, Hydra 70, All Types
		<b>Item Number / Title [DODIC]:</b> E37412 / AMMO-Hydra, Aviation Rocket Procurement, Unguided

MFR Ref #	MFR Name - Location	Production Rates (Each / Month)			Procurement Leadtime (Months)							
		MSR For 2016	1-8-5 For 2016	MAX For 2016	Initial				Reorder			
					ALT Prior to Oct 1	ALT After Oct 1	Mfg PLT	Total After Oct 1	ALT Prior to Oct 1	ALT After Oct 1	Mfg PLT	Total After Oct 1
1	General Dynamics - Williston, VT	300	25,000	35,000	6	7	22	29	6	5	18	23
2	Gen Dynamics - Williston, VT	300	25,000	35,000	6	7	22	29	6	5	18	23

**Remarks:**  
 Note: QTY EA for Delivery Schedule. Contractor minimum sustainment rate for the total of all variants is 80,000 rockets annually. FY 2016, 2017 and 2018 are contract option years.

"A" in the Delivery Schedule indicates the Contract Award Date.  
 Note: Due to space limitations, quantities in the Exhibit P-21 delivery calendar are truncated and rounded based on the maximum quantity in the calendar as follows. If the maximum quantity is less than or equal to than 9,999, all quantities are shown as each. If the maximum quantity is between 10,000 and 999,999 all quantities are shown in thousands. If the maximum quantity is between 1,000,000 and 999,999,999 all quantities are shown in millions (rounded to the nearest thousand). If the maximum quantity is equal or greater than 1,000,000,000 all quantities are shown in billions (rounded to the nearest million).

**Service/Agency Suffixes:**  
 (III) BASE  
 (IV) OCO



**UNCLASSIFIED**

<b>Exhibit P-5, Cost Analysis: PB 2016 Army</b>		<b>Date:</b> February 2015
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2034A / 01 / 45	<b>P-1 Line Item Number / Title:</b> E37300 / Rocket, Hydra 70, All Types	<b>Item Number / Title [DODIC]:</b> E52200 / ROCKET HYDRA 70 ILLUM M257

<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : A	<b>MDAP/MAIS Code:</b>
---	------------------------

<b>Resource Summary</b>	<b>Prior Years</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016 Base</b>	<b>FY 2016 OCO</b>	<b>FY 2016 Total</b>
Procurement Quantity ( <i>Units in Each</i> )	-	5,346	1,351	-	-	-
Gross/Weapon System Cost ( <i>\$ in Millions</i> )	46.417	28.241	5.721	-	-	-
Less PY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-
Net Procurement (P1) ( <i>\$ in Millions</i> )	46.417	28.241	5.721	-	-	-
Plus CY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-
<b>Total Obligation Authority</b> ( <i>\$ in Millions</i> )	<b>46.417</b>	<b>28.241</b>	<b>5.721</b>	-	-	-

*(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)*

Initial Spares ( <i>\$ in Millions</i> )	-	-	-	-	-	-
Gross/Weapon System Unit Cost ( <i>\$ in Dollars</i> )	-	5,282.64	4,234.64	-	-	-

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or add, due to rounding.

<b>Cost Elements</b>	<b>Prior Years</b>			<b>FY 2014</b>			<b>FY 2015</b>			<b>FY 2016 Base</b>			<b>FY 2016 OCO</b>			<b>FY 2016 Total</b>		
	<b>Unit Cost</b> (\$)	<b>Qty</b> (Each)	<b>Total Cost</b> (\$ M)	<b>Unit Cost</b> (\$)	<b>Qty</b> (Each)	<b>Total Cost</b> (\$ M)	<b>Unit Cost</b> (\$)	<b>Qty</b> (Each)	<b>Total Cost</b> (\$ M)	<b>Unit Cost</b> (\$)	<b>Qty</b> (Each)	<b>Total Cost</b> (\$ M)	<b>Unit Cost</b> (\$)	<b>Qty</b> (Each)	<b>Total Cost</b> (\$ M)	<b>Unit Cost</b> (\$)	<b>Qty</b> (Each)	<b>Total Cost</b> (\$ M)
Flyaway Cost																		
Recurring Cost																		
Complete Round	-	-	-	4,644.00	5,346	24.827	3,429.00	1,351	4.633	-	-	-	-	-	-	-	-	-
Prod/Sys Engineering/ Program Management	-	-	-	-	-	2.267	-	-	0.571	-	-	-	-	-	-	-	-	-
Component Eng Spt (Other Gov't Agencies)	-	-	46.417	-	-	1.147	-	-	0.517	-	-	-	-	-	-	-	-	-
<b>Subtotal: Recurring Cost</b>	-	-	<b>46.417</b>	-	-	<b>28.241</b>	-	-	<b>5.721</b>	-	-	-	-	-	-	-	-	-
<b>Subtotal: Flyaway Cost</b>	-	-	<b>46.417</b>	-	-	<b>28.241</b>	-	-	<b>5.721</b>	-	-	-	-	-	-	-	-	-
<b>Gross/Weapon System Cost</b>	-	-	<b>46.417</b>	<b>5,282.64</b>	<b>5,346</b>	<b>28.241</b>	<b>4,234.64</b>	<b>1,351</b>	<b>5.721</b>	-	-	-	-	-	-	-	-	-

**UNCLASSIFIED**

**Exhibit P-40, Budget Line Item Justification:** PB 2016 Army **Date:** February 2015

<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2034A: Procurement of Ammunition, Army / BA 01: Ammunition / BSA 47: Other Ammunition	<b>P-1 Line Item Number / Title:</b> E61000 / CAD/PAD, All Types
--	---

ID Code (A=Service Ready, B=Not Service Ready) :	Program Elements for Code B Items:						Other Related Program Elements:					
Resource Summary	Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	To Complete	Total
Procurement Quantity (Units in Each)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (\$ in Millions)	116.317	5.614	5.430	5.639	-	5.639	5.914	5.441	5.984	6.103	-	156.442
Less PY Advance Procurement (\$ in Millions)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P1) (\$ in Millions)	116.317	5.614	5.430	5.639	-	5.639	5.914	5.441	5.984	6.103	-	156.442
Plus CY Advance Procurement (\$ in Millions)	-	-	-	-	-	-	-	-	-	-	-	-
<b>Total Obligation Authority (\$ in Millions)</b>	<b>116.317</b>	<b>5.614</b>	<b>5.430</b>	<b>5.639</b>	<b>-</b>	<b>5.639</b>	<b>5.914</b>	<b>5.441</b>	<b>5.984</b>	<b>6.103</b>	<b>-</b>	<b>156.442</b>
<i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i>												
Initial Spares (\$ in Millions)	-	-	-	-	-	-	-	-	-	-	-	-
Flyaway Unit Cost (\$ in Dollars)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (\$ in Dollars)	-	-	-	-	-	-	-	-	-	-	-	-

**Description:**

Includes Cartridge Actuated Devices (CAD) and Propellant Actuated Devices (PAD) all types.

CAD/PAD are used in various escape and jettison systems on all types of Army aircraft. They are required to support aircraft escape, safety, and jettison systems and mission essential needs. Items are subject to shelf and service life restrictions and, therefore, require replacement at specified intervals.

**UNCLASSIFIED**

**Exhibit P-40, Budget Line Item Justification:** PB 2016 Army **Date:** February 2015

<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2034A: Procurement of Ammunition, Army / BA 01: Ammunition / BSA 47: Other Ammunition	<b>P-1 Line Item Number / Title:</b> E61000 / CAD/PAD, All Types
--	---

ID Code (A=Service Ready, B=Not Service Ready) :			Program Elements for Code B Items:			Other Related Program Elements:		
Exhibits Schedule			Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total
Title*	Exhibits	ID CD	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)
EA0003 / CAD/PAD, All Other	P-40a		- / 116.317	- / 5.614	- / 5.430	- / 5.639	- / -	- / 5.639
<b>Total Gross/Weapon System Cost</b>			<b>- / 116.317</b>	<b>- / 5.614</b>	<b>- / 5.430</b>	<b>- / 5.639</b>	<b>- / -</b>	<b>- / 5.639</b>

\*Title represents 1) the Number / Title for Items; 2) the Number / Title [DODIC] for Ammunition; and/or 3) the Number / Title (Modification Type) for Modifications.

Note: Totals in this Exhibit P-40 set may not be exact or add due to rounding.

**Justification:**  
 FY 2016 Base Budget supports critical Army Title 10 war reserve/operational, training, and test requirements IAW DoD Instruction 3000.04 (Munitions Requirements Process) and AR 5-13 (Total Army Munitions Requirements Process and Prioritization System). War reserve requirements support OSD-approved Combatant Commander Operational Plans, Homeland Defense, and other OSD-directed missions. Training requirements support individual and collective training of Active and Reserve Component forces at Army schools, home station, and the combined training centers. Test requirements support the development, fielding, safety, and quality assurance of Army munitions and equipment throughout their life-cycle.

In accordance with Section 1815 of the FY 2008 National Defense Authorization Act (P.L. 110-181), this item is necessary for use by the active and reserve components of the Armed Forces for homeland defense missions, domestic emergency responses, and providing military support to civil authorities.

The FY 2016 program is required to assure availability of replacement items when needed and avoid grounding aircraft or rendering aircraft partially mission capable.

**UNCLASSIFIED**

**Exhibit P-40a, Budget Item Justification For Aggregated Items:** PB 2016 Army **Date:** February 2015

<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2034A / 01 / 47	<b>P-1 Line Item Number / Title:</b> E61000 / CAD/PAD, All Types	<b>Aggregated Items Title:</b> Various
--	---	---

Note: Subtotals or Totals in this Exhibit P-40a may not be exact or add, due to rounding.

Item Number / Title [DODIC]	ID CD	MDAP/MAIS Code	Prior Years			FY 2014			FY 2015			FY 2016 Base			FY 2016 OCO			FY 2016 Total		
			Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)
<b>CAD/PAD, All Other</b>																				
EA0003 / CAD/PAD, All Other			-	-	116.317	-	-	5.614	-	-	5.430	-	-	5.639	-	-	-	-	-	5.639
<i>Subtotal: CAD/PAD, All Other</i>			-	-	116.317	-	-	5.614	-	-	5.430	-	-	5.639	-	-	-	-	-	5.639
<b>Total</b>			-	-	116.317	-	-	5.614	-	-	5.430	-	-	5.639	-	-	-	-	-	5.639

**UNCLASSIFIED**

**Exhibit P-40, Budget Line Item Justification:** PB 2016 Army **Date:** February 2015

<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2034A: Procurement of Ammunition, Army / BA 01: Ammunition / BSA 47: Other Ammunition	<b>P-1 Line Item Number / Title:</b> E55400 / Demolition Munitions, All Types
--	--

ID Code (A=Service Ready, B=Not Service Ready) :			Program Elements for Code B Items:					Other Related Program Elements:				
Resource Summary	Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	To Complete	Total
Procurement Quantity (Units in Each)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (\$ in Millions)	404.896	28.074	25.899	9.751	4.000	13.751	17.282	16.456	15.636	13.903	-	535.897
Less PY Advance Procurement (\$ in Millions)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P1) (\$ in Millions)	404.896	28.074	25.899	9.751	4.000	13.751	17.282	16.456	15.636	13.903	-	535.897
Plus CY Advance Procurement (\$ in Millions)	-	-	-	-	-	-	-	-	-	-	-	-
<b>Total Obligation Authority (\$ in Millions)</b>	<b>404.896</b>	<b>28.074</b>	<b>25.899</b>	<b>9.751</b>	<b>4.000</b>	<b>13.751</b>	<b>17.282</b>	<b>16.456</b>	<b>15.636</b>	<b>13.903</b>	-	<b>535.897</b>
<i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i>												
Initial Spares (\$ in Millions)	-	-	-	-	-	-	-	-	-	-	-	-
Flyaway Unit Cost (\$ in Dollars)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (\$ in Dollars)	-	-	-	-	-	-	-	-	-	-	-	-

**Description:**

This budget line includes Demolition Munitions, All Types.

(E45404) The M17E1 Receiver, Radio Frequency Remote Activation Munition System (RF-RAMS) (DODIC MP47) is a one-time use receiver that provides the un-tethered capability to wirelessly function/initiate demolition charges or munitions up to and beyond 5 KM line-of-sight/non line-of-sight, once it receives the correct programmed coded signal from the MK152 RF-RAMS transmitter. The Receiver is programmed in the field by an RF-RAMS Transmitter and subsequently responds only to that transmitter. The M17E1 Receiver is a single use item, which is capable of functioning non electric blasting caps or detonation cord. Ongoing design verification testing of the M17E1 will support an Engineering Change Proposal (ECP) approval in 2QFY15 and the subsequent initial production build in FY15. This item is Code A, approved for service use.

(E50601) Charge Demolition Block Comp C-4 1-1/4 LB M112 is the primary demolition explosive used by the U.S. Army. The M112 Demolition Block is used for general demolition and, in particular, for destruction of captured enemy ammunition. The block demolition charge consists of 1-1/4 pounds of composition C-4 plastic explosive packed in a Mylar-film bag. Pressure sensitive adhesive tape is provided on one of the rectangular surfaces, allowing quick emplacement by the individual soldier on the object to be destroyed. The explosive may be cut and/or removed from its wrapper and hand molded into a desired shape suited to the target. Upon detonation, the shock wave destroys the target by cutting, breaching or cratering. This item is Code A, approved for service use.

(E51300) Charge Demolition Block Cratering 40 pound is a demolition charge designed to destroy roads, bridge abutments, runways, buildings, fortifications and other concrete structures. It uses a low velocity explosive which destroys by a lifting and heaving motion rather than the cutting action of high velocity charges. This item is Code A, approved for service use.

(E51400) Charge Demolition Sheet 50 Foot Roll, M186 is a flexible explosive. It is 3 inches wide and 1/4 inch thick. It can be easily cut and formed into various shapes and is primarily used as a cutting charge. This item is Code A, approved for service use.

(E52500) Cap Blasting Electric M6 is used to initiate high explosives. It is initiated by an electrical charge from a blasting machine or other source of electric power. Blasting cap M6 consists of a base charge of RDX, an intermediate charge of lead azide and an ignition charge of smokeless powder, potassium chlorate and lead salt of dinitro cresol in an aluminum alloy cup. Two 12-foot lead wires, connected by a bridge wire in the ignition charge, extend through a rubber plug assembly in the open end of the cup. This item is Code A, approved for service use.

(E53200) Charge Demolition Shaped M3 40 pound is used to blast craters in paved and unpaved roads and to bore holes in metals, masonry or concrete. It contains a 15-inch stand-off, 29.5 pound Comp B main charge and a 0.11 pound Comp A3 booster. This item is Code A, approved for service use.

**UNCLASSIFIED**

<b>Exhibit P-40, Budget Line Item Justification:</b> PB 2016 Army		<b>Date:</b> February 2015
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2034A: Procurement of Ammunition, Army / BA 01: Ammunition / BSA 47: Other Ammunition		<b>P-1 Line Item Number / Title:</b> E55400 / Demolition Munitions, All Types
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) :	<b>Program Elements for Code B Items:</b>	<b>Other Related Program Elements:</b>
<p>(E54100) Detonating Cord is used to prime and detonate explosive charges. Unlike the time fuze, which burns slowly, detonating cord burns almost instantaneously. It is used to link a series of near simultaneous charges. The Type 1, Class E detonating cord consists of a core of high velocity explosive in a seamless textile tube. The tube is covered with a thin layer of asphalt and sheathed in an outer cover of plastic coated textile. The plastic outer cover is smooth and colored olive drab. This item is Code A, approved for service use.</p> <p>(E59100) The Cartridge Impulse Electrically Initiated is used in Explosive Ordnance Disposal (EOD) tools and equipment. It is an electrically initiated, gas producing device. It is initiated with an MK1-2 squib in place of the percussion primer. This item is Code A, approved for service use.</p> <p>(E60200) Cutter Cartridge Actuated 2 Second Delay M21 is a cartridge actuated device that is used in aerial delivery systems for cargo. It severs a reefing line which allows a parachute to fully deploy. The cutter is installed in a mounting bracket which is attached to the parachute. Major components consist of a case, firing pin assembly, lanyard, knife assembly, delay assembly, and cotter pin. This item is Code A, approved for service use.</p> <p>(E76701) The Cutter, High Explosive MK23 MOD 1, is an Explosive Ordnance Disposal (EOD) tool. It is initiated with a blasting cap and uses an explosive formed penetrator to disable a target munition. This item is restricted in the Army to EOD use only.</p> <p>(E76702) The Cutter, High Explosive MK24 MOD 1, is an Explosive Ordnance Disposal (EOD) tool. It is initiated with a blasting cap and uses an explosive formed penetrator to disable a target munition. This item is restricted in the Army to EOD use only.</p> <p>(E76728) MK 788-0, Main Charge Disrupter is a device used to render-safe unexploded ordnance (UXO). Upon initiation, the device attacks and neutralizes the main charge explosive by generating reactions up to and including low-order detonations. It is a non-developmental item (NDI) consisting of an energetic tool (ET), a demolition material interface adapter, and an emplacement stand. The MCD provides EOD with an improved neutralization capability in situations where the use of more traditional methods (attacking the fuzing mechanism or high-order detonation) is not possible or desired. This item is Code B, not approved for service use.</p> <p>(E78201) The M980 Demolition Charge is a 20 pound, 38 foot roll of flexible explosive. It is 10 inches wide and .083 inches thick. It can be easily cut and formed into various shapes and is primarily used as a cutting charge. This item is Code A, approved for service use.</p> <p>(E81302) Cap Blasting Non-Elec, W/30 ft Shock Tube is part of the family of Modern Demolition Initiators (MDI). It consists of a blasting cap which is factory sealed to a length of shock tube. The tube is activated using an M81 igniter. A shock wave travels the length of the tube, with a delay measured in milliseconds, and ignites the blasting cap which in turn initiates the main charge. The MDI is not susceptible to electrostatic discharge or Radio Frequency (RF) jamming. The 30 foot length is generally used as a linking charge for a series of demolitions. This item is Code A, approved for service use.</p> <p>(E81307) Igniter, Time Fuze and Shock Tube, M81 is a device, hand held by the individual Soldier, with a small primer charge that will activate the M700 Time Fuze as well as a shock tube. It is the primary device for all non-electrical demolition initiation. This item is Code A, approved for service use.</p> <p>(E99800) Anti-Personnel Obstacle Breaching System (APOBS) Training Aid, Inert is a classroom training aid for the APOBS (E72800). It's appearance and weight are identical to the APOBS, but it is entirely non-functional and is only used to demonstrate proper set up of the system prior to firing. This item is Code A, approved for service use.</p> <p>(E99903) Blast Cap, Non-Elec: 500Ft Minitube, M21 is part of the family of Modern Demolition Initiators (MDI). It consists of an initiating component used to activate standard military explosives and demolition devices. The MDI is not susceptible to electrostatic discharge or Radio Frequency (RF) jamming. This item is Code A, approved for service use.</p> <p>(E99905) Blast Cap, Non-Elec, 1000Ft Minitube, M23 is part of the family of Modern Demolition Initiators (MDI). It consists of an initiating component used to activate standard military explosives and demolition devices. The MDI is not susceptible to electrostatic discharge or Radio Frequency (RF) jamming. This item is Code A, approved for service use.</p>		

**UNCLASSIFIED**

<b>Exhibit P-40, Budget Line Item Justification:</b> PB 2016 Army		<b>Date:</b> February 2015
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2034A: Procurement of Ammunition, Army / BA 01: Ammunition / BSA 47: Other Ammunition		<b>P-1 Line Item Number / Title:</b> E55400 / Demolition Munitions, All Types
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) :	<b>Program Elements for Code B Items:</b>	<b>Other Related Program Elements:</b>

**UNCLASSIFIED**

**Exhibit P-40, Budget Line Item Justification:** PB 2016 Army **Date:** February 2015

**Appropriation / Budget Activity / Budget Sub Activity:**  
2034A: Procurement of Ammunition, Army / BA 01: Ammunition / BSA 47: Other Ammunition

**P-1 Line Item Number / Title:**  
E55400 / Demolition Munitions, All Types

**ID Code** (A=Service Ready, B=Not Service Ready) : **Program Elements for Code B Items:** **Other Related Program Elements:**

Exhibits Schedule			Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total
Title*	Exhibits	ID CD	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)
E45404 / RECEIVER, M17E1 RADIO FIRING-REMOTE ACTV(RF-RAMS) [MP47]	P-5, P-5a, P-21	A	- / -	- / -	3,613 / 11.851	- / -	- / -	- / -
E50601 / CHG DEMO BLK COMP C-4 1-1/4 LB M112 [M023]	P-5, P-5a, P-21	A	293,735 / 153.552	487,815 / 14.247	112,159 / 5.417	18,318 / 1.088	97,832 / 4.000	116,150 / 5.088
E51300 / CHG DEMO BLK CRATERING 40 LB	P-40a	A	4,563 / 39.511	720 / 1.299	- / -	- / -	- / -	- / -
E51400 / CHARGE DEMO, (50FT), Sheet Explosive, M186	P-40a	A	135,077 / 8.145	2,418 / 0.300	- / -	- / -	- / -	- / -
E52500 / CAP BLASTING ELEC M6	P-40a	A	3,017 / 13.650	26,000 / 1.560	19,592 / 1.008	34,300 / 1.583	- / -	34,300 / 1.583
E54100 / CORD DETONATING TYPE 1	P-40a	A	278,565K / 25.285	2,652,000 / 1.304	2,686,222 / 1.113	2,508,885 / 1.157	- / -	2,508,885 / 1.157
E59100 / CARTRIDGE IMPULSE ELECTRICALLY INITIATED DRG NO LD	P-40a	A	- / -	- / -	- / -	8,113 / 0.993	- / -	8,113 / 0.993
E60200 / CUTTER CTG ACTUATED 2 SEC DELAY M21	P-40a	A	255 / 36.925	2,984 / 1.839	- / -	- / -	- / -	- / -
E76701 / CUTTER HIGH EXPLOSIVE MK23 MOD 1 (POWDER ACTIVATE)	P-40a		451 / 0.715	- / -	- / -	1,913 / 0.750	- / -	1,913 / 0.750
E76702 / CUTTER HIGH EXPLOSIVE MK24 MOD 1 (POWDER ACTIVATE)	P-40a		3,272 / 2.168	- / -	- / -	942 / 0.750	- / -	942 / 0.750
E76718 / EOD ITEMS FOR PAN DISRUPTER	P-40a	B	- / 4.046	- / -	- / -	- / -	- / -	- / -
E76728 / Disrupter, Main Charge, MK 788-0	P-40a		4,100 / 0.729	1,484 / 0.150	79 / 0.059	97 / 0.061	- / -	97 / 0.061
E78201 / CHARGE DEMO (38FT) Sheet Explosive, PBXW-202	P-40a		206 / 4.114	- / -	- / -	35,290 / 1.200	- / -	35,290 / 1.200
E81302 / CAP BLASTING NON-ELEC, W/30 FT SHOCK TUBE	P-40a	A	6,148 / 6.169	5,040 / 0.185	5,445 / 0.186	3,320 / 0.241	- / -	3,320 / 0.241
E81307 / IGNITER, TIME FUZE AND SHOCK TUBE M81	P-40a	A	52,635 / 15.868	51,840 / 0.507	70,578 / 0.510	19,058 / 0.300	- / -	19,058 / 0.300
E99800 / APOBS Training Aid, Inert	P-40a	A	- / -	- / -	199 / 1.971	- / -	- / -	- / -
E99903 / Blast Cap, Non-Elec, 500Ft Minitube, M21	P-40a	A	5,237 / 11.333	13,000 / 0.749	12,703 / 0.753	4,605 / 0.779	- / -	4,605 / 0.779
E99905 / Blast Cap, Non-Elec, 1000Ft Minitube, M23	P-40a	A	5,201 / 13.712	8,120 / 0.781	8,151 / 0.805	4,031 / 0.849	- / -	4,031 / 0.849
E53200 / CHG DEMO SHAPED M3 40 LB [M421]	P-5, P-5a, P-21	A	8,787 / 16.616	2,022 / 5.153	954 / 2.226	- / -	- / -	- / -
<b>Total Gross/Weapon System Cost</b>			<b>- / 404.896</b>	<b>- / 28.074</b>	<b>- / 25.899</b>	<b>- / 9.751</b>	<b>- / 4.000</b>	<b>- / 13.751</b>

\*Title represents 1) the Number / Title for Items; 2) the Number / Title [DODIC] for Ammunition; and/or 3) the Number / Title (Modification Type) for Modifications.

Note: Totals in this Exhibit P-40 set may not be exact or add due to rounding.

**Justification:**

FY 2016 Base and OCO Budgets support critical Army Title 10 war reserve/operational, training, and test requirements IAW DoD Instruction 3000.04 (Munitions Requirements Process) and AR 5-13 (Total Army Munitions Requirements Process and Prioritization System). War reserve requirements support OSD-approved Combatant Commander Operational Plans, Homeland Defense, and other OSD-directed missions. Training requirements support individual and collective training of Active and Reserve Component forces at Army schools, home station and the combined training centers. Test requirements support the development, fielding, safety and quality assurance of Army munitions and equipment throughout their life-cycle.

In accordance with Section 1815 of the FY 2008 National Defense Authorization Act (P.L. 110-181), this item is necessary for use by the active and reserve components of the Armed Forces for homeland defense missions, domestic emergency responses, and providing military support to civil authorities.

FY 2016 Base procurement dollars in the amount of \$9.751 million supports production of 12 variants of Demolitions.

FY 2016 OCO procurement dollars in the amount of \$4.000 million supports production of 1 variant of Demolitions.



**UNCLASSIFIED**

<b>Exhibit P-40, Budget Line Item Justification:</b> PB 2016 Army		<b>Date:</b> February 2015
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2034A: Procurement of Ammunition, Army / BA 01: Ammunition / BSA 47: Other Ammunition		<b>P-1 Line Item Number / Title:</b> E55400 / Demolition Munitions, All Types
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) :	<b>Program Elements for Code B Items:</b>	<b>Other Related Program Elements:</b>
<p>(E50601) Charge Demolition Block Comp C-4 1-1/4 LB M112 This is a training standard item used in both training and combat. FY 2016 request supports annual training and builds a war reserve inventory in accordance with Army's procurement goals. FY 2016 Base procurement dollars in the amount of \$1.088 million supports production of 18,318 Demolition Blocks. FY 2016 OCO procurement dollars in the amount of \$4.000 million supports production of 97,832 Demolition Blocks.</p> <p>(E52500) Cap Blasting Electric M6 This is a training standard item used in both training and combat. FY 2016 request supports annual training and builds a war reserve inventory in accordance with Army's procurement goals. FY 2016 Base procurement dollars in the amount of \$1.583 million supports production of 34,300 blasting caps.</p> <p>(E54100) Detonating Cord This is a training standard item used in both training and combat. FY 2016 request supports annual training and builds a war reserve inventory in accordance with Army's procurement goals. FY 2016 Base procurement dollars in the amount of \$1.157 million supports production of 2.509 million feet of Type 1 detonating cord.</p> <p>(E59100) The Cartridge Impulse Electrically Initiated is used in Explosive Ordnance Disposal (EOD) tools and equipment. This is a training standard item used in both training and combat. Procurement supports annual training and builds a war reserve inventory in accordance with Army's procurement goals. FY 2016 Base procurement dollars in the amount of \$0.993 million supports production of 8,113 cartridges.</p> <p>(E76701) The Cutter, High Explosive MK23 MOD 1, is an Explosive Ordnance Disposal (EOD) tool. This is a training standard item used in both training and combat. FY 2016 request supports annual training and builds a war reserve inventory in accordance with Army's procurement goals. FY 2016 Base procurement dollars in the amount of \$0.750 million supports production of 1,913 cutters.</p> <p>(E76702) The Cutter, High Explosive MK24 MOD 1, is an Explosive Ordnance Disposal (EOD) tool. This is a training standard item used in both training and combat. FY 2016 request supports annual training and builds a war reserve inventory in accordance with Army's procurement goals. FY 2016 Base procurement dollars in the amount of \$0.750 million supports production of 942 cutters.</p> <p>(E76728) MK 788-0, Main Charge Disrupter is a device used to render-safe unexploded ordnance (UXO) This is a training standard item used in both training and combat. FY 2016 request supports annual training and builds a war reserve inventory in accordance with the Army's procurement goals. FY 2016 Base procurement dollars in the amount of \$0.061 million supports procurement of 97 disrupters.</p> <p>(E78201) The M980 Demolition Charge is a 20 pound, 38 foot roll of flexible explosive. This is a training standard item used in both training and combat. FY 2016 request supports annual training and builds a war reserve inventory in accordance with Army's procurement goals. FY 2016 Base procurement dollars in the amount of \$1.200 million supports production of 35,290 feet of sheet explosive.</p> <p>(E81302) Cap Blasting Non-Elec, W/30 ft Shock Tube is part of the family of Modern Demolition Initiators (MDI). This is a training standard item used in both training and combat. FY 2016 request supports annual training and builds a war reserve inventory in accordance with Army's procurement goals. FY 2016 Base procurement dollars in the amount of \$0.241 million supports production of 3,320 blasting caps.</p> <p>(E81307) Igniter, Time Fuze and Shock Tube, M81 This is a training standard item used in both training and combat. FY 2016 request supports annual training and builds a war reserve inventory in accordance with Army's procurement goals. FY 2016 Base procurement dollars in the amount of \$0.300 million supports production of 19,058 igniters.</p> <p>(E99903) Blast Cap, Non-Elec: 500Ft Minitube, M21 is part of the family of Modern Demolition Initiators (MDI). This is a training standard item used in both training and combat. FY 2016 request supports annual training and builds a war reserve inventory in accordance with Army's procurement goals.</p>		

**UNCLASSIFIED**

<b>Exhibit P-40, Budget Line Item Justification:</b> PB 2016 Army		<b>Date:</b> February 2015
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2034A: Procurement of Ammunition, Army / BA 01: Ammunition / BSA 47: Other Ammunition		<b>P-1 Line Item Number / Title:</b> E55400 / Demolition Munitions, All Types
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) :	<b>Program Elements for Code B Items:</b>	<b>Other Related Program Elements:</b>
FY 2016 Base procurement dollars in the amount of \$0.779 million supports production of 4,605 blasting caps.  (E99905) Blast Cap, Non-Elec, 1000Ft Minitube, M23 is part of the family of Modern Demolition Initiators (MDI). This is a training standard item used in both training and combat. FY 2016 request supports annual training and builds a war reserve inventory in accordance with Army's procurement goals. FY 2016 Base procurement dollars in the amount of \$0.849 million supports production of 4,031 blasting caps.		

**UNCLASSIFIED**

<b>Exhibit P-5, Cost Analysis: PB 2016 Army</b>		<b>Date:</b> February 2015
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2034A / 01 / 47	<b>P-1 Line Item Number / Title:</b> E55400 / Demolition Munitions, All Types	<b>Item Number / Title [DODIC]:</b> E45404 / RECEIVER, M17E1 RADIO FIRING-REMOTE ACTV(RF-RAMS) [MP47]

<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : A				<b>MDAP/MAIS Code:</b>			
<b>Resource Summary</b>		<b>Prior Years</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016 Base</b>	<b>FY 2016 OCO</b>	<b>FY 2016 Total</b>
Procurement Quantity ( <i>Units in Each</i> )		-	-	3,613	-	-	-
Gross/Weapon System Cost ( <i>\$ in Millions</i> )		-	-	11.851	-	-	-
Less PY Advance Procurement ( <i>\$ in Millions</i> )		-	-	-	-	-	-
Net Procurement (P1) ( <i>\$ in Millions</i> )		-	-	11.851	-	-	-
Plus CY Advance Procurement ( <i>\$ in Millions</i> )		-	-	-	-	-	-
<b>Total Obligation Authority</b> ( <i>\$ in Millions</i> )		-	-	<b>11.851</b>	-	-	-
<i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i>							
Initial Spares ( <i>\$ in Millions</i> )		-	-	-	-	-	-
Gross/Weapon System Unit Cost ( <i>\$ in Dollars</i> )		-	-	3,280.10	-	-	-

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or add, due to rounding.

Cost Elements	Prior Years			FY 2014			FY 2015			FY 2016 Base			FY 2016 OCO			FY 2016 Total		
	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)
Hardware Cost																		
Recurring Cost																		
COMPLETE ROUND <sup>(†)</sup>	-	-	-	-	-	-	2,160.00	3,613	7.804	-	-	-	-	-	-	-	-	-
<i>Subtotal: Recurring Cost</i>	-	-	-	-	-	-	-	-	7.804	-	-	-	-	-	-	-	-	-
<i>Subtotal: Hardware Cost</i>	-	-	-	-	-	-	-	-	7.804	-	-	-	-	-	-	-	-	-
Support Cost																		
PRODUCTION ENGINEERING	-	-	-	-	-	-	-	-	2.982	-	-	-	-	-	-	-	-	-
PRODUCTION TEST EQUIPMENT	-	-	-	-	-	-	-	-	0.740	-	-	-	-	-	-	-	-	-
FIRST ARTICLE TEST	-	-	-	-	-	-	-	-	0.325	-	-	-	-	-	-	-	-	-
<i>Subtotal: Support Cost</i>	-	-	-	-	-	-	-	-	4.047	-	-	-	-	-	-	-	-	-
<b>Gross/Weapon System Cost</b>	-	-	-	-	-	-	<b>3,280.10</b>	<b>3,613</b>	<b>11.851</b>	-	-	-	-	-	-	-	-	-

(†) indicates the presence of a P-5a

**UNCLASSIFIED**

<b>Exhibit P-5a, Procurement History and Planning:</b> PB 2016 Army							<b>Date:</b> February 2015				
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2034A / 01 / 47			<b>P-1 Line Item Number / Title:</b> E55400 / Demolition Munitions, All Types				<b>Item Number / Title [DODIC]:</b> E45404 / RECEIVER, M17E1 RADIO FIRING-REMOTE ACTV(RF-RAMS) [MP47]				

Cost Elements	O C O	FY	Contractor and Location	Method/Type or Funding Vehicle	Location of PCO	Award Date	Date of First Delivery	Qty <i>(Each)</i>	Unit Cost <i>(\$)</i>	Specs Avail Now?	Date Revision Available	RFP Issue Date
COMPLETE ROUND <sup>(†)</sup>		2015	TO BE SELECTED / TBS01	WR	PICATINNY ARSENAL, NJ	May 2015	Nov 2016	3,613	2,160.00	Y		

<sup>(†)</sup> indicates the presence of a P-21

**UNCLASSIFIED**

<b>Exhibit P-21, Production Schedule:</b> PB 2016 Army															<b>Date:</b> February 2015														
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2034A / 01 / 47										<b>P-1 Line Item Number / Title:</b> E55400 / Demolition Munitions, All Types										<b>Item Number / Title [DODIC]:</b> E45404 / RECEIVER, M17E1 RADIO FIRING-REMOTE ACTV(RF-RAMS) [MP47]									

Cost Elements <i>(Units in Thousands)</i>							Fiscal Year 2015														Fiscal Year 2016													
O C C O	M F R #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2014	BAL DUE AS OF 1 OCT	Calendar Year 2015														Calendar Year 2016													
							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	B A L			
COMPLETE ROUND																																		
	1	2015	ARMY	3.613	-	3.613										A	-	-	-	-	-	-	-	-	-	-	-	-	3.613					
							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	B A L			

**UNCLASSIFIED**

<b>Exhibit P-21, Production Schedule:</b> PB 2016 Army															<b>Date:</b> February 2015														
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2034A / 01 / 47										<b>P-1 Line Item Number / Title:</b> E55400 / Demolition Munitions, All Types										<b>Item Number / Title [DODIC]:</b> E45404 / RECEIVER, M17E1 RADIO FIRING-REMOTE ACTV(RF-RAMS) [MP47]									

Cost Elements <i>(Units in Thousands)</i>							Fiscal Year 2017														Fiscal Year 2018														
O C C O	M F R #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2016	BAL DUE AS OF 1 OCT	Calendar Year 2017														Calendar Year 2018														B A L
							O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P					
COMPLETE ROUND																																			
	1	2015	ARMY	3.613	-	3.613	-	.500	.500	.500	.500	.500	.500	.500	.500	.113																-			
							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	B A L				

**UNCLASSIFIED**

<b>Exhibit P-21, Production Schedule:</b> PB 2016 Army		<b>Date:</b> February 2015
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2034A / 01 / 47		<b>P-1 Line Item Number / Title:</b> E55400 / Demolition Munitions, All Types
		<b>Item Number / Title [DODIC]:</b> E45404 / RECEIVER, M17E1 RADIO FIRING-REMOTE ACTV(RF-RAMS) [MP47]

MFR Ref #	MFR Name - Location	Production Rates (Each / Year)			Procurement Leadtime (Months)							
		MSR For 2016	1-8-5 For 2016	MAX For 2016	Initial				Reorder			
					ALT Prior to Oct 1	ALT After Oct 1	Mfg PLT	Total After Oct 1	ALT Prior to Oct 1	ALT After Oct 1	Mfg PLT	Total After Oct 1
1	TO BE SELECTED - TBS01	125	500	2,000	8	8	18	26	6	6	12	18

"A" in the Delivery Schedule indicates the Contract Award Date.

Note: Due to space limitations, quantities in the Exhibit P-21 delivery calendar are truncated and rounded based on the maximum quantity in the calendar as follows. If the maximum quantity is less than or equal to than 9,999, all quantities are shown as each. If the maximum quantity is between 10,000 and 999,999 all quantities are shown in thousands. If the maximum quantity is between 1,000,000 and 999,999,999 all quantities are shown in millions (rounded to the nearest thousand). If the maximum quantity is equal or greater than 1,000,000,000 all quantities are shown in billions (rounded to the nearest million).

**UNCLASSIFIED**

<b>Exhibit P-5, Cost Analysis: PB 2016 Army</b>		<b>Date:</b> February 2015
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2034A / 01 / 47		<b>P-1 Line Item Number / Title:</b> E55400 / Demolition Munitions, All Types
		<b>Item Number / Title [DODIC]:</b> E50601 / CHG DEMO BLK COMP C-4 1-1/4 LB M112 [M023]

<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : A	<b>MDAP/MAIS Code:</b>
---	------------------------

Resource Summary	Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total
Procurement Quantity (Units in Each)	293,735	487,815	112,159	18,318	97,832	116,150
Gross/Weapon System Cost (\$ in Millions)	153.552	14.247	5.417	1.088	4.000	5.088
Less PY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
Net Procurement (P1) (\$ in Millions)	153.552	14.247	5.417	1.088	4.000	5.088
Plus CY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
<b>Total Obligation Authority (\$ in Millions)</b>	<b>153.552</b>	<b>14.247</b>	<b>5.417</b>	<b>1.088</b>	<b>4.000</b>	<b>5.088</b>

*(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)*

Initial Spares (\$ in Millions)	-	-	-	-	-	-
Gross/Weapon System Unit Cost (\$ in Dollars)	522.76	29.21	48.30	59.40	40.89	43.81

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or add, due to rounding.

Cost Elements	Prior Years			FY 2014			FY 2015			FY 2016 Base			FY 2016 OCO			FY 2016 Total		
	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)
Hardware Cost																		
Recurring Cost																		
LOAD, ASSEMBLE, PACK (LAP) <sup>(†)</sup>	6.19	1,816,423	11.246	6.69	487,815	3.263	10.35	112,159	1.161	10.46	18,318	0.192	10.46	97,832	1.023	10.46	116,150	1.215
COMP C-4 CLASS 3 <sup>(†)</sup>	15.69	2,397,683	37.625	13.68	643,915	8.809	22.34	148,050	3.307	23.05	24,180	0.557	23.05	129,138	2.977	23.05	153,318	3.534
<i>Subtotal: Recurring Cost</i>	-	-	48.863	-	-	12.072	-	-	4.468	-	-	0.749	-	-	4.000	-	-	4.749
<i>Subtotal: Hardware Cost</i>	-	-	48.863	-	-	12.072	-	-	4.468	-	-	0.749	-	-	4.000	-	-	4.749
Support Cost																		
PRODUCTION ENGINEERING	-	-	104.636	-	-	1.702	-	-	0.889	-	-	0.309	-	-	-	-	-	0.309
QUALITY ASSURANCE	-	-	0.018	-	-	0.001	-	-	0.002	-	-	0.001	-	-	-	-	-	0.001
FIRST ARTICLE TEST	-	-	0.034	-	-	0.105	-	-	0.058	-	-	0.029	-	-	-	-	-	0.029
C4 QUALIFICATION TEST	-	-	-	-	-	0.366	-	-	-	-	-	-	-	-	-	-	-	-
<i>Subtotal: Support Cost</i>	-	-	104.688	-	-	2.174	-	-	0.949	-	-	0.339	-	-	-	-	-	0.339
<b>Gross/Weapon System Cost</b>	<b>522.76</b>	<b>293,735</b>	<b>153.552</b>	<b>29.21</b>	<b>487,815</b>	<b>14.247</b>	<b>48.30</b>	<b>112,159</b>	<b>5.417</b>	<b>59.40</b>	<b>18,318</b>	<b>1.088</b>	<b>40.89</b>	<b>97,832</b>	<b>4.000</b>	<b>43.81</b>	<b>116,150</b>	<b>5.088</b>

<sup>(†)</sup> indicates the presence of a P-5a



**UNCLASSIFIED**

<b>Exhibit P-5a, Procurement History and Planning:</b> PB 2016 Army								<b>Date:</b> February 2015				
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2034A / 01 / 47			<b>P-1 Line Item Number / Title:</b> E55400 / Demolition Munitions, All Types					<b>Item Number / Title [DODIC]:</b> E50601 / CHG DEMO BLK COMP C-4 1-1/4 LB M112 [M023]				
<b>Cost Elements</b>	<b>O C O</b>	<b>FY</b>	<b>Contractor and Location</b>	<b>Method/Type or Funding Vehicle</b>	<b>Location of PCO</b>	<b>Award Date</b>	<b>Date of First Delivery</b>	<b>Qty (Each)</b>	<b>Unit Cost (\$)</b>	<b>Specs Avail Now?</b>	<b>Date Revision Available</b>	<b>RFP Issue Date</b>
LOAD, ASSEMBLE, PACK (LAP) <sup>(†)</sup>		2014	AMERICAN ORDNANCE LLC (IAAP) / MIDDLETOWN, IA	C / FFP	ROCK ISLAND ARSENAL, IL	Nov 2014	Nov 2015	487,815	6.69	Y		
LOAD, ASSEMBLE, PACK (LAP) <sup>(†)</sup>		2015	AMERICAN ORDNANCE LLC (IAAP) / MIDDLETOWN, IA	C / FFP	ROCK ISLAND ARSENAL, IL	Mar 2015	Mar 2016	112,159	10.35	Y		
LOAD, ASSEMBLE, PACK (LAP) <sup>(†)</sup>		2016	AMERICAN ORDNANCE LLC (IAAP) / MIDDLETOWN, IA	C / FFP	ROCK ISLAND ARSENAL, IL	Mar 2016	Mar 2017	116,150	10.46	Y		
COMP C-4 CLASS 3		2014	BAE SYSTEMS ORDNANCE SYSTEMS / KINGSPORT, TN	SS / FFP	ROCK ISLAND ARSENAL, IL	Dec 2014	May 2015	643,915	13.68	Y		
COMP C-4 CLASS 3		2015	BAE SYSTEMS ORDNANCE SYSTEMS / KINGSPORT, TN	SS / FFP	ROCK ISLAND ARSENAL, IL	Apr 2015	Jul 2015	148,050	22.34	Y		
COMP C-4 CLASS 3		2016	BAE SYSTEMS ORDNANCE SYSTEMS / KINGSPORT, TN	SS / FFP	ROCK ISLAND ARSENAL, IL	Apr 2016	Jul 2016	153,318	23.05	Y		

<sup>(†)</sup> indicates the presence of a P-21

**Remarks:**

The FY15 and FY16 contracts for LAP are Options to the Competitive Contract awarded for FY14.

The FY15 and FY16 contracts for Comp C-4, Class 3, will be Options to the Competitive Contract awarded for FY14.

**UNCLASSIFIED**

<b>Exhibit P-21, Production Schedule:</b> PB 2016 Army															<b>Date:</b> February 2015														
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2034A / 01 / 47										<b>P-1 Line Item Number / Title:</b> E55400 / Demolition Munitions, All Types										<b>Item Number / Title [DODIC]:</b> E50601 / CHG DEMO BLK COMP C-4 1-1/4 LB M112 [M023]									

Cost Elements <i>(Units in Thousands)</i>					Fiscal Year 2015															Fiscal Year 2016																
O C C O	M F R #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2014	BAL DUE AS OF 1 OCT	Calendar Year 2015															Calendar Year 2016														
							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	B A L					
LOAD, ASSEMBLE, PACK (LAP)																																				
Prior Years Deliveries: 1816423																																				
1	2014	ARMY		487.815	-	487.815	A	-	-	-	-	-	-	-	-	-	-	-	-	40.654	40.651	40.651	40.651	40.651	40.651	40.651	40.651	40.651	40.651	40.651	40.651	40.651	40.651			
1	2014	AF (‡)		118.711	-	118.711	A	-	-	-	-	-	-	-	-	-	-	-	-	9.899	9.892	9.892	9.892	9.892	9.892	9.892	9.892	9.892	9.892	9.892	9.892	9.892	9.892			
1	2014	NSOF (‡)		24.201	-	24.201	A	-	-	-	-	-	-	-	-	-	-	-	-	2.025	2.016	2.016	2.016	2.016	2.016	2.016	2.016	2.016	2.016	2.016	2.016	2.016				
<b>1</b>	<b>2014</b>	<b>Total</b>		<b>630.727</b>	-	<b>630.727</b>	-	-	-	-	-	-	-	-	-	-	-	-	-	<b>52.578</b>	<b>52.559</b>	<b>52.559</b>	<b>52.559</b>	<b>52.559</b>	<b>52.559</b>	<b>52.559</b>	<b>52.559</b>	<b>52.559</b>	<b>52.559</b>	<b>52.559</b>	<b>52.559</b>	<b>52.559</b>				
1	2015	ARMY		112.159	-	112.159																														
1	2015	AF (‡)		58.091	-	58.091																														
1	2015	NSOF (‡)		30.113	-	30.113																														
<b>1</b>	<b>2015</b>	<b>Total</b>		<b>200.363</b>	-	<b>200.363</b>																														
1	2016	ARMY		116.150	-	116.150																														
1	2016	AF (‡)		50.505	-	50.505																														
<b>1</b>	<b>2016</b>	<b>Total</b>		<b>166.655</b>	-	<b>166.655</b>																														



**UNCLASSIFIED**

<b>Exhibit P-21, Production Schedule:</b> PB 2016 Army		<b>Date:</b> February 2015
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2034A / 01 / 47		<b>P-1 Line Item Number / Title:</b> E55400 / Demolition Munitions, All Types
		<b>Item Number / Title [DODIC]:</b> E50601 / CHG DEMO BLK COMP C-4 1-1/4 LB M112 [M023]

MFR Ref #	MFR Name - Location	Production Rates (Each / Year)			Procurement Leadtime (Months)							
		MSR For 2016	1-8-5 For 2016	MAX For 2016	Initial				Reorder			
					ALT Prior to Oct 1	ALT After Oct 1	Mfg PLT	Total After Oct 1	ALT Prior to Oct 1	ALT After Oct 1	Mfg PLT	Total After Oct 1
1	AMERICAN ORDNANCE LLC (IAAP) - MIDDLETOWN, IA	14,000	97,000	200,000	8	8	18	26	6	6	12	18

(±) Delivery rows marked with this symbol indicate that they are funded through a separate Line Item. See the respective components' exhibits for details, including the full delivery schedule.  
 "A" in the Delivery Schedule indicates the Contract Award Date.  
 Note: Due to space limitations, quantities in the Exhibit P-21 delivery calendar are truncated and rounded based on the maximum quantity in the calendar as follows. If the maximum quantity is less than or equal to than 9,999, all quantities are shown as each. If the maximum quantity is between 10,000 and 999,999 all quantities are shown in thousands. If the maximum quantity is between 1,000,000 and 999,999,999 all quantities are shown in millions (rounded to the nearest thousand). If the maximum quantity is equal or greater than 1,000,000,000 all quantities are shown in billions (rounded to the nearest million).

**UNCLASSIFIED**

<b>Exhibit P-40a, Budget Item Justification For Aggregated Items: PB 2016 Army</b>															<b>Date:</b> February 2015				
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2034A / 01 / 47								<b>P-1 Line Item Number / Title:</b> E55400 / Demolition Munitions, All Types							<b>Aggregated Items Title:</b> Various				

Note: Subtotals or Totals in this Exhibit P-40a may not be exact or add, due to rounding.

Item Number / Title [DODIC]	ID CD	MDAP/MAIS Code	Prior Years			FY 2014			FY 2015			FY 2016 Base			FY 2016 OCO			FY 2016 Total		
			Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)
<b>CHG DEMO BLK CRATERING 40 LB</b>																				
E51300 / CHG DEMO BLK CRATERING 40 LB	A		8,659.00	4,563	39.511	1,804.17	720	1.299	-	-	-	-	-	-	-	-	-	-	-	-
E51400 / CHARGE DEMO, (50FT), Sheet Explosive, M186	A		60.30	135,077	8.145	124.07	2,418	0.300	-	-	-	-	-	-	-	-	-	-	-	-
E52500 / CAP BLASTING ELEC M6	A		4,524.36	3,017	13.650	60.00	26,000	1.560	51.45	19,592	1.008	46.15	34,300	1.583	-	-	-	46.15	34,300	1.583
E54100 / CORD DETONATING TYPE 1	A		0.09	278,565K	25.285	0.49	2,652,000	1.304	0.41	2,686,222	1.113	0.46	2,508,885	1.157	-	-	-	0.46	2,508,885	1.157
E59100 / CARTRIDGE IMPULSE ELECTRICALLY INITIATED DRG NO LD	A		-	-	-	-	-	-	-	-	-	122.40	8,113	0.993	-	-	-	122.40	8,113	0.993
E60200 / CUTTER CTG ACTUATED 2 SEC DELAY M21	A		144,803.92	255	36.925	616.29	2,984	1.839	-	-	-	-	-	-	-	-	-	-	-	-
E76701 / CUTTER HIGH EXPLOSIVE MK23 MOD 1 (POWDER ACTIVATE)			1,585.37	451	0.715	-	-	-	-	-	-	392.05	1,913	0.750	-	-	-	392.05	1,913	0.750
E76702 / CUTTER HIGH EXPLOSIVE MK24 MOD 1 (POWDER ACTIVATE)			662.59	3,272	2.168	-	-	-	-	-	-	796.18	942	0.750	-	-	-	796.18	942	0.750
E76718 / EOD ITEMS FOR PAN DISRUPTER	B		-	-	4.046	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
E76728 / Disrupter, Main Charge, MK 788-0			177.80	4,100	0.729	101.08	1,484	0.150	746.84	79	0.059	628.87	97	0.061	-	-	-	628.87	97	0.061
E78201 / CHARGE DEMO (38FT) Sheet Explosive, PBXW-202			19,970.87	206	4.114	-	-	-	-	-	-	34.00	35,290	1.200	-	-	-	34.00	35,290	1.200
E81302 / CAP BLASTING NON-ELEC, W/30 FT SHOCK TUBE	A		1,003.42	6,148	6.169	36.71	5,040	0.185	34.16	5,445	0.186	72.59	3,320	0.241	-	-	-	72.59	3,320	0.241
E81307 / IGNITER, TIME FUZE AND SHOCK TUBE M81	A		301.47	52,635	15.868	9.78	51,840	0.507	7.23	70,578	0.510	15.74	19,058	0.300	-	-	-	15.74	19,058	0.300

**UNCLASSIFIED**

<b>Exhibit P-40a, Budget Item Justification For Aggregated Items:</b> PB 2016 Army														<b>Date:</b> February 2015					
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2034A / 01 / 47							<b>P-1 Line Item Number / Title:</b> E55400 / Demolition Munitions, All Types							<b>Aggregated Items Title:</b> Various					

Note: Subtotals or Totals in this Exhibit P-40a may not be exact or add, due to rounding.

Item Number / Title [DODIC]	ID CD	MDAP/MAIS Code	Prior Years			FY 2014			FY 2015			FY 2016 Base			FY 2016 OCO			FY 2016 Total		
			Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)
E99800 / APOBS Training Aid, Inert	A		-	-	-	-	-	-	9,904.52	199	1.971	-	-	-	-	-	-	-	-	-
E99903 / Blast Cap, Non-Elec: 500Ft Minitube, M21	A		2,164.03	5,237	11.333	57.62	13,000	0.749	59.28	12,703	0.753	169.16	4,605	0.779	-	-	-	169.16	4,605	0.779
E99905 / Blast Cap, Non-Elec, 1000Ft Minitube, M23	A		2,636.42	5,201	13.712	96.18	8,120	0.781	98.76	8,151	0.805	210.62	4,031	0.849	-	-	-	210.62	4,031	0.849
<i>Subtotal: CHG DEMO BLK CRATERING 40 LB</i>			-	-	182.370	-	-	8.674	-	-	6.405	-	-	8.663	-	-	-	-	-	8.663
<b>Total</b>			-	-	182.370	-	-	8.674	-	-	6.405	-	-	8.663	-	-	-	-	-	8.663

**UNCLASSIFIED**

<b>Exhibit P-5, Cost Analysis: PB 2016 Army</b>		<b>Date:</b> February 2015
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2034A / 01 / 47	<b>P-1 Line Item Number / Title:</b> E55400 / Demolition Munitions, All Types	<b>Item Number / Title [DODIC]:</b> E53200 / CHG DEMO SHAPED M3 40 LB [M421]

<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : A	<b>MDAP/MAIS Code:</b>
---	------------------------

<b>Resource Summary</b>	<b>Prior Years</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016 Base</b>	<b>FY 2016 OCO</b>	<b>FY 2016 Total</b>
Procurement Quantity (Units in Each)	8,787	2,022	954	-	-	-
Gross/Weapon System Cost (\$ in Millions)	16.616	5.153	2.226	-	-	-
Less PY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
Net Procurement (P1) (\$ in Millions)	16.616	5.153	2.226	-	-	-
Plus CY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
<b>Total Obligation Authority (\$ in Millions)</b>	<b>16.616</b>	<b>5.153</b>	<b>2.226</b>	-	-	-

*(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)*

Initial Spares (\$ in Millions)	-	-	-	-	-	-
Gross/Weapon System Unit Cost (\$ in Dollars)	1,890.98	2,548.47	2,333.33	-	-	-

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or add, due to rounding.

<b>Cost Elements</b>	<b>Prior Years</b>			<b>FY 2014</b>			<b>FY 2015</b>			<b>FY 2016 Base</b>			<b>FY 2016 OCO</b>			<b>FY 2016 Total</b>		
	<b>Unit Cost (\$)</b>	<b>Qty (Each)</b>	<b>Total Cost (\$ M)</b>	<b>Unit Cost (\$)</b>	<b>Qty (Each)</b>	<b>Total Cost (\$ M)</b>	<b>Unit Cost (\$)</b>	<b>Qty (Each)</b>	<b>Total Cost (\$ M)</b>	<b>Unit Cost (\$)</b>	<b>Qty (Each)</b>	<b>Total Cost (\$ M)</b>	<b>Unit Cost (\$)</b>	<b>Qty (Each)</b>	<b>Total Cost (\$ M)</b>	<b>Unit Cost (\$)</b>	<b>Qty (Each)</b>	<b>Total Cost (\$ M)</b>
<b>Hardware Cost</b>																		
<b>Recurring Cost</b>																		
LOAD, ASSEMBLE, PACK (LAP) <sup>(†)</sup>	747.01	8,787	6.564	772.93	2,022	1.563	883.34	954	0.843	-	-	-	-	-	-	-	-	-
COMP B TYPE I GRADE A <sup>(†)</sup>	-	-	-	-	-	-	11.65	30,528	0.356	-	-	-	-	-	-	-	-	-
*COMP A-3 <sup>(†)</sup>	2.27	1,018	0.002	2.57	229	0.001	2.57	108	***	-	-	-	-	-	-	-	-	-
<i>Subtotal: Recurring Cost</i>	-	-	6.566	-	-	1.563	-	-	1.199	-	-	-	-	-	-	-	-	-
<i>Subtotal: Hardware Cost</i>	-	-	6.566	-	-	1.563	-	-	1.199	-	-	-	-	-	-	-	-	-
<b>Support Cost</b>																		
PRODUCTION ENGINEERING	-	-	10.048	-	-	0.667	-	-	0.445	-	-	-	-	-	-	-	-	-
QUALITY ASSURANCE	-	-	0.002	-	-	0.001	-	-	0.002	-	-	-	-	-	-	-	-	-
FIRST ARTICLE TEST	-	-	-	-	-	0.141	-	-	-	-	-	-	-	-	-	-	-	-
PRODUCT IMPROVEMENT	-	-	-	-	-	0.200	-	-	-	-	-	-	-	-	-	-	-	-
IM QUALIFICATION & TESTING	-	-	-	-	-	1.800	-	-	-	-	-	-	-	-	-	-	-	-
RADFORD AAPIBAE REA	-	-	-	-	-	0.780	-	-	-	-	-	-	-	-	-	-	-	-
ALT WAX QUAL FOR COMP B	-	-	-	-	-	-	-	-	0.580	-	-	-	-	-	-	-	-	-
<i>Subtotal: Support Cost</i>	-	-	10.050	-	-	3.589	-	-	1.027	-	-	-	-	-	-	-	-	-

**UNCLASSIFIED**

<b>Exhibit P-5, Cost Analysis:</b> PB 2016 Army		<b>Date:</b> February 2015
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2034A / 01 / 47	<b>P-1 Line Item Number / Title:</b> E55400 / Demolition Munitions, All Types	<b>Item Number / Title [DODIC]:</b> E53200 / CHG DEMO SHAPED M3 40 LB [M421]
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : A		<b>MDAP/MAIS Code:</b>

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or add, due to rounding.

Cost Elements	Prior Years			FY 2014			FY 2015			FY 2016 Base			FY 2016 OCO			FY 2016 Total		
	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)
Gross/Weapon System Cost	1,890.98	8,787	16.616	2,548.47	2,022	5.153	2,333.33	954	2.226	-	-	-	-	-	-	-	-	-

\* \*\*\* represents funding below \$1,000.00

(†) indicates the presence of a P-5a



**UNCLASSIFIED**

<b>Exhibit P-5a, Procurement History and Planning:</b> PB 2016 Army								<b>Date:</b> February 2015				
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2034A / 01 / 47			<b>P-1 Line Item Number / Title:</b> E55400 / Demolition Munitions, All Types					<b>Item Number / Title [DODIC]:</b> E53200 / CHG DEMO SHAPED M3 40 LB [M421]				
<b>Cost Elements</b>	<b>O C O</b>	<b>FY</b>	<b>Contractor and Location</b>	<b>Method/Type or Funding Vehicle</b>	<b>Location of PCO</b>	<b>Award Date</b>	<b>Date of First Delivery</b>	<b>Qty (Each)</b>	<b>Unit Cost (\$)</b>	<b>Specs Avail Now?</b>	<b>Date Revision Available</b>	<b>RFP Issue Date</b>
LOAD, ASSEMBLE, PACK (LAP) <sup>(†)</sup>		2014	DAY & ZIMMERMANN, INC. / PARSONS, KS	C / FFP	ROCK ISLAND ARSENAL, IL	Sep 2014	Dec 2015	2,022	772.93	Y		
LOAD, ASSEMBLE, PACK (LAP) <sup>(†)</sup>		2015	TO BE SELECTED / TBS01	C / FFP	ROCK ISLAND ARSENAL, IL	May 2015	Nov 2016	954	883.34	Y		
COMP B TYPE I GRADE A		2015	BAE SYSTEMS ORDNANCE SYSTEMS / KINGSPORT, TN	SS / FFP	ROCK ISLAND ARSENAL, IL	Jun 2015	Jun 2016	30,528	11.65	Y		
*COMP A-3		2014	GOVERNMENT FURNISHED MATERIAL / STOCK ISSUE,	GFM	ROCK ISLAND ARSENAL, IL	Oct 2014	Oct 2014	229	2.57			
*COMP A-3		2015	GOVERNMENT FURNISHED MATERIAL / STOCK ISSUE,	GFM	ROCK ISLAND ARSENAL, IL	Oct 2014	Oct 2014	108	2.57			

<sup>(†)</sup> indicates the presence of a P-21

**UNCLASSIFIED**

<b>Exhibit P-21, Production Schedule:</b> PB 2016 Army										<b>Date:</b> February 2015									
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2034A / 01 / 47					<b>P-1 Line Item Number / Title:</b> E55400 / Demolition Munitions, All Types										<b>Item Number / Title [DODIC]:</b> E53200 / CHG DEMO SHAPED M3 40 LB [M421]				

Cost Elements (Units in Thousands)						Fiscal Year 2014											Fiscal Year 2015											
O C C O	M F R #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2013	BAL DUE AS OF 1 OCT	Calendar Year 2014											Calendar Year 2015										
							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

LOAD, ASSEMBLE, PACK (LAP)

Prior Years Deliveries: 8787																													
1	2014	ARMY	2.022	-	2.022													A	-	-	-	-	-	-	-	-	-	-	2.022
1	2014	AF (†)	.513	-	.513													A	-	-	-	-	-	-	-	-	-	-	.513
<b>1</b>	<b>2014</b>	<b>Total</b>	<b>2.535</b>	<b>-</b>	<b>2.535</b>													-	-	-	-	-	-	-	-	-	-	-	<b>2.535</b>
2	2015	ARMY	.954	-	.954																				A	-	-	-	.954
2	2015	AF (†)	.337	-	.337																				A	-	-	-	.337
<b>2</b>	<b>2015</b>	<b>Total</b>	<b>1.291</b>	<b>-</b>	<b>1.291</b>																				-	-	-	-	<b>1.291</b>

**UNCLASSIFIED**

<b>Exhibit P-21, Production Schedule:</b> PB 2016 Army													<b>Date:</b> February 2015															
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2034A / 01 / 47								<b>P-1 Line Item Number / Title:</b> E55400 / Demolition Munitions, All Types													<b>Item Number / Title [DODIC]:</b> E53200 / CHG DEMO SHAPED M3 40 LB [M421]							

Cost Elements <i>(Units in Thousands)</i>						Fiscal Year 2016											Fiscal Year 2017																
O C C O	M F R #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2015	BAL DUE AS OF 1 OCT	Calendar Year 2016											Calendar Year 2017															
							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	B A L		
LOAD, ASSEMBLE, PACK (LAP)																																	
Prior Years Deliveries: 8787																																	
1	2014	ARMY		2.022	-	2.022	-	-	.487	1.000	.535																						-
1	2014	AF (+)		.513	-	.513	-	-	.513	-	-																						-
1	2014	<b>Total</b>		<b>2.535</b>	-	<b>2.535</b>	-	-	<b>1.000</b>	<b>1.000</b>	<b>.535</b>																						-
2	2015	ARMY		.954	-	.954	-	-	-	-	-	-	-	-	-	-	-	.085	.079	.079	.079	.079	.079	.079	.079	.079	.079	.079	.079	.079	.079	.079	-
2	2015	AF (+)		.337	-	.337	-	-	-	-	-	-	-	-	-	-	-	.029	.028	.028	.028	.028	.028	.028	.028	.028	.028	.028	.028	.028	.028	.028	.028
2	2015	<b>Total</b>		<b>1.291</b>	-	<b>1.291</b>	-	-	-	-	-	-	-	-	-	-	-	<b>.114</b>	<b>.107</b>	<b>.107</b>	<b>.107</b>	<b>.107</b>	<b>.107</b>	<b>.107</b>	<b>.107</b>	<b>.107</b>	<b>.107</b>	<b>.107</b>	<b>.107</b>	<b>.107</b>	<b>.107</b>	<b>.107</b>	
							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	B A L		

**UNCLASSIFIED**

<b>Exhibit P-21, Production Schedule:</b> PB 2016 Army		<b>Date:</b> February 2015
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2034A / 01 / 47		<b>P-1 Line Item Number / Title:</b> E55400 / Demolition Munitions, All Types
		<b>Item Number / Title [DODIC]:</b> E53200 / CHG DEMO SHAPED M3 40 LB [M421]

Cost Elements <i>(Units in Thousands)</i>				Fiscal Year 2018													Fiscal Year 2019															
O C C O	M F R #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2017	BAL DUE AS OF 1 OCT	Calendar Year 2018													Calendar Year 2019												
							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	B A L	

LOAD, ASSEMBLE, PACK (LAP)																													
Prior Years Deliveries: 8787																													
1	2014	ARMY	2.022	2.022	-																								
1	2014	AF (†)	.513	.513	-																								
<b>1</b>	<b>2014</b>	<b>Total</b>	<b>2.535</b>	<b>2.535</b>	<b>-</b>																								
2	2015	ARMY	.954	.875	.079	.079																							
2	2015	AF (†)	.337	.309	.028	.028																							
<b>2</b>	<b>2015</b>	<b>Total</b>	<b>1.291</b>	<b>1.184</b>	<b>.107</b>	<b>.107</b>																							

**UNCLASSIFIED**

<b>Exhibit P-21, Production Schedule:</b> PB 2016 Army		<b>Date:</b> February 2015
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2034A / 01 / 47		<b>P-1 Line Item Number / Title:</b> E55400 / Demolition Munitions, All Types
		<b>Item Number / Title [DODIC]:</b> E53200 / CHG DEMO SHAPED M3 40 LB [M421]

MFR Ref #	MFR Name - Location	Production Rates (Each / Year)			Procurement Leadtime (Months)							
		MSR For 2016	1-8-5 For 2016	MAX For 2016	Initial				Reorder			
					ALT Prior to Oct 1	ALT After Oct 1	Mfg PLT	Total After Oct 1	ALT Prior to Oct 1	ALT After Oct 1	Mfg PLT	Total After Oct 1
1	DAY & ZIMMERMANN, INC. - PARSONS, KS	400	1,000	2,500	8	8	18	26	6	6	15	21
2	TO BE SELECTED - TBS01	400	1,000	2,500	8	8	18	26	6	6	15	21

(‡) Delivery rows marked with this symbol indicate that they are funded through a separate Line Item. See the respective components' exhibits for details, including the full delivery schedule. "A" in the Delivery Schedule indicates the Contract Award Date.

Note: Due to space limitations, quantities in the Exhibit P-21 delivery calendar are truncated and rounded based on the maximum quantity in the calendar as follows. If the maximum quantity is less than or equal to than 9,999, all quantities are shown as each. If the maximum quantity is between 10,000 and 999,999 all quantities are shown in thousands. If the maximum quantity is between 1,000,000 and 999,999,999 all quantities are shown in millions (rounded to the nearest thousand). If the maximum quantity is equal or greater than 1,000,000,000 all quantities are shown in billions (rounded to the nearest million).

**UNCLASSIFIED**

**Exhibit P-40, Budget Line Item Justification:** PB 2016 Army **Date:** February 2015

<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2034A: Procurement of Ammunition, Army / BA 01: Ammunition / BSA 47: Other Ammunition	<b>P-1 Line Item Number / Title:</b> E34000 / Grenades, All Types
--	--

ID Code (A=Service Ready, B=Not Service Ready) :	Program Elements for Code B Items:						Other Related Program Elements:					
Resource Summary	Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	To Complete	Total
Procurement Quantity (Units in Each)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (\$ in Millions)	1,216.672	36.242	23.751	19.993	-	19.993	27.649	26.687	27.355	28.828	-	1,407.177
Less PY Advance Procurement (\$ in Millions)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P1) (\$ in Millions)	1,216.672	36.242	23.751	19.993	-	19.993	27.649	26.687	27.355	28.828	-	1,407.177
Plus CY Advance Procurement (\$ in Millions)	-	-	-	-	-	-	-	-	-	-	-	-
<b>Total Obligation Authority (\$ in Millions)</b>	<b>1,216.672</b>	<b>36.242</b>	<b>23.751</b>	<b>19.993</b>	<b>-</b>	<b>19.993</b>	<b>27.649</b>	<b>26.687</b>	<b>27.355</b>	<b>28.828</b>	<b>-</b>	<b>1,407.177</b>
<i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i>												
Initial Spares (\$ in Millions)	-	-	-	-	-	-	-	-	-	-	-	-
Flyaway Unit Cost (\$ in Dollars)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (\$ in Dollars)	-	-	-	-	-	-	-	-	-	-	-	-

**Description:**

This budget line includes Grenades, All Types.

**(E31900)FUZE GRENADE HAND PRAC M228**

Fuze Grenade Hand Practice M228 is a pyrotechnic delay-igniting fuze (delay time of 4 to 5.5 seconds) for use with the M69 practice grenade body. The assembled grenade is identical in size, shape and weight to the M67 fragmentation hand grenade, and is used to learn and practice grenade throwing skills. The fuze contains a primer and a pyrotechnic delay column. A striker, striker spring, safety lever, safety pin with pull ring, safety clip, and igniter assembly are assembled to the body.

**(E32000)GRENADE HAND FRAG DELAY M67**

Grenade Hand Fragmentation Delay M67 consists of a 2.5-inch diameter steel sphere that is designed to burst into numerous fragments when detonated. The grenade body is filled with 5.4 ounces of high explosive, Composition B. Each grenade is fitted with an M213 fuze that initiates the explosive charge 4 to 5.5 seconds after release of the safety lever. The M67 Hand Grenade provides the Warfighter with the capability to conduct pre-mobilization training and the capability to conduct close combat operations.

**(E34001)GRENADE HAND SMOKE GREEN M18**

Grenade Hand Smoke Green M18 is used by the Warfighter for ground-to-air or ground-to-ground signaling while conducting training and combat operations. Each grenade will emit smoke for 50 to 90 seconds. The grenade body is made of thin sheet metal, filled with starter patches and a green smoke composition. The Hand Grenade Fuze M201A1 is a pyrotechnic delay-igniting fuze. The body contains a primer, first-fire mix, pyrotechnic delay column, and ignition mixture. Assembled to the body are a striker, striker spring, safety lever, and safety pin with pull ring.

**(E34002)GRENADE HAND SMOKE YELLOW M18**

Grenade Hand Smoke Yellow M18 is used by the Warfighter for ground-to-air or ground-to-ground signaling while conducting training and combat operations. Each grenade will emit smoke for 50 to 90 seconds. The grenade body is made of thin sheet metal, filled with starter patches and a yellow smoke composition. The Hand Grenade Fuze M201A1 is a pyrotechnic delay-igniting fuze. The body contains a primer, first-fire mix, pyrotechnic delay column, and ignition mixture. Assembled to the body are a striker, striker spring, safety lever, and safety pin with pull ring.

**(E34003)GRENADE HAND SMOKE RED M18**

**UNCLASSIFIED**

<b>Exhibit P-40, Budget Line Item Justification:</b> PB 2016 Army		<b>Date:</b> February 2015
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2034A: Procurement of Ammunition, Army / BA 01: Ammunition / BSA 47: Other Ammunition		<b>P-1 Line Item Number / Title:</b> E34000 / Grenades, All Types
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) :	<b>Program Elements for Code B Items:</b>	<b>Other Related Program Elements:</b>
<p>Grenade Hand Smoke Red M18 is used by the Warfighter for ground-to-air or ground-to-ground signaling while conducting training and combat operations. Each grenade will emit smoke for 50 to 90 seconds. The grenade body is made of thin sheet metal, filled with starter patches and a red smoke composition. The Hand Grenade Fuze M201A1 is a pyrotechnic delay-igniting fuze. The body contains a primer, first-fire mix, pyrotechnic delay column and ignition mixture. Assembled to the body are a striker, striker spring, safety lever, and safety pin with pull ring.</p> <p>(E34004)GRENADE HAND SMOKE VIOLET M18 Grenade Hand Smoke Violet M18 is used by the Warfighter for ground-to-air or ground-to-ground signaling while conducting training and combat operations. Each grenade will emit smoke for 50 to 90 seconds. The grenade body is made of thin sheet metal, filled with starter patches and a violet smoke composition. The Hand Grenade Fuze M201A1 is a pyrotechnic delay-igniting fuze. The body contains a primer, first-fire mix, pyrotechnic delay column and ignition mixture. Assembled to the body are a striker, striker spring, safety lever, and safety pin with pull ring. This item is Code A, approved for service use.</p> <p>(E69300)GRENADE HAND SMOKE WHITE M83 Grenade Hand Smoke (White) M83 provides the Warfighter the capability to generate white smoke for screening activities while conducting small unit operations. It is also used for ground-to-air signaling. This grenade is the tactical replacement for the M8 HC Smoke Grenade, which was found to be carcinogenic. The duration of smoke screen or signal is 25 to 70 seconds, average burn time. The grenade body is a cylinder of thin sheet metal. It is filled with non-toxic smoke mixture topped with a starter patch. The Hand Grenade Fuze M201A1 is a pyrotechnic delay-igniting fuze. The body contains a primer, first-fire mix, pyrotechnic delay column, and ignition mixture. Assembled to the body are a striker, striker spring, safety lever, and safety pin with pull ring. This item is Code A, approved for service use.</p>		

**UNCLASSIFIED**

**Exhibit P-40, Budget Line Item Justification:** PB 2016 Army **Date:** February 2015

**Appropriation / Budget Activity / Budget Sub Activity:**  
2034A: Procurement of Ammunition, Army / BA 01: Ammunition / BSA 47: Other Ammunition

**P-1 Line Item Number / Title:**  
E34000 / Grenades, All Types

Exhibits Schedule			Program Elements for Code B Items:			Other Related Program Elements:		
Title*	Exhibits	ID CD	Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total
			Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)
E31900 / FUZE GRENADE HAND PRAC M228	P-40a	A	705,165 / 253.717	- / 3.069	- / 2.532	- / 2.592	- / -	- / 2.592
E34001 / GRENADE HAND SMOKE GREEN M18	P-40a	A	75,285 / 153.614	85,466 / 3.642	53,662 / 2.677	48,557 / 2.790	- / -	48,557 / 2.790
E34002 / GRENADE HAND SMOKE YELLOW M18	P-40a	A	38,877 / 80.071	67,869 / 3.221	46,187 / 2.450	29,596 / 1.800	- / -	29,596 / 1.800
E34003 / GRENADE HAND SMOKE RED M18	P-40a	A	10,438 / 42.153	22,936 / 1.088	14,644 / 0.821	- / -	- / -	- / -
E34004 / GRENADE HAND SMOKE VIOLET M18	P-40a	A	22,647 / 48.349	53,712 / 2.550	23,205 / 1.282	11,051 / 0.700	- / -	11,051 / 0.700
E32000 / GRENADE HAND FRAG DELAY M67 [G881]	P-5, P-5a, P-21	A	235,903 / 18.441	427,213 / 15.939	125,344 / 9.936	105,854 / 8.238	- / -	105,854 / 8.238
E69300 / GRENADE HAND SMOKE (WHITE) M83 [G982]	P-5, P-5a, P-21	A	2,260 / 20.484	211,597 / 6.733	105,053 / 4.053	83,051 / 3.873	- / -	83,051 / 3.873
<b>Total Gross/Weapon System Cost</b>			<b>- / 1,216.672</b>	<b>- / 36.242</b>	<b>- / 23.751</b>	<b>- / 19.993</b>	<b>- / -</b>	<b>- / 19.993</b>

\*Title represents 1) the Number / Title for Items; 2) the Number / Title [DODIC] for Ammunition; and/or 3) the Number / Title (Modification Type) for Modifications.

Note: Totals in this Exhibit P-40 set may not be exact or add due to rounding.

**Justification:**

FY 2016 Base Budget supports critical Army Title 10 war reserve/operational, training, and test requirements IAW DoD Instruction 3000.04 (Munitions Requirements Process) and AR 5-13 (Total Army Munitions Requirements Process and Prioritization System). War reserve requirements support OSD-approved Combatant Commander Operational Plans, Homeland Defense, and other OSD-directed missions. Training requirements support individual and collective training of Active and Reserve Component forces at Army schools, home station, and the combined training centers. Test requirements support the development, fielding, safety, and quality assurance of Army munitions and equipment throughout their life-cycle.

In accordance with Section 1815 of the FY 2008 National Defense Authorization Act (P.L. 110-181), this item is necessary for use by the active and reserve components of the Armed Forces for homeland defense missions, domestic emergency responses, and providing military support to civil authorities.

The FY 2016 Base procurement dollars in the amount of \$19.993 million supports procurement of six variants of Grenades.

**(E31900)FUZE GRENADE HAND PRAC M228**

This is a training unique item not used in combat. FY 2016 procurement supports annual training and builds a depot level in accordance with Army's procurement goals. FY 2016 Base procurement dollars in the amount of \$2.592 million supports the Recapitalization of 540,575 fuzes.

**(E32000)GRENADE HAND FRAG DELAY M67**

This is a training standard item used in both training and combat. FY 2016 procurement supports annual training and builds a war reserve inventory in accordance with Army's procurement goals. FY 2016 Base procurement dollars in the amount of \$8.238 million supports the procurement of 105,854 grenades.

**(E34001)GRENADE HAND SMOKE GREEN M18**

FY 2016 Base Budget supports critical Army Title 10 war reserve/operational, training, and test requirements IAW DoD Instruction 3000.04 (Munitions Requirements Process) and AR 5-13 (Total Army Munitions Requirements Process and Prioritization System). War reserve requirements support OSD-approved Combatant Commander Operational Plans, Homeland Defense, and other OSD-directed missions. Training requirements support individual and collective training of Active and Reserve Component forces at Army schools, home station, and the combined training centers. Test requirements support the development, fielding, safety, and quality assurance of Army munitions and equipment throughout their life-cycle. This is a training standard item used in both training and combat. FY 2016 procurement supports annual training and builds a war reserve inventory in accordance with Army's procurement goals. FY 2016 Base procurement dollars in the amount of \$2.790 million supports the procurement of 48,557 grenades.



**UNCLASSIFIED**

<b>Exhibit P-40, Budget Line Item Justification:</b> PB 2016 Army		<b>Date:</b> February 2015
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2034A: Procurement of Ammunition, Army / BA 01: Ammunition / BSA 47: Other Ammunition		<b>P-1 Line Item Number / Title:</b> E34000 / Grenades, All Types
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) :	<b>Program Elements for Code B Items:</b>	<b>Other Related Program Elements:</b>
<p>(E34002)GRENADE HAND SMOKE YELLOW M18  FY 2016 Base Budget supports critical Army Title 10 war reserve/operational, training, and test requirements IAW DoD Instruction 3000.04 (Munitions Requirements Process) and AR 5-13 (Total Army Munitions Requirements Process and Prioritization System). War reserve requirements support OSD-approved Combatant Commander Operational Plans, Homeland Defense, and other OSD-directed missions. Training requirements support individual and collective training of Active and Reserve Component forces at Army schools, home station, and the combined training centers. Test requirements support the development, fielding, safety, and quality assurance of Army munitions and equipment throughout their life-cycle. This is a training standard item used in both training and combat. FY 2016 procurement supports annual training and builds war reserve inventory in accordance with Army's procurement goals. FY 2016 Base procurement dollars in the amount of \$1.800 million supports the procurement of 29,596 grenades.</p> <p>(E34004)GRENADE HAND SMOKE VIOLET M18  FY 2016 Base Budget supports critical Army Title 10 war reserve/operational, training, and test requirements IAW DoD Instruction 3000.04 (Munitions Requirements Process) and AR 5-13 (Total Army Munitions Requirements Process and Prioritization System). War reserve requirements support OSD-approved Combatant Commander Operational Plans, Homeland Defense, and other OSD-directed missions. Training requirements support individual and collective training of Active and Reserve Component forces at Army schools, home station, and the combined training centers. Test requirements support the development, fielding, safety, and quality assurance of Army munitions and equipment throughout their life-cycle. This is a training standard item used in both training and in combat. FY 2016 procurement supports annual training and builds a war reserve inventory in accordance with Army's procurement goals. FY 2016 Base procurement dollars in the amount of \$0.700 million supports the procurement of 11,051 grenades.</p> <p>(E69300)GRENADE HAND SMOKE WHITE M83  This is a training standard item used in both training and combat. FY 2016 procurement supports annual training and builds a war reserve inventory in accordance with Army's procurement goals. FY 2016 Base procurement dollars in the amount of \$3.873 million supports the procurement of 83,051 grenades.</p>		

**UNCLASSIFIED**

<b>Exhibit P-40a, Budget Item Justification For Aggregated Items: PB 2016 Army</b>															<b>Date:</b> February 2015				
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2034A / 01 / 47										<b>P-1 Line Item Number / Title:</b> E34000 / Grenades, All Types					<b>Aggregated Items Title:</b> Various				

Note: Subtotals or Totals in this Exhibit P-40a may not be exact or add, due to rounding.

Item Number / Title [DODIC]	ID CD	MDAP/MAIS Code	Prior Years			FY 2014			FY 2015			FY 2016 Base			FY 2016 OCO			FY 2016 Total		
			Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)
<b>FUZE GRENADE HAND PRAC M228</b>																				
E31900 / FUZE GRENADE HAND PRAC M228	A		359.80	705,165	253.717	-	-	3.069	-	-	2.532	-	-	2.592	-	-	-	-	-	2.592
E34001 / GRENADE HAND SMOKE GREEN M18	A		2,040.43	75,285	153.614	42.61	85,466	3.642	49.89	53,662	2.677	57.46	48,557	2.790	-	-	-	57.46	48,557	2.790
E34002 / GRENADE HAND SMOKE YELLOW M18	A		2,059.60	38,877	80.071	47.46	67,869	3.221	53.05	46,187	2.450	60.82	29,596	1.800	-	-	-	60.82	29,596	1.800
E34003 / GRENADE HAND SMOKE RED M18	A		4,038.42	10,438	42.153	47.44	22,936	1.088	56.06	14,644	0.821	-	-	-	-	-	-	-	-	-
E34004 / GRENADE HAND SMOKE VIOLET M18	A		2,134.90	22,647	48.349	47.48	53,712	2.550	55.25	23,205	1.282	63.34	11,051	0.700	-	-	-	63.34	11,051	0.700
<i>Subtotal: FUZE GRENADE HAND PRAC M228</i>			-	-	577.904	-	-	13.570	-	-	9.762	-	-	7.882	-	-	-	-	-	7.882
<b>Total</b>			-	-	577.904	-	-	13.570	-	-	9.762	-	-	7.882	-	-	-	-	-	7.882

**UNCLASSIFIED**

<b>Exhibit P-5, Cost Analysis: PB 2016 Army</b>		Date: February 2015
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2034A / 01 / 47	<b>P-1 Line Item Number / Title:</b> E34000 / Grenades, All Types	<b>Item Number / Title [DODIC]:</b> E32000 / GRENADE HAND FRAG DELAY M67 [G881]

<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : A	<b>MDAP/MAIS Code:</b>
---	------------------------

<b>Resource Summary</b>	<b>Prior Years</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016 Base</b>	<b>FY 2016 OCO</b>	<b>FY 2016 Total</b>
Procurement Quantity (Units in Each)	235,903	427,213	125,344	105,854	-	105,854
Gross/Weapon System Cost (\$ in Millions)	18.441	15.939	9.936	8.238	-	8.238
Less PY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
Net Procurement (P1) (\$ in Millions)	18.441	15.939	9.936	8.238	-	8.238
Plus CY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
<b>Total Obligation Authority (\$ in Millions)</b>	<b>18.441</b>	<b>15.939</b>	<b>9.936</b>	<b>8.238</b>	<b>-</b>	<b>8.238</b>

*(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)*

Initial Spares (\$ in Millions)	-	-	-	-	-	-
Gross/Weapon System Unit Cost (\$ in Dollars)	78.17	37.31	79.27	77.82	-	77.82

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or add, due to rounding.

<b>Cost Elements</b>	<b>Prior Years</b>			<b>FY 2014</b>			<b>FY 2015</b>			<b>FY 2016 Base</b>			<b>FY 2016 OCO</b>			<b>FY 2016 Total</b>		
	<b>Unit Cost (\$)</b>	<b>Qty (Each)</b>	<b>Total Cost (\$ M)</b>	<b>Unit Cost (\$)</b>	<b>Qty (Each)</b>	<b>Total Cost (\$ M)</b>	<b>Unit Cost (\$)</b>	<b>Qty (Each)</b>	<b>Total Cost (\$ M)</b>	<b>Unit Cost (\$)</b>	<b>Qty (Each)</b>	<b>Total Cost (\$ M)</b>	<b>Unit Cost (\$)</b>	<b>Qty (Each)</b>	<b>Total Cost (\$ M)</b>	<b>Unit Cost (\$)</b>	<b>Qty (Each)</b>	<b>Total Cost (\$ M)</b>
<b>Hardware Cost</b>																		
Recurring Cost																		
COMPLETE GRENADE <sup>(†)</sup>	-	-	13.473	31.37	427,213	13.402	45.33	125,344	5.682	40.72	105,854	4.310	-	-	-	40.72	105,854	4.310
<i>Subtotal: Recurring Cost</i>	-	-	13.473	-	-	13.402	-	-	5.682	-	-	4.310	-	-	-	-	-	4.310
<i>Subtotal: Hardware Cost</i>	-	-	13.473	-	-	13.402	-	-	5.682	-	-	4.310	-	-	-	-	-	4.310
<b>Support Cost</b>																		
PRODUCTION ENGINEERING	-	-	3.359	-	-	2.512	-	-	2.721	-	-	2.321	-	-	-	-	-	2.321
QUALITY ASSURANCE	-	-	0.049	-	-	0.025	-	-	0.033	-	-	0.007	-	-	-	-	-	0.007
INSENSITIVE MUNITION	-	-	1.560	-	-	-	-	-	1.500	-	-	0.800	-	-	-	-	-	0.800
M42 PRIMER	-	-	-	-	-	-	-	-	-	-	-	0.800	-	-	-	-	-	0.800
<i>Subtotal: Support Cost</i>	-	-	4.968	-	-	2.537	-	-	4.254	-	-	3.928	-	-	-	-	-	3.928
<b>Gross/Weapon System Cost</b>	<b>78.17</b>	<b>235,903</b>	<b>18.441</b>	<b>37.31</b>	<b>427,213</b>	<b>15.939</b>	<b>79.27</b>	<b>125,344</b>	<b>9.936</b>	<b>77.82</b>	<b>105,854</b>	<b>8.238</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>77.82</b>	<b>105,854</b>	<b>8.238</b>

(†) indicates the presence of a P-5a

**UNCLASSIFIED**

<b>Exhibit P-5a, Procurement History and Planning:</b> PB 2016 Army							<b>Date:</b> February 2015					
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2034A / 01 / 47			<b>P-1 Line Item Number / Title:</b> E34000 / Grenades, All Types				<b>Item Number / Title [DODIC]:</b> E32000 / GRENADE HAND FRAG DELAY M67 [G881]					

Cost Elements	O C O	FY	Contractor and Location	Method/Type or Funding Vehicle	Location of PCO	Award Date	Date of First Delivery	Qty <i>(Each)</i>	Unit Cost <i>(\$)</i>	Specs Avail Now?	Date Revision Available	RFP Issue Date
COMPLETE GRENADE <sup>(†)</sup>		2014	DAY & ZIMMERMANN LONE STAR / TEXARKANA, TX	C / FFP	ROCK ISLAND ARSENAL, IL	Mar 2014	Sep 2015	427,213	31.37	Y		
COMPLETE GRENADE <sup>(†)</sup>		2015	TO BE SELECTED / TBS01	C / FFP	ROCK ISLAND ARSENAL, IL	May 2015	May 2017	125,344	45.33	Y		
COMPLETE GRENADE <sup>(†)</sup>		2016	TO BE SELECTED / TBS01	C / FFP	ROCK ISLAND ARSENAL, IL	Mar 2016	Sep 2017	105,854	40.72	Y		

<sup>(†)</sup> indicates the presence of a P-21

**Remarks:**  
FY 2015 will be a new competitive FFP contract and FY 2016 will an option.

**UNCLASSIFIED**

<b>Exhibit P-21, Production Schedule:</b> PB 2016 Army					<b>Date:</b> February 2015		
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2034A / 01 / 47			<b>P-1 Line Item Number / Title:</b> E34000 / Grenades, All Types			<b>Item Number / Title [DODIC]:</b> E32000 / GRENADE HAND FRAG DELAY M67 [G881]	

Cost Elements (Units in Thousands)						Fiscal Year 2014												Fiscal Year 2015													
O C C O	M F R #	FY	SERVICE	PROC QTY	ACCE PT PRI OR TO 1 OCT 2013	BAL DUE AS OF 1 OCT	Calendar Year 2014												Calendar Year 2015												
							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	B A L
COMPLETE GRENADE																															
	1	2014	ARMY	427.213	-	427.213								A	-	-	-	-	-	-	-	-	-	-	-	-	-	-	44.363	382.850	
	1	2014	AF (†)	15.177	-	15.177								A	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4.570	10.607	
	1	2014	NSOF (†)	3.347	-	3.347								A	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.067	2.280	
	<b>1</b>	<b>2014</b>	<b>Total</b>	<b>445.737</b>	<b>-</b>	<b>445.737</b>								-	-	-	-	-	-	-	-	-	-	-	-	-	-	<b>50.000</b>	<b>395.737</b>		
	2	2015	ARMY	125.344	-	125.344																									
	2	2015	AF (†)	1.154	-	1.154																									
	<b>2</b>	<b>2015</b>	<b>Total</b>	<b>126.498</b>	<b>-</b>	<b>126.498</b>																									
	2	2016	ARMY	105.854	-	105.854																									
	2	2016	AF (†)	2.705	-	2.705																									
	<b>2</b>	<b>2016</b>	<b>Total</b>	<b>108.559</b>	<b>-</b>	<b>108.559</b>																									
							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	B A L

**UNCLASSIFIED**

<b>Exhibit P-21, Production Schedule:</b> PB 2016 Army														<b>Date:</b> February 2015													
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2034A / 01 / 47										<b>P-1 Line Item Number / Title:</b> E34000 / Grenades, All Types										<b>Item Number / Title [DODIC]:</b> E32000 / GRENADE HAND FRAG DELAY M67 [G881]							

Cost Elements <i>(Units in Thousands)</i>					Fiscal Year 2016														Fiscal Year 2017													
O C C O	M F R #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2015	BAL DUE AS OF 1 OCT	Calendar Year 2016														Calendar Year 2017											
							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	B A L	
COMPLETE GRENADE																																
	1	2014	ARMY	427.213	44.363	382.850	43.150	43.963	50.000	50.000	50.000	50.000	50.000	50.000	45.737															-		
	1	2014	AF (†)	15.177	4.570	10.607	4.570	6.037	-	-	-	-	-	-	-															-		
	1	2014	NSOF (†)	3.347	1.067	2.280	2.280	-	-	-	-	-	-	-	-															-		
	<b>1</b>	<b>2014</b>	<b>Total</b>	<b>445.737</b>	<b>50.000</b>	<b>395.737</b>	<b>50.000</b>	<b>50.000</b>	<b>50.000</b>	<b>50.000</b>	<b>50.000</b>	<b>50.000</b>	<b>50.000</b>	<b>50.000</b>	<b>45.737</b>															-		
	2	2015	ARMY	125.344	-	125.344	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
	2	2015	AF (†)	1.154	-	1.154	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
	<b>2</b>	<b>2015</b>	<b>Total</b>	<b>126.498</b>	<b>-</b>	<b>126.498</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>		
	2	2016	ARMY	105.854	-	105.854																										
	2	2016	AF (†)	2.705	-	2.705																										
	<b>2</b>	<b>2016</b>	<b>Total</b>	<b>108.559</b>	<b>-</b>	<b>108.559</b>																										
							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	B A L	

**UNCLASSIFIED**

<b>Exhibit P-21, Production Schedule:</b> PB 2016 Army		<b>Date:</b> February 2015
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2034A / 01 / 47		<b>P-1 Line Item Number / Title:</b> E34000 / Grenades, All Types
		<b>Item Number / Title [DODIC]:</b> E32000 / GRENADE HAND FRAG DELAY M67 [G881]

Cost Elements <i>(Units in Thousands)</i>					Fiscal Year 2018										Fiscal Year 2019																
O C C O	M F R #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2017	BAL DUE AS OF 1 OCT	Calendar Year 2018										Calendar Year 2019										B A L				
							O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y		J U N	J U L	A U G	S E P
COMPLETE GRENADE																															
	1	2014	ARMY	427.213	427.213	-																								-	
	1	2014	AF (‡)	15.177	15.177	-																								-	
	1	2014	NSOF (‡)	3.347	3.347	-																								-	
	<b>1</b>	<b>2014</b>	<b>Total</b>	<b>445.737</b>	<b>445.737</b>	-																								-	
	2	2015	ARMY	125.344	125.344	-																								-	
	2	2015	AF (‡)	1.154	1.154	-																								-	
	<b>2</b>	<b>2015</b>	<b>Total</b>	<b>126.498</b>	<b>126.498</b>	-																								-	
	2	2016	ARMY	105.854	8.845	97.009	8.819	8.819	8.819	8.819	8.819	8.819	8.819	8.819	8.819	8.819	8.819	8.819	8.819	8.819	8.819	8.819	8.819	8.819	8.819	8.819	8.819	8.819	8.819	-	
	2	2016	AF (‡)	2.705	2.705	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	<b>2</b>	<b>2016</b>	<b>Total</b>	<b>108.559</b>	<b>11.550</b>	<b>97.009</b>	<b>8.819</b>	<b>8.819</b>	<b>8.819</b>	<b>8.819</b>	<b>8.819</b>	<b>8.819</b>	<b>8.819</b>	<b>8.819</b>	<b>8.819</b>	<b>8.819</b>	<b>8.819</b>	<b>8.819</b>	<b>8.819</b>	<b>8.819</b>	<b>8.819</b>	<b>8.819</b>	<b>8.819</b>	<b>8.819</b>	<b>8.819</b>	<b>8.819</b>	<b>8.819</b>	<b>8.819</b>	<b>8.819</b>	<b>-</b>	
							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	B A L

**UNCLASSIFIED**

<b>Exhibit P-21, Production Schedule:</b> PB 2016 Army		<b>Date:</b> February 2015
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2034A / 01 / 47		<b>P-1 Line Item Number / Title:</b> E34000 / Grenades, All Types
		<b>Item Number / Title [DODIC]:</b> E32000 / GRENADE HAND FRAG DELAY M67 [G881]

MFR Ref #	MFR Name - Location	Production Rates (Each / Month)			Procurement Leadtime (Months)							
		MSR For 2016	1-8-5 For 2016	MAX For 2016	Initial				Reorder			
					ALT Prior to Oct 1	ALT After Oct 1	Mfg PLT	Total After Oct 1	ALT Prior to Oct 1	ALT After Oct 1	Mfg PLT	Total After Oct 1
1	DAY & ZIMMERMANN LONE STAR - TEXARKANA, TX	30,000	50,000	100,000	8	8	24	32	6	6	18	24
2	TO BE SELECTED - TBS01	30,000	50,000	100,000	8	8	24	32	6	6	18	24

(‡) Delivery rows marked with this symbol indicate that they are funded through a separate Line Item. See the respective components' exhibits for details, including the full delivery schedule.

"A" in the Delivery Schedule indicates the Contract Award Date.

Note: Due to space limitations, quantities in the Exhibit P-21 delivery calendar are truncated and rounded based on the maximum quantity in the calendar as follows. If the maximum quantity is less than or equal to than 9,999, all quantities are shown as each. If the maximum quantity is between 10,000 and 999,999 all quantities are shown in thousands. If the maximum quantity is between 1,000,000 and 999,999,999 all quantities are shown in millions (rounded to the nearest thousand). If the maximum quantity is equal or greater than 1,000,000,000 all quantities are shown in billions (rounded to the nearest million).



**UNCLASSIFIED**

<b>Exhibit P-5, Cost Analysis: PB 2016 Army</b>		<b>Date:</b> February 2015
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2034A / 01 / 47		<b>P-1 Line Item Number / Title:</b> E34000 / Grenades, All Types
		<b>Item Number / Title [DODIC]:</b> E69300 / GRENADE HAND SMOKE (WHITE) M83 [G982]

<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : A				<b>MDAP/MAIS Code:</b>			
Resource Summary		Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total
Procurement Quantity <i>(Units in Each)</i>		2,260	211,597	105,053	83,051	-	83,051
Gross/Weapon System Cost <i>(\$ in Millions)</i>		20.484	6.733	4.053	3.873	-	3.873
Less PY Advance Procurement <i>(\$ in Millions)</i>		-	-	-	-	-	-
Net Procurement (P1) <i>(\$ in Millions)</i>		20.484	6.733	4.053	3.873	-	3.873
Plus CY Advance Procurement <i>(\$ in Millions)</i>		-	-	-	-	-	-
<b>Total Obligation Authority</b> <i>(\$ in Millions)</i>		<b>20.484</b>	<b>6.733</b>	<b>4.053</b>	<b>3.873</b>	-	<b>3.873</b>
<i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i>							
Initial Spares <i>(\$ in Millions)</i>		-	-	-	-	-	-
Gross/Weapon System Unit Cost <i>(\$ in Dollars)</i>		9,063.72	31.82	38.58	46.63	-	46.63

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or add, due to rounding.

Cost Elements	Prior Years			FY 2014			FY 2015			FY 2016 Base			FY 2016 OCO			FY 2016 Total		
	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)
Hardware Cost																		
Recurring Cost																		
LOAD, ASSEMBLE, PACK (LAP) <sup>(†)</sup>	46.21	301,920	13.952	20.38	211,597	4.312	20.55	105,053	2.159	21.16	83,051	1.757	-	-	-	21.16	83,051	1.757
FUZE HAND GRENADE M201A1 <sup>(†)</sup>	9.08	313,997	2.851	4.85	220,061	1.067	5.55	109,255	0.606	9.06	86,373	0.783	-	-	-	9.06	86,373	0.783
GRENADE, METAL PARTS SET <sup>(†)</sup>	3.19	347,208	1.108	-	-	-	1.90	120,811	0.230	2.23	95,508	0.213	-	-	-	2.23	95,508	0.213
<i>Subtotal: Recurring Cost</i>	-	-	17.910	-	-	5.380	-	-	2.995	-	-	2.753	-	-	-	-	-	2.753
<i>Subtotal: Hardware Cost</i>	-	-	17.910	-	-	5.380	-	-	2.995	-	-	2.753	-	-	-	-	-	2.753
Support Cost																		
PRODUCTION ENGINEERING	-	-	2.553	-	-	1.345	-	-	1.048	-	-	1.107	-	-	-	-	-	1.107
QUALITY ASSURANCE	-	-	0.020	-	-	0.009	-	-	0.011	-	-	0.012	-	-	-	-	-	0.012
<i>Subtotal: Support Cost</i>	-	-	2.573	-	-	1.354	-	-	1.059	-	-	1.119	-	-	-	-	-	1.119
<b>Gross/Weapon System Cost</b>	<b>9,063.72</b>	<b>2,260</b>	<b>20.484</b>	<b>31.82</b>	<b>211,597</b>	<b>6.733</b>	<b>38.58</b>	<b>105,053</b>	<b>4.053</b>	<b>46.63</b>	<b>83,051</b>	<b>3.873</b>	-	-	-	<b>46.63</b>	<b>83,051</b>	<b>3.873</b>

(†) indicates the presence of a P-5a

**UNCLASSIFIED**

<b>Exhibit P-5a, Procurement History and Planning:</b> PB 2016 Army							<b>Date:</b> February 2015					
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2034A / 01 / 47			<b>P-1 Line Item Number / Title:</b> E34000 / Grenades, All Types				<b>Item Number / Title [DODIC]:</b> E69300 / GRENADE HAND SMOKE (WHITE) M83 [G982]					

Cost Elements	O C O	FY	Contractor and Location	Method/Type or Funding Vehicle	Location of PCO	Award Date	Date of First Delivery	Qty <i>(Each)</i>	Unit Cost <i>(\$)</i>	Specs Avail Now?	Date Revision Available	RFP Issue Date
LOAD, ASSEMBLE, PACK (LAP) <sup>(†)</sup>		2014	PINE BLUFF ARSENAL / PINE BLUFF, AR	PO	ROCK ISLAND ARSENAL, IL	Mar 2014	Jun 2015	211,597	20.38	Y		
LOAD, ASSEMBLE, PACK (LAP) <sup>(†)</sup>		2015	PINE BLUFF ARSENAL / PINE BLUFF, AR	PO	ROCK ISLAND ARSENAL, IL	Mar 2015	Jun 2016	105,053	20.55	Y		
LOAD, ASSEMBLE, PACK (LAP) <sup>(†)</sup>		2016	PINE BLUFF ARSENAL / PINE BLUFF, AR	PO	ROCK ISLAND ARSENAL, IL	Mar 2016	Jun 2017	83,051	21.16	Y		
FUZE HAND GRENADE M201A1		2014	CHEMRING ORDNANCE, INC. / PERRY, FL	C / FFP	ROCK ISLAND ARSENAL, IL	Mar 2014	Mar 2015	220,061	4.85	Y		
FUZE HAND GRENADE M201A1		2015	TO BE SELECTED / TBS01	C / FFP	ROCK ISLAND ARSENAL, IL	May 2015	May 2016	109,255	5.55	Y		
FUZE HAND GRENADE M201A1		2016	TO BE SELECTED / TBS01	C / FFP	ROCK ISLAND ARSENAL, IL	Mar 2016	Mar 2017	86,373	9.06	Y		
GRENADE, METAL PARTS SET		2015	TO BE SELECTED / TBS02	C / FFP	ROCK ISLAND ARSENAL, IL	May 2015	May 2016	120,811	1.90	Y		
GRENADE, METAL PARTS SET		2016	TO BE SELECTED / TBS02	C / FFP	ROCK ISLAND ARSENAL, IL	Mar 2016	Dec 2016	95,508	2.23	Y		

<sup>(†)</sup> indicates the presence of a P-21

**Remarks:**

FUZE HAND GRENADE M201A1 FY2015 LAP will be a purchase order (PO) to Pine Bluff Arsenal in FY 2015 and FY 2016.

The Fuze procurement will be a new competitive FPP contract in FY 2015 with options for FY 2016.

The Metal Part procurement will be a new competitive FPP contract in FY 2015 with options for FY 2016.

**UNCLASSIFIED**

<b>Exhibit P-21, Production Schedule:</b> PB 2016 Army					<b>Date:</b> February 2015							
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2034A / 01 / 47			<b>P-1 Line Item Number / Title:</b> E34000 / Grenades, All Types					<b>Item Number / Title [DODIC]:</b> E69300 / GRENADE HAND SMOKE (WHITE) M83 [G982]				

Cost Elements (Units in Thousands)				Fiscal Year 2014														Fiscal Year 2015																
O C C #	M F R #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2013	BAL DUE AS OF 1 OCT	Calendar Year 2014														Calendar Year 2015													
							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	B A L			
LOAD, ASSEMBLE, PACK (LAP)																																		
Prior Years Deliveries: 301920																																		
1		2014	ARMY	211.597	-	211.597																												
1		2015	ARMY	105.053	-	105.053																												
1		2015	MC (*)	28.453	-	28.453																												
1		<b>2015</b>	<b>Total</b>	<b>133.506</b>	<b>-</b>	<b>133.506</b>																												
1		2016	ARMY	83.051	-	83.051																												
							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	B A L			

**UNCLASSIFIED**

<b>Exhibit P-21, Production Schedule:</b> PB 2016 Army		<b>Date:</b> February 2015
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2034A / 01 / 47		<b>P-1 Line Item Number / Title:</b> E34000 / Grenades, All Types
		<b>Item Number / Title [DODIC]:</b> E69300 / GRENADE HAND SMOKE (WHITE) M83 [G982]

Cost Elements <i>(Units in Thousands)</i>					Fiscal Year 2016												Fiscal Year 2017													
O C C O	M F R #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2015	BAL DUE AS OF 1 OCT	Calendar Year 2016												Calendar Year 2017											
							O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P
LOAD, ASSEMBLE, PACK (LAP)																														
Prior Years Deliveries: 301920																														
1	2014	ARMY	211.597	211.597	-																									
1	2015	ARMY	105.053	-	105.053	-	-	-	-	-	-	-	-	80.000	25.053															
1	2015	MC (*)	28.453	-	28.453	-	-	-	-	-	-	-	-	28.453	-															
1	2015	<b>Total</b>	<b>133.506</b>	-	<b>133.506</b>	-	-	-	-	-	-	-	-	<b>108.453</b>	<b>25.053</b>															
1	2016	ARMY	83.051	-	83.051																									

**UNCLASSIFIED**

<b>Exhibit P-21, Production Schedule:</b> PB 2016 Army		<b>Date:</b> February 2015
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2034A / 01 / 47		<b>P-1 Line Item Number / Title:</b> E34000 / Grenades, All Types
		<b>Item Number / Title [DODIC]:</b> E69300 / GRENADE HAND SMOKE (WHITE) M83 [G982]

MFR Ref #	MFR Name - Location	Production Rates (Each / Month)			Procurement Leadtime (Months)							
		MSR For 2016	1-8-5 For 2016	MAX For 2016	Initial				Reorder			
					ALT Prior to Oct 1	ALT After Oct 1	Mfg PLT	Total After Oct 1	ALT Prior to Oct 1	ALT After Oct 1	Mfg PLT	Total After Oct 1
1	PINE BLUFF ARSENAL - PINE BLUFF, AR	60,000	112,000	268,000	8	8	18	26	6	6	15	21

**Remarks:**  
All M18/M83 Smoke Grenades are produced on the same assembly line. Production rates and leadtimes apply for the family of Smoke Grenades. The order of production by color is changed based on need.

(\*) Delivery rows marked with this symbol indicate that they are funded through a separate Line Item. See the respective components' exhibits for details, including the full delivery schedule.  
"A" in the Delivery Schedule indicates the Contract Award Date.  
Note: Due to space limitations, quantities in the Exhibit P-21 delivery calendar are truncated and rounded based on the maximum quantity in the calendar as follows. If the maximum quantity is less than or equal to than 9,999, all quantities are shown as each. If the maximum quantity is between 10,000 and 999,999 all quantities are shown in thousands. If the maximum quantity is between 1,000,000 and 999,999,999 all quantities are shown in millions (rounded to the nearest thousand). If the maximum quantity is equal or greater than 1,000,000,000 all quantities are shown in billions (rounded to the nearest million).

**UNCLASSIFIED**

**Exhibit P-40, Budget Line Item Justification:** PB 2016 Army **Date:** February 2015

<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2034A: Procurement of Ammunition, Army / BA 01: Ammunition / BSA 47: Other Ammunition	<b>P-1 Line Item Number / Title:</b> E46900 / Signals, All Types
--	---

ID Code (A=Service Ready, B=Not Service Ready) :			Program Elements for Code B Items:					Other Related Program Elements:				
Resource Summary	Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	To Complete	Total
Procurement Quantity ( <i>Units in Each</i> )	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost ( <i>\$ in Millions</i> )	680.031	15.609	12.082	9.761	8.000	17.761	26.090	13.963	15.349	15.288	-	796.173
Less PY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P1) ( <i>\$ in Millions</i> )	680.031	15.609	12.082	9.761	8.000	17.761	26.090	13.963	15.349	15.288	-	796.173
Plus CY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-	-	-	-	-	-	-
<b>Total Obligation Authority (<i>\$ in Millions</i>)</b>	<b>680.031</b>	<b>15.609</b>	<b>12.082</b>	<b>9.761</b>	<b>8.000</b>	<b>17.761</b>	<b>26.090</b>	<b>13.963</b>	<b>15.349</b>	<b>15.288</b>	-	<b>796.173</b>
<i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i>												
Initial Spares ( <i>\$ in Millions</i> )	-	-	-	-	-	-	-	-	-	-	-	-
Flyaway Unit Cost ( <i>\$ in Dollars</i> )	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost ( <i>\$ in Dollars</i> )	-	-	-	-	-	-	-	-	-	-	-	-

**Description:**

This budget line includes Signals, All Types.

(E49100) Flare, AC Countermeasure, M206 Magnesium Teflon IR

The M206 flares are part of a family of advanced IR decoy flares designed for use by Army helicopters and fixed wing aircraft to meet advanced threats in current and future operational environments. This flare is a Magnesium Teflon Viton flare. When used together with the M212, a spectrally matched flare, and the M211, a pyrophoric alloy material payload that reacts with air to emit intense IR radiation, it provides protection against a wide range of surface to air threats. This item is Code A, approved for service use.

(E88900) Flare AC Cntermeasure M211 Pyrophoric Msl IR Decoy

These flares are part of a family of advanced infrared (IR) decoy flares designed for use by Army helicopters and fixed wing aircraft to meet advanced threats in current and future operational environments. The M211 uses a special high surface area metal foil, which rapidly oxidizes when exposed to oxygen. When one of the flares is dispensed from the host aircraft, the special pyrophoric material payload reacts with air to emit intense IR radiation that is not visible to the naked eye. The IR radiation diverts heat-seeking missiles away from the aircraft. When used together with the M212, a spectrally matched flare, and the M206, a Magnesium Teflon Viton flare, the flares provide protection against a wide range of surface to air threats. This item is Code A, approved for service use.

(E44600) Signal Kit Personnel Distress Red FP AP/25S-5

The Personnel Distress Signal Kit (Red) is primarily used by downed airmen or others exposed to emergency escape and evasion situations. There are seven (7) red signals in a Kit, one (1) hand fired launcher, and one (1) bandoleer assembly. The signals are propelled by a rocket motor with a time delay and are capable of penetrating foliage. This item is Code A, approved for service use.

(E46400) Signal, Hand Held Red Star Cluster M158

The Family of Hand Held Signals are individually launched pyrotechnics used for signaling and illumination. The payload is launched by a small, fin stabilized rocket and reaches a height of 725 feet. The M158 is the red star cluster signal used primarily as a distress signal. The payload is a cluster of five flares that burn for approximately 10 seconds. This item is Code A, approved for service use.

(E46500) Signal, Hand Held White Star Cluster M159

The Family of Hand Held Signals are individually launched pyrotechnics used for signaling and illumination. The payload is launched by a small, fin stabilized rocket and reaches a height of 725 feet. The M159 is a white star cluster used primarily for signaling. The payload is a cluster of five flares that burn for approximately 10 seconds. This item is Code A, approved for service use.

**UNCLASSIFIED**

<b>Exhibit P-40, Budget Line Item Justification:</b> PB 2016 Army		<b>Date:</b> February 2015
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2034A: Procurement of Ammunition, Army / BA 01: Ammunition / BSA 47: Other Ammunition		<b>P-1 Line Item Number / Title:</b> E46900 / Signals, All Types
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) :	<b>Program Elements for Code B Items:</b>	<b>Other Related Program Elements:</b>
<p>(E46700) Signal, Hand Held Red Parachute Flare M126A1 The Family of Hand Held Signals are individually launched pyrotechnics used for signaling and illumination. The payload is launched by a small, fin stabilized rocket and reaches a height of 725 feet. The M126A1 is a red parachute flare used primarily as a distress signal. The flare burns for approximately 30 seconds. This item is Code A, approved for service use.</p> <p>(E46800) Signal, Hand Held White Parachute Flare M127 The Family of Hand Held Signals are individually launched pyrotechnics used for signaling and illumination. The payload is launched by a small, fin stabilized rocket and reaches a height of 725 feet. The M127A1 is a white parachute flare used primarily for illumination. The flare burns for approximately 30 seconds. This item is Code A, approved for service use.</p> <p>(E47000) Signal, Hand Held Green Star Cluster M125A1 The Family of Hand Held Signals which are individually launched pyrotechnics used for signaling and illumination. The payload is launched by a small, fin stabilized rocket and reaches a height of 725 feet. M125A1 is a green star cluster signal used for signaling and illuminating missions. The payload is a cluster of five flares that burn for approximately 10 seconds. This item is Code A, approved for service use.</p> <p>(E48300) Signal, Hand Held Green Parachute Flare M195 The Family of Hand Held Signals are individually launched pyrotechnics used for signaling and illumination. The payload is launched by a small, fin stabilized rocket and reaches a height of 725 feet. The M195 is a green parachute flare used primarily for signaling. The flare burns for approximately 30 seconds. This item is Code A, approved for service use.</p> <p>(E62900) SMOKE POT PRACTICE M8 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 and 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 battalion units. This item is Code A, approved for service use.</p> <p>(E42010) Flares And Markers, Watercraft The marker is launched from high-speed aircraft or helicopters in either day or night to mark the course of enemy submarines in antisubmarine warfare operations. They can be used for any type of air to sea surface marking that are referenced by smoke and flame. This item is Code A, approved for service use.</p> <p>(E57605) CTG, 25.4mm, Decoy,Chaff,RR170 (w/Mk1 impulse ctg) The RR170 is part of a family of advanced Radar Frequency (RF) chaff decoys designed for use by both rotary and fixed wing Army aircraft to defeat advance threats in current and future operational environments. The RR170 payload is made up of strands of aluminum coated glass fibers and loaded into a plastic outer case. When chaff is dispensed, it generates a reflected return signal which obstructs/confuses enemy radar and prevents Army aircraft detection. When used together, the RR170 and M839, provides protection against a wide range of surface-to-air missile (SAM) threats. This item is Code A, approved for service use.</p>		

**UNCLASSIFIED**

**Exhibit P-40, Budget Line Item Justification:** PB 2016 Army **Date:** February 2015

**Appropriation / Budget Activity / Budget Sub Activity:**  
2034A: Procurement of Ammunition, Army / BA 01: Ammunition / BSA 47: Other Ammunition

**P-1 Line Item Number / Title:**  
E46900 / Signals, All Types

ID Code (A=Service Ready, B=Not Service Ready) :			Program Elements for Code B Items:			Other Related Program Elements:		
Exhibits Schedule			Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total
Title*	Exhibits	ID CD	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)
E42010 / FLARES AND MARKERS, WATERCRAFT	P-40a	A	- / -	- / -	2,728 / 0.985	2,753 / 1.000	- / -	2,753 / 1.000
E44600 / SIGNAL KIT PERSONNEL DISTRESS RED FP	P-40a	A	- / 35.873	800 / 0.084	498 / 0.085	- / -	- / -	- / -
E46400 / Signal, Hand Held Red Star Cluster M158	P-40a	A	- / 33.954	13,127 / 1.047	- / -	17,409 / 1.539	- / -	17,409 / 1.539
E46500 / Signal, Hand Held White Star Cluster M159	P-40a	A	- / 30.780	6,392 / 0.620	- / -	- / -	- / -	- / -
E46700 / Signal, Hand Held Red Parachute Flare M126A1	P-40a	A	- / 20.825	- / 0.491	- / -	- / -	- / -	- / -
E46800 / Signal, Hand Held White Parachute Flare M127A1	P-40a	A	- / 135.702	- / -	- / -	28,412 / 2.490	- / -	28,412 / 2.490
E47000 / Signal, Hand Held Green Star Cluster M125A1	P-40a	A	- / 50.950	12,661 / 1.010	- / -	- / -	- / -	- / -
E48300 / Signal, Hand Held Green Parachute Flare M195	P-40a	A	- / 16.766	4,309 / 0.357	- / -	- / -	- / -	- / -
E49100 / Flare, AC Countermeasure, M206 Magnesium Teflon IR	P-40a	A	- / 66.550	60,225 / 2.000	55,304 / 2.084	54,260 / 2.232	55,111 / 2.000	109,371 / 4.232
E49500 / FUSEE WARNING RR RED 20 MIN M72	P-40a	A	- / 0.409	- / -	- / -	- / -	- / -	- / -
E57605 / CTG, 25.4mm, Decoy,Chaff,RR170 (w/Mk1 impulse ctg)	P-40a		- / -	- / -	- / -	26,595 / 0.500	- / -	26,595 / 0.500
E62900 / SMOKE POT PRACTICE M8	P-40a	A	2,562 / 42.200	3,424 / 4.000	2,005 / 2.957	- / -	- / -	- / -
E88900 / Flare AC Cntermeasure M211 Pyrophoric Msl IR Decoy [LA14]	P-5, P-5a, P-21	A	- / 2.339	43,841 / 6.000	39,194 / 5.971	9,935 / 2.000	49,091 / 6.000	59,026 / 8.000
<b>Total Gross/Weapon System Cost</b>			<b>- / 680.031</b>	<b>- / 15.609</b>	<b>- / 12.082</b>	<b>- / 9.761</b>	<b>- / 8.000</b>	<b>- / 17.761</b>

\*Title represents 1) the Number / Title for Items; 2) the Number / Title [DODIC] for Ammunition; and/or 3) the Number / Title (Modification Type) for Modifications.

Note: Totals in this Exhibit P-40 set may not be exact or add due to rounding.

**Justification:**

FY 2016 Base Budget supports critical Army Title 10 war reserve/operational, training, and test requirements IAW DoD Instruction 3000.04 (Munitions Requirements Process) and AR 5-13 (Total Army Munitions Requirements Process and Prioritization System). War reserve requirements support OSD-approved Combatant Commander Operational Plans, Homeland Defense, and other OSD-directed missions. Training requirements support individual and collective training of Active and Reserve Component forces at Army schools, home station, and the combined training centers. Test requirements support the development, fielding, safety, and quality assurance of Army munitions and equipment throughout their life-cycle.

In accordance with Section 1815 of the FY 2008 National Defense Authorization Act (P.L. 110-181), this item is necessary for use by the active and reserve components of the Armed Forces for homeland defense missions, domestic emergency responses, and providing military support to civil authorities.

FY 2016 Base procurement dollars in the amount of \$9.761 million supports production of 6 variants of Signals.

FY 2016 OCO procurement dollars in the amount of \$8.000 million supports production of 2 variants of Signals.

**E42010 - FLARES AND MARKERS, WATERCRAFT**

This is a training standard item used in both training and combat. FY 2016 request supports annual training and builds a war reserve inventory in accordance with Army's procurement goals. FY 2016 Base procurement dollars in the amount of \$1.000 million supports the procurement of 2,753 markers.

**E46400 - Signal, Hand Held Red Star Cluster M158**

This is a training standard item used in both training and combat. FY 2016 request supports annual training and builds a war reserve inventory in accordance with the Army procurement goals. FY 2016 Base procurement dollars in the amount of \$1.539 million supports the procurement of 17,409 Signals.



**UNCLASSIFIED**

<b>Exhibit P-40, Budget Line Item Justification:</b> PB 2016 Army		<b>Date:</b> February 2015
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2034A: Procurement of Ammunition, Army / BA 01: Ammunition / BSA 47: Other Ammunition		<b>P-1 Line Item Number / Title:</b> E46900 / Signals, All Types
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) :	<b>Program Elements for Code B Items:</b>	<b>Other Related Program Elements:</b>
<p>E46800 - Signal, Hand Held White Parachute Flare M127A1 This is a training standard item used both training and combat. The request supports annual training and builds a war reserve inventory in accordance with Army's procurement goals. FY 2016 Base procurement dollars in the amount of \$2.490 million supports the procurement of 28,412 Signals.</p> <p>E49100 - Flare, AC Countermeasure, M206 Magnesium Teflon IR This is a training standard item used in both training and combat. FY 2016 request supports annual training and builds a war reserve inventory in accordance with Army's procurement goals. FY 2016 Base procurement dollars in the amount of \$2.232 million supports the procurement of 54,260 flares. FY 2016 OCO procurement dollars in the amount of \$2.000 million supports the procurement of 55,111 flares.</p> <p>E57605 - CTG, 25.4mm, Decoy,Chaff,RR170 (w/Mk1 impulse ctg) This is a training standard item used in both training and combat. FY 2016 request supports annual training and builds a war reserve inventory in accordance with Army's procurement goals. FY 2016 Base procurement dollars in the amount of \$0.500 million supports the procurement of 26,595 decoys.</p> <p>E88900 - Flare AC Cntermeasure M211 Pyrophoric Msl IR Decoy This is a training standard item used in both training and combat. FY 2016 request supports annual training and builds a war reserve inventory in accordance with Army's procurement goals. FY 2016 Base procurement dollars in the amount of \$2.000 million supports the procurement of 9,935 flares. FY 2016 OCO procurement dollars in the amount of \$6.000 million supports the procurement of 49,091 flares.</p>		

**UNCLASSIFIED**

<b>Exhibit P-40a, Budget Item Justification For Aggregated Items: PB 2016 Army</b>															<b>Date:</b> February 2015				
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2034A / 01 / 47										<b>P-1 Line Item Number / Title:</b> E46900 / Signals, All Types					<b>Aggregated Items Title:</b> Various				

Note: Subtotals or Totals in this Exhibit P-40a may not be exact or add, due to rounding.

Item Number / Title [DODIC]	ID CD	MDAP/MAIS Code	Prior Years			FY 2014			FY 2015			FY 2016 Base			FY 2016 OCO			FY 2016 Total		
			Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)
<b>FLARES AND MARKERS, WATERCRAFT</b>																				
E42010 / FLARES AND MARKERS, WATERCRAFT	A		-	-	-	-	-	-	361.07	2,728	0.985	363.24	2,753	1.000	-	-	-	363.24	2,753	1.000
E44600 / SIGNAL KIT PERSONNEL DISTRESS RED FP	A		-	-	35.873	105.00	800	0.084	170.68	498	0.085	-	-	-	-	-	-	-	-	-
E46400 / Signal, Hand Held Red Star Cluster M158	A		-	-	33.954	79.76	13,127	1.047	-	-	-	88.40	17,409	1.539	-	-	-	88.40	17,409	1.539
E46500 / Signal, Hand Held White Star Cluster M159	A		-	-	30.780	97.00	6,392	0.620	-	-	-	-	-	-	-	-	-	-	-	-
E46700 / Signal, Hand Held Red Parachute Flare M126A1	A		-	-	20.825	-	-	0.491	-	-	-	-	-	-	-	-	-	-	-	-
E46800 / Signal, Hand Held White Parachute Flare M127A1	A		-	-	135.702	-	-	-	-	-	-	87.64	28,412	2.490	-	-	-	87.64	28,412	2.490
E47000 / Signal, Hand Held Green Star Cluster M125A1	A		-	-	50.950	79.77	12,661	1.010	-	-	-	-	-	-	-	-	-	-	-	-
E48300 / Signal, Hand Held Green Parachute Flare M195	A		-	-	16.766	82.85	4,309	0.357	-	-	-	-	-	-	-	-	-	-	-	-
E49100 / Flare, AC Countermeasure, M206 Magnesium Teflon IR	A		-	-	66.550	33.21	60,225	2.000	37.68	55,304	2.084	41.14	54,260	2.232	36.29	55,111	2.000	38.69	109,371	4.232
E49500 / FUSEE WARNING RR RED 20 MIN M72	A		-	-	0.409	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
E57605 / CTG, 25.4mm, Decoy, Chaff, RR170 (w/Mk1 impulse ctg)			-	-	-	-	-	-	-	-	-	18.80	26,595	0.500	-	-	-	18.80	26,595	0.500
E62900 / SMOKE POT PRACTICE M8	A		16,471.51	2,562	42.200	1,168.22	3,424	4.000	1,474.81	2,005	2.957	-	-	-	-	-	-	-	-	-
<i>Subtotal: FLARES AND MARKERS, WATERCRAFT</i>			-	-	434.009	-	-	9.609	-	-	6.111	-	-	7.761	-	-	2.000	-	-	9.761
<b>Total</b>			-	-	434.009	-	-	9.609	-	-	6.111	-	-	7.761	-	-	2.000	-	-	9.761

**UNCLASSIFIED**

<b>Exhibit P-5, Cost Analysis: PB 2016 Army</b>		<b>Date:</b> February 2015
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2034A / 01 / 47	<b>P-1 Line Item Number / Title:</b> E46900 / Signals, All Types	<b>Item Number / Title [DODIC]:</b> E88900 / Flare AC Cntermeasure M211 Pyrophoric Msl IR Decoy [LA14]

<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : A	<b>MDAP/MAIS Code:</b>
---	------------------------

Resource Summary	Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total
Procurement Quantity (Units in Each)	-	43,841	39,194	9,935	49,091	59,026
Gross/Weapon System Cost (\$ in Millions)	2.339	6.000	5.971	2.000	6.000	8.000
Less PY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
Net Procurement (P1) (\$ in Millions)	2.339	6.000	5.971	2.000	6.000	8.000
Plus CY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
<b>Total Obligation Authority (\$ in Millions)</b>	<b>2.339</b>	<b>6.000</b>	<b>5.971</b>	<b>2.000</b>	<b>6.000</b>	<b>8.000</b>
<i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i>						
Initial Spares (\$ in Millions)	-	-	-	-	-	-
Gross/Weapon System Unit Cost (\$ in Dollars)	-	136.86	152.34	201.31	122.22	135.53

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or add, due to rounding.

Cost Elements	Prior Years			FY 2014			FY 2015			FY 2016 Base			FY 2016 OCO			FY 2016 Total		
	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)
Hardware Cost																		
Recurring Cost																		
COMPLETE FLARE <sup>(t)</sup>	9.18	254,833	2.340	120.63	43,841	5.289	138.54	39,194	5.430	122.23	9,935	1.214	122.22	49,091	6.000	122.22	59,026	7.214
Subtotal: Recurring Cost	-	-	2.339	-	-	5.289	-	-	5.430	-	-	1.214	-	-	6.000	-	-	7.214
Subtotal: Hardware Cost	-	-	2.339	-	-	5.289	-	-	5.430	-	-	1.214	-	-	6.000	-	-	7.214
Support Cost																		
PRODUCTION ENGINEERING	-	-	-	-	-	0.561	-	-	0.541	-	-	0.786	-	-	-	-	-	0.786
FIRST ARTICLE TEST	-	-	-	-	-	0.150	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: Support Cost	-	-	-	-	-	0.711	-	-	0.541	-	-	0.786	-	-	-	-	-	0.786
<b>Gross/Weapon System Cost</b>	-	-	<b>2.339</b>	<b>136.86</b>	<b>43,841</b>	<b>6.000</b>	<b>152.34</b>	<b>39,194</b>	<b>5.971</b>	<b>201.31</b>	<b>9,935</b>	<b>2.000</b>	<b>122.22</b>	<b>49,091</b>	<b>6.000</b>	<b>135.53</b>	<b>59,026</b>	<b>8.000</b>

(t) indicates the presence of a P-5a

**UNCLASSIFIED**

<b>Exhibit P-5a, Procurement History and Planning:</b> PB 2016 Army							<b>Date:</b> February 2015					
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2034A / 01 / 47			<b>P-1 Line Item Number / Title:</b> E46900 / Signals, All Types				<b>Item Number / Title [DODIC]:</b> E88900 / Flare AC Cntermeasure M211 Pyrophoric Msl IR Decoy [LA14]					

Cost Elements	O C O	FY	Contractor and Location	Method/Type or Funding Vehicle	Location of PCO	Award Date	Date of First Delivery	Qty <i>(Each)</i>	Unit Cost <i>(\$)</i>	Specs Avail Now?	Date Revision Available	RFP Issue Date
COMPLETE FLARE <sup>(†)</sup>		2014	TO BE SELECTED / TBS01	C / FFP	PICATINNY ARSENAL, NJ	May 2015	Aug 2016	43,841	120.63	Y		
COMPLETE FLARE <sup>(†)</sup>		2015	TO BE SELECTED / TBS01	C / FFP	PICATINNY ARSENAL, NJ	May 2015	Aug 2016	39,194	138.54	Y		
COMPLETE FLARE <sup>(†)</sup>		2016	TO BE SELECTED / TBS01	C / FFP	PICATINNY ARSENAL, NJ	Mar 2016	Mar 2017	59,026	122.22	Y		

<sup>(†)</sup> indicates the presence of a P-21

**Remarks:**

Type Classified: November 2002. New contract will be restricted to NTIB. FY 2014 and FY 2015 awards will be combined to facilitate a transition from single source to multiple sources, while achieving the most economical price.

**UNCLASSIFIED**

<b>Exhibit P-21, Production Schedule:</b> PB 2016 Army													<b>Date:</b> February 2015																		
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2034A / 01 / 47						<b>P-1 Line Item Number / Title:</b> E46900 / Signals, All Types													<b>Item Number / Title [DODIC]:</b> E88900 / Flare AC Cntrmeasure M211 Pyrophoric Msl IR Decoy [LA14]												

Cost Elements <i>(Units in Thousands)</i>						Fiscal Year 2015													Fiscal Year 2016													
O C C #	M F R #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2014	BAL DUE AS OF 1 OCT	Calendar Year 2015													Calendar Year 2016												
							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	B A L	

COMPLETE FLARE

Prior Years Deliveries: 254833																																		
1	2014	ARMY	43.841	-	43.841										A -	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3.700	3.700	36.441	
1	2015	ARMY	39.194	-	39.194										A -	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.300	2.336	34.558	
1	2016	ARMY	59.026	-	59.026																							A -	-	-	-	-	-	59.026
						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	B A L				

**UNCLASSIFIED**

<b>Exhibit P-21, Production Schedule:</b> PB 2016 Army												<b>Date:</b> February 2015											
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2034A / 01 / 47						<b>P-1 Line Item Number / Title:</b> E46900 / Signals, All Types						<b>Item Number / Title [DODIC]:</b> E88900 / Flare AC Cntermeasure M211 Pyrophoric Msl IR Decoy [LA14]											

Cost Elements <i>(Units in Thousands)</i>				Fiscal Year 2017												Fiscal Year 2018															
O C C O	M F R #	FY	SERVICE	PROC QTY	ACCEP T P R I O R T O 1 O C T 2 0 1 6	BAL D U E A S O F 1 O C T	Calendar Year 2017												Calendar Year 2018												
							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	B A L
COMPLETE FLARE																															
Prior Years Deliveries: 254833																															
	1	2014	ARMY	43.841	7.400	36.441	3.700	3.700	3.700	3.700	3.675	3.666	3.600	3.600	3.600	3.500														-	
	1	2015	ARMY	39.194	4.636	34.558	2.400	2.400	2.400	2.400	2.400	2.300	2.300	2.300	2.300	2.300													11.058		
	1	2016	ARMY	59.026	-	59.026	-	-	-	-	-	4.800	4.800	4.800	4.800	4.800	5.000	5.000	5.000	4.935	4.900	4.900	5.291						-		
							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	B A L

**UNCLASSIFIED**

<b>Exhibit P-21, Production Schedule:</b> PB 2016 Army		<b>Date:</b> February 2015
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2034A / 01 / 47		<b>P-1 Line Item Number / Title:</b> E46900 / Signals, All Types
		<b>Item Number / Title [DODIC]:</b> E88900 / Flare AC Cntermeasure M211 Pyrophoric Msl IR Decoy [LA14]

MFR Ref #	MFR Name - Location	Production Rates (Each / Year)			Procurement Leadtime (Months)							
		MSR For 2016	1-8-5 For 2016	MAX For 2016	Initial				Reorder			
					ALT Prior to Oct 1	ALT After Oct 1	Mfg PLT	Total After Oct 1	ALT Prior to Oct 1	ALT After Oct 1	Mfg PLT	Total After Oct 1
1	TO BE SELECTED - TBS01	5,000	6,000	80,000	8	8	15	23	6	6	12	18

"A" in the Delivery Schedule indicates the Contract Award Date.

Note: Due to space limitations, quantities in the Exhibit P-21 delivery calendar are truncated and rounded based on the maximum quantity in the calendar as follows. If the maximum quantity is less than or equal to than 9,999, all quantities are shown as each. If the maximum quantity is between 10,000 and 999,999 all quantities are shown in thousands. If the maximum quantity is between 1,000,000 and 999,999,999 all quantities are shown in millions (rounded to the nearest thousand). If the maximum quantity is equal or greater than 1,000,000,000 all quantities are shown in billions (rounded to the nearest million).

**UNCLASSIFIED**

**Exhibit P-40, Budget Line Item Justification:** PB 2016 Army **Date:** February 2015

<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2034A: Procurement of Ammunition, Army / BA 01: Ammunition / BSA 47: Other Ammunition	<b>P-1 Line Item Number / Title:</b> E51200 / Simulators, All Types
--	--

ID Code (A=Service Ready, B=Not Service Ready) :		Program Elements for Code B Items:					Other Related Program Elements:					
Resource Summary	Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	To Complete	Total
Procurement Quantity (Units in Each)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (\$ in Millions)	283.426	5.228	11.638	9.749	-	9.749	12.554	14.463	14.619	15.039	-	366.716
Less PY Advance Procurement (\$ in Millions)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P1) (\$ in Millions)	283.426	5.228	11.638	9.749	-	9.749	12.554	14.463	14.619	15.039	-	366.716
Plus CY Advance Procurement (\$ in Millions)	-	-	-	-	-	-	-	-	-	-	-	-
<b>Total Obligation Authority (\$ in Millions)</b>	<b>283.426</b>	<b>5.228</b>	<b>11.638</b>	<b>9.749</b>	<b>-</b>	<b>9.749</b>	<b>12.554</b>	<b>14.463</b>	<b>14.619</b>	<b>15.039</b>	<b>-</b>	<b>366.716</b>
<i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i>												
Initial Spares (\$ in Millions)	-	-	-	-	-	-	-	-	-	-	-	-
Flyaway Unit Cost (\$ in Dollars)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (\$ in Dollars)	-	-	-	-	-	-	-	-	-	-	-	-

**Description:**

This budget line includes Simulators, All Types.

(E49700) M115A2 Artillery Ground Burst Simulator is a hand thrown device that is used in training to simulate battlefield noise and effects (shell in flight and ground explosion) during troop maneuvers. The simulator has a 6-10 second delay followed by a 2-4 second whistle ending with a flash and loud report; the surface danger zone is 35 meters. This item is Code A, approved for service use.

(E50200) M116A1 Hand Grenade Simulator is a hand-thrown device and is used in training to simulate battlefield noise and effects during troop maneuvers. It has a 5 to 10 second delay and a 15 meter surface danger zone. This item is Code A, approved for service use.

(E70600) M22 Anti-Tank Weapon Effect Signature Simulator (ATWESS) Guided Missile (GM) Rocket Simulator is used to simulate the TOW, DRAGON or VIPER, including report, flash and smoke through use of an adapter. It is compatible with the Multiple Integrated Laser Engagement System (MILES). This item is Code A, approved for service use.

(E88200) Simulator Antitank M27 The M27 is the SAGGER missile simulator. The Antitank Guided Missile Signature Simulator (ATGMSS) is used during live fire training exercises to simulate enemy antitank missile. The ATGMSS consists of a paper tube body with polyurethane foam nose and tail cone. The rocket motor is in cylindrical form within the paper tube. A hole is provided in the tail section for a guide rod on the simulator. The ATGMSS is inserted onto a launcher with the guide rod of the launcher going through the tail cone guide hole. An Electric Match (M79) is inserted into the missile. The electric match ignites the rocket motor and the simulator travels approximately 1500 meters down range. This item is Code A, approved for service use.

(E88404) Simulators, Non-standard, Special Effects for CTCs Black smoke cartridge to simulate target kill. This item is launched with Omega 60 Force on target. This item is in development which is part of the Special Use Ammo Family. After Development, this item will be Code A, approved for service use.



**UNCLASSIFIED**

**Exhibit P-40, Budget Line Item Justification:** PB 2016 Army **Date:** February 2015

**Appropriation / Budget Activity / Budget Sub Activity:**  
2034A: Procurement of Ammunition, Army / BA 01: Ammunition / BSA 47: Other Ammunition

**P-1 Line Item Number / Title:**  
E51200 / Simulators, All Types

Exhibits Schedule			Program Elements for Code B Items:			Other Related Program Elements:		
Title*	Exhibits	ID CD	Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total
			Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)
E49700 / SIMULATOR PROJ GND BURST M115A2	P-40a	A	- / 105.806	87,900 / 2.159	138,491 / 3.242	135,368 / 3.365	- / -	135,368 / 3.365
E50200 / SIMULATOR HAND GRENADE M116A1	P-40a	A	- / 77.974	127,050 / 2.615	192,288 / 3.961	226,813 / 4.884	- / -	226,813 / 4.884
E70600 / SIMULATOR ANTITANK GM RKT M22 (ATWESS)	P-40a	A	- / 40.126	- / 0.454	12,050 / 1.084	9,256 / 1.500	- / -	9,256 / 1.500
E88200 / SIMULATOR ANTITANK M27	P-40a		- / 3.768	- / -	10,495 / 1.971	- / -	- / -	- / -
E88404 / SIMULATORS, NON-STANDARD, SPECIAL EFFECTS FOR CTCS	P-40a	A	- / -	- / -	10,495 / 1.380	- / -	- / -	- / -
<b>Total Gross/Weapon System Cost</b>			<b>- / 283.426</b>	<b>- / 5.228</b>	<b>- / 11.638</b>	<b>- / 9.749</b>	<b>- / -</b>	<b>- / 9.749</b>

\*Title represents 1) the Number / Title for Items; 2) the Number / Title [DODIC] for Ammunition; and/or 3) the Number / Title (Modification Type) for Modifications.

Note: Totals in this Exhibit P-40 set may not be exact or add due to rounding.

**Justification:**

FY 2016 Base Budget supports critical Army Title 10 war reserve/operational, training, and test requirements IAW DoD Instruction 3000.04 (Munitions Requirements Process) and AR 5-13 (Total Army Munitions Requirements Process and Prioritization System). War reserve requirements support OSD-approved Combatant Commander Operational Plans, Homeland Defense, and other OSD-directed missions. Training requirements support individual and collective training of Active and Reserve Component forces at Army schools, home station and the combined training centers. Test requirements support the development, fielding, safety and quality assurance of Army munitions and equipment throughout their life-cycle.

In accordance with Section 1815 of the FY 2008 National Defense Authorization Act (P.L. 110-181), this item is necessary for use by the active and reserve components of the Armed Forces for homeland defense missions, domestic emergency responses and providing military support to civil authorities.

FY 2016 Base procurement dollars in the amount of \$9.749 million supports production of three variants of simulators.

**E49700 - SIMULATOR PROJ GND BURST M115A2**

This is a training unique item not used in combat. FY 2016 request supports annual training and builds a depot level in accordance with Army's procurement goals. FY 2016 Base procurement dollars in the amount of \$3.365 million supports production of 135,368 Ground Burst Simulators.

**E50200 - SIMULATOR HAND GRENADE M116A1**

This is a training unique item not used in combat. FY 2016 request supports annual training and builds a depot level in accordance with Army's procurement goals. FY 2016 Base procurement dollars in the amount of \$4.884 million supports production of 226,813 hand grenade simulators.

**E70600 - SIMULATOR ANTITANK GM RKT M22 (ATWESS)**

This is a training unique item not used in combat. FY 2016 request supports annual training and builds a depot level in accordance with Army's procurement goals. FY 2016 Base procurement dollars in the amount of \$1.500 million supports production of 9,256 Anti-Tank simulators.

**UNCLASSIFIED**

<b>Exhibit P-40a, Budget Item Justification For Aggregated Items: PB 2016 Army</b>															<b>Date:</b> February 2015				
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2034A / 01 / 47							<b>P-1 Line Item Number / Title:</b> E51200 / Simulators, All Types								<b>Aggregated Items Title:</b> Various				

Note: Subtotals or Totals in this Exhibit P-40a may not be exact or add, due to rounding.

Item Number / Title [DODIC]	ID CD	MDAP/MAIS Code	Prior Years			FY 2014			FY 2015			FY 2016 Base			FY 2016 OCO			FY 2016 Total		
			Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)
<b>SIMULATOR PROJ GND BURST M115A2</b>																				
E49700 / SIMULATOR PROJ GND BURST M115A2	A		-	-	105.806	24.56	87,900	2.159	23.41	138,491	3.242	24.86	135,368	3.365	-	-	-	24.86	135,368	3.365
E50200 / SIMULATOR HAND GRENADE M116A1	A		-	-	77.974	20.58	127,050	2.615	20.60	192,288	3.961	21.53	226,813	4.884	-	-	-	21.53	226,813	4.884
E70600 / SIMULATOR ANTITANK GM RKT M22 (ATWESS)	A		-	-	40.126	-	-	0.454	89.96	12,050	1.084	162.06	9,256	1.500	-	-	-	162.06	9,256	1.500
E88200 / SIMULATOR ANTITANK M27			-	-	3.768	-	-	-	187.80	10,495	1.971	-	-	-	-	-	-	-	-	-
E88404 / SIMULATORS, NON-STANDARD, SPECIAL EFFECTS FOR CTCS	A		-	-	-	-	-	-	131.49	10,495	1.380	-	-	-	-	-	-	-	-	-
<i>Subtotal: SIMULATOR PROJ GND BURST M115A2</i>			-	-	227.674	-	-	5.228	-	-	11.638	-	-	9.749	-	-	-	-	-	9.749
<b>Total</b>			-	-	227.674	-	-	5.228	-	-	11.638	-	-	9.749	-	-	-	-	-	9.749

**UNCLASSIFIED**

**Exhibit P-40, Budget Line Item Justification:** PB 2016 Army **Date:** February 2015

<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2034A: Procurement of Ammunition, Army / BA 01: Ammunition / BSA 50: Miscellaneous	<b>P-1 Line Item Number / Title:</b> EB0016 / Ammo Components, All Types
--	---

<b>ID Code</b> (A=Service Ready, B=Not Service Ready) :	<b>Program Elements for Code B Items:</b>	<b>Other Related Program Elements:</b>
---	---	--

Resource Summary	Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	To Complete	Total
Procurement Quantity <i>(Units in Each)</i>	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost <i>(\$ in Millions)</i>	740.044	11.700	3.594	3.521	-	3.521	13.640	12.237	9.946	10.135	-	804.817
Less PY Advance Procurement <i>(\$ in Millions)</i>	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P1) <i>(\$ in Millions)</i>	740.044	11.700	3.594	3.521	-	3.521	13.640	12.237	9.946	10.135	-	804.817
Plus CY Advance Procurement <i>(\$ in Millions)</i>	-	-	-	-	-	-	-	-	-	-	-	-
<b>Total Obligation Authority <i>(\$ in Millions)</i></b>	<b>740.044</b>	<b>11.700</b>	<b>3.594</b>	<b>3.521</b>	<b>-</b>	<b>3.521</b>	<b>13.640</b>	<b>12.237</b>	<b>9.946</b>	<b>10.135</b>	<b>-</b>	<b>804.817</b>

*(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)*

Initial Spares <i>(\$ in Millions)</i>	-	-	-	-	-	-	-	-	-	-	-	-
Flyaway Unit Cost <i>(\$ in Dollars)</i>	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost <i>(\$ in Dollars)</i>	-	-	-	-	-	-	-	-	-	-	-	-

**Description:**

This budget line includes all Ammo Components/Support Items.

**UNCLASSIFIED**

**Exhibit P-40, Budget Line Item Justification:** PB 2016 Army **Date:** February 2015

<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2034A: Procurement of Ammunition, Army / BA 01: Ammunition / BSA 50: Miscellaneous	<b>P-1 Line Item Number / Title:</b> EB0016 / Ammo Components, All Types
--	---

ID Code (A=Service Ready, B=Not Service Ready) :			Program Elements for Code B Items:			Other Related Program Elements:		
Exhibits Schedule			Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total
Title*	Exhibits	ID CD	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)
EA0450 / COMPONENTS FOR SPECIAL TESTS	P-40a		- / 47.027	- / 1.713	- / -	- / -	- / -	- / -
EA0500 / COMPONENTS AND RENOVATION OF FIELD STOCK	P-40a		- / 639.759	- / 7.748	- / 2.010	- / 1.845	- / -	- / 1.845
EA1200 / WEAPON COMP IN SPT OF PROOF/ACPT TESTING	P-40a		- / 53.258	- / 2.239	- / 1.584	- / 1.676	- / -	- / 1.676
<b>Total Gross/Weapon System Cost</b>			<b>- / 740.044</b>	<b>- / 11.700</b>	<b>- / 3.594</b>	<b>- / 3.521</b>	<b>- / -</b>	<b>- / 3.521</b>

\*Title represents 1) the Number / Title for Items; 2) the Number / Title [DODIC] for Ammunition; and/or 3) the Number / Title (Modification Type) for Modifications.

Note: Totals in this Exhibit P-40 set may not be exact or add due to rounding.

**Justification:**  
 These components support FY 2016 Special Tests, First Article Test, Renovation of Field Stocks and Proof of Acceptance Tests and are used in both training and combat ammunition.

**UNCLASSIFIED**

<b>Exhibit P-40a, Budget Item Justification For Aggregated Items:</b> PB 2016 Army															<b>Date:</b> February 2015				
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2034A / 01 / 50										<b>P-1 Line Item Number / Title:</b> EB0016 / Ammo Components, All Types					<b>Aggregated Items Title:</b> Various				

Note: Subtotals or Totals in this Exhibit P-40a may not be exact or add, due to rounding.

Item Number / Title [DODIC]	ID CD	MDAP/MAIS Code	Prior Years			FY 2014			FY 2015			FY 2016 Base			FY 2016 OCO			FY 2016 Total		
			Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)
<b>COMPONENTS FOR SPECIAL TESTS</b>																				
EA0450 / COMPONENTS FOR SPECIAL TESTS			-	-	47.027	-	-	1.713	-	-	-	-	-	-	-	-	-	-	-	-
EA0500 / COMPONENTS AND RENOVATION OF FIELD STOCK			-	-	639.759	-	-	7.748	-	-	2.010	-	-	1.845	-	-	-	-	-	1.845
EA1200 / WEAPON COMP IN SPT OF PROOF/ACPT TESTING			-	-	53.258	-	-	2.239	-	-	1.584	-	-	1.676	-	-	-	-	-	1.676
<i>Subtotal: COMPONENTS FOR SPECIAL TESTS</i>			-	-	740.044	-	-	11.700	-	-	3.594	-	-	3.521	-	-	-	-	-	3.521
<b>Total</b>			-	-	740.044	-	-	11.700	-	-	3.594	-	-	3.521	-	-	-	-	-	3.521

**UNCLASSIFIED**

**Exhibit P-40, Budget Line Item Justification:** PB 2016 Army **Date:** February 2015

<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2034A: Procurement of Ammunition, Army / BA 01: Ammunition / BSA 50: Miscellaneous	<b>P-1 Line Item Number / Title:</b> E91901 / Non-Lethal Ammunition, All Types
--	---

ID Code (A=Service Ready, B=Not Service Ready) :	Program Elements for Code B Items:						Other Related Program Elements:					
Resource Summary	Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	To Complete	Total
Procurement Quantity (Units in Each)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (\$ in Millions)	21.920	7.366	-	1.700	-	1.700	9.220	2.580	-	0.300	-	43.086
Less PY Advance Procurement (\$ in Millions)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P1) (\$ in Millions)	21.920	7.366	-	1.700	-	1.700	9.220	2.580	-	0.300	-	43.086
Plus CY Advance Procurement (\$ in Millions)	-	-	-	-	-	-	-	-	-	-	-	-
<b>Total Obligation Authority (\$ in Millions)</b>	<b>21.920</b>	<b>7.366</b>	<b>-</b>	<b>1.700</b>	<b>-</b>	<b>1.700</b>	<b>9.220</b>	<b>2.580</b>	<b>-</b>	<b>0.300</b>	<b>-</b>	<b>43.086</b>

*(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)*

Initial Spares (\$ in Millions)	-	-	-	-	-	-	-	-	-	-	-	-
Flyaway Unit Cost (\$ in Dollars)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (\$ in Dollars)	-	-	-	-	-	-	-	-	-	-	-	-

**Description:**

This budget line item procures Non-Lethal Ammunition, All Types.

(E86401) CTG 12 GA NL, EXT RG, MARK XM1116

The XM1116 is a 12 gauge low velocity cartridge fired from a standard, 3 inch chamber, manually operated shotgun. It utilizes a drag stabilized Bean Bag design with fluorescent green marking powder to deliver a strong, non-penetrating blow to the body. This cartridge has an effective range of approximately 30 to 50 meters. This item is Code B, not approved for service use.

(E89000) CTG, 40MM NL (SPONGE GRN) M1006

The 40MM Non-Lethal munition, M1006, is a sponge grenade that is launched from M203 Grenade Launcher without any modifications to the weapon. The M1006 has been designed to incapacitate a targeted individual with non-lethal blunt trauma from 10 to 50 meters. The cartridge incorporates a propulsion system that utilizes smokeless powder. The projectile is made from polyolafin foam and the body utilizes thermoplastic polyester. This item is Code "A" approved for service use.

(E89002) CTG, 40MM AIRBURST F M203 XM1112

The Cartridge 40 Millimeter Airburst for M203 M1112 is intended to have an effective range between 35 to 300 meters. It contains a proximity fuze with programmable option. It is intended to deliver multiple non-lethal effects: flash-blindness, temporary hearing shift. The XM1112 is intended to deliver consistent non-lethal effects regardless of range setting. It will have a user settable delay option for room clearing. It is fully compatible with existing 40 millimeter M203/M320 weapons platforms without any modifications. The XM1112 will deliver non-lethal effects lasting at least 20 seconds. This item is Code B, not approved for service use.

(E85115) HAND BODY PRAC STUN GRN M102

The M102 Reusable Hand Grenade Body is a re-useable practice body for the M84 Stun Hand Grenade. Once assembled in the field with an M240 fuze, the device simulates the M84 Stun Grenade for training. This item is Code A, approved for service use.

(E91505) CTG NL FIRING DEVICE: TASER, XP25

The Cartridge, NL Firing Device is a 25-foot single shot fired from the Launched Electrode Stun Device (LESD), which is a hand held device used for Electro-Muscular Incapacitation (EMI). This cartridge is a conducted energy weapon that delivers an incapacitating electrical shock capable of arcing through 2 inches of clothing. Maximum effective range is 15 feet. This item is Code A, approved for service use.

UNCLASSIFIED

<b>Exhibit P-40, Budget Line Item Justification:</b> PB 2016 Army		<b>Date:</b> February 2015
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2034A: Procurement of Ammunition, Army / BA 01: Ammunition / BSA 50: Miscellaneous		<b>P-1 Line Item Number / Title:</b> E91901 / Non-Lethal Ammunition, All Types
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) :	<b>Program Elements for Code B Items:</b>	<b>Other Related Program Elements:</b>


**UNCLASSIFIED**

**Exhibit P-40, Budget Line Item Justification:** PB 2016 Army **Date:** February 2015

**Appropriation / Budget Activity / Budget Sub Activity:**  
 2034A: Procurement of Ammunition, Army / BA 01: Ammunition / BSA 50: Miscellaneous

**P-1 Line Item Number / Title:**  
 E91901 / Non-Lethal Ammunition, All Types

Exhibits Schedule			Program Elements for Code B Items:			Other Related Program Elements:		
Title*	Exhibits	ID CD	Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total
			Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)
E85115 / Grenade, Hand,Body,PracticeStun(NL)Reloadable M102	P-40a	A	20 / 1.300	- / 0.278	- / -	- / -	- / -	- / -
E86401 / CTG, 12 GA, NON-LETH, EXT RG, MARKING M1116 series	P-40a	B	747 / 3.546	- / -	- / -	- / 0.500	- / -	- / 0.500
E89000 / CTG 40MM NON-LETHAL (SPONGE GRENADE-PT TGT) M1006	P-40a	A	751 / 12.608	- / -	- / -	881 / 0.400	- / -	881 / 0.400
E91505 / CTG, NL FIRING DEVICE: TASER, XP25 f/X26E Taser	P-40a	A	17 / 0.453	2,200 / 0.161	- / -	5,536 / 0.300	- / -	5,536 / 0.300
E89002 / CTG 40MM, NON-LETHAL, XM1112, TAC AIRBURST F/M-203 [BA39]	P-5, P-5a, P-21	B	4 / 4.013	5,675 / 6.927	- / -	- / 0.500	- / -	- / 0.500
<b>Total Gross/Weapon System Cost</b>			<b>- / 21.920</b>	<b>- / 17.366</b>	<b>- / -</b>	<b>- / 1.700</b>	<b>- / -</b>	<b>- / 1.700</b>

\*Title represents 1) the Number / Title for Items; 2) the Number / Title [DODIC] for Ammunition; and/or 3) the Number / Title (Modification Type) for Modifications.

Note: Totals in this Exhibit P-40 set may not be exact or add due to rounding.

**Justification:**

FY 2016 Base Budget supports critical Army Title 10 war reserve/operational, training, and test requirements IAW DoD Instruction 3000.04 (Munitions Requirements Process) and AR 5-13 (Total Army Munitions Requirements Process and Prioritization System). War reserve requirements support OSD-approved Combatant Commander Operational Plans, Homeland Defense, and other OSD-directed missions. Training requirements support individual and collective training of Active and Reserve Component forces at Army schools, home station, and the combined training centers. Test requirements support the development, fielding, safety, and quality assurance of Army munitions and equipment throughout their life-cycle.

In accordance with Section 1815 of the FY 2008 National Defense Authorization Act (P.L. 110-181), this item is necessary for use by the active and reserve components of the Armed Forces for homeland defense missions, domestic emergency responses, and providing military support to civil authorities.

FY 2016 Base procurement dollars in the amount of \$1.700 million supports production of four variants of Non-Lethal Ammo.

(E86401) CTG 12 GA NL, EXT RG, MARK XM1116

This is a training standard item used in both training and combat. Procurement supports annual training and builds a war reserve inventory in accordance with Army's procurement goals. FY 2016 Base procurement dollars in the amount of \$0.500 million supports a propellant producibility study and engineering activities in support of production.

(E89000) CTG, 40MM NL (SPONGE GRN) M1006

This is a training unique item not used in combat. The FY 2016 request supports annual training and builds a war reserve inventory in accordance with the Army procurement goals. FY 2016 Base procurement dollars in the amount of \$0.400 million supports production of 881 CTG 40MM NL munitions.

(E89002) CTG, 40MM AIRBURST F M203 XM1112

This is a training standard item used in both training and combat. Procurement supports annual training and builds a war reserve inventory in accordance with the Army procurement goals. FY 2016 Base procurement dollars in the amount of \$0.500 million will be utilized for engineering activities in support of production.

(E91505) CTG NL FIRING DEVICE: TASER, XP25

This is a training standard item used in both training and combat. The FY 2016 request supports annual training and builds a war reserve inventory in accordance with the Army procurement goals. FY 2016 Base Procurement dollars in the amount of \$0.300 million supports the procurement of 5,536 LESD Cartridges.



**UNCLASSIFIED**

<b>Exhibit P-40a, Budget Item Justification For Aggregated Items:</b> PB 2016 Army															<b>Date:</b> February 2015				
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2034A / 01 / 50										<b>P-1 Line Item Number / Title:</b> E91901 / Non-Lethal Ammunition, All Types					<b>Aggregated Items Title:</b> Various				

Note: Subtotals or Totals in this Exhibit P-40a may not be exact or add, due to rounding.

Item Number / Title [DODIC]	ID CD	MDAP/MAIS Code	Prior Years			FY 2014			FY 2015			FY 2016 Base			FY 2016 OCO			FY 2016 Total		
			Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)
<b>Grenade, Hand,Body,PracticeStun(NL)Reloadable M102</b>																				
E85115 / Grenade, Hand,Body,PracticeStun(NL)Reloadable M102	A		65,000.00	20	1.300	-	-	0.278	-	-	-	-	-	-	-	-	-	-	-	-
E86401 / CTG, 12 GA, NON-LETH, EXT RG, MARKING M1116 series	B		4,746.99	747	3.546	-	-	-	-	-	-	-	-	0.500	-	-	-	-	-	0.500
E89000 / CTG 40MM NON-LETHAL (SPONGE GRENADE-PT TGT) M1006	A		16,788.28	751	12.608	-	-	-	-	-	-	454.03	881	0.400	-	-	-	454.03	881	0.400
E91505 / CTG, NL FIRING DEVICE: TASER, XP25 f/X26E Taser	A		26,647.06	17	0.453	73.18	2,200	0.161	-	-	-	54.19	5,536	0.300	-	-	-	54.19	5,536	0.300
<i>Subtotal: Grenade, Hand,Body,PracticeStun(NL)Reloadable M102</i>			-	-	17.907	-	-	0.439	-	-	-	-	-	1.200	-	-	-	-	-	1.200
<b>Total</b>			-	-	17.907	-	-	0.439	-	-	-	-	-	1.200	-	-	-	-	-	1.200

**UNCLASSIFIED**

<b>Exhibit P-5, Cost Analysis: PB 2016 Army</b>		<b>Date:</b> February 2015
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2034A / 01 / 50	<b>P-1 Line Item Number / Title:</b> E91901 / Non-Lethal Ammunition, All Types	<b>Item Number / Title [DODIC]:</b> E89002 / CTG 40MM, NON-LETHAL, XM1112, TAC AIRBURST F/M-203 [BA39]

<b>ID Code</b> (A=Service Ready, B=Not Service Ready) : B				<b>MDAP/MAIS Code:</b>			
<b>Resource Summary</b>		<b>Prior Years</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016 Base</b>	<b>FY 2016 OCO</b>	<b>FY 2016 Total</b>
Procurement Quantity (Units in Each)		4	5,675	-	-	-	-
Gross/Weapon System Cost (\$ in Millions)		4.013	6.927	-	0.500	-	0.500
Less PY Advance Procurement (\$ in Millions)		-	-	-	-	-	-
Net Procurement (P1) (\$ in Millions)		4.013	6.927	-	0.500	-	0.500
Plus CY Advance Procurement (\$ in Millions)		-	-	-	-	-	-
<b>Total Obligation Authority (\$ in Millions)</b>		<b>4.013</b>	<b>6.927</b>	<b>-</b>	<b>0.500</b>	<b>-</b>	<b>0.500</b>
<i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i>							
Initial Spares (\$ in Millions)		-	-	-	-	-	-
Gross/Weapon System Unit Cost (\$ in Dollars)		-	-	-	-	-	-

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or add, due to rounding.

Cost Elements	Prior Years			FY 2014			FY 2015			FY 2016 Base			FY 2016 OCO			FY 2016 Total		
	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)
Hardware Cost																		
Recurring Cost																		
COMPLETE ROUND <sup>(†)</sup>	499.00	4,000	1.995	1,011.08	5,675	5.738	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: Recurring Cost	-	-	1.996	-	-	5.738	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal: Hardware Cost	-	-	1.996	-	-	5.738	-	-	-	-	-	-	-	-	-	-	-	-
Support Cost																		
PRODUCTION ENGINEERING	-	-	2.017	-	-	1.189	-	-	-	-	-	0.500	-	-	-	-	-	0.500
Subtotal: Support Cost	-	-	2.017	-	-	1.189	-	-	-	-	-	0.500	-	-	-	-	-	0.500
<b>Gross/Weapon System Cost</b>	<b>-</b>	<b>4</b>	<b>4.013</b>	<b>-</b>	<b>5,675</b>	<b>6.927</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>0.500</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>0.500</b>

<sup>(†)</sup> indicates the presence of a P-5a

**UNCLASSIFIED**

<b>Exhibit P-5a, Procurement History and Planning:</b> PB 2016 Army							<b>Date:</b> February 2015				
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2034A / 01 / 50			<b>P-1 Line Item Number / Title:</b> E91901 / Non-Lethal Ammunition, All Types				<b>Item Number / Title [DODIC]:</b> E89002 / CTG 40MM, NON-LETHAL, XM1112, TAC AIRBURST F/M-203 [BA39]				

Cost Elements	O C O	FY	Contractor and Location	Method/Type or Funding Vehicle	Location of PCO	Award Date	Date of First Delivery	Qty <i>(Each)</i>	Unit Cost <i>(\$)</i>	Specs Avail Now?	Date Revision Available	RFP Issue Date
COMPLETE ROUND <sup>(†)</sup>		2014	TO BE SELECTED / TBS01	C / FFP	PICATINNY ARSENAL, NJ	Mar 2015	Mar 2016	5,675	1,011.08	Y		

<sup>(†)</sup> indicates the presence of a P-21

**UNCLASSIFIED**

<b>Exhibit P-21, Production Schedule:</b> PB 2016 Army														<b>Date:</b> February 2015																			
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2034A / 01 / 50										<b>P-1 Line Item Number / Title:</b> E91901 / Non-Lethal Ammunition, All Types										<b>Item Number / Title [DODIC]:</b> E89002 / CTG 40MM, NON-LETHAL, XM1112, TAC AIRBURST F/M-203 [BA39]													

Cost Elements <i>(Units in Each)</i>						Fiscal Year 2015														Fiscal Year 2016																
O C C O	M F R #	FY	SERVICE	PROC QTY	ACCEPT PRIOR TO 1 OCT 2014	BAL DUE AS OF 1 OCT	Calendar Year 2015														Calendar Year 2016															
							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	B A L					
COMPLETE ROUND																																				
Prior Years Deliveries: 4000																																				
1	2014	ARMY		5,675	-	5,675									A	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5,675			-
							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	B A L					

**UNCLASSIFIED**

<b>Exhibit P-21, Production Schedule:</b> PB 2016 Army		<b>Date:</b> February 2015
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2034A / 01 / 50		<b>P-1 Line Item Number / Title:</b> E91901 / Non-Lethal Ammunition, All Types
		<b>Item Number / Title [DODIC]:</b> E89002 / CTG 40MM, NON-LETHAL, XM1112, TAC AIRBURST F/M-203 [BA39]

MFR Ref #	MFR Name - Location	Production Rates (Each / Year)			Procurement Leadtime (Months)							
		MSR For 2016	1-8-5 For 2016	MAX For 2016	Initial				Reorder			
					ALT Prior to Oct 1	ALT After Oct 1	Mfg PLT	Total After Oct 1	ALT Prior to Oct 1	ALT After Oct 1	Mfg PLT	Total After Oct 1
1	TO BE SELECTED - TBS01	50,000	50,000	100,000	8	8	15	23	6	6	12	18

"A" in the Delivery Schedule indicates the Contract Award Date.

Note: Due to space limitations, quantities in the Exhibit P-21 delivery calendar are truncated and rounded based on the maximum quantity in the calendar as follows. If the maximum quantity is less than or equal to than 9,999, all quantities are shown as each. If the maximum quantity is between 10,000 and 999,999 all quantities are shown in thousands. If the maximum quantity is between 1,000,000 and 999,999,999 all quantities are shown in millions (rounded to the nearest thousand). If the maximum quantity is equal or greater than 1,000,000,000 all quantities are shown in billions (rounded to the nearest million).

**UNCLASSIFIED**

**Exhibit P-40, Budget Line Item Justification:** PB 2016 Army **Date:** February 2015

<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2034A: Procurement of Ammunition, Army / BA 01: Ammunition / BSA 50: Miscellaneous	<b>P-1 Line Item Number / Title:</b> EA0055 / Items Less Than \$5 Million (AMMO)
--	---

<b>ID Code</b> (A=Service Ready, B=Not Service Ready) :	<b>Program Elements for Code B Items:</b>	<b>Other Related Program Elements:</b>
---	---	--

Resource Summary	Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	To Complete	Total
Procurement Quantity <i>(Units in Each)</i>	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost <i>(\$ in Millions)</i>	152.974	12.423	8.337	6.181	-	6.181	12.171	11.565	9.057	9.297	-	222.005
Less PY Advance Procurement <i>(\$ in Millions)</i>	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P1) <i>(\$ in Millions)</i>	152.974	12.423	8.337	6.181	-	6.181	12.171	11.565	9.057	9.297	-	222.005
Plus CY Advance Procurement <i>(\$ in Millions)</i>	-	-	-	-	-	-	-	-	-	-	-	-
<b>Total Obligation Authority <i>(\$ in Millions)</i></b>	<b>152.974</b>	<b>12.423</b>	<b>8.337</b>	<b>6.181</b>	<b>-</b>	<b>6.181</b>	<b>12.171</b>	<b>11.565</b>	<b>9.057</b>	<b>9.297</b>	<b>-</b>	<b>222.005</b>

*(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)*

Initial Spares <i>(\$ in Millions)</i>	-	-	-	-	-	-	-	-	-	-	-	-
Flyaway Unit Cost <i>(\$ in Dollars)</i>	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost <i>(\$ in Dollars)</i>	-	-	-	-	-	-	-	-	-	-	-	-

**Description:**

This budget line includes Miscellaneous Ammunition Items Under \$5 million.

(E03001)CTG, CAL .30 BLANK is used for ceremonial purposes and training in the M1 Garand rifles. It can be identified by the absence of a bullet and a crimped casemouth. This item is Code A, approved for service use.

(E01700)CTG CAL .22 LR MATCH F/PISTOL is used in .22 caliber Remington Model 40X-H1 rifles for military marksmanship training. This item is Code A, approved for service use.

(E00400)CTG 12 GAUGE #9 SHOT is a 12 gauge 2 3/4 inch round with 1 1/8 ounces of #9 shot (approximately 575 pellets .080 inch in diameter) and is used for training and target competition. This cartridge is used in Mossberg 500 Military Series and the Remington 870 shotguns. This item is Code A, approved for service use.

(E03701)CTG .300 Winchester Magnum (WinMag) MK248 procurement supports the XM2010 Enhanced Sniper Rifle (ESR). It consists of an Open Tip Match (OTM) bullet, brass cartridge case, large rifle lead-styphnate primer, and smokeless small arms propellant. This item is Code A, approved for service use.

(E42400)RIOT CONTROL AGENT CS CAPSULE is an item used to train soldiers in the use of gas masks. The white CS vaporizes when in contact with a hot surface and the CS gas that is produced causes tearing of the eyes and coughing when in contact with the soldier. Using this item, the soldier can determine if he is using the gas mask properly and gain confidence in the use of his gas mask. The capsules are packaged in cans of 50 capsules each. Extra packing dunnage is added to the cans in order to keep the capsules from moving and breaking in transport. This item is Code A, approved for service use.

(E99101)SPECIAL TRAINING AMMO includes Special Training Ammo.

(EA0600) AMMUNITION PROGRAM SUPPORT includes ammunition program support.

(EA0960) USAMTU FT BENNING budget line funds USAMTU FT Benning.

**UNCLASSIFIED**

<b>Exhibit P-40, Budget Line Item Justification:</b> PB 2016 Army		<b>Date:</b> February 2015
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2034A: Procurement of Ammunition, Army / BA 01: Ammunition / BSA 50: Miscellaneous		<b>P-1 Line Item Number / Title:</b> EA0055 / Items Less Than \$5 Million (AMMO)
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) :	<b>Program Elements for Code B Items:</b>	<b>Other Related Program Elements:</b>

**UNCLASSIFIED**

**Exhibit P-40, Budget Line Item Justification:** PB 2016 Army **Date:** February 2015

<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2034A: Procurement of Ammunition, Army / BA 01: Ammunition / BSA 50: Miscellaneous	<b>P-1 Line Item Number / Title:</b> EA0055 / Items Less Than \$5 Million (AMMO)
--	---

ID Code (A=Service Ready, B=Not Service Ready) :			Program Elements for Code B Items:			Other Related Program Elements:		
Exhibits Schedule			Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total
Title*	Exhibits	ID CD	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)
E00400 / CTG 12 GAUGE #9 SHOT	P-40a	A	6,308,000 / 2.134	362,723 / 0.100	- / -	- / -	- / -	- / -
E01700 / CTG CAL .22 LR MATCH F/RIFLE	P-40a	A	31,999,000 / 6.741	1,646,239 / 0.250	1,494,175 / 0.246	1,151,468 / 0.200	- / -	1,151,468 / 0.200
E03001 / CTG, CAL .30 BLANK	P-40a	A	66,465,000 / 24.276	11,036,549 / 3.419	7,346,034 / 2.557	- / -	- / -	- / -
E03701 / CTG, CAL .300 WIN MAG, MK 248 w/MODs (7.62x67MM)	P-40a	A	3,601,000 / 11.968	- / -	506,279 / 0.684	247,494 / 0.300	- / -	247,494 / 0.300
E42400 / RIOT CONTROL AGENT CS CAPSULE	P-40a	A	960 / 2.835	2,522,833 / 1.500	- / -	- / -	- / -	- / -
E99101 / Special Training Ammo:	P-40a		- / 28.696	- / 1.881	- / 1.879	- / 0.844	- / -	- / 0.844
EA0600 / AMMUNITION PROGRAM SUPPORT	P-40a		- / 43.286	- / 3.725	- / 1.378	- / 3.474	- / -	- / 3.474
EA0960 / USAMTU FT BENNING	P-40a		- / 32.745	- / 1.548	- / 1.593	- / 1.363	- / -	- / 1.363
<b>Total Gross/Weapon System Cost</b>			<b>- / 152.974</b>	<b>- / 12.423</b>	<b>- / 8.337</b>	<b>- / 6.181</b>	<b>- / -</b>	<b>- / 6.181</b>

\*Title represents 1) the Number / Title for Items; 2) the Number / Title [DODIC] for Ammunition; and/or 3) the Number / Title (Modification Type) for Modifications.

Note: Totals in this Exhibit P-40 set may not be exact or add due to rounding.

**Justification:**  
 FY 2016 Base Budget supports critical Army Title 10 war reserve/operational, training, and test requirements IAW DoD Instruction 3000.04 (Munitions Requirements Process) and AR 5-13 (Total Army Munitions Requirements Process and Prioritization System). War reserve requirements support OSD-approved Combatant Commander Operational Plans, Homeland Defense, and other OSD-directed missions. Training requirements support individual and collective training of Active and Reserve Component forces at Army schools, home station, and the combined training centers. Test requirements support the development, fielding, safety, and quality assurance of Army munitions and equipment throughout their life-cycle.

In accordance with Section 1815 of the FY 2008 National Defense Authorization Act (P.L. 110-181), this item is necessary for use by the active and reserve components of the Armed Forces for homeland defense missions, domestic emergency responses, and providing military support to civil authorities.

The FY 2016 base procurement dollars in the amount \$9.385 million supports procurement of six variants.



**UNCLASSIFIED**

<b>Exhibit P-40a, Budget Item Justification For Aggregated Items: PB 2016 Army</b>															<b>Date:</b> February 2015				
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2034A / 01 / 50						<b>P-1 Line Item Number / Title:</b> EA0055 / Items Less Than \$5 Million (AMMO)									<b>Aggregated Items Title:</b> Various				

Note: Subtotals or Totals in this Exhibit P-40a may not be exact or add, due to rounding.

Item Number / Title [DODIC]	ID CD	MDAP/MAIS Code	Prior Years			FY 2014			FY 2015			FY 2016 Base			FY 2016 OCO			FY 2016 Total		
			Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)
<b>CTG 12 GAUGE #9 SHOT</b>																				
E00400 / CTG 12 GAUGE #9 SHOT	A		0.34	6,308,000	2.134	0.28	362,723	0.100	-	-	-	-	-	-	-	-	-	-	-	-
E01700 / CTG CAL .22 LR MATCH F/RIFLE	A		0.21	31,999,000	6.741	0.15	1,646,239	0.250	0.16	1,494,175	0.246	0.17	1,151,468	0.200	-	-	-	0.17	1,151,468	0.200
E03001 / CTG, CAL .30 BLANK	A		0.37	66,465,000	24.276	0.31	11,036,549	3.419	0.35	7,346,034	2.557	-	-	-	-	-	-	-	-	-
E03701 / CTG, CAL .300 WIN MAG, MK 248 w/MODs (7.62x67MM)	A		3.32	3,601,000	11.968	-	-	-	1.35	506,279	0.684	1.21	247,494	0.300	-	-	-	1.21	247,494	0.300
E42400 / RIOT CONTROL AGENT CS CAPSULE	A		2,953.13	960	2.835	0.59	2,522,833	1.500	-	-	-	-	-	-	-	-	-	-	-	-
E99101 / Special Training Ammo:			-	-	28.696	-	-	1.881	-	-	1.879	-	-	0.844	-	-	-	-	-	0.844
EA0600 / AMMUNITION PROGRAM SUPPORT			-	-	43.286	-	-	3.725	-	-	1.378	-	-	3.474	-	-	-	-	-	3.474
EA0960 / USAMTU FT BENNING			-	-	32.745	-	-	1.548	-	-	1.593	-	-	1.363	-	-	-	-	-	1.363
<i>Subtotal: CTG 12 GAUGE #9 SHOT</i>			-	-	<i>152.681</i>	-	-	<i>12.423</i>	-	-	<i>8.337</i>	-	-	<i>6.181</i>	-	-	-	-	-	<i>6.181</i>
<b>Total</b>			-	-	<b>152.681</b>	-	-	<b>12.423</b>	-	-	<b>8.337</b>	-	-	<b>6.181</b>	-	-	-	-	-	<b>6.181</b>

**UNCLASSIFIED**

**Exhibit P-40, Budget Line Item Justification:** PB 2016 Army **Date:** February 2015

<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2034A: Procurement of Ammunition, Army / BA 01: Ammunition / BSA 50: Miscellaneous	<b>P-1 Line Item Number / Title:</b> EA0575 / Ammunition Peculiar Equipment
--	--

ID Code (A=Service Ready, B=Not Service Ready) :		Program Elements for Code B Items:					Other Related Program Elements:					
Resource Summary	Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	To Complete	Total
Procurement Quantity (Units in Each)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (\$ in Millions)	292.727	11.604	14.906	17.811	-	17.811	18.087	18.394	18.706	19.006	-	411.241
Less PY Advance Procurement (\$ in Millions)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P1) (\$ in Millions)	292.727	11.604	14.906	17.811	-	17.811	18.087	18.394	18.706	19.006	-	411.241
Plus CY Advance Procurement (\$ in Millions)	-	-	-	-	-	-	-	-	-	-	-	-
<b>Total Obligation Authority (\$ in Millions)</b>	<b>292.727</b>	<b>11.604</b>	<b>14.906</b>	<b>17.811</b>	-	<b>17.811</b>	<b>18.087</b>	<b>18.394</b>	<b>18.706</b>	<b>19.006</b>	-	<b>411.241</b>
<i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i>												
Initial Spares (\$ in Millions)	-	-	-	-	-	-	-	-	-	-	-	-
Flyaway Unit Cost (\$ in Dollars)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (\$ in Dollars)	-	-	-	-	-	-	-	-	-	-	-	-

**Description:**

The Ammunition Peculiar Equipment (APE) program provides support for ammunition operations including surveillance, demilitarization (demil), maintenance, renovation, modification, packaging, and preservation per Army Regulation 700-20, Ammunition Peculiar Equipment. APE is developed, acquired, and supervised through the Single Manager for Conventional Ammunition per DoD Instruction 5160.68. APE provides unique, low-density equipment items specifically designed, fabricated, procured, tested, and adopted for use in worldwide United States (US) military ammunition depot operations on conventional ammunition. APE maintains a central source of standard, modern, safe, efficient, reliable, and environmentally acceptable equipment for ammunition operations. This equipment is different from production line plant equipment as it disassembles ammunition items into components, sorts and removes hazardous materials to reduce human interaction and improves personnel safety. Maintenance 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 key to stockpile sampling and functional testing of the items to assure readiness for combat or training. Demilitarization APE is similar to maintenance APE, but must go further in disassembly to destroy hazardous components, sort and reclaim salvageable parts or metals.

**Justification:**

FY 2016 Base procurement dollars in the amount of \$17.811 million will support APE that must be on-hand to perform ammunition depot operations for conventional ammunition. These operations cannot be accomplished if the required APE is not supplied in a timely manner. The equipment is loaned to worldwide locations for the accomplishment of depot-type operations based on the ammunition requirements. APE is required to support the Ammunition Stockpile Reliability Program, Surveillance Program, equipment for worldwide maintenance and demil, prepositioned ships, and Government-Owned, Contractor-Operated plants as Government Furnished Equipment for ammunition depot operations at those locations. The APE assets maintain and verify the quality of the ammunition stockpile, thereby saving the cost of purchasing new replacement ammunition. APE proficiently executes the ammunition demil mission to safely perform or support disassembly, destruction, or removal processes with an emphasis on recycling, re-utilization and preserving demil assets in a manner that supports ammunition sustainment, safety and environmental compliance.

The APE program provides essential major parts and equipment upgrades at the Demilitarization Facility (DEFAC) in the Republic of Korea (ROK). A Memorandum of Agreement (MOA) was signed on 4 November 2011 by US Forces Korea and the ROK Ministry of National Defense, which permits the demilitarization of US titled munitions at this facility. The DEFAC provides an environmentally safe means of

**UNCLASSIFIED**

<b>Exhibit P-40, Budget Line Item Justification:</b> PB 2016 Army		<b>Date:</b> February 2015
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2034A: Procurement of Ammunition, Army / BA 01: Ammunition / BSA 50: Miscellaneous		<b>P-1 Line Item Number / Title:</b> EA0575 / Ammunition Peculiar Equipment
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) :	<b>Program Elements for Code B Items:</b>	<b>Other Related Program Elements:</b>
<p>demil for both US and ROK titled munitions, and the demil of US titled munitions at the DEFAC avoids significant retrograde shipment costs. Current DEFAC operations involve the meltout/demil of US titled munitions for one year from July 2014 to June 2015, and demil ROK titled munitions the following year switching back to US assets in July 2016.</p> <p>The program provides global support to the US Military Services for ammunition sustainment and demil operations, including deployment, operations and support of the Ammunition Supply Point (ASP) suites. The ASP suites include APE, which will increase the efficiency of the receipt, inspection and issuance of ammunition to the warfighter. Deployment of APE to support ASP suites will increase efficiencies for ammunition sustainment operations by reducing logistics burdens and related risks. This allows for better primary mission readiness, enhanced hazardous operations safety and more efficient operating conditions requiring less ammunition retrograde/demil by providing capability to preserve ammunition assets.</p>		

**UNCLASSIFIED**

**Exhibit P-40, Budget Line Item Justification:** PB 2016 Army **Date:** February 2015

<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2034A: Procurement of Ammunition, Army / BA 01: Ammunition / BSA 50: Miscellaneous	<b>P-1 Line Item Number / Title:</b> EA0550 / First Destination Transportation (AMMO)
--	--

ID Code (A=Service Ready, B=Not Service Ready) :		Program Elements for Code B Items:					Other Related Program Elements:					
Resource Summary	Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	To Complete	Total
Procurement Quantity ( <i>Units in Each</i> )	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost ( <i>\$ in Millions</i> )	903.370	14.328	14.349	14.695	-	14.695	14.951	15.221	15.487	15.871	-	1,008.272
Less PY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P1) ( <i>\$ in Millions</i> )	903.370	14.328	14.349	14.695	-	14.695	14.951	15.221	15.487	15.871	-	1,008.272
Plus CY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-	-	-	-	-	-	-
<b>Total Obligation Authority (<i>\$ in Millions</i>)</b>	<b>903.370</b>	<b>14.328</b>	<b>14.349</b>	<b>14.695</b>	<b>-</b>	<b>14.695</b>	<b>14.951</b>	<b>15.221</b>	<b>15.487</b>	<b>15.871</b>	<b>-</b>	<b>1,008.272</b>
<i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i>												
Initial Spares ( <i>\$ in Millions</i> )	-	-	-	-	-	-	-	-	-	-	-	-
Flyaway Unit Cost ( <i>\$ in Dollars</i> )	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost ( <i>\$ in Dollars</i> )	-	-	-	-	-	-	-	-	-	-	-	-

**Description:**

Transportation funds are required to support the distribution of Army ammunition end items and components (Interim Transportation). Distribution originates from and to CONUS and OCONUS manufacturing plants/contractors, and/or assembly points, e.g., Army Ammunition Plants (AAPs), Arsenals; Defense Contract Management Centers to include Off Shore Procurement Contractors shipping under F.O.B Origin terms. Requirements are either destined for CONUS depots for acceptance into the Army Supply System, to CONUS Customers, to CONUS Arsenals, and to ports of embarkation in support of the Call Forward Program, i.e., Training, War Reserves or the Overseas Contingency Operations (OCO).

**Justification:**

FY 2016 request supports centrally funded distribution of Army ammunition end items and components (Interim Transportation).

**UNCLASSIFIED**

**Exhibit P-40, Budget Line Item Justification:** PB 2016 Army **Date:** February 2015

<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2034A: Procurement of Ammunition, Army / BA 01: Ammunition / BSA 50: Miscellaneous	<b>P-1 Line Item Number / Title:</b> EA8500 / Closeout Liabilities
--	---

ID Code (A=Service Ready, B=Not Service Ready) :		Program Elements for Code B Items:					Other Related Program Elements:					
Resource Summary	Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	To Complete	Total
Procurement Quantity ( <i>Units in Each</i> )	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost ( <i>\$ in Millions</i> )	0.298	0.108	0.111	-	-	-	-	-	-	-	-	0.517
Less PY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P1) ( <i>\$ in Millions</i> )	0.298	0.108	0.111	-	-	-	-	-	-	-	-	0.517
Plus CY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-	-	-	-	-	-	-
<b>Total Obligation Authority (<i>\$ in Millions</i>)</b>	<b>0.298</b>	<b>0.108</b>	<b>0.111</b>	-	-	-	-	-	-	-	-	<b>0.517</b>
<i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i>												
Initial Spares ( <i>\$ in Millions</i> )	-	-	-	-	-	-	-	-	-	-	-	-
Flyaway Unit Cost ( <i>\$ in Dollars</i> )	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost ( <i>\$ in Dollars</i> )	-	-	-	-	-	-	-	-	-	-	-	-

**Description:**

Funding will pay contract termination cost and operational losses/claims at ammunition plants.

**UNCLASSIFIED**

**Exhibit P-40, Budget Line Item Justification:** PB 2016 Army **Date:** February 2015

<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2034A: Procurement of Ammunition, Army / BA 01: Ammunition / BSA 50: Miscellaneous	<b>P-1 Line Item Number / Title:</b> EA8500 / Closeout Liabilities
--	---

ID Code (A=Service Ready, B=Not Service Ready) :			Program Elements for Code B Items:			Other Related Program Elements:		
Exhibits Schedule			Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total
Title*	Exhibits	ID CD	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)
EA8561 / Closeout Liabilities -- LAP Competition	P-40a		- / 0.298	- / 0.108	- / 0.111	- / -	- / -	- / -
<b>Total Gross/Weapon System Cost</b>			<b>- / 0.298</b>	<b>- / 0.108</b>	<b>- / 0.111</b>	<b>- / -</b>	<b>- / -</b>	<b>- / -</b>

\*Title represents 1) the Number / Title for Items; 2) the Number / Title [DODIC] for Ammunition; and/or 3) the Number / Title (Modification Type) for Modifications.

Note: Totals in this Exhibit P-40 set may not be exact or add due to rounding.

**Justification:**  
 Procurement dollars are required to pay contingent liabilities such as contract termination cost, e.g., unfunded pension liabilities, severance pay, and other claims approved by the Army Contract Review Board (ACRB).

**UNCLASSIFIED**

<b>Exhibit P-40a, Budget Item Justification For Aggregated Items:</b> PB 2016 Army															<b>Date:</b> February 2015				
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2034A / 01 / 50						<b>P-1 Line Item Number / Title:</b> EA8500 / Closeout Liabilities						<b>Aggregated Items Title:</b> Various							

Note: Subtotals or Totals in this Exhibit P-40a may not be exact or add, due to rounding.

Item Number / Title [DODIC]	ID CD	MDAP/MAIS Code	Prior Years			FY 2014			FY 2015			FY 2016 Base			FY 2016 OCO			FY 2016 Total		
			Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)
<b>Closeout Liabilities -- LAP Competition</b>																				
EA8561 / Closeout Liabilities -- LAP Competition			-	-	0.298	-	-	0.108	-	-	0.111	-	-	-	-	-	-	-	-	-
<i>Subtotal: Closeout Liabilities -- LAP Competition</i>			-	-	0.298	-	-	0.108	-	-	0.111	-	-	-	-	-	-	-	-	-
<b>Total</b>			-	-	<b>0.298</b>	-	-	<b>0.108</b>	-	-	<b>0.111</b>	-	-	-	-	-	-	-	-	-

**UNCLASSIFIED**

**Exhibit P-40, Budget Line Item Justification:** PB 2016 Army **Date:** February 2015

<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2034A: Procurement of Ammunition, Army / BA 02: Ammunition Production Base Support / BSA 10: Production Base Support	<b>P-1 Line Item Number / Title:</b> EP1000 / Provision of Industrial Facilities
---	---

ID Code (A=Service Ready, B=Not Service Ready) :			Program Elements for Code B Items:					Other Related Program Elements:				
Resource Summary	Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	To Complete	Total
Procurement Quantity (Units in Each)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (\$ in Millions)	6,971.970	242.326	148.092	221.703	-	221.703	222.436	221.059	171.181	176.960	-	8,375.727
Less PY Advance Procurement (\$ in Millions)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P1) (\$ in Millions)	6,971.970	242.326	148.092	221.703	-	221.703	222.436	221.059	171.181	176.960	-	8,375.727
Plus CY Advance Procurement (\$ in Millions)	-	-	-	-	-	-	-	-	-	-	-	-
<b>Total Obligation Authority (\$ in Millions)</b>	<b>6,971.970</b>	<b>242.326</b>	<b>148.092</b>	<b>221.703</b>	<b>-</b>	<b>221.703</b>	<b>222.436</b>	<b>221.059</b>	<b>171.181</b>	<b>176.960</b>	<b>-</b>	<b>8,375.727</b>
<i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i>												
Initial Spares (\$ in Millions)	-	-	-	-	-	-	-	-	-	-	-	-
Flyaway Unit Cost (\$ in Dollars)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (\$ in Dollars)	-	-	-	-	-	-	-	-	-	-	-	-

**Description:**

This budget line provides funding for modernization efforts at Government-Owned, Contractor-Operated Army Ammunition Plants and commercial facilities, including replacement of obsolete or worn production equipment, correction of deficiencies and upgrade of infrastructures. The Provision of Industrial Facilities (PIF) budget line also establishes, augments and improves ammunition production capabilities through strategic modernization efforts, expands production capacity, maintains environmental compliance, and improves quality of work environment and safety at ammunition plants, as well as emergency modernization and associated construction to address production disruptions at various sites.

This budget line provides funding for preservation, storage and movement of real property facilities and equipment required for anticipated future requirements at active and inactive Army ammunition installations, also known as Layaway of Industrial Facilities (LIF) activities. Funding will also support consolidation of laid-away production equipment and redistribution of production equipment that cannot be stored on-site. Laid-away efforts will also include retaining critical operational and technical knowledge of production equipment, such as engineering designs, process data and control manufacturing practices. Efforts will also include safety-related decontamination, disposal and demolition of production equipment and facilities, and environmental site assessments.

Procurement funds will also support the Maintenance of Inactive Facilities (MIF) to include utilities, buildings, plant equipment, special tooling, and special test equipment being retained to support future production requirements. Additional efforts include support of associated MIF costs such as grounds maintenance, fire protection, equipment security, and administrative support.



**UNCLASSIFIED**

**Exhibit P-40, Budget Line Item Justification:** PB 2016 Army **Date:** February 2015

**Appropriation / Budget Activity / Budget Sub Activity:**  
 2034A: Procurement of Ammunition, Army / BA 02: Ammunition Production Base Support / BSA 10: Production Base Support

**P-1 Line Item Number / Title:**  
 EP1000 / Provision of Industrial Facilities

**ID Code** (A=Service Ready, B=Not Service Ready) : **Program Elements for Code B Items:** **Other Related Program Elements:**

Project Schedule			Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total
Project	Exhibits	ID CD	Total Cost (\$ M)	Total Cost (\$ M)	Total Cost (\$ M)	Total Cost (\$ M)	Total Cost (\$ M)	Total Cost (\$ M)
Production Support			-	219.221	137.186	205.202	-	205.202
Holston Army Ammunition Plant			-	34.348	39.114	116.350	-	116.350
Building G-4, Infrastructure Improvements	P25		-	9.790	-	-	-	-
Insensitive Munitions (IM) Weak Nitric Acid Recovery (NAC/SAC)	P25		-	-	-	108.593	-	108.593
Material Transfer Improvements for Building J-3	P25		-	-	1.178	-	-	-
Sewer and Industrial Wastewater Conditioning	P25		-	-	0.564	-	-	-
Industrial Wastewater Settling and Equalization Basin #1	P25		-	-	11.411	-	-	-
Install Additional Anoxic Basins (Building 221)	P25		-	9.723	8.565	-	-	-
Install Additional Anoxic Basins 5E and 6E (Building 235)	P25		-	-	5.503	-	-	-
Install Additional Wastewater Treatment, 3rd Clarifier	P25		-	9.746	-	-	-	-
Design of Industrial Wastewater Treatment Facility	P25		-	5.089	-	-	-	-
Install Additional Anoxic Wastewater Treatment, 4th Clarifier	P25		-	-	8.841	-	-	-
Holston Landfill Expansion (Design)	P25		-	-	0.407	-	-	-
Magazine Vent Replacement	P25		-	-	-	3.480	-	3.480
Feasibility Study of Treated Water in Explosive Manufacturing	P25		-	-	-	0.323	-	0.323
Upgrade PCS7 Network	P25		-	-	-	3.002	-	3.002
Modernization of Lacquer Preparation Facility	P25		-	-	-	0.952	-	0.952
Modernize B235 Filter Press, Ph 2	P25		-	-	2.645	-	-	-
Iowa Army Ammunition Plant			-	25.328	24.343	7.228	-	7.228
Rebuild Restrooms and Break Rooms, Line 3A Production Area	P25		-	0.571	-	-	-	-
Upgrade Restrooms, Line 3 Production Area	P25		-	0.414	-	-	-	-
Line 3A Melt Pour Loader	P25		-	3.116	-	-	-	-
Projectile Preheat Oven, Line 3A	P25		-	-	1.735	-	-	-
Rehabilitate Road F North and Line 3 Roads	P25		-	2.162	-	-	-	-
Central Fire Alarm/Reporting System	P25		-	2.425	-	5.149	-	5.149
Line 3A Explosive Scrap Melter	P25		-	2.369	-	-	-	-

**UNCLASSIFIED**

**Exhibit P-40, Budget Line Item Justification:** PB 2016 Army **Date:** February 2015

**Appropriation / Budget Activity / Budget Sub Activity:**  
 2034A: Procurement of Ammunition, Army / BA 02: Ammunition Production Base Support / BSA 10: Production Base Support

**P-1 Line Item Number / Title:**  
 EP1000 / Provision of Industrial Facilities

**ID Code** (A=Service Ready, B=Not Service Ready) : **Program Elements for Code B Items:** **Other Related Program Elements:**

Project Schedule			Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total
Project	Exhibits	ID CD	Total Cost (\$ M)	Total Cost (\$ M)	Total Cost (\$ M)	Total Cost (\$ M)	Total Cost (\$ M)	Total Cost (\$ M)
Replace Chemical and Explosives Laboratory	P25		-	-	3.282	-	-	-
Upgrade Insensitive Munitions Explosive (IMX) Wastewater Treatment, Line 3A	P25		-	-	4.076	-	-	-
Ultraviolet (UV) Deluge System Upgrade, Line 3A	P25		-	-	-	0.588	-	0.588
Plant Wide Mass Warning System	P25		-	-	-	1.491	-	1.491
Main Heating Plant Upgrade and Maximum Achievable Control Technology (MACT) Compliance	P25		-	6.534	-	-	-	-
Asbestos Abatement and Removal	P25		-	7.737	-	-	-	-
General Road Improvements (Roads D and E)	P25		-	-	2.139	-	-	-
Line 3A Distributed Natural Gas Boiler System	P25		-	-	6.751	-	-	-
Construct 100kW Fuel Cell Pilot Facility	P25		-	-	6.360	-	-	-
Lake City Army Ammunition Plant			-	7.165	14.895	34.193	-	34.193
Small Caliber Modernization, Production Line Upgrades	P25		-	-	2.791	14.702	-	14.702
Hard Road Surface Recapitalization	P25		-	5.065	-	-	-	-
Structural Upgrades (Buildings 8, 11, and 16)	P25		-	-	2.939	-	-	-
Conductive Flooring Replacement/Asbestos Removal (Buildings 1, 2 and 3)	P25		-	2.100	-	-	-	-
Building Management System / Metering Upgrade	P25		-	-	-	4.074	-	4.074
Exterior Steam Main Supports	P25		-	-	-	1.231	-	1.231
Building 15 Reverse Osmosis System	P25		-	-	-	0.437	-	0.437
Building 15 Programmable Logic Control (PLC) and Economizer Upgrade	P25		-	-	-	1.458	-	1.458
Building 3 East Charging Wing Heating, Ventilation and Air Conditioning (HVAC) Upgrade	P25		-	-	-	1.102	-	1.102
Structural Upgrades (Buildings 1, 2, 3, and 35)	P25		-	-	-	3.607	-	3.607
Building 16 Aerator Upgrade, Water Well Replacement	P25		-	-	-	7.582	-	7.582
Install Occupational Safety and Health Administration (OSHA) Guarding	P25		-	-	9.165	-	-	-
Radford Army Ammunition Plant			-	115.772	52.856	30.359	-	30.359
Construct New Nitrocellulose (NC) Facility	P25		-	11.681	7.000	12.631	-	12.631

**UNCLASSIFIED**

**Exhibit P-40, Budget Line Item Justification:** PB 2016 Army **Date:** February 2015

**Appropriation / Budget Activity / Budget Sub Activity:**  
 2034A: Procurement of Ammunition, Army / BA 02: Ammunition Production Base Support / BSA 10: Production Base Support

**P-1 Line Item Number / Title:**  
 EP1000 / Provision of Industrial Facilities

**ID Code** (A=Service Ready, B=Not Service Ready) : **Program Elements for Code B Items:** **Other Related Program Elements:**

Project Schedule			Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total
Project	Exhibits	ID CD	Total Cost (\$ M)	Total Cost (\$ M)	Total Cost (\$ M)	Total Cost (\$ M)	Total Cost (\$ M)	Total Cost (\$ M)
Upgrade Pumps, Water Plant (Building 409)	P25		-	2.601	-	-	-	-
Plant Operations, Request for Equitable Adjustment (REA)/Major Maintenance	P25		-	15.165	-	-	-	-
Strong Nitric Acid (SNA) Tank Replacement	P25		-	2.125	17.173	-	-	-
Construct New Powerhouse Facility	P25		-	84.200	-	-	-	-
New Solvent Area Chiller	P25		-	-	1.037	-	-	-
Solvent Propellant Manufacturing Facility (Preliminary Design)	P25		-	-	0.921	-	-	-
Electrical Distribution System Upgrades	P25		-	-	2.022	-	-	-
Acid Area Improvements	P25		-	-	6.580	7.164	-	7.164
Upgrade Settling Basins (Building 409)	P25		-	-	-	5.282	-	5.282
Plant Wide Dike Upgrades	P25		-	-	5.179	-	-	-
Workplace Safety	P25		-	-	4.764	-	-	-
Energetic Waste Incinerator (EWI) Facility Upgrades	P25		-	-	6.885	-	-	-
Telephone Line Upgrades	P25		-	-	1.295	-	-	-
Acid Sewer Treatment Upgrade	P25		-	-	-	5.282	-	5.282
Scranton Army Ammunition Plant			-	30.896	-	11.032	-	11.032
Modernization of Flexible Machining Cell	P25		-	6.431	-	-	-	-
Rehabilitate Subway Floor and Arches	P25		-	1.107	-	-	-	-
Replace Waste Treatment Facility, Production Shop	P25		-	0.778	-	-	-	-
Quick Die Change for Press Lines	P25		-	2.230	-	-	-	-
Saw Area Transformation	P25		-	0.750	-	-	-	-
Upgrade Nitrogen Gas Supply System	P25		-	0.700	-	-	-	-
Modernize Forge Shop Exhaust	P25		-	2.488	-	-	-	-
Replace Forge Shop Exterior Wall Siding	P25		-	0.724	-	-	-	-
Rehabilitate Storm Water Collection and Treatment System	P25		-	0.673	-	-	-	-
Electrical Upgrades	P25		-	-	-	4.669	-	4.669
External Wall Repairs (Mattes Ave/River Street) and Structural Repairs	P25		-	-	-	3.505	-	3.505

**UNCLASSIFIED**

**Exhibit P-40, Budget Line Item Justification:** PB 2016 Army **Date:** February 2015

**Appropriation / Budget Activity / Budget Sub Activity:**  
 2034A: Procurement of Ammunition, Army / BA 02: Ammunition Production Base Support / BSA 10: Production Base Support

**P-1 Line Item Number / Title:**  
 EP1000 / Provision of Industrial Facilities

**ID Code** (A=Service Ready, B=Not Service Ready) : **Program Elements for Code B Items:** **Other Related Program Elements:**

Project Schedule			Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total
Project	Exhibits	ID CD	Total Cost (\$ M)	Total Cost (\$ M)	Total Cost (\$ M)	Total Cost (\$ M)	Total Cost (\$ M)	Total Cost (\$ M)
New Small Batch Heat Treat	P25		-	5.343	-	-	-	-
New Rough Turn Lathes	P25		-	1.924	-	-	-	-
Replace and Upgrade Shell Rotating Band Welders	P25		-	7.126	-	-	-	-
Boiler for Bonderizers	P25		-	0.622	-	-	-	-
Relocate 800 lb/hr Induction Heater	P25		-	-	-	0.260	-	0.260
Relocate Rough Turn Lathes & Welders to the Subway	P25		-	-	-	0.260	-	0.260
Retrofit Erie IV Press for Nosing Capability	P25		-	-	-	1.039	-	1.039
Forge Shop Addition and Flex Cell Relocation	P25		-	-	-	1.299	-	1.299
Various Army Ammunition Plants			-	3.263	4.453	4.558	-	4.558
Engineering in Support of Provision of Industrial Facilities	P25		-	3.263	4.453	4.558	-	4.558
Yuma Proving Ground / Aberdeen Test Center			-	2.449	1.525	1.482	-	1.482
Replace Test Instrumentation in Production Acceptance Testing (Ammunition)	P25		-	2.449	1.525	1.482	-	1.482
<i>(Uncategorized)</i>			-	17.306	6.988	10.464	-	10.464
Active and Inactive Government-Owned Facilities			-	0.018	0.028	0.297	-	0.297
Layaway of Industrial Facilities, Minor Efforts Less Than \$0.100 Million	P17		-	0.018	0.028	0.297	-	0.297
Holston Army Ammunition Plant			-	-	-	4.889	-	4.889
Stabilization of HSAAP Area A, Phase 1	P17		-	-	-	3.000	-	3.000
Layaway of Magnesium Nitrate Facility	P17		-	-	-	1.889	-	1.889
Iowa Army Ammunition Plant			-	-	2.077	1.100	-	1.100
Decontamination and Disposal of Excess Production Equipment	P17		-	-	-	1.100	-	1.100
Facility Disposal/Demolition	P17		-	-	2.077	-	-	-
Lake City Army Ammunition Plant			-	-	3.659	-	-	-
Demolition of Excess Buildings	P17		-	-	3.659	-	-	-
Milan Army Ammunition Plant			-	0.138	0.624	0.618	-	0.618
Transition Line H to Modified Caretaker	P17		-	-	0.312	-	-	-
Transition Line O to Modified Caretaker	P17		-	-	0.312	-	-	-

**UNCLASSIFIED**

**Exhibit P-40, Budget Line Item Justification:** PB 2016 Army **Date:** February 2015

**Appropriation / Budget Activity / Budget Sub Activity:**  
 2034A: Procurement of Ammunition, Army / BA 02: Ammunition Production Base Support / BSA 10: Production Base Support

**P-1 Line Item Number / Title:**  
 EP1000 / Provision of Industrial Facilities

**ID Code** (A=Service Ready, B=Not Service Ready) : **Program Elements for Code B Items:** **Other Related Program Elements:**

Project Schedule			Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total
Project	Exhibits	ID CD	Total Cost (\$ M)	Total Cost (\$ M)	Total Cost (\$ M)	Total Cost (\$ M)	Total Cost (\$ M)	Total Cost (\$ M)
Facility Disposal/Demolition	P17		-	0.138	-	-	-	-
Layaway Area ZZ (Test Area)	P17		-	-	-	0.173	-	0.173
Layaway Line A	P17		-	-	-	0.445	-	0.445
Pine Bluff Arsenal			-	1.395	-	2.207	-	2.207
Remove/Dispose of Hexachlorethane (HC)/Zinc Chloride Mix Equipment, Building 34-640	P17		-	1.395	-	-	-	-
Demolition of Inactive White Phosphorous Production Tanks, Ph 2	P17		-	-	-	1.788	-	1.788
Removal/Disposal of Inactive White Phosphorous Equipment	P17		-	-	-	0.419	-	0.419
Quad City Cartridge Case Facility			-	6.681	-	-	-	-
Layaway of Steel Cartridge Case Equipment	P17		-	6.681	-	-	-	-
Radford Army Ammunition Plant			-	7.782	-	0.730	-	0.730
Decontamination and Disposal of Facilities/Excess Production Equipment	P17		-	6.589	-	0.730	-	0.730
Remove Nitrocellulose (NC) Hill Tanks	P17		-	1.193	-	-	-	-
Scranton Army Ammunition Plant			-	1.292	0.600	0.623	-	0.623
Removal of Verson Press System	P17		-	1.292	-	-	-	-
Layaway of 120mm Mortar Line	P17		-	-	0.600	-	-	-
Removal of the John Deer Furnace	P17		-	-	-	0.623	-	0.623
Inactive Lines at Active Plants			-	5.799	3.918	6.037	-	6.037
Crane Army Ammunition Activity	P26		-	0.307	0.309	0.310	-	0.310
Hawthorne Army Depot	P26		-	0.054	0.097	0.099	-	0.099
Holston Army Ammunition Plant	P26		-	0.019	0.052	0.053	-	0.053
Iowa Army Ammunition Plant	P26		-	0.302	0.458	0.735	-	0.735
McAlester Army Ammunition Plant	P26		-	0.155	0.158	0.161	-	0.161
Milan Army Ammunition Plant	P26		-	0.197	0.165	0.168	-	0.168
Pine Bluff Arsenal	P26		-	0.333	0.313	0.313	-	0.313
Quad City Cartridge Case Facility	P26		-	0.006	0.283	0.425	-	0.425
Radford Army Ammunition Plant	P26		-	0.219	0.429	0.437	-	0.437

**UNCLASSIFIED**

**Exhibit P-40, Budget Line Item Justification:** PB 2016 Army **Date:** February 2015

<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2034A: Procurement of Ammunition, Army / BA 02: Ammunition Production Base Support / BSA 10: Production Base Support	<b>P-1 Line Item Number / Title:</b> EP1000 / Provision of Industrial Facilities
---	---

ID Code (A=Service Ready, B=Not Service Ready) :			Program Elements for Code B Items:			Other Related Program Elements:		
Project Schedule			Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total
Project	Exhibits	ID CD	Total Cost (\$ M)	Total Cost (\$ M)	Total Cost (\$ M)	Total Cost (\$ M)	Total Cost (\$ M)	Total Cost (\$ M)
Scranton Army Ammunition Plant	P26		-	-	0.052	0.053	-	0.053
Various	P26		-	4.207	1.602	3.283	-	3.283
<b>Total Gross/Weapon System Cost</b>			-	<b>242.326</b>	<b>148.092</b>	<b>221.703</b>	-	<b>221.703</b>

\*For the P-17 and P-25, the Project column displays a three-level indentation: Project Category (e.g., Environmental), followed by the Facility, followed by the Project Name. Exhibits with no Project Category are included under the "Uncategorized" category. For the P-26, the Project column displays a two-level indentation: Project Type (e.g., Inactive Plants, Inactive Lines at Contractor Plants and Inactive Lines at Active Plants), followed by the Facility. Note also that although all P-17, P-25 and P-26 projects are shown in the project schedule, not all projects will have a corresponding exhibit. A P-17 or P-25 exhibit is only included if data beyond the Project Number, Project Title and Cost are included (for example: for the P-17, Description, Manufacturer, etc.; for the P-25, Narrative Explanation, Cost Elements, Principle Milestones, etc.). A P-26 exhibit is only included if data beyond Project Type and Total Cost are included (for example, Description, Contractor, Maintenance/Recurring/Environmental/Other costs, etc.).

**Justification:**  
 FY 2016 Base procurement dollars in the amount of \$221.703 million support modernization projects to include construction of a Nitric Acid Concentrator/Sulfuric Acid Concentrator (NAC/SAC) facility at Holston Army Ammunition Plant (AAP), upgrades to the small caliber production lines at Lake City AAP, continued procurement and installation of necessary equipment supporting the central fire alarm/mass warning system at Iowa AAP, upgrades to critical containment dikes at Radford AAP, and modernization upgrades at Scranton AAP. Funds will support critical work environmental projects, including improvements for personnel safety and health, and efforts to maintain environmental compliance at the ammunition plants. Funds will also provide engineering support of industrial facilities, pre-design efforts for future-year modernization projects and procurement efforts at Aberdeen and Yuma Test Centers to include production acceptance tests for various ammunition end items.

FY 2016 Base procurement dollars also support the protection and preservation of industrial facilities at active and inactive Army ammunition installations and equipment that is no longer required for current production but must be retained for future peacetime or emergency production needs to include the first phase of the stabilization and layaway of Area A at Holston AAP. LIF efforts also include reducing the industrial base footprint by demolishing facilities and disposing equipment no longer required at the Army ammunition installations.

FY 2016 Base procurement dollars also support MIF efforts at active and inactive ammunition installations.

**UNCLASSIFIED**

<b>Exhibit P-17, Layaway and/or Distribution:</b> PB 2016 Army					<b>Date:</b> February 2015	
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2034A / 02 / 10			<b>P-1 Line Item Number / Title:</b> EP1000 / Provision of Industrial Facilities			
<b>Funding</b> <i>(\$ in Millions)</i>	<b>Prior Years</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016 Base</b>	<b>FY 2016 OCO</b>	<b>FY 2016 Total</b>
	-	0.018	0.028	0.297	-	0.297
<b>Project Number:</b> 5XX8000 <b>Title:</b> Layaway of Industrial Facilities, Minor Efforts Less Than \$0.100 Million <b>Category:</b> <b>Description:</b> FY 2016 Base procurement dollars in the amount of \$0.297 million support various minor efforts at active and inactive facilities that preserve and store industrial facilities for reserve capacity.						
<b>Manufacturer:</b> Active and Inactive Government-Owned Facilities		<b>Production Lines Being Laid Away:</b> Various			<b>Production Ends:</b>	
<b>Location:</b> Various		<b>Location:</b>				
<b>Layaway Cost:</b> 297.000		<b>Other Costs:</b> -			<b>Annual Maintenance Cost:</b> -	
<b>Funding</b> <i>(\$ in Millions)</i>	<b>Prior Years</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016 Base</b>	<b>FY 2016 OCO</b>	<b>FY 2016 Total</b>
	-	-	-	3.000	-	3.000
<b>Project Number:</b> 5168060 <b>Title:</b> Stabilization of HSAAP Area A, Phase 1 <b>Category:</b> <b>Description:</b> FY 2016 Base Procurement dollars in the amount of \$3.000 million support the stabilization and layaway of Area A at Holston Army Ammunition Plant. Product operations in Area A are forecasted for termination in 2015. This effort will perform the necessary requirements to place Area A buildings and tank farms into a stabilized and layaway condition.						
<b>Manufacturer:</b> Holston Army Ammunition Plant		<b>Production Lines Being Laid Away:</b> Buildings: 2-A, 6-A, 7-A, TF-27 & various utilities to include 33-A, 36-A, 39-A,29-A,11-A & 12-A			<b>Production Ends:</b>	
<b>Location:</b> Kingsport, Tennessee		<b>Location:</b>				
<b>Layaway Cost:</b> 3,000.000		<b>Other Costs:</b> -			<b>Annual Maintenance Cost:</b> -	
<b>Funding</b> <i>(\$ in Millions)</i>	<b>Prior Years</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016 Base</b>	<b>FY 2016 OCO</b>	<b>FY 2016 Total</b>
	-	-	-	1.889	-	1.889
<b>Project Number:</b> 5168067 <b>Title:</b> Layaway of Magnesium Nitrate Facility <b>Category:</b> <b>Description:</b> FY 2016 Base Procurement dollars in the amount of \$1.889 million support layaway of the Magnesium Nitrate Facility at Holston Army Ammunition Plant (AAP). The facility was removed from layaway status in 2012 to support production of strong nitric acid (SNA) at Holston AAP. In May 2012, the primary supplier of SNA experienced an accidental explosion resulting in a two year delay in production. This layaway effort will assure preservation for future reactivation.						
<b>Manufacturer:</b> Holston Army Ammunition Plant		<b>Production Lines Being Laid Away:</b> Magnesium Nitrate Unit #5			<b>Production Ends:</b> 2015-09	
<b>Location:</b> Kingsport, Tennessee		<b>Location:</b>				
<b>Layaway Cost:</b> 1,889.000		<b>Other Costs:</b> -			<b>Annual Maintenance Cost:</b> -	
<b>Funding</b> <i>(\$ in Millions)</i>	<b>Prior Years</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016 Base</b>	<b>FY 2016 OCO</b>	<b>FY 2016 Total</b>
	-	-	-	1.100	-	1.100
<b>Project Number:</b> 5XX8049 <b>Title:</b> Decontamination and Disposal of Excess Production Equipment <b>Category:</b> <b>Description:</b> FY 2016 Base procurement dollars in the amount of \$1.100 million support decontamination and disposal of excess equipment no longer required for production at Iowa Army Ammunition Plant (AAP). Decontamination and disposal of inactive equipment enables Iowa AAP to re-use existing storage facilities for future production.						

**UNCLASSIFIED**

<b>Exhibit P-17, Layaway and/or Distribution:</b> PB 2016 Army					<b>Date:</b> February 2015	
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2034A / 02 / 10			<b>P-1 Line Item Number / Title:</b> EP1000 / Provision of Industrial Facilities			
<b>Manufacturer:</b> Iowa Army Ammunition Plant <b>Location:</b> Middletown, Iowa		<b>Production Lines Being Laid Away:</b> Various <b>Location:</b>			<b>Production Ends:</b>	
<b>Layaway Cost:</b> 1,100.000		<b>Other Costs:</b> -			<b>Annual Maintenance Cost:</b> -	
<b>Funding</b> <i>(\$ in Millions)</i>	<b>Prior Years</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016 Base</b>	<b>FY 2016 OCO</b>	<b>FY 2016 Total</b>
	-	-	2.077	-	-	-
<b>Project Number:</b> 5XX8051 <b>Title:</b> Facility Disposal/Demolition <b>Category:</b> <b>Description:</b> Procurement dollars in the amount of \$2.077 million support efforts to decontaminate, remove asbestos and demolish facilities plant wide due to unsafe conditions and environmental risks at Iowa Army Ammunition Plant.						
<b>Manufacturer:</b> Iowa Army Ammunition Plant <b>Location:</b> Middletown, Iowa		<b>Production Lines Being Laid Away:</b> Various <b>Location:</b>			<b>Production Ends:</b>	
<b>Layaway Cost:</b> 2,077.000		<b>Other Costs:</b> -			<b>Annual Maintenance Cost:</b> -	
<b>Funding</b> <i>(\$ in Millions)</i>	<b>Prior Years</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016 Base</b>	<b>FY 2016 OCO</b>	<b>FY 2016 Total</b>
	-	-	3.659	-	-	-
<b>Project Number:</b> 5158056 <b>Title:</b> Demolition of Excess Buildings <b>Category:</b> <b>Description:</b> Procurement dollars in the amount of \$3.659 million support effort to demolish facilities plant wide due to unsafe conditions and environmental risks at Lake City Army Ammunition Plant.						
<b>Manufacturer:</b> Lake City Army Ammunition Plant <b>Location:</b> Independence, Missouri		<b>Production Lines Being Laid Away:</b> Various <b>Location:</b>			<b>Production Ends:</b>	
<b>Layaway Cost:</b> 3,659.000		<b>Other Costs:</b> -			<b>Annual Maintenance Cost:</b> -	
<b>Funding</b> <i>(\$ in Millions)</i>	<b>Prior Years</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016 Base</b>	<b>FY 2016 OCO</b>	<b>FY 2016 Total</b>
	-	-	0.312	-	-	-
<b>Project Number:</b> 5158058 <b>Title:</b> Transition Line H to Modified Caretaker <b>Category:</b> <b>Description:</b> Procurement dollars in the amount of \$0.312 million support efforts to transition Line H at Milan Army Ammunition Plant (AAP) to modified caretaker. Efforts will decontaminate to level 5X condition and dispose of all excess production equipment. Efforts will also retain selected equipment and transfer the items to a layaway storage facility at Milan AAP to preserve for future production capacity. In December 2011, production of ignition cartridges and propelling charges for 60mm and 81mm mortars was shut down at Line H. Production of these items has been transferred to Iowa Army Ammunition Plant.						
<b>Manufacturer:</b> Milan Army Ammunition Plant <b>Location:</b> Milan, Tennessee		<b>Production Lines Being Laid Away:</b> 60mm and 81mm Mortars <b>Location:</b> Line H			<b>Production Ends:</b>	
<b>Layaway Cost:</b> 312.000		<b>Other Costs:</b> -			<b>Annual Maintenance Cost:</b> -	
<b>Funding</b> <i>(\$ in Millions)</i>	<b>Prior Years</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016 Base</b>	<b>FY 2016 OCO</b>	<b>FY 2016 Total</b>
	-	-	0.312	-	-	-
<b>Project Number:</b> 5158059 <b>Title:</b> Transition Line O to Modified Caretaker <b>Category:</b>						



**UNCLASSIFIED**

<b>Exhibit P-17, Layaway and/or Distribution:</b> PB 2016 Army					<b>Date:</b> February 2015	
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2034A / 02 / 10			<b>P-1 Line Item Number / Title:</b> EP1000 / Provision of Industrial Facilities			
<b>Description:</b> Procurement dollars in the amount of \$0.312 million support transition of Line O at Milan Army Ammunition Plant to modified caretaker. Effort will decontaminate and dispose of all excess production equipment. Efforts will also retain selected production equipment and transfer the items to a layaway storage facility at Milan AAP to preserve for future production capacity. In December 2011, production and demilitarization of various ammunition components was shut down at Line O. Production of these items has been transferred to Iowa Army Ammunition Plant.						
<b>Manufacturer:</b> Milan Army Ammunition Plant <b>Location:</b> Milan, Tennessee			<b>Production Lines Being Laid Away:</b> Various Ammunition Components <b>Location:</b> Line O		<b>Production Ends:</b>	
<b>Layaway Cost:</b> 312.000			<b>Other Costs:</b> -		<b>Annual Maintenance Cost:</b> -	
<b>Funding</b> <i>(\$ in Millions)</i>	<b>Prior Years</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016 Base</b>	<b>FY 2016 OCO</b>	<b>FY 2016 Total</b>
	-	0.138	-	-	-	-
<b>Project Number:</b> 5148052 <b>Title:</b> Facility Disposal/Demolition <b>Category:</b> <b>Description:</b> Procurement dollars in the amount of \$0.138 million support efforts to decontaminate, remove asbestos, and demolish building J-139, due to unsafe conditions and environmental risks, at Milan Army Ammunition Plant.						
<b>Manufacturer:</b> Milan Army Ammunition Plant <b>Location:</b> Milan, Tennessee			<b>Production Lines Being Laid Away:</b> <b>Location:</b>		<b>Production Ends:</b>	
<b>Layaway Cost:</b> 138.000			<b>Other Costs:</b> -		<b>Annual Maintenance Cost:</b> -	
<b>Funding</b> <i>(\$ in Millions)</i>	<b>Prior Years</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016 Base</b>	<b>FY 2016 OCO</b>	<b>FY 2016 Total</b>
	-	-	-	0.173	-	0.173
<b>Project Number:</b> 5168061 <b>Title:</b> Layaway Area ZZ (Test Area) <b>Category:</b> <b>Description:</b> FY 2016 Base procurement dollars in the amount of \$0.173 million support layaway of Area ZZ buildings and equipment at Milan Army Ammunition Plant. Effort is required to maintain production readiness for 40MM grenade test fire.						
<b>Manufacturer:</b> Milan Army Ammunition Plant <b>Location:</b> Milan, Tennessee			<b>Production Lines Being Laid Away:</b> <b>Location:</b>		<b>Production Ends:</b>	
<b>Layaway Cost:</b> 173.000			<b>Other Costs:</b> -		<b>Annual Maintenance Cost:</b> -	
<b>Funding</b> <i>(\$ in Millions)</i>	<b>Prior Years</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016 Base</b>	<b>FY 2016 OCO</b>	<b>FY 2016 Total</b>
	-	-	-	0.445	-	0.445
<b>Project Number:</b> 5168063 <b>Title:</b> Layaway Line A <b>Category:</b> <b>Description:</b> FY 2016 Base procurement dollars in the amount of \$0.445 million support layaway of Line A buildings and equipment at Milan Army Ammunition Plant. Effort will maintain production readiness for 40mm grenade pressing and 155mm Improved Conventional Munitions (ICM) artillery shell and Multiple Launch Rocket System (MLRS) download operations.						
<b>Manufacturer:</b> Milan Army Ammunition Plant <b>Location:</b> Milan, Tennessee			<b>Production Lines Being Laid Away:</b> <b>Location:</b>		<b>Production Ends:</b>	
<b>Layaway Cost:</b> 445.000			<b>Other Costs:</b> -		<b>Annual Maintenance Cost:</b> -	
<b>Funding</b> <i>(\$ in Millions)</i>	<b>Prior Years</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016 Base</b>	<b>FY 2016 OCO</b>	<b>FY 2016 Total</b>
	-	1.395	-	-	-	-

**UNCLASSIFIED**

<b>Exhibit P-17, Layaway and/or Distribution:</b> PB 2016 Army					<b>Date:</b> February 2015	
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2034A / 02 / 10			<b>P-1 Line Item Number / Title:</b> EP1000 / Provision of Industrial Facilities			
<b>Project Number:</b> 5148055 <b>Title:</b> Remove/Dispose of Hexachlorethane (HC)/Zinc Chloride Mix Equipment, Building 34-640 <b>Category:</b> <b>Description:</b> Procurement dollars in the amount of \$1.395 million support efforts to remove, decontaminate and dispose of HC / Zinc Chloride mix equipment in building 34-640 at Pine Bluff Arsenal. HC has been determined to be a toxic carcinogen and will no longer support program objective memorandum (POM) buys. All equipment must be flashed to level 5X prior to disposal.						
<b>Manufacturer:</b> Pine Bluff Arsenal <b>Location:</b> Pine Bluff, Arkansas		<b>Production Lines Being Laid Away:</b> Large Mix Load, Assemble and Pack (LAP), HC smoke munitions. <b>Location:</b> Building 34-640			<b>Production Ends:</b>	
<b>Layaway Cost:</b> 1,395.000		<b>Other Costs:</b> -			<b>Annual Maintenance Cost:</b> -	
<b>Funding</b> <i>(\$ in Millions)</i>	<b>Prior Years</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016 Base</b>	<b>FY 2016 OCO</b>	<b>FY 2016 Total</b>
	-	-	-	1.788	-	1.788
<b>Project Number:</b> 5168035 <b>Title:</b> Demolition of Inactive White Phosphorous Production Tanks, Ph 2 <b>Category:</b> <b>Description:</b> FY 2016 Base procurement dollars in the amount of \$1.788 million support decontamination and demolition of obsolete White Phosphorous production tanks and support equipment at Pine Bluff Arsenal. These efforts will eliminate safety and environmental risks.						
<b>Manufacturer:</b> Pine Bluff Arsenal <b>Location:</b> Pine Bluff, Arkansas		<b>Production Lines Being Laid Away:</b> Various <b>Location:</b>			<b>Production Ends:</b>	
<b>Layaway Cost:</b> 1,788.000		<b>Other Costs:</b> -			<b>Annual Maintenance Cost:</b> -	
<b>Funding</b> <i>(\$ in Millions)</i>	<b>Prior Years</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016 Base</b>	<b>FY 2016 OCO</b>	<b>FY 2016 Total</b>
	-	-	-	0.419	-	0.419
<b>Project Number:</b> 5168045 <b>Title:</b> Removal/Disposal of Inactive White Phosphorous Equipment <b>Category:</b> <b>Description:</b> FY 2016 Base Procurement dollars in the amount of \$0.419 million support removal and disposal of inactive White Phosphorous equipment at Pine Bluff Arsenal. The obsolete White Phosphorous support equipment will be decontaminated, dismantled and disposed. This project will eliminate safety, environmental and a human health hazards.						
<b>Manufacturer:</b> Pine Bluff Arsenal <b>Location:</b> Pine Bluff, Arkansas		<b>Production Lines Being Laid Away:</b> Tank #3 (34-170), Tank A (34-130), Test Ovens (34-110) & Containment area (34-196) <b>Location:</b>			<b>Production Ends:</b>	
<b>Layaway Cost:</b> 419.000		<b>Other Costs:</b> -			<b>Annual Maintenance Cost:</b> -	
<b>Funding</b> <i>(\$ in Millions)</i>	<b>Prior Years</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016 Base</b>	<b>FY 2016 OCO</b>	<b>FY 2016 Total</b>
	-	6.681	-	-	-	-
<b>Project Number:</b> 51X8053 <b>Title:</b> Layaway of Steel Cartridge Case Equipment <b>Category:</b> <b>Description:</b> Procurement dollars in the amount of \$6.681 million support this effort to layaway the deep drawn cartridge case equipment at the Quad City Cartridge Case Facility. Effort includes purchase of intellectual property, tooling, gages, and common processes, and in-house project support costs.						
<b>Manufacturer:</b> Quad City Cartridge Case Facility <b>Location:</b> Rock Island, Illinois		<b>Production Lines Being Laid Away:</b> 105mm M148A1B1, 155mm Advanced Gun System (AGS), 5			<b>Production Ends:</b>	

**UNCLASSIFIED**

<b>Exhibit P-17, Layaway and/or Distribution:</b> PB 2016 Army					<b>Date:</b> February 2015	
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2034A / 02 / 10			<b>P-1 Line Item Number / Title:</b> EP1000 / Provision of Industrial Facilities			
<b>Layaway Cost:</b> 6,681.000		<b>Location:</b>		<b>Other Costs:</b> -		<b>Annual Maintenance Cost:</b> -
<b>Funding</b> <i>(\$ in Millions)</i>	<b>Prior Years</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016 Base</b>	<b>FY 2016 OCO</b>	<b>FY 2016 Total</b>
	-	6.589	-	0.730	-	0.730
<b>Project Number:</b> 5XX8440 <b>Title:</b> Decontamination and Disposal of Facilities/Excess Production Equipment <b>Category:</b> <b>Description:</b> FY 2016 Base procurement dollars in the amount of \$0.730 million support this continued effort to decontaminate and dispose of excess production equipment and facilities at Radford Army Ammunition Plant.						
<b>Manufacturer:</b> Radford Army Ammunition Plant		<b>Production Lines Being Laid Away:</b> Various		<b>Production Ends:</b>		
<b>Location:</b> Radford, Virginia		<b>Location:</b>				
<b>Layaway Cost:</b> 7,319.000		<b>Other Costs:</b> -		<b>Annual Maintenance Cost:</b> -		
<b>Funding</b> <i>(\$ in Millions)</i>	<b>Prior Years</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016 Base</b>	<b>FY 2016 OCO</b>	<b>FY 2016 Total</b>
	-	1.193	-	-	-	-
<b>Project Number:</b> 5XX8047 <b>Title:</b> Remove Nitrocellulose (NC) Hill Tanks <b>Category:</b> <b>Description:</b> Procurement dollars in the amount of \$1.193 million support efforts to remove and dispose waste NC from recovered water tanks at Radford Army Ammunition Plant. These efforts will significantly reduce environmental and safety issues associated with large quantities of legacy NC.						
<b>Manufacturer:</b> Radford Army Ammunition Plant		<b>Production Lines Being Laid Away:</b>		<b>Production Ends:</b>		
<b>Location:</b> Radford, Virginia		<b>Location:</b>				
<b>Layaway Cost:</b> 1,193.000		<b>Other Costs:</b> -		<b>Annual Maintenance Cost:</b> -		
<b>Funding</b> <i>(\$ in Millions)</i>	<b>Prior Years</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016 Base</b>	<b>FY 2016 OCO</b>	<b>FY 2016 Total</b>
	-	1.292	-	-	-	-
<b>Project Number:</b> 5143721 <b>Title:</b> Removal of Verson Press System <b>Category:</b> <b>Description:</b> Procurement dollars in the amount of \$1.292 million support the removal of the Verson Press System at Scranton Army Ammunition Plant. The press system is comprised of a 1500 ton hydraulic preform press, a 1500 ton hydraulic extrusion press, and a 1250 ton hydraulic draw press. The system has been in layaway status for twenty five years. The press system has deteriorated and is no longer economically feasible to repair and retain.						
<b>Manufacturer:</b> Scranton Army Ammunition Plant		<b>Production Lines Being Laid Away:</b>		<b>Production Ends:</b>		
<b>Location:</b> Scranton, Pennsylvania		<b>Location:</b>				
<b>Layaway Cost:</b> 1,292.000		<b>Other Costs:</b> -		<b>Annual Maintenance Cost:</b> -		
<b>Funding</b> <i>(\$ in Millions)</i>	<b>Prior Years</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016 Base</b>	<b>FY 2016 OCO</b>	<b>FY 2016 Total</b>
	-	-	0.600	-	-	-
<b>Project Number:</b> 5158068 <b>Title:</b> Layaway of 120mm Mortar Line <b>Category:</b>						

**UNCLASSIFIED**

<b>Exhibit P-17, Layaway and/or Distribution:</b> PB 2016 Army	<b>Date:</b> February 2015
--	----------------------------

<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2034A / 02 / 10	<b>P-1 Line Item Number / Title:</b> EP1000 / Provision of Industrial Facilities
--	---

**Description:** Procurement dollars in the amount of \$0.600 million support layaway of the 120mm Mortar production line at Scranton Army Ammunition Plant. This project will ensure the 120mm Mortar production line is maintained in a

<b>Manufacturer:</b> Scranton Army Ammunition Plant <b>Location:</b> Scranton, Pennsylvania	<b>Production Lines Being Laid Away:</b> Layaway of 120mm Mortar Line <b>Location:</b>	<b>Production Ends:</b>
--	---	-------------------------

<b>Layaway Cost:</b> 600.000	<b>Other Costs:</b> -	<b>Annual Maintenance Cost:</b> -
------------------------------	-----------------------	-----------------------------------

<b>Funding</b> <i>(\$ in Millions)</i>	<b>Prior Years</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016 Base</b>	<b>FY 2016 OCO</b>	<b>FY 2016 Total</b>
	-	-	-	0.623	-	0.623

**Project Number:** 5168072  
**Title:** Removal of the John Deer Furnace  
**Category:**  
**Description:** FY 2016 Base procurement dollars in the amount \$0.623 million support removal of the John Deere Furnace at Scranton Army Ammunition Plant. The furnace has been inactive for over twenty years and is no longer required for plant operations. This project will remove and scrap the John Deer Furnace to create additional capacity for future production modernization enhancements.

<b>Manufacturer:</b> Scranton Army Ammunition Plant <b>Location:</b> Scranton, Pennsylvania	<b>Production Lines Being Laid Away:</b> <b>Location:</b>	<b>Production Ends:</b>
--	--	-------------------------

<b>Layaway Cost:</b> 623.000	<b>Other Costs:</b> -	<b>Annual Maintenance Cost:</b> -
------------------------------	-----------------------	-----------------------------------

--

**UNCLASSIFIED**

**Exhibit P-25, Production Support and Industrial Facilities Cost Analysis:** PB 2016 Army **Date:** February 2015

**Appropriation / Budget Activity / Budget Sub Activity:** 2034A / 02 / 10 **P-1 Line Item Number / Title:** EP1000 / Provision of Industrial Facilities

**Project Title:** Building G-4, Infrastructure Improvements **Project Number:** 5143676 **Project Category:** Production Support

**End Item Supported Model:** Dinitroanisole (DNAN), Nitrotriazalone (NTO) **Annual Capacity Before / After (1-8-5):** /

Cost Elements <i>(\$ in Millions)</i>	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	Facility Name: Holston Army Ammunition Plant Facility Location: Kingsport, Tennessee Facility Type (GOGO, GOCO, COCO): GOCO						
						Principal Milestones			Month & Year			
A. Construction Cost	4.862	-	-	-	-	Concept Design Complete:						
B. Equipment Cost	2.359	-	-	-	-	Final Design Complete:			Mar 2015			
C. Equipment Installation Cost	1.656	-	-	-	-	Initial/Final Project Award:			Aug 2014 / Aug 2014			
D. Contractor Support Cost	-	-	-	-	-	Construction Complete:			Aug 2017			
E. Corps of Engineers Support Cost	-	-	-	-	-	Equipment Installation Complete:			Aug 2017			
F. Other In-House Support Cost	0.125	-	-	-	-	Prove Out Begins:			Aug 2017			
G. Total Facility Project Cost	-	-	-	-	-	Prove Out Complete:			Nov 2017			
H. Other Costs	0.788	-	-	-	-	<b>Related Projects</b>						
Total Project Cost	9.790	-	-	-	-							<b>Project Number</b>

**Narrative Explanation:**  
 Procurement dollars in the amount of \$9.790 million support modernization of the Nitroguanidine (NQ) Recrystallization process in building G-4 at Holston Army Ammunition Plant. Antiquated processing equipment, obsolete instrumentation controls and out-dated processing methods are incapable of satisfying future production requirements. This project also includes modernization of the building infrastructure, safety improvements and maintains environmental compliance. NQ is a critical ingredient in the production of insensitive munitions explosives.

**UNCLASSIFIED**

**Exhibit P-25, Production Support and Industrial Facilities Cost Analysis: PB 2016 Army** **Date:** February 2015

**Appropriation / Budget Activity / Budget Sub Activity:** 2034A / 02 / 10 **P-1 Line Item Number / Title:** EP1000 / Provision of Industrial Facilities

**Project Title:** Insensitive Munitions (IM) Weak Nitric Acid Recovery (NAC/SAC) **Project Number:** 5163673 **Project Category:** Production Support

**End Item Supported Model:** IM Explosives (IMX)-101, IMX-104, Picatinny Arsenal Expl (PAX) **Annual Capacity Before / After (1-8-5):** /

Cost Elements <i>(\$ in Millions)</i>	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	Facility Name: Holston Army Ammunition Plant Facility Location: Kingsport, Tennessee Facility Type (GOGO, GOCO, COCO): GOCO														
A. Construction Cost	-	-	38.586	-	38.586	<b>Principal Milestones</b> <span style="float: right;"><b>Month &amp; Year</b></span> Concept Design Complete: Jul 2014 Final Design Complete: Jul 2015 Initial/Final Project Award: Sep 2013 / Jan 2016 Construction Complete: Jul 2018 Equipment Installation Complete: Jul 2018 Prove Out Begins: Nov 2018 Prove Out Complete: Jan 2019														
B. Equipment Cost	-	-	46.623	-	46.623															
C. Equipment Installation Cost	-	-	10.376	-	10.376															
D. Contractor Support Cost	-	-	6.392	-	6.392															
E. Corps of Engineers Support Cost	-	-	-	-	-															
F. Other In-House Support Cost	-	-	0.250	-	0.250															
G. Total Facility Project Cost	-	-	-	-	-															
H. Other Costs	-	-	6.366	-	6.366															
Total Project Cost	-	-	108.593	-	108.593															
							<b>Related Projects</b>													
						<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 10%;">Project Number</th> <th style="width: 40%;">Title</th> <th style="width: 10%;">FY &amp; Appn</th> <th style="width: 10%;">Value (\$ M)</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> </td> <td> </td> <td> </td> <td> </td> <td> </td> <td> </td> </tr> </tbody> </table>	Project Number	Title	FY & Appn	Value (\$ M)	Facing	Start Date	Compl Date							
Project Number	Title	FY & Appn	Value (\$ M)	Facing	Start Date	Compl Date														

**Narrative Explanation:**  
 FY 2016 Base procurement dollars in the amount of \$108.593 million support construction of a Nitric Acid Concentrator / Sulfuric Acid Concentrator (NAC/SAC) facility at Holston Army Ammunition Plant (AAP). This facility will recover the spent acid used in IM Explosives (IMX)-101, IMX-104 manufacturing and other Dinitroanisole and Nitrotriazalone IMX bases. This project will provide Holston AAP with the capability to reconcentrate spent nitric acid in order to avoid ammonia nitrate waste disposal costs. Additionally, the new facility mitigates a critical supply chain issue in the production of strong nitric acid within the National Technology and Industrial Base.

**UNCLASSIFIED**

**Exhibit P-25, Production Support and Industrial Facilities Cost Analysis: PB 2016 Army** **Date:** February 2015

**Appropriation / Budget Activity / Budget Sub Activity:** 2034A / 02 / 10 **P-1 Line Item Number / Title:** EP1000 / Provision of Industrial Facilities

**Project Title:** Material Transfer Improvements for Building J-3 **Project Number:** 5153747 **Project Category:** Production Support

**End Item Supported Model:** Research & Development Explosives (RDX), High Melt Explosives (HMX) **Annual Capacity Before / After (1-8-5):** /

Cost Elements <i>(\$ in Millions)</i>	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	Facility Name: Holston Army Ammunition Plant Facility Location: Kingsport, Tennessee Facility Type (GOGO, GOCO, COCO): GOCO						
A. Construction Cost	-	0.848	-	-	-	<b>Principal Milestones</b> <span style="float: right;"><b>Month &amp; Year</b></span> Concept Design Complete: Final Design Complete: <span style="float: right;">Sep 2015</span> Initial/Final Project Award: <span style="float: right;">Mar 2015 / Mar 2015</span> Construction Complete: <span style="float: right;">Sep 2015</span> Equipment Installation Complete: <span style="float: right;">Nov 2015</span> Prove Out Begins: <span style="float: right;">Nov 2015</span> Prove Out Complete: <span style="float: right;">Nov 2015</span>						
B. Equipment Cost	-	0.086	-	-	-							
C. Equipment Installation Cost	-	0.124	-	-	-							
D. Contractor Support Cost	-	-	-	-	-							
E. Corps of Engineers Support Cost	-	-	-	-	-							
F. Other In-House Support Cost	-	-	-	-	-							
G. Total Facility Project Cost	-	-	-	-	-							
H. Other Costs	-	0.120	-	-	-							
Total Project Cost	-	1.178	-	-	-	<b>Related Projects</b>						
						<b>Project Number</b>	<b>Title</b>	<b>FY &amp; Appn</b>	<b>Value (\$ M)</b>	<b>Facing</b>	<b>Start Date</b>	<b>Compl Date</b>

**Narrative Explanation:**  
 Procurement dollars in the amount of \$1.178 million support effort to design, purchase and install equipment to improve explosives material transfer to and from Building J-3 at Holston Army Ammunition Plant. This effort will also support purchase of auxiliary equipment and provide necessary utilities and repairs to allow explosive materials to be efficiently transferred to and from the process building.

**UNCLASSIFIED**

**Exhibit P-25, Production Support and Industrial Facilities Cost Analysis:** PB 2016 Army **Date:** February 2015

**Appropriation / Budget Activity / Budget Sub Activity:** 2034A / 02 / 10 **P-1 Line Item Number / Title:** EP1000 / Provision of Industrial Facilities

**Project Title:** Sewer and Industrial Wastewater Conditioning **Project Number:** 5153668 **Project Category:** Production Support

**End Item Supported Model:** Research & Development Explosives (RDX), High Melt Explosives (HMX) **Annual Capacity Before / After (1-8-5):** /

Cost Elements <i>(\$ in Millions)</i>	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	<b>Facility Name:</b> Holston Army Ammunition Plant <b>Facility Location:</b> Kingsport, Tennessee <b>Facility Type (GOGO, GOCO, COCO):</b> GOCO						
A. Construction Cost	-	-	-	-	-	<b>Principal Milestones</b> <span style="float: right;"><b>Month &amp; Year</b></span> Concept Design Complete: Final Design Complete: Initial/Final Project Award: <span style="float: right;">Apr 2015 / Apr 2015</span> Construction Complete: Equipment Installation Complete: Prove Out Begins: Prove Out Complete:						
B. Equipment Cost	-	-	-	-	-							
C. Equipment Installation Cost	-	-	-	-	-							
D. Contractor Support Cost	-	-	-	-	-							
E. Corps of Engineers Support Cost	-	-	-	-	-							
F. Other In-House Support Cost	-	0.035	-	-	-							
G. Total Facility Project Cost	-	-	-	-	-							
H. Other Costs	-	0.529	-	-	-							
Total Project Cost	-	0.564	-	-	-							
							Related Projects					
						Project Number	Title	FY & Appn	Value <i>(\$ M)</i>	Facing	Start Date	Compl Date

**Narrative Explanation:**  
 Procurement dollars in the amount of \$0.564 million support sewer diagnostic and field investigation to assess the condition of the industrial and sanitary wastewater pipelines at Holston Army Ammunition Plant. This engineering survey will identify defects in the wastewater pipelines and infiltration/inflow sources and recommend infrastructure upgrades to maintain safety and environmental compliance.



**UNCLASSIFIED**

**Exhibit P-25, Production Support and Industrial Facilities Cost Analysis:** PB 2016 Army **Date:** February 2015

**Appropriation / Budget Activity / Budget Sub Activity:** 2034A / 02 / 10 **P-1 Line Item Number / Title:** EP1000 / Provision of Industrial Facilities

**Project Title:** Industrial Wastewater Settling and Equalization Basin #1 **Project Number:** 5153296 **Project Category:** Production Support

**End Item Supported Model:** Research & Development Explosives (RDX), High Melt Explosives (HMX) **Annual Capacity Before / After (1-8-5):** /

Cost Elements <i>(\$ in Millions)</i>	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	<b>Facility Name:</b> Holston Army Ammunition Plant <b>Facility Location:</b> Kingsport, Tennessee <b>Facility Type (GOGO, GOCO, COCO):</b> GOCO						
A. Construction Cost	-	7.013	-	-	-	<b>Principal Milestones</b> <span style="float: right;"><b>Month &amp; Year</b></span> Concept Design Complete: Final Design Complete: <span style="float: right;">Jul 2015</span> Initial/Final Project Award: <span style="float: right;">Sep 2015 / Sep 2015</span> Construction Complete: <span style="float: right;">Sep 2016</span> Equipment Installation Complete: <span style="float: right;">Mar 2017</span> Prove Out Begins: <span style="float: right;">Apr 2017</span> Prove Out Complete: <span style="float: right;">May 2017</span>						
B. Equipment Cost	-	1.944	-	-	-							
C. Equipment Installation Cost	-	1.237	-	-	-							
D. Contractor Support Cost	-	-	-	-	-							
E. Corps of Engineers Support Cost	-	-	-	-	-							
F. Other In-House Support Cost	-	0.125	-	-	-							
G. Total Facility Project Cost	-	-	-	-	-							
H. Other Costs	-	1.092	-	-	-							
<b>Total Project Cost</b>	-	<b>11.411</b>	-	-	-	<b>Related Projects</b>						
						<b>Project Number</b>	<b>Title</b>	<b>FY &amp; Appn</b>	<b>Value (\$ M)</b>	<b>Facing</b>	<b>Start Date</b>	<b>Compl Date</b>

**Narrative Explanation:**  
 Procurement dollars in the amount of \$11.411 million support modernization effort to provide Holston Army Ammunition Plant (AAP) with a primary settling and equalization basin. The basin will provide settling, storage, wasteload distribution, and operational reliability for the Industrial Waste Water Treatment Facility. This effort will increase Holston AAP's capacity to treat industrial waste water and maintain compliance with the Clean Water Act.

**UNCLASSIFIED**

<b>Exhibit P-25, Production Support and Industrial Facilities Cost Analysis: PB 2016 Army</b>		<b>Date:</b> February 2015
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2034A / 02 / 10		<b>P-1 Line Item Number / Title:</b> EP1000 / Provision of Industrial Facilities
<b>Project Title:</b> Install Additional Anoxic Basins (Building 221)		<b>Project Number:</b> 51X3757 <b>Project Category:</b> Production Support
<b>End Item Supported Model:</b> Research&Development Expl(RDX),High Melt Expl(HMX),Insensitive Mun Exp(IMX)		<b>Annual Capacity Before / After (1-8-5):</b> /

<b>Cost Elements</b> <i>(\$ in Millions)</i>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016 Base</b>	<b>FY 2016 OCO</b>	<b>FY 2016 Total</b>	<b>Facility Name:</b> Holston Army Ammunition Plant <b>Facility Location:</b> Kingsport, Tennessee <b>Facility Type (GOGO, GOCO, COCO):</b> GOCO						
A. Construction Cost	-	-	-	-	-	<b>Principal Milestones</b>						
B. Equipment Cost	2.965	2.299	-	-	-	<b>Month &amp; Year</b>						
C. Equipment Installation Cost	5.946	5.444	-	-	-	Concept Design Complete:						
D. Contractor Support Cost	-	-	-	-	-	Final Design Complete: Dec 2015						
E. Corps of Engineers Support Cost	-	-	-	-	-	Initial/Final Project Award: Sep 2014 / Aug 2015						
F. Other In-House Support Cost	0.070	0.165	-	-	-	Construction Complete:						
G. Total Facility Project Cost	-	-	-	-	-	Equipment Installation Complete: Dec 2017						
H. Other Costs	0.742	0.657	-	-	-	Prove Out Begins: Jan 2018						
Total Project Cost	9.723	8.565	-	-	-	Prove Out Complete: Apr 2018						
						<b>Related Projects</b>						
						<b>Project Number</b>	<b>Title</b>	<b>FY &amp; Appn</b>	<b>Value (\$ M)</b>	<b>Facing</b>	<b>Start Date</b>	<b>Compl Date</b>

**Narrative Explanation:**

Procurement dollars in the amount of \$8.565 million support second phase to increase the treatment capacity of nitrates and RDX at Holston Army Ammunition Plant's Wastewater Treatment Facility. The implementation of this project will ensure compliance with the National Pollutant Discharge Elimination System permit. This effort will also include upgrades to supporting infrastructure such as pumps, agitators, piping, power and control systems.

**UNCLASSIFIED**

**Exhibit P-25, Production Support and Industrial Facilities Cost Analysis:** PB 2016 Army **Date:** February 2015

**Appropriation / Budget Activity / Budget Sub Activity:** 2034A / 02 / 10 **P-1 Line Item Number / Title:** EP1000 / Provision of Industrial Facilities

**Project Title:** Install Additional Anoxic Basins 5E and 6E (Building 235) **Project Number:** 5153761 **Project Category:** Production Support

**End Item Supported Model:** Research & Development Explosives (RDX), High Melt Explosives (HMX) **Annual Capacity Before / After (1-8-5):** /

Cost Elements <i>(\$ in Millions)</i>	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	<b>Facility Name:</b> Holston Army Ammunition Plant <b>Facility Location:</b> Kingsport, Tennessee <b>Facility Type (GOGO, GOCO, COCO):</b> GOCO						
A. Construction Cost	-	3.154	-	-	-	<b>Principal Milestones</b> <span style="float: right;"><b>Month &amp; Year</b></span> Concept Design Complete: Final Design Complete: <span style="float: right;">Nov 2015</span> Initial/Final Project Award: <span style="float: right;">Aug 2015 / Aug 2015</span> Construction Complete: <span style="float: right;">Mar 2018</span> Equipment Installation Complete: <span style="float: right;">Mar 2018</span> Prove Out Begins: <span style="float: right;">Apr 2018</span> Prove Out Complete: <span style="float: right;">Jul 2018</span>						
B. Equipment Cost	-	0.680	-	-	-							
C. Equipment Installation Cost	-	1.019	-	-	-							
D. Contractor Support Cost	-	-	-	-	-							
E. Corps of Engineers Support Cost	-	-	-	-	-							
F. Other In-House Support Cost	-	0.075	-	-	-							
G. Total Facility Project Cost	-	-	-	-	-							
H. Other Costs	-	0.575	-	-	-							
Total Project Cost	-	5.503	-	-	-							
						Related Projects						
						Project Number	Title	FY & Appn	Value <i>(\$ M)</i>	Facing	Start Date	Compl Date

**Narrative Explanation:**  
 Procurement dollars in the amount of \$5.503 million support the installation of two additional anoxic treatment cells at Holston Army Ammunition Plant's Wastewater Treatment Facility. The implementation of this project will ensure compliance with the National Pollutant Discharge Elimination System permit.

**UNCLASSIFIED**

<b>Exhibit P-25, Production Support and Industrial Facilities Cost Analysis:</b> PB 2016 Army		<b>Date:</b> February 2015
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2034A / 02 / 10		<b>P-1 Line Item Number / Title:</b> EP1000 / Provision of Industrial Facilities
<b>Project Title:</b> Install Additional Wastewater Treatment, 3rd Clarifier		<b>Project Number:</b> 5143759 <b>Project Category:</b> Production Support
<b>End Item Supported Model:</b> Research&Development Expl(RDX),High Melt Expl(HMX),Insensitive Mun Exp(IMX)		<b>Annual Capacity Before / After (1-8-5):</b> /

<b>Cost Elements</b> <i>(\$ in Millions)</i>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016 Base</b>	<b>FY 2016 OCO</b>	<b>FY 2016 Total</b>	<b>Facility Name:</b> Holston Army Ammunition Plant <b>Facility Location:</b> Kingsport, Tennessee <b>Facility Type (GOGO, GOCO, COCO):</b> GOCO																																																					
A. Construction Cost	3.763	-	-	-	-	<table border="0"> <tr> <td colspan="3"><b>Principal Milestones</b></td> <td colspan="3"><b>Month &amp; Year</b></td> </tr> <tr> <td colspan="3">Concept Design Complete:</td> <td colspan="3">Nov 2014</td> </tr> <tr> <td colspan="3">Final Design Complete:</td> <td colspan="3">Jul 2015</td> </tr> <tr> <td colspan="3">Initial/Final Project Award:</td> <td colspan="3">Nov 2014 / Nov 2014</td> </tr> <tr> <td colspan="3">Construction Complete:</td> <td colspan="3">Apr 2017</td> </tr> <tr> <td colspan="3">Equipment Installation Complete:</td> <td colspan="3">Apr 2017</td> </tr> <tr> <td colspan="3">Prove Out Begins:</td> <td colspan="3">May 2017</td> </tr> <tr> <td colspan="3">Prove Out Complete:</td> <td colspan="3">Jul 2017</td> </tr> </table>						<b>Principal Milestones</b>			<b>Month &amp; Year</b>			Concept Design Complete:			Nov 2014			Final Design Complete:			Jul 2015			Initial/Final Project Award:			Nov 2014 / Nov 2014			Construction Complete:			Apr 2017			Equipment Installation Complete:			Apr 2017			Prove Out Begins:			May 2017			Prove Out Complete:			Jul 2017		
<b>Principal Milestones</b>			<b>Month &amp; Year</b>																																																								
Concept Design Complete:			Nov 2014																																																								
Final Design Complete:			Jul 2015																																																								
Initial/Final Project Award:			Nov 2014 / Nov 2014																																																								
Construction Complete:			Apr 2017																																																								
Equipment Installation Complete:			Apr 2017																																																								
Prove Out Begins:			May 2017																																																								
Prove Out Complete:			Jul 2017																																																								
B. Equipment Cost	2.960	-	-	-	-																																																						
C. Equipment Installation Cost	1.490	-	-	-	-																																																						
D. Contractor Support Cost	-	-	-	-	-																																																						
E. Corps of Engineers Support Cost	-	-	-	-	-																																																						
F. Other In-House Support Cost	0.110	-	-	-	-																																																						
G. Total Facility Project Cost	-	-	-	-	-																																																						
H. Other Costs	1.423	-	-	-	-																																																						
Total Project Cost	9.746	-	-	-	-																																																						
<b>Related Projects</b>						<b>Project Number</b>	<b>Title</b>	<b>FY &amp; Appn</b>	<b>Value (\$ M)</b>	<b>Facing</b>	<b>Start Date</b>	<b>Compl Date</b>																																															

**Narrative Explanation:**

Procurement dollars in the amount of \$9.746 million support effort to install a third clarifier, with associated equipment and controls, at Holston Army Ammunition Plant's Industrial Wastewater Treatment Facility. The existing two clarifiers operate at maximum capacity; this effort will provide biological solids settling capacity and operational flexibility within the treatment facility. The implementation of an additional clarifier will ensure compliance the National Pollutant Discharge Elimination System permit and avoid production interruption at Holston Army Ammunition Plant.

**UNCLASSIFIED**

<b>Exhibit P-25, Production Support and Industrial Facilities Cost Analysis: PB 2016 Army</b>		<b>Date:</b> February 2015
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2034A / 02 / 10		<b>P-1 Line Item Number / Title:</b> EP1000 / Provision of Industrial Facilities
<b>Project Title:</b> Design of Industrial Wastewater Treatment Facility		<b>Project Number:</b> 5143769 <b>Project Category:</b> Production Support
<b>End Item Supported Model:</b> Research&Development Expl(RDX),High Melt Expl(HMX),Insensitive Mun Exp(IMX)		<b>Annual Capacity Before / After (1-8-5):</b> /

<b>Cost Elements</b> <i>(\$ in Millions)</i>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016 Base</b>	<b>FY 2016 OCO</b>	<b>FY 2016 Total</b>	<b>Facility Name:</b> Holston Army Ammunition Plant <b>Facility Location:</b> Kingsport, Tennessee <b>Facility Type (GOGO, GOCO, COCO):</b> GOCO														
A. Construction Cost	-	-	-	-	-	<b>Principal Milestones</b> Concept Design Complete: Final Design Complete: Apr 2017 Initial/Final Project Award: Apr 2015 / Apr 2015 Construction Complete: Equipment Installation Complete: Prove Out Begins: Prove Out Complete:														
B. Equipment Cost	-	-	-	-	-															
C. Equipment Installation Cost	-	-	-	-	-															
D. Contractor Support Cost	-	-	-	-	-															
E. Corps of Engineers Support Cost	-	-	-	-	-															
F. Other In-House Support Cost	0.143	-	-	-	-															
G. Total Facility Project Cost	-	-	-	-	-															
H. Other Costs	4.946	-	-	-	-															
Total Project Cost	5.089	-	-	-	-															
							<b>Related Projects</b>													
						<table border="1"> <thead> <tr> <th><b>Project Number</b></th> <th><b>Title</b></th> <th><b>FY &amp; Appn</b></th> <th><b>Value (\$ M)</b></th> <th><b>Facing</b></th> <th><b>Start Date</b></th> <th><b>Compl Date</b></th> </tr> </thead> <tbody> <tr> <td> </td> <td> </td> <td> </td> <td> </td> <td> </td> <td> </td> <td> </td> </tr> </tbody> </table>	<b>Project Number</b>	<b>Title</b>	<b>FY &amp; Appn</b>	<b>Value (\$ M)</b>	<b>Facing</b>	<b>Start Date</b>	<b>Compl Date</b>							
<b>Project Number</b>	<b>Title</b>	<b>FY &amp; Appn</b>	<b>Value (\$ M)</b>	<b>Facing</b>	<b>Start Date</b>	<b>Compl Date</b>														

**Narrative Explanation:**

Procurement dollars in the amount of \$5.089 million support the design of a modernized Industrial Waste Water Treatment Facility (IWWTF) to treat nitrates, RDX and other biological wastewater at Holston Army Ammunition Plant. This project will include design details for aerobic and anaerobic treatment expansion, clarifiers, equalization basins, a belt filter press and multimedia filters. This project will ensure compliance with the National Pollutant Discharge Elimination System permit.

**UNCLASSIFIED**

**Exhibit P-25, Production Support and Industrial Facilities Cost Analysis:** PB 2016 Army **Date:** February 2015

**Appropriation / Budget Activity / Budget Sub Activity:** 2034A / 02 / 10 **P-1 Line Item Number / Title:** EP1000 / Provision of Industrial Facilities

**Project Title:** Install Additional Anoxic Wastewater Treatment, 4th Clarifier **Project Number:** 5163760 **Project Category:** Production Support

**End Item Supported Model:** Research Development Explosives (RDX), High Melt Explosives (HMX), IMX **Annual Capacity Before / After (1-8-5):** /

Cost Elements <i>(\$ in Millions)</i>	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	<b>Facility Name:</b> Holston Army Ammunition Plant <b>Facility Location:</b> Kingsport, Tennessee <b>Facility Type (GOGO, GOCO, COCO):</b> GOCO														
A. Construction Cost	-	-	-	-	-	<b>Principal Milestones</b> <table style="width: 100%; border: none;"> <tr> <td style="width: 80%;">Concept Design Complete:</td> <td style="width: 20%;"></td> </tr> <tr> <td>Final Design Complete:</td> <td align="center">Dec 2016</td> </tr> <tr> <td>Initial/Final Project Award:</td> <td align="center">Sep 2015 / Sep 2015</td> </tr> <tr> <td>Construction Complete:</td> <td></td> </tr> <tr> <td>Equipment Installation Complete:</td> <td align="center">Mar 2018</td> </tr> <tr> <td>Prove Out Begins:</td> <td align="center">Apr 2018</td> </tr> <tr> <td>Prove Out Complete:</td> <td align="center">Jul 2018</td> </tr> </table>	Concept Design Complete:		Final Design Complete:	Dec 2016	Initial/Final Project Award:	Sep 2015 / Sep 2015	Construction Complete:		Equipment Installation Complete:	Mar 2018	Prove Out Begins:	Apr 2018	Prove Out Complete:	Jul 2018
Concept Design Complete:																				
Final Design Complete:	Dec 2016																			
Initial/Final Project Award:	Sep 2015 / Sep 2015																			
Construction Complete:																				
Equipment Installation Complete:	Mar 2018																			
Prove Out Begins:	Apr 2018																			
Prove Out Complete:	Jul 2018																			
B. Equipment Cost	-	2.562	-	-	-															
C. Equipment Installation Cost	-	4.761	-	-	-															
D. Contractor Support Cost	-	-	-	-	-															
E. Corps of Engineers Support Cost	-	-	-	-	-															
F. Other In-House Support Cost	-	0.500	-	-	-															
G. Total Facility Project Cost	-	-	-	-	-															
H. Other Costs	-	1.018	-	-	-															
Total Project Cost	-	8.841	-	-	-															
<b>Related Projects</b>																				
	<b>Project Number</b>	<b>Title</b>	<b>FY &amp; Appn</b>	<b>Value (\$ M)</b>	<b>Facing</b>	<b>Start Date</b>	<b>Compl Date</b>													

**Narrative Explanation:**  
 Procurement dollars in the amount of \$8.841 million support installation of a fourth clarifier, with associated pumps, piping, power and controls, at the Holston Army Ammunition Plant. This equipment will be installed at the Industrial Wastewater Treatment Facility (IWWTF). The implementation of this clarifier at the IWWTF is required to meet the wastewater treatment capacity to ensure compliance with the National Pollutant Discharge Elimination System permit.

**UNCLASSIFIED**

**Exhibit P-25, Production Support and Industrial Facilities Cost Analysis:** PB 2016 Army **Date:** February 2015

**Appropriation / Budget Activity / Budget Sub Activity:** 2034A / 02 / 10 **P-1 Line Item Number / Title:** EP1000 / Provision of Industrial Facilities

**Project Title:** Holston Landfill Expansion (Design) **Project Number:** 5153579 **Project Category:** Production Support

**End Item Supported Model:** Research Development Explosives (RDX), High Melt Explosives (HMX), IMX **Annual Capacity Before / After (1-8-5):** /

Cost Elements <i>(\$ in Millions)</i>	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	<b>Facility Name:</b> Holston Army Ammunition Plant <b>Facility Location:</b> Kingsport, Tennessee <b>Facility Type (GOGO, GOCO, COCO):</b> GOCO						
A. Construction Cost	-	-	-	-	-	<b>Principal Milestones</b> Concept Design Complete: Dec 2015 Final Design Complete: Dec 2015 Initial/Final Project Award: Mar 2015 / Mar 2015 Construction Complete: Equipment Installation Complete: Prove Out Begins: Prove Out Complete:	<b>Month &amp; Year</b>					
B. Equipment Cost	-	-	-	-	-							
C. Equipment Installation Cost	-	-	-	-	-							
D. Contractor Support Cost	-	-	-	-	-							
E. Corps of Engineers Support Cost	-	-	-	-	-							
F. Other In-House Support Cost	-	0.407	-	-	-							
G. Total Facility Project Cost	-	-	-	-	-							
H. Other Costs	-	-	-	-	-							
Total Project Cost	-	0.407	-	-	-							
							Related Projects					
						Project Number	Title	FY & Appn	Value <i>(\$ M)</i>	Facing	Start Date	Compl Date

**Narrative Explanation:**  
 Procurement dollars in the amount of \$0.407 million support design of the landfill expansion at Holston Army Ammunition Plant. The design will support future landfill expansion to maintain compliance with Tennessee Department of Environment and Conservation – Division of Solid Waste Management.

**UNCLASSIFIED**

**Exhibit P-25, Production Support and Industrial Facilities Cost Analysis:** PB 2016 Army **Date:** February 2015

**Appropriation / Budget Activity / Budget Sub Activity:** 2034A / 02 / 10 **P-1 Line Item Number / Title:** EP1000 / Provision of Industrial Facilities

**Project Title:** Magazine Vent Replacement **Project Number:** 5163683 **Project Category:** Production Support

**End Item Supported Model:** Research Development Explosives (RDX), High Melt Explosives (HMX) **Annual Capacity Before / After (1-8-5):** /

Cost Elements <i>(\$ in Millions)</i>	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	Facility Name: Holston Army Ammunition Plant Facility Location: Kingsport, Tennessee Facility Type (GOGO, GOCO, COCO): GOCO						
A. Construction Cost	-	-	2.148	-	2.148	<b>Principal Milestones</b> Concept Design Complete: Oct 2016 Final Design Complete: Oct 2016 Initial/Final Project Award: Apr 2016 / Apr 2016 Construction Complete: Oct 2017 Equipment Installation Complete: Nov 2017 Prove Out Begins: Nov 2017 Prove Out Complete: Apr 2018	<b>Month &amp; Year</b>					
B. Equipment Cost	-	-	0.295	-	0.295							
C. Equipment Installation Cost	-	-	0.442	-	0.442							
D. Contractor Support Cost	-	-	-	-	-							
E. Corps of Engineers Support Cost	-	-	-	-	-							
F. Other In-House Support Cost	-	-	-	-	-							
G. Total Facility Project Cost	-	-	-	-	-							
H. Other Costs	-	-	0.595	-	0.595							
Total Project Cost	-	-	3.480	-	3.480							
							<b>Related Projects</b>					
						<b>Project Number</b>	<b>Title</b>	<b>FY &amp; Appn</b>	<b>Value (\$ M)</b>	<b>Facing</b>	<b>Start Date</b>	<b>Compl Date</b>

**Narrative Explanation:**  
 FY 2016 Base procurement dollars in the amount of \$3.480 million support purchase and installation of new magazine vents at Holston Army Ammunition Plant. This project will enhance earth covering for each magazine and meet the requirements in Army Technical Manual 38-410, Storage and Handling of Hazardous Materials.



**UNCLASSIFIED**

**Exhibit P-25, Production Support and Industrial Facilities Cost Analysis:** PB 2016 Army **Date:** February 2015

**Appropriation / Budget Activity / Budget Sub Activity:** 2034A / 02 / 10 **P-1 Line Item Number / Title:** EP1000 / Provision of Industrial Facilities

**Project Title:** Feasibility Study of Treated Water in Explosive Manufacturing **Project Number:** 5163787 **Project Category:** Production Support

**End Item Supported Model:** Research Development Explosives (RDX), High Melt Explosives (HMX), IMX **Annual Capacity Before / After (1-8-5):** /

Cost Elements <i>(\$ in Millions)</i>	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	<b>Facility Name:</b> Holston Army Ammunition Plant <b>Facility Location:</b> Kingsport, Tennessee <b>Facility Type (GOGO, GOCO, COCO):</b> GOCO							
A. Construction Cost	-	-	-	-	-	<b>Principal Milestones</b> <span style="float: right;"><b>Month &amp; Year</b></span> Concept Design Complete: Final Design Complete: Initial/Final Project Award: <span style="float: right;">Mar 2016 / Mar 2016</span> Construction Complete: Equipment Installation Complete: Prove Out Begins: Prove Out Complete:							
B. Equipment Cost	-	-	-	-	-								
C. Equipment Installation Cost	-	-	-	-	-								
D. Contractor Support Cost	-	-	-	-	-								
E. Corps of Engineers Support Cost	-	-	-	-	-								
F. Other In-House Support Cost	-	-	0.035	-	0.035								
G. Total Facility Project Cost	-	-	-	-	-								
H. Other Costs	-	-	0.288	-	0.288								
Total Project Cost	-	-	0.323	-	0.323								
<b>Related Projects</b>							<b>Project Number</b>	<b>Title</b>	<b>FY &amp; Appn</b>	<b>Value (\$ M)</b>	<b>Facing</b>	<b>Start Date</b>	<b>Compl Date</b>

**Narrative Explanation:**  
 FY 2016 Base procurement dollars in the amount of \$0.323 million support evaluation of treated and recycled waste stream water on explosive products in the manufacturing processes at Holston Army Ammunition Plant. This effort provides a potential capability to recycle the wastewater in supporting the compliance with the National Pollutant Discharge Elimination System permit.

**UNCLASSIFIED**

**Exhibit P-25, Production Support and Industrial Facilities Cost Analysis: PB 2016 Army** **Date:** February 2015

**Appropriation / Budget Activity / Budget Sub Activity:** 2034A / 02 / 10 **P-1 Line Item Number / Title:** EP1000 / Provision of Industrial Facilities

**Project Title:** Upgrade PCS7 Network **Project Number:** 5163786 **Project Category:** Production Support

**End Item Supported Model:** Research Development Explosives (RDX), High Melt Explosives (HMX), IMX **Annual Capacity Before / After (1-8-5):** /

Cost Elements <i>(\$ in Millions)</i>	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	<b>Facility Name:</b> Holston Army Ammunition Plant <b>Facility Location:</b> Kingsport, Tennessee <b>Facility Type (GOGO, GOCO, COCO):</b> GOCO							
A. Construction Cost	-	-	-	-	-	<b>Principal Milestones</b> <span style="float: right;"><b>Month &amp; Year</b></span> Concept Design Complete: Final Design Complete: Jul 2016 Initial/Final Project Award: May 2016 / May 2016 Construction Complete: Equipment Installation Complete: Apr 2017 Prove Out Begins: Apr 2017 Prove Out Complete: Apr 2017	<b>Related Projects</b>						
B. Equipment Cost	-	-	1.224	-	1.224		<b>Project Number</b>	<b>Title</b>	<b>FY &amp; Appn</b>	<b>Value (\$ M)</b>	<b>Facing</b>	<b>Start Date</b>	<b>Compl Date</b>
C. Equipment Installation Cost	-	-	1.137	-	1.137								
D. Contractor Support Cost	-	-	-	-	-								
E. Corps of Engineers Support Cost	-	-	-	-	-								
F. Other In-House Support Cost	-	-	0.075	-	0.075								
G. Total Facility Project Cost	-	-	-	-	-								
H. Other Costs	-	-	0.566	-	0.566								
Total Project Cost	-	-	3.002	-	3.002								

**Narrative Explanation:**  
 FY 2016 Base procurement dollars in the amount of \$3.002 million support upgrades to control system computer workstations in various production buildings at Holston Army Ammunition Plant. The computer systems will be replaced with commercial-off-the-shelf systems that will enhance information assurance.

**UNCLASSIFIED**

**Exhibit P-25, Production Support and Industrial Facilities Cost Analysis:** PB 2016 Army **Date:** February 2015

**Appropriation / Budget Activity / Budget Sub Activity:** 2034A / 02 / 10 **P-1 Line Item Number / Title:** EP1000 / Provision of Industrial Facilities

**Project Title:** Modernization of Lacquer Preparation Facility **Project Number:** 5163972 **Project Category:** Production Support

**End Item Supported Model:** Research Development Explosives (RDX), High Melt Explosives (HMX) **Annual Capacity Before / After (1-8-5):** /

Cost Elements <i>(\$ in Millions)</i>	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	Facility Name: Holston Army Ammunition Plant						
						Facility Location: Kingsport, Tennessee						
A. Construction Cost	-	-	-	-	-	Facility Type (GOGO, GOCO, COCO): GOCO						
B. Equipment Cost	-	-	-	-	-	Principal Milestones			Month & Year			
C. Equipment Installation Cost	-	-	-	-	-	Concept Design Complete:			Oct 2016			
D. Contractor Support Cost	-	-	-	-	-	Final Design Complete:			Apr 2016 / Apr 2016			
E. Corps of Engineers Support Cost	-	-	-	-	-	Initial/Final Project Award:			Apr 2016 / Apr 2016			
F. Other In-House Support Cost	-	-	-	-	-	Construction Complete:			Jul 2018			
G. Total Facility Project Cost	-	-	-	-	-	Equipment Installation Complete:			Jul 2018			
H. Other Costs	-	-	0.952	-	0.952	Prove Out Begins:			Jul 2018			
Total Project Cost	-	-	0.952	-	0.952	Prove Out Complete:			Sep 2018			
						Related Projects						
						Project Number	Title	FY & Appn	Value (\$ M)	Facing	Start Date	Compl Date

**Narrative Explanation:**  
 FY 2016 Base procurement dollars in the amount of \$0.952 million support the first phase of the modernization of the lacquer preparation facility at Holston Army Ammunition Plant (AAP). This initial phase will modernize the control panels and control system. The lacquer preparation facility is an aging facility that is essential to the manufacture of mature and innovative Insensitive Munitions (IM). A malfunction of the outdated controls could lead to an extended shutdown of the lacquer preparation facility and affect Holston AAP's ability to manufacture IM product.

**UNCLASSIFIED**

**Exhibit P-25, Production Support and Industrial Facilities Cost Analysis:** PB 2016 Army **Date:** February 2015

**Appropriation / Budget Activity / Budget Sub Activity:** 2034A / 02 / 10 **P-1 Line Item Number / Title:** EP1000 / Provision of Industrial Facilities

**Project Title:** Modernize B235 Filter Press, Ph 2 **Project Number:** 5153295 **Project Category:** Production Support

**End Item Supported Model:** Research Development Explosives (RDX), High Melt Explosives (HMX) **Annual Capacity Before / After (1-8-5):** /

Cost Elements <i>(\$ in Millions)</i>	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	Facility Name: Holston Army Ammunition Plant Facility Location: Kingsport, Tennessee Facility Type (GOGO, GOCO, COCO): GOCO						
						Principal Milestones			Month & Year			
A. Construction Cost	-	0.460	-	-	-	Concept Design Complete:						
B. Equipment Cost	-	0.712	-	-	-	Final Design Complete:			Dec 2015			
C. Equipment Installation Cost	-	1.067	-	-	-	Initial/Final Project Award:			Sep 2015 / Sep 2015			
D. Contractor Support Cost	-	-	-	-	-	Construction Complete:			Apr 2016			
E. Corps of Engineers Support Cost	-	-	-	-	-	Equipment Installation Complete:			Dec 2016			
F. Other In-House Support Cost	-	-	-	-	-	Prove Out Begins:			Jan 2017			
G. Total Facility Project Cost	-	-	-	-	-	Prove Out Complete:			Apr 2017			
H. Other Costs	-	0.406	-	-	-	<b>Related Projects</b>						
Total Project Cost	-	2.645	-	-	-	<b>Project Number</b>	<b>Title</b>	<b>FY &amp; Appn</b>	<b>Value (\$ M)</b>	<b>Facing</b>	<b>Start Date</b>	<b>Compl Date</b>

**Narrative Explanation:**  
 Procurement dollars in the amount of \$2.645 million support modernization of the B235 Filter Press which is used to remove solid waste from the wastewater stream at Holston Army Ammunition Plant. Project will replace an existing rusted and degraded filter press with a newer technology belt filter press.

**UNCLASSIFIED**

**Exhibit P-25, Production Support and Industrial Facilities Cost Analysis:** PB 2016 Army **Date:** February 2015

**Appropriation / Budget Activity / Budget Sub Activity:** 2034A / 02 / 10 **P-1 Line Item Number / Title:** EP1000 / Provision of Industrial Facilities

**Project Title:** Rebuild Restrooms and Break Rooms, Line 3A Production Area **Project Number:** 5143630 **Project Category:** Production Support

**End Item Supported Model:** 105mm, 155mm, and 75mm Artillery **Annual Capacity Before / After (1-8-5):** /

Cost Elements <i>(\$ in Millions)</i>	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	<b>Facility Name:</b> Iowa Army Ammunition Plant <b>Facility Location:</b> Middletown, Iowa <b>Facility Type (GOGO, GOCO, COCO):</b> GOCO						
A. Construction Cost	0.503	-	-	-	-	<b>Principal Milestones</b> <span style="float: right;"><b>Month &amp; Year</b></span> Concept Design Complete: Final Design Complete: <span style="float: right;">Jun 2013</span> Initial/Final Project Award: <span style="float: right;">Feb 2014 / Feb 2014</span> Construction Complete: <span style="float: right;">Feb 2015</span> Equipment Installation Complete: Prove Out Begins: Prove Out Complete:						
B. Equipment Cost	-	-	-	-	-							
C. Equipment Installation Cost	-	-	-	-	-							
D. Contractor Support Cost	-	-	-	-	-							
E. Corps of Engineers Support Cost	-	-	-	-	-							
F. Other In-House Support Cost	-	-	-	-	-							
G. Total Facility Project Cost	-	-	-	-	-							
H. Other Costs	0.068	-	-	-	-							
<b>Total Project Cost</b>	<b>0.571</b>	-	-	-	-	<b>Related Projects</b>						
						<b>Project Number</b>	<b>Title</b>	<b>FY &amp; Appn</b>	<b>Value (\$ M)</b>	<b>Facing</b>	<b>Start Date</b>	<b>Compl Date</b>

**Narrative Explanation:**  
 Procurement dollars in the amount of \$0.571 million support effort to rebuild four restrooms, enhance functionality of four break rooms, three change houses, and miscellaneous work on Line 3A at Iowa Army Ammunition Plant. Effort will improve the production workers' quality of work environment, morale and sanitation improvements.

**UNCLASSIFIED**

**Exhibit P-25, Production Support and Industrial Facilities Cost Analysis: PB 2016 Army** **Date:** February 2015

**Appropriation / Budget Activity / Budget Sub Activity:** 2034A / 02 / 10 **P-1 Line Item Number / Title:** EP1000 / Provision of Industrial Facilities

**Project Title:** Upgrade Restrooms, Line 3 Production Area **Project Number:** 5143632 **Project Category:** Production Support

**End Item Supported Model:** 105mm Artillery, 155mm Artillery, 75mm Artillery **Annual Capacity Before / After (1-8-5):** /

Cost Elements <i>(\$ in Millions)</i>	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	<b>Facility Name:</b> Iowa Army Ammunition Plant <b>Facility Location:</b> Middletown, Iowa <b>Facility Type (GOGO, GOCO, COCO):</b> GOCO						
A. Construction Cost	0.350	-	-	-	-	<b>Principal Milestones</b> <span style="float: right;"><b>Month &amp; Year</b></span> Concept Design Complete: Final Design Complete: <span style="float: right;">Jun 2013</span> Initial/Final Project Award: <span style="float: right;">Feb 2014 / Feb 2014</span> Construction Complete: <span style="float: right;">Feb 2015</span> Equipment Installation Complete: Prove Out Begins: Prove Out Complete:						
B. Equipment Cost	-	-	-	-	-							
C. Equipment Installation Cost	-	-	-	-	-							
D. Contractor Support Cost	-	-	-	-	-							
E. Corps of Engineers Support Cost	-	-	-	-	-							
F. Other In-House Support Cost	-	-	-	-	-							
G. Total Facility Project Cost	-	-	-	-	-							
H. Other Costs	0.064	-	-	-	-							
<b>Total Project Cost</b>	<b>0.414</b>	-	-	-	-	<b>Related Projects</b>						
						<b>Project Number</b>	<b>Title</b>	<b>FY &amp; Appn</b>	<b>Value (\$ M)</b>	<b>Facing</b>	<b>Start Date</b>	<b>Compl Date</b>

**Narrative Explanation:**  
 Procurement dollars in the amount of \$0.414 million support effort to upgrade restrooms, break rooms and changing areas in the active production areas of Line 3 at Iowa Army Ammunition Plant (AAP). This effort will improve the production workers' quality of work environment, morale and sanitation requirements.

**UNCLASSIFIED**

**Exhibit P-25, Production Support and Industrial Facilities Cost Analysis: PB 2016 Army** **Date:** February 2015

**Appropriation / Budget Activity / Budget Sub Activity:** 2034A / 02 / 10 **P-1 Line Item Number / Title:** EP1000 / Provision of Industrial Facilities

**Project Title:** Line 3A Melt Pour Loader **Project Number:** 5143687 **Project Category:** Production Support

**End Item Supported Model:** Artillery, Mortars **Annual Capacity Before / After (1-8-5):** /

Cost Elements <i>(\$ in Millions)</i>	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	<b>Facility Name:</b> Iowa Army Ammunition Plant <b>Facility Location:</b> Middletown, Iowa <b>Facility Type (GOGO, GOCO, COCO):</b> GOCO						
A. Construction Cost	-	-	-	-	-	<b>Principal Milestones</b> <span style="float: right;"><b>Month &amp; Year</b></span> Concept Design Complete: Final Design Complete: <span style="float: right;">Mar 2014</span> Initial/Final Project Award: <span style="float: right;">Jun 2014 / Oct 2015</span> Construction Complete: Equipment Installation Complete: <span style="float: right;">Jun 2016</span> Prove Out Begins: <span style="float: right;">Sep 2016</span> Prove Out Complete: <span style="float: right;">Sep 2016</span>						
B. Equipment Cost	1.504	-	-	-	-							
C. Equipment Installation Cost	0.477	-	-	-	-							
D. Contractor Support Cost	-	-	-	-	-							
E. Corps of Engineers Support Cost	-	-	-	-	-							
F. Other In-House Support Cost	0.350	-	-	-	-							
G. Total Facility Project Cost	-	-	-	-	-							
H. Other Costs	0.785	-	-	-	-							
<b>Total Project Cost</b>	<b>3.116</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>Related Projects</b>						
						<b>Project Number</b>	<b>Title</b>	<b>FY &amp; Appn</b>	<b>Value (\$ M)</b>	<b>Facing</b>	<b>Start Date</b>	<b>Compl Date</b>

**Narrative Explanation:**  
 Procurement dollars in the amount of \$3.116 million support effort to provide a new melt pouring loader on Line 3A at Iowa Army Ammunition Plant that supports explosive materials to include trinitrotoluene, Composition B and newer insensitive formulations. The loader will consist of stainless steel construction, capable of loading projectiles up to 155mm in size and allow for complete cleaning and visual inspection. It will be equipped with drip pans to minimize employee exposure to hazardous materials and allow for explosive fume removal. This new system will reduce scrap volume and improve cast quality. It will also decrease downtime, cleanup time and costs.

**UNCLASSIFIED**

**Exhibit P-25, Production Support and Industrial Facilities Cost Analysis:** PB 2016 Army **Date:** February 2015

**Appropriation / Budget Activity / Budget Sub Activity:** 2034A / 02 / 10 **P-1 Line Item Number / Title:** EP1000 / Provision of Industrial Facilities

**Project Title:** Projectile Preheat Oven, Line 3A **Project Number:** 5153688 **Project Category:** Production Support

**End Item Supported Model:** High Explosive (HE) Artillery, Mortars **Annual Capacity Before / After (1-8-5):** /

Cost Elements <i>(\$ in Millions)</i>	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	Facility Name: Iowa Army Ammunition Plant Facility Location: Middletown, Iowa Facility Type (GOGO, GOCO, COCO): GOCO																			
						Principal Milestones						Month & Year													
A. Construction Cost	-	-	-	-	-	Concept Design Complete:																			
B. Equipment Cost	-	1.054	-	-	-	Final Design Complete:																			
C. Equipment Installation Cost	-	0.176	-	-	-	Initial/Final Project Award: Feb 2015 / Feb 2015																			
D. Contractor Support Cost	-	-	-	-	-	Construction Complete:																			
E. Corps of Engineers Support Cost	-	-	-	-	-	Equipment Installation Complete: Feb 2016																			
F. Other In-House Support Cost	-	-	-	-	-	Prove Out Begins: Feb 2016																			
G. Total Facility Project Cost	-	-	-	-	-	Prove Out Complete: Feb 2016																			
H. Other Costs	-	0.505	-	-	-	<b>Related Projects</b> <table border="1"> <thead> <tr> <th>Project Number</th> <th>Title</th> <th>FY &amp; Appn</th> <th>Value (\$ M)</th> <th>Facing</th> <th>Start Date</th> <th>Compl Date</th> </tr> </thead> <tbody> <tr> <td> </td> <td> </td> <td> </td> <td> </td> <td> </td> <td> </td> <td> </td> </tr> </tbody> </table>						Project Number	Title	FY & Appn	Value (\$ M)	Facing	Start Date	Compl Date							
Project Number	Title	FY & Appn	Value (\$ M)	Facing	Start Date							Compl Date													
Total Project Cost	-	1.735	-	-	-																				

**Narrative Explanation:**  
 Procurement dollars in the amount of \$1.735 million support effort to provide a new projectile preheat oven on Line 3A at Iowa Army Ammunition Plant. Projectiles filled with Insensitive Munitions Explosives-101 (IMX-101) require a higher temperature preheat than with trinitrotoluene-based material. The current oven configuration will not allow complete uniform projectile preheat or the ability to preheat IMX-101-filled projectiles. The new oven will be capable of supporting both current and future production on Line 3A and reduce the preheat time of projectiles.



**UNCLASSIFIED**

**Exhibit P-25, Production Support and Industrial Facilities Cost Analysis:** PB 2016 Army **Date:** February 2015

**Appropriation / Budget Activity / Budget Sub Activity:** 2034A / 02 / 10 **P-1 Line Item Number / Title:** EP1000 / Provision of Industrial Facilities

**Project Title:** Rehabilitate Road F North and Line 3 Roads **Project Number:** 5143583 **Project Category:** Production Support

**End Item Supported Model:** Modular Artillery Charging Sys(MACS), 105mm/120mm Tank, 105mm/155mm Artillery **Annual Capacity Before / After (1-8-5):** /

Cost Elements <i>(\$ in Millions)</i>	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	Facility Name: Iowa Army Ammunition Plant Facility Location: Middletown, Iowa Facility Type (GOGO, GOCO, COCO): GOCO						
						Principal Milestones				Month & Year		
A. Construction Cost	1.824	-	-	-	-	Concept Design Complete:						
B. Equipment Cost	-	-	-	-	-	Final Design Complete:				Jun 2013		
C. Equipment Installation Cost	-	-	-	-	-	Initial/Final Project Award:				Apr 2014 / Apr 2014		
D. Contractor Support Cost	-	-	-	-	-	Construction Complete:				Oct 2015		
E. Corps of Engineers Support Cost	-	-	-	-	-	Equipment Installation Complete:						
F. Other In-House Support Cost	-	-	-	-	-	Prove Out Begins:						
G. Total Facility Project Cost	-	-	-	-	-	Prove Out Complete:						
H. Other Costs	0.338	-	-	-	-	Related Projects						
Total Project Cost	2.162	-	-	-	-	Project Number	Title	FY & Appn	Value (\$ M)	Facing	Start Date	Compl Date

**Narrative Explanation:**  
 Procurement dollars in the amount of \$2.162 million support rehabilitation of Road F and Line 3 perimeter roads at Iowa Army Ammunition Plant. Road F is a major thoroughfare serving production lines 3 and 4A. It also serves Line 3A, the Test Fire Area, and Storage Yards G and K. Without major renovation, the road surface and base will continue to decay, increasing the hazards of transporting explosives and the cost of maintenance.

**UNCLASSIFIED**

**Exhibit P-25, Production Support and Industrial Facilities Cost Analysis: PB 2016 Army** **Date:** February 2015

**Appropriation / Budget Activity / Budget Sub Activity:** 2034A / 02 / 10 **P-1 Line Item Number / Title:** EP1000 / Provision of Industrial Facilities

**Project Title:** Central Fire Alarm/Reporting System **Project Number:** 51X3692 **Project Category:** Production Support

**End Item Supported Model:** Artillery, Detonators, Modular Artillery Charge Sys (MACS), Mortars **Annual Capacity Before / After (1-8-5):** /

Cost Elements <i>(\$ in Millions)</i>	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	<b>Facility Name:</b> Iowa Army Ammunition Plant <b>Facility Location:</b> Middletown, Iowa <b>Facility Type (GOGO, GOCO, COCO):</b> GOCO							
A. Construction Cost	-	-	-	-	-	<b>Principal Milestones</b> <span style="float: right;"><b>Month &amp; Year</b></span> Concept Design Complete: Final Design Complete: <span style="float: right;">May 2016</span> Initial/Final Project Award: <span style="float: right;">Mar 2014 / Apr 2016</span> Construction Complete: Equipment Installation Complete: <span style="float: right;">Jan 2018</span> Prove Out Begins: <span style="float: right;">Jan 2018</span> Prove Out Complete: <span style="float: right;">Jan 2018</span>							
B. Equipment Cost	1.700	-	1.885	-	1.885								
C. Equipment Installation Cost	0.260	-	3.191	-	3.191								
D. Contractor Support Cost	-	-	-	-	-								
E. Corps of Engineers Support Cost	-	-	-	-	-								
F. Other In-House Support Cost	-	-	-	-	-								
G. Total Facility Project Cost	-	-	-	-	-								
H. Other Costs	0.465	-	0.073	-	0.073								
Total Project Cost	2.425	-	5.149	-	5.149								
<b>Related Projects</b>							<b>Project Number</b>	<b>Title</b>	<b>FY &amp; Appn</b>	<b>Value (\$ M)</b>	<b>Facing</b>	<b>Start Date</b>	<b>Compl Date</b>

**Narrative Explanation:**  
 FY 2016 Base procurement dollars in the amount of \$5.149 million support additional phase to procure and install necessary equipment for alerting personnel of a fire event or faulty conditions in buildings across Iowa Army Ammunition Plant (AAP). This fire suppression system, including sprinkler systems and ultraviolet deluge systems, will protect both property and personnel and operate in a variety of environments. It will ensure Iowa AAP maintains compliance with applicable fire alarm and reporting system regulations.

**UNCLASSIFIED**

**Exhibit P-25, Production Support and Industrial Facilities Cost Analysis: PB 2016 Army** **Date:** February 2015

**Appropriation / Budget Activity / Budget Sub Activity:** 2034A / 02 / 10 **P-1 Line Item Number / Title:** EP1000 / Provision of Industrial Facilities

**Project Title:** Line 3A Explosive Scrap Melter **Project Number:** 5143700 **Project Category:** Production Support

**End Item Supported Model:** High Explosive Artillery, Mortars **Annual Capacity Before / After (1-8-5):** /

Cost Elements <i>(\$ in Millions)</i>	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	<b>Facility Name:</b> Iowa Army Ammunition Plant <b>Facility Location:</b> Middletown, Iowa <b>Facility Type (GOGO, GOCO, COCO):</b> GOCO						
A. Construction Cost	-	-	-	-	-	<b>Principal Milestones</b> <span style="float: right;"><b>Month &amp; Year</b></span> Concept Design Complete: Final Design Complete: <span style="float: right;">May 2013</span> Initial/Final Project Award: <span style="float: right;">Jun 2014 / Jun 2014</span> Construction Complete: Equipment Installation Complete: <span style="float: right;">Jun 2016</span> Prove Out Begins: <span style="float: right;">Jun 2016</span> Prove Out Complete: <span style="float: right;">Jun 2016</span>						
B. Equipment Cost	1.665	-	-	-	-							
C. Equipment Installation Cost	0.433	-	-	-	-							
D. Contractor Support Cost	-	-	-	-	-							
E. Corps of Engineers Support Cost	-	-	-	-	-							
F. Other In-House Support Cost	0.152	-	-	-	-							
G. Total Facility Project Cost	-	-	-	-	-							
H. Other Costs	0.119	-	-	-	-							
Total Project Cost	2.369	-	-	-	-							
						Related Projects						
						Project Number	Title	FY & Appn	Value <i>(\$ M)</i>	Facing	Start Date	Compl Date

**Narrative Explanation:**  
 Procurement dollars in the amount of \$2.369 million support efforts to design, procure and install explosive scrap reuse equipment on Line 3A at Iowa Army Ammunition Plant (AAP). This effort will allow Iowa AAP to remelt and reuse excess material from Insensitive Munitions (IM) production. In addition, this process will reduce safety and environmental risks by eliminating the requirement to store, transport and treat excess explosive material. The project will include procurement of two rotary melting vessels, oven heat exchanger, process piping and associated control equipment.

**UNCLASSIFIED**

**Exhibit P-25, Production Support and Industrial Facilities Cost Analysis: PB 2016 Army** **Date:** February 2015

**Appropriation / Budget Activity / Budget Sub Activity:** 2034A / 02 / 10 **P-1 Line Item Number / Title:** EP1000 / Provision of Industrial Facilities

**Project Title:** Replace Chemical and Explosives Laboratory **Project Number:** 5153746 **Project Category:** Production Support

**End Item Supported Model:** 40mm, Artillery, Mortars, Tank **Annual Capacity Before / After (1-8-5):** /

Cost Elements <i>(\$ in Millions)</i>	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	<b>Facility Name:</b> Iowa Army Ammunition Plant <b>Facility Location:</b> Middletown, Iowa <b>Facility Type (GOGO, GOCO, COCO):</b> GOCO						
A. Construction Cost	-	1.546	-	-	-	<b>Principal Milestones</b> <span style="float: right;"><b>Month &amp; Year</b></span> Concept Design Complete: Final Design Complete: Dec 2014 Initial/Final Project Award: May 2015 / May 2015 Construction Complete: Oct 2016 Equipment Installation Complete: Nov 2016 Prove Out Begins: Nov 2016 Prove Out Complete: Nov 2016						
B. Equipment Cost	-	1.362	-	-	-							
C. Equipment Installation Cost	-	0.270	-	-	-							
D. Contractor Support Cost	-	-	-	-	-							
E. Corps of Engineers Support Cost	-	-	-	-	-							
F. Other In-House Support Cost	-	0.045	-	-	-							
G. Total Facility Project Cost	-	-	-	-	-							
H. Other Costs	-	0.059	-	-	-							
<b>Total Project Cost</b>	-	3.282	-	-	-	<b>Related Projects</b>						
						<b>Project Number</b>	<b>Title</b>	<b>FY &amp; Appn</b>	<b>Value (\$ M)</b>	<b>Facing</b>	<b>Start Date</b>	<b>Compl Date</b>

**Narrative Explanation:**  
 Procurement dollars in the amount of \$3.282 million support modernization effort to construct new laboratories adequate to meet all water and chemical measurements and analysis required to support current production at Iowa Army Ammunition Plant. The current facilities are over 70 years old and well past their useful life. The new laboratory and equipment will meet current safety and environmental standards, allowing for enhanced production quality and a safe testing environment for personnel.

**UNCLASSIFIED**

**Exhibit P-25, Production Support and Industrial Facilities Cost Analysis:** PB 2016 Army **Date:** February 2015

<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2034A / 02 / 10	<b>P-1 Line Item Number / Title:</b> EP1000 / Provision of Industrial Facilities
--	---

<b>Project Title:</b> Upgrade Insensitive Munitions Explosive (IMX) Wastewater Treatment, Line 3A	<b>Project Number:</b> 5153766	<b>Project Category:</b> Production Support
---	--------------------------------	---

<b>End Item Supported Model:</b> 105mm/155mm Artillery, Mortars	<b>Annual Capacity Before / After (1-8-5):</b> /
---	--

Cost Elements <i>(\$ in Millions)</i>	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total							
A. Construction Cost	-	1.454	-	-	-	<b>Facility Name:</b> Iowa Army Ammunition Plant						
B. Equipment Cost	-	1.875	-	-	-	<b>Facility Location:</b> Middletown, Iowa						
C. Equipment Installation Cost	-	0.552	-	-	-	<b>Facility Type (GOGO, GOCO, COCO):</b> GOCO						
D. Contractor Support Cost	-	-	-	-	-	<b>Principal Milestones</b>						
E. Corps of Engineers Support Cost	-	-	-	-	-	<b>Month &amp; Year</b>						
F. Other In-House Support Cost	-	0.125	-	-	-	Concept Design Complete:						
G. Total Facility Project Cost	-	-	-	-	-	Final Design Complete: May 2014						
H. Other Costs	-	0.070	-	-	-	Initial/Final Project Award: Dec 2014 / Dec 2014						
Total Project Cost	-	4.076	-	-	-	Construction Complete: May 2017						
						<b>Related Projects</b>						
						<b>Project Number</b>	<b>Title</b>	<b>FY &amp; Appn</b>	<b>Value (\$ M)</b>	<b>Facing</b>	<b>Start Date</b>	<b>Compl Date</b>

**Narrative Explanation:**  
 Procurement dollars in the amount of \$4.076 million support modernization improvements to the Line 3A, Load Assemble and Pack operations of Insensitive Munitions Explosive (IMX) projectiles at Iowa Army Ammunition Plant. Efforts include upgrades to the wastewater treatment infrastructure, replacement of deteriorating energetic vapor control and treatment system, installation and integration of advanced wastewater treatment process as well as automation of treatment operation controls for line 3A. These upgrades are required due to the advanced age of the equipment, the current system's incompatibility with IMX waste streams, emerging IMX production requirements, employee safety and environmental laws and regulations. This effort will enhance product quality, equipment reliability, availability, and maintainability.

**UNCLASSIFIED**

**Exhibit P-25, Production Support and Industrial Facilities Cost Analysis: PB 2016 Army** **Date:** February 2015

**Appropriation / Budget Activity / Budget Sub Activity:** 2034A / 02 / 10 **P-1 Line Item Number / Title:** EP1000 / Provision of Industrial Facilities

**Project Title:** Ultraviolet (UV) Deluge System Upgrade, Line 3A **Project Number:** 5165333 **Project Category:** Production Support

**End Item Supported Model:** 105mm Artillery, 155mm Artillery **Annual Capacity Before / After (1-8-5):** /

Cost Elements <i>(\$ in Millions)</i>	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	<b>Facility Name:</b> Iowa Army Ammunition Plant <b>Facility Location:</b> Middletown, Iowa <b>Facility Type (GOGO, GOCO, COCO):</b> GOCO						
A. Construction Cost	-	-	-	-	-	<b>Principal Milestones</b> <span style="float: right;"><b>Month &amp; Year</b></span> Concept Design Complete: Final Design Complete: <span style="float: right;">May 2014</span> Initial/Final Project Award: <span style="float: right;">Apr 2016 / Apr 2016</span> Construction Complete: Equipment Installation Complete: <span style="float: right;">Oct 2016</span> Prove Out Begins: <span style="float: right;">Nov 2016</span> Prove Out Complete: <span style="float: right;">Dec 2017</span>						
B. Equipment Cost	-	-	0.455	-	0.455							
C. Equipment Installation Cost	-	-	0.124	-	0.124							
D. Contractor Support Cost	-	-	-	-	-							
E. Corps of Engineers Support Cost	-	-	-	-	-							
F. Other In-House Support Cost	-	-	-	-	-							
G. Total Facility Project Cost	-	-	-	-	-							
H. Other Costs	-	-	0.009	-	0.009							
Total Project Cost	-	-	0.588	-	0.588							
							Related Projects					
						Project Number	Title	FY & Appn	Value <i>(\$ M)</i>	Facing	Start Date	Compl Date

**Narrative Explanation:**  
 FY 2016 Base procurement dollars in the amount of \$0.588 million support replacement of the existing rapid response ultraviolet (UV) Deluge System in Buildings 3A-10-5 and 3A-50-1 at Iowa Army Ammunition Plant. The new systems will enhance fire protection and detection and improve personnel safety. Two additional UV systems in building 3A-05-1 will also be installed to support the explosive scrap melter equipment.

**UNCLASSIFIED**

**Exhibit P-25, Production Support and Industrial Facilities Cost Analysis: PB 2016 Army** **Date:** February 2015

**Appropriation / Budget Activity / Budget Sub Activity:** 2034A / 02 / 10 **P-1 Line Item Number / Title:** EP1000 / Provision of Industrial Facilities

**Project Title:** Plant Wide Mass Warning System **Project Number:** 5163743 **Project Category:** Production Support

**End Item Supported Model:** 60mm/81mm Mortar, Artillery **Annual Capacity Before / After (1-8-5):** /

Cost Elements <i>(\$ in Millions)</i>	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	<b>Facility Name:</b> Iowa Army Ammunition Plant <b>Facility Location:</b> Middletown, Iowa <b>Facility Type (GOGO, GOCO, COCO):</b> GOCO						
A. Construction Cost	-	-	0.306	-	0.306	<b>Principal Milestones</b> <span style="float: right;"><b>Month &amp; Year</b></span> Concept Design Complete: Final Design Complete: <span style="float: right;">May 2016</span> Initial/Final Project Award: <span style="float: right;">Mar 2016 / Apr 2016</span> Construction Complete: <span style="float: right;">Dec 2017</span> Equipment Installation Complete: <span style="float: right;">Jan 2018</span> Prove Out Begins: <span style="float: right;">Jan 2018</span> Prove Out Complete: <span style="float: right;">Apr 2018</span>						
B. Equipment Cost	-	-	0.561	-	0.561							
C. Equipment Installation Cost	-	-	0.580	-	0.580							
D. Contractor Support Cost	-	-	-	-	-							
E. Corps of Engineers Support Cost	-	-	-	-	-							
F. Other In-House Support Cost	-	-	-	-	-							
G. Total Facility Project Cost	-	-	-	-	-							
H. Other Costs	-	-	0.044	-	0.044							
Total Project Cost	-	-	1.491	-	1.491							
						Related Projects						
						Project Number	Title	FY & Appn	Value <i>(\$ M)</i>	Facing	Start Date	Compl Date

**Narrative Explanation:**  
 FY 2016 Base procurement dollars in the amount of \$1.491 million support installation of a plant wide mass warning system at Iowa Army Ammunition Plant. System will be audible to personnel both inside and outside of installation buildings.

**UNCLASSIFIED**

**Exhibit P-25, Production Support and Industrial Facilities Cost Analysis:** PB 2016 Army **Date:** February 2015

**Appropriation / Budget Activity / Budget Sub Activity:** 2034A / 02 / 10 **P-1 Line Item Number / Title:** EP1000 / Provision of Industrial Facilities

**Project Title:** Main Heating Plant Upgrade and Maximum Achievable Control Technology (MACT) Compliance **Project Number:** 5143770 **Project Category:** Production Support

**End Item Supported Model:** 120mm Tank, 155mm Artillery, 40mm, Mortars **Annual Capacity Before / After (1-8-5):** /

Cost Elements <i>(\$ in Millions)</i>	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	<b>Facility Name:</b> Iowa Army Ammunition Plant <b>Facility Location:</b> Middletown, Iowa <b>Facility Type (GOGO, GOCO, COCO):</b> GOCO						
A. Construction Cost	5.319	-	-	-	-	<b>Principal Milestones</b> <span style="float: right;"><b>Month &amp; Year</b></span> Concept Design Complete: Final Design Complete: Initial/Final Project Award: Jun 2014 / Jun 2014 Construction Complete: Equipment Installation Complete: Jun 2017 Prove Out Begins: Jun 2017 Prove Out Complete: Jul 2017						
B. Equipment Cost	-	-	-	-	-							
C. Equipment Installation Cost	0.694	-	-	-	-							
D. Contractor Support Cost	-	-	-	-	-							
E. Corps of Engineers Support Cost	-	-	-	-	-							
F. Other In-House Support Cost	0.152	-	-	-	-							
G. Total Facility Project Cost	-	-	-	-	-							
H. Other Costs	0.369	-	-	-	-							
Total Project Cost	6.534	-	-	-	-							
						Related Projects						
						Project Number	Title	FY & Appn	Value <i>(\$ M)</i>	Facing	Start Date	Compl Date

**Narrative Explanation:**  
 Procurement dollars in the amount of \$6.534 million support effort to upgrade the Main Heating Plant and meet Maximum Achievable Control Technology (MACT) air emission standards at Iowa Army Ammunition Plant. This project will install a natural gas boiler, a natural gas pipeline and redundant combustion control servers. It will also relocate and cover a conveyor belt and conduct miscellaneous upgrades necessary to meet recent changes to MACT standards. This project will improve the safety and efficiency of the Main Heating Plant and ensure compliance with environmental regulations.



**UNCLASSIFIED**

**Exhibit P-25, Production Support and Industrial Facilities Cost Analysis:** PB 2016 Army **Date:** February 2015

**Appropriation / Budget Activity / Budget Sub Activity:** 2034A / 02 / 10 **P-1 Line Item Number / Title:** EP1000 / Provision of Industrial Facilities

**Project Title:** Asbestos Abatement and Removal **Project Number:** 5143910 **Project Category:** Production Support

**End Item Supported Model:** 105mm/120mm Tank, 105mm/155mm Artillery, Modular Artillery Charging System **Annual Capacity Before / After (1-8-5):** /

Cost Elements <i>(\$ in Millions)</i>	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	Facility Name: Iowa Army Ammunition Plant Facility Location: Middletown, Iowa Facility Type (GOGO, GOCO, COCO): GOCO														
A. Construction Cost	-	-	-	-	-	<b>Principal Milestones</b> <span style="float: right;"><b>Month &amp; Year</b></span> Concept Design Complete: Final Design Complete: Initial/Final Project Award: <span style="float: right;">Sep 2014 / Sep 2014</span> Construction Complete: <span style="float: right;">Aug 2016</span> Equipment Installation Complete: Prove Out Begins: Prove Out Complete:														
B. Equipment Cost	-	-	-	-	-															
C. Equipment Installation Cost	-	-	-	-	-															
D. Contractor Support Cost	-	-	-	-	-															
E. Corps of Engineers Support Cost	-	-	-	-	-															
F. Other In-House Support Cost	-	-	-	-	-															
G. Total Facility Project Cost	-	-	-	-	-															
H. Other Costs	7.737	-	-	-	-															
Total Project Cost	7.737	-	-	-	-															
							<b>Related Projects</b>													
						<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 10%;">Project Number</th> <th style="width: 30%;">Title</th> <th style="width: 10%;">FY &amp; Appn</th> <th style="width: 10%;">Value (\$ M)</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> </td> <td> </td> <td> </td> <td> </td> <td> </td> <td> </td> </tr> </tbody> </table>	Project Number	Title	FY & Appn	Value (\$ M)	Facing	Start Date	Compl Date							
Project Number	Title	FY & Appn	Value (\$ M)	Facing	Start Date	Compl Date														

**Narrative Explanation:**  
 Procurement dollars in the amount of \$7.737 million support effort to remove and abate asbestos in various production and storage facilities at Iowa Army Ammunition Plant. Asbestos proposes significant risk to human health. Friable Asbestos Containing Material will be removed from steam installation lines and lighting fixtures.

**UNCLASSIFIED**

**Exhibit P-25, Production Support and Industrial Facilities Cost Analysis: PB 2016 Army** **Date:** February 2015

**Appropriation / Budget Activity / Budget Sub Activity:** 2034A / 02 / 10 **P-1 Line Item Number / Title:** EP1000 / Provision of Industrial Facilities

**Project Title:** General Road Improvements (Roads D and E) **Project Number:** 5153745 **Project Category:** Production Support

**End Item Supported Model:** 40mm, Artillery, Mortar, Tank **Annual Capacity Before / After (1-8-5):** /

Cost Elements <i>(\$ in Millions)</i>	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	Facility Name: Iowa Army Ammunition Plant Facility Location: Middletown, Iowa Facility Type (GOGO, GOCO, COCO): GOCO						
						Principal Milestones				Month & Year		
A. Construction Cost	-	1.602	-	-	-	Concept Design Complete:						
B. Equipment Cost	-	-	-	-	-	Final Design Complete:						
C. Equipment Installation Cost	-	-	-	-	-	Initial/Final Project Award:				Apr 2015 / Apr 2015		
D. Contractor Support Cost	-	-	-	-	-	Construction Complete:				Aug 2016		
E. Corps of Engineers Support Cost	-	-	-	-	-	Equipment Installation Complete:						
F. Other In-House Support Cost	-	-	-	-	-	Prove Out Begins:						
G. Total Facility Project Cost	-	-	-	-	-	Prove Out Complete:						
H. Other Costs	-	0.537	-	-	-	<b>Related Projects</b>						
Total Project Cost	-	2.139	-	-	-	<b>Project Number</b>	<b>Title</b>	<b>FY &amp; Appn</b>	<b>Value (\$ M)</b>	<b>Facing</b>	<b>Start Date</b>	<b>Compl Date</b>

**Narrative Explanation:**  
Procurement dollars in the amount of \$2.139 million support improvements to Roads D and E at Iowa Army Ammunition Plant. These roads support active production lines and storage yards. This project will improve safety for plant operational vehicles containing explosive materials.

**UNCLASSIFIED**

**Exhibit P-25, Production Support and Industrial Facilities Cost Analysis: PB 2016 Army** **Date:** February 2015

**Appropriation / Budget Activity / Budget Sub Activity:** 2034A / 02 / 10 **P-1 Line Item Number / Title:** EP1000 / Provision of Industrial Facilities

**Project Title:** Line 3A Distributed Natural Gas Boiler System **Project Number:** 5153773 **Project Category:** Production Support

**End Item Supported Model:** 105/155mm Artillery, 60mm Mortars **Annual Capacity Before / After (1-8-5):** /

Cost Elements <i>(\$ in Millions)</i>	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	Facility Name: Iowa Army Ammunition Plant Facility Location: Middletown, Iowa Facility Type (GOGO, GOCO, COCO): GOCO						
						Principal Milestones			Month & Year			
A. Construction Cost	-	2.500	-	-	-	Concept Design Complete:						
B. Equipment Cost	-	2.919	-	-	-	Final Design Complete:						
C. Equipment Installation Cost	-	0.800	-	-	-	Initial/Final Project Award:			Jul 2015 / Jul 2015			
D. Contractor Support Cost	-	0.350	-	-	-	Construction Complete:			Jun 2017			
E. Corps of Engineers Support Cost	-	-	-	-	-	Equipment Installation Complete:			Jun 2017			
F. Other In-House Support Cost	-	0.065	-	-	-	Prove Out Begins:			Jul 2017			
G. Total Facility Project Cost	-	-	-	-	-	Prove Out Complete:			Aug 2017			
H. Other Costs	-	0.117	-	-	-	<b>Related Projects</b>						
Total Project Cost	-	6.751	-	-	-	<b>Project Number</b>	<b>Title</b>	<b>FY &amp; Appn</b>	<b>Value (\$ M)</b>	<b>Facing</b>	<b>Start Date</b>	<b>Compl Date</b>

**Narrative Explanation:**  
 Procurement dollars in the amount of \$6.751 million support effort to install a high-pressure gas boiler at Iowa Army Ammunition Plant (AAP). Project will assure the continued flow of steam for processes and heating, ventilation, and air conditioning (HVAC) purposes. A 2013 baseline energy assessment estimated 33 percent of Iowa AAP's steam energy is lost through distribution, condensate, and insufficient or defective steam traps.

**UNCLASSIFIED**

**Exhibit P-25, Production Support and Industrial Facilities Cost Analysis: PB 2016 Army** **Date:** February 2015

**Appropriation / Budget Activity / Budget Sub Activity:** 2034A / 02 / 10 **P-1 Line Item Number / Title:** EP1000 / Provision of Industrial Facilities

**Project Title:** Construct 100kW Fuel Cell Pilot Facility **Project Number:** 5155029 **Project Category:** Production Support

**End Item Supported Model:** **Annual Capacity Before / After (1-8-5):** /

Cost Elements <i>(\$ in Millions)</i>	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	Facility Name: Iowa Army Ammunition Plant Facility Location: Middletown, Iowa Facility Type (GOGO, GOCO, COCO): GOCO						
						Principal Milestones				Month & Year		
A. Construction Cost	-	2.500	-	-	-	Concept Design Complete:						
B. Equipment Cost	-	2.000	-	-	-	Final Design Complete:						
C. Equipment Installation Cost	-	0.810	-	-	-	Initial/Final Project Award:						
D. Contractor Support Cost	-	-	-	-	-	Construction Complete:				May 2016		
E. Corps of Engineers Support Cost	-	0.690	-	-	-	Equipment Installation Complete:						
F. Other In-House Support Cost	-	0.360	-	-	-	Prove Out Begins:				May 2016		
G. Total Facility Project Cost	-	-	-	-	-	Prove Out Complete:				Aug 2016		
H. Other Costs	-	-	-	-	-	<b>Related Projects</b>						
Total Project Cost	-	6.360	-	-	-	<b>Project Number</b>	<b>Title</b>	<b>FY &amp; Appn</b>	<b>Value (\$ M)</b>	<b>Facing</b>	<b>Start Date</b>	<b>Compl Date</b>

**Narrative Explanation:**  
 Base procurement dollars support in the amount of \$6.360 million support fuel cell modernization effort at Iowa Army Ammunition Plant (AAP). This project will develop a pilot-scale process utilizing fuel cell technology for the reduction of Iowa AAP operational costs. The reduced operational costs will be the result of enhanced power production efficiencies, energetics demilitarization and process by-product sales. This project includes construction of a 100kW mobile fuel cell pilot facility, equipment procurement, pilot scale testing and market sales research of the chemical by-product.

**UNCLASSIFIED**

**Exhibit P-25, Production Support and Industrial Facilities Cost Analysis: PB 2016 Army** **Date:** February 2015

**Appropriation / Budget Activity / Budget Sub Activity:** 2034A / 02 / 10 **P-1 Line Item Number / Title:** EP1000 / Provision of Industrial Facilities

**Project Title:** Small Caliber Modernization, Production Line Upgrades **Project Number:** 51X3356 **Project Category:** Production Support

**End Item Supported Model:** .50 Cal (all types except SLAP-T), 5.56mm, 7.62mm (all types) **Annual Capacity Before / After (1-8-5):** /

Cost Elements <i>(\$ in Millions)</i>	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	Facility Name: Lake City Army Ammunition Plant																											
						Facility Location: Independence, Missouri																											
						Facility Type (GOGO, GOCO, COCO): GOCO																											
A. Construction Cost	-	-	-	-	-	<b>Principal Milestones</b> <span style="float: right;"><b>Month &amp; Year</b></span> Concept Design Complete: Final Design Complete: Jan 2015 Initial/Final Project Award: Jan 2015 / Mar 2016 Construction Complete: Equipment Installation Complete: Sep 2017 Prove Out Begins: Dec 2017 Prove Out Complete: Jan 2018																											
B. Equipment Cost	-	2.001	9.750	-	9.750																												
C. Equipment Installation Cost	-	0.747	4.123	-	4.123	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th align="center" colspan="7">Related Projects</th> </tr> <tr> <th align="center">Project Number</th> <th align="center">Title</th> <th align="center">FY &amp; Appn</th> <th align="center">Value (\$ M)</th> <th align="center">Facing</th> <th align="center">Start Date</th> <th align="center">Compl Date</th> </tr> </thead> <tbody> <tr> <td> </td> <td> </td> <td> </td> <td> </td> <td> </td> <td> </td> <td> </td> </tr> </tbody> </table>							Related Projects							Project Number	Title	FY & Appn	Value (\$ M)	Facing	Start Date	Compl Date							
Related Projects																																	
Project Number	Title	FY & Appn	Value (\$ M)	Facing	Start Date	Compl Date																											
D. Contractor Support Cost	-	-	0.279	-	0.279																												
E. Corps of Engineers Support Cost	-	-	-	-	-	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th align="center" colspan="7">Related Projects</th> </tr> <tr> <th align="center">Project Number</th> <th align="center">Title</th> <th align="center">FY &amp; Appn</th> <th align="center">Value (\$ M)</th> <th align="center">Facing</th> <th align="center">Start Date</th> <th align="center">Compl Date</th> </tr> </thead> <tbody> <tr> <td> </td> <td> </td> <td> </td> <td> </td> <td> </td> <td> </td> <td> </td> </tr> </tbody> </table>							Related Projects							Project Number	Title	FY & Appn	Value (\$ M)	Facing	Start Date	Compl Date							
Related Projects																																	
Project Number	Title	FY & Appn	Value (\$ M)	Facing	Start Date	Compl Date																											
F. Other In-House Support Cost	-	-	-	-	-																												
G. Total Facility Project Cost	-	-	-	-	-	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th align="center" colspan="7">Related Projects</th> </tr> <tr> <th align="center">Project Number</th> <th align="center">Title</th> <th align="center">FY &amp; Appn</th> <th align="center">Value (\$ M)</th> <th align="center">Facing</th> <th align="center">Start Date</th> <th align="center">Compl Date</th> </tr> </thead> <tbody> <tr> <td> </td> <td> </td> <td> </td> <td> </td> <td> </td> <td> </td> <td> </td> </tr> </tbody> </table>							Related Projects							Project Number	Title	FY & Appn	Value (\$ M)	Facing	Start Date	Compl Date							
Related Projects																																	
Project Number	Title	FY & Appn	Value (\$ M)	Facing	Start Date	Compl Date																											
H. Other Costs	-	0.043	0.550	-	0.550																												
Total Project Cost	-	2.791	14.702	-	14.702	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th align="center" colspan="7">Related Projects</th> </tr> <tr> <th align="center">Project Number</th> <th align="center">Title</th> <th align="center">FY &amp; Appn</th> <th align="center">Value (\$ M)</th> <th align="center">Facing</th> <th align="center">Start Date</th> <th align="center">Compl Date</th> </tr> </thead> <tbody> <tr> <td> </td> <td> </td> <td> </td> <td> </td> <td> </td> <td> </td> <td> </td> </tr> </tbody> </table>							Related Projects							Project Number	Title	FY & Appn	Value (\$ M)	Facing	Start Date	Compl Date							
Related Projects																																	
Project Number	Title	FY & Appn	Value (\$ M)	Facing	Start Date	Compl Date																											

**Narrative Explanation:**  
 FY 2016 Base procurement dollars in the amount of \$14.702 million support modernization improvements in small caliber ammunition manufacturing at Lake City Army Ammunition Plant. Efforts include upgrades to the automated high-speed Small Caliber Ammunition Modernization Program (SCAMP) production lines, including waste incinerator and .50 Cal bullet restoration, will improve product quality and equipment reliability, availability and maintainability.

**UNCLASSIFIED**

**Exhibit P-25, Production Support and Industrial Facilities Cost Analysis: PB 2016 Army** **Date:** February 2015

**Appropriation / Budget Activity / Budget Sub Activity:** 2034A / 02 / 10 **P-1 Line Item Number / Title:** EP1000 / Provision of Industrial Facilities

**Project Title:** Hard Road Surface Recapitalization **Project Number:** 5143645 **Project Category:** Production Support

**End Item Supported Model:** 20mm, 5.56mm, 7.62mm, Cal .50 **Annual Capacity Before / After (1-8-5):** /

Cost Elements <i>(\$ in Millions)</i>	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	<b>Facility Name:</b> Lake City Army Ammunition Plant <b>Facility Location:</b> Independence, Missouri <b>Facility Type (GOGO, GOCO, COCO):</b> GOCO						
A. Construction Cost	4.092	-	-	-	-	<b>Principal Milestones</b> <span style="float: right;"><b>Month &amp; Year</b></span> Concept Design Complete: Final Design Complete: <span style="float: right;">Jan 2014</span> Initial/Final Project Award: <span style="float: right;">Jun 2014 / Jun 2014</span> Construction Complete: <span style="float: right;">Apr 2015</span> Equipment Installation Complete: Prove Out Begins: Prove Out Complete:						
B. Equipment Cost	-	-	-	-	-							
C. Equipment Installation Cost	-	-	-	-	-							
D. Contractor Support Cost	-	-	-	-	-							
E. Corps of Engineers Support Cost	-	-	-	-	-							
F. Other In-House Support Cost	-	-	-	-	-							
G. Total Facility Project Cost	-	-	-	-	-							
H. Other Costs	0.973	-	-	-	-							
Total Project Cost	5.065	-	-	-	-							
							Related Projects					
						Project Number	Title	FY & Appn	Value <i>(\$ M)</i>	Facing	Start Date	Compl Date

**Narrative Explanation:**  
 Procurement dollars in the amount of \$5.065 million support effort to resurface existing roads at Lake City Army Ammunition Plant (AAP). This project will provide adequate roadways to production lines, storage yards and support facilities for safe travel by employees utilizing government, private and explosively laden vehicles. This effort will also improve road conditions and reduce maintenance costs to roads and vehicles, and enhance working conditions and safety. This effort will improve the quality of work environment at Lake City AAP.

**UNCLASSIFIED**

**Exhibit P-25, Production Support and Industrial Facilities Cost Analysis:** PB 2016 Army **Date:** February 2015

**Appropriation / Budget Activity / Budget Sub Activity:** 2034A / 02 / 10 **P-1 Line Item Number / Title:** EP1000 / Provision of Industrial Facilities

**Project Title:** Structural Upgrades (Buildings 8, 11, and 16) **Project Number:** 5153758 **Project Category:** Production Support

**End Item Supported Model:** 5.56mm, 7.62mm, Cal .50 **Annual Capacity Before / After (1-8-5):** /

Cost Elements <i>(\$ in Millions)</i>	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	<b>Facility Name:</b> Lake City Army Ammunition Plant <b>Facility Location:</b> Independence, Missouri <b>Facility Type (GOGO, GOCO, COCO):</b> GOCO							
A. Construction Cost	-	2.300	-	-	-	<b>Principal Milestones</b> <span style="float: right;"><b>Month &amp; Year</b></span> Concept Design Complete: Final Design Complete: <span style="float: right;">Jan 2015</span> Initial/Final Project Award: <span style="float: right;">Jan 2015 / Jan 2015</span> Construction Complete: <span style="float: right;">Apr 2016</span> Equipment Installation Complete: Prove Out Begins: Prove Out Complete:	<b>Related Projects</b>						
B. Equipment Cost	-	-	-	-	-		<b>Project Number</b>	<b>Title</b>	<b>FY &amp; Appn</b>	<b>Value (\$ M)</b>	<b>Facing</b>	<b>Start Date</b>	<b>Compl Date</b>
C. Equipment Installation Cost	-	-	-	-	-								
D. Contractor Support Cost	-	-	-	-	-								
E. Corps of Engineers Support Cost	-	-	-	-	-								
F. Other In-House Support Cost	-	0.243	-	-	-								
G. Total Facility Project Cost	-	-	-	-	-								
H. Other Costs	-	0.396	-	-	-								
Total Project Cost	-	2.939	-	-	-								

**Narrative Explanation:**  
 Base procurement dollars in the amount of \$2.939 million support effort to rehabilitate structural deficiencies identified in Buildings 8, 11 and 16 at Lake City Army Ammunition Plant. This effort will ensure the safety of personnel, protect production equipment and assure compliance with Occupational Safety and Health Administration, National Fire Protection Agency, National Electrical Code, and Building Codes.

**UNCLASSIFIED**

**Exhibit P-25, Production Support and Industrial Facilities Cost Analysis:** PB 2016 Army **Date:** February 2015

**Appropriation / Budget Activity / Budget Sub Activity:** 2034A / 02 / 10 **P-1 Line Item Number / Title:** EP1000 / Provision of Industrial Facilities

**Project Title:** Conductive Flooring Replacement/Asbestos Removal (Buildings 1, 2 and 3) **Project Number:** 5143615 **Project Category:** Production Support

**End Item Supported Model:** 5.56mm, 7.62mm, Cal .50 **Annual Capacity Before / After (1-8-5):** /

Cost Elements <i>(\$ in Millions)</i>	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	<b>Facility Name:</b> Lake City Army Ammunition Plant <b>Facility Location:</b> Independence, Missouri <b>Facility Type (GOGO, GOCO, COCO):</b> GOCO						
A. Construction Cost	1.614	-	-	-	-	<b>Principal Milestones</b> <span style="float: right;"><b>Month &amp; Year</b></span> Concept Design Complete: Final Design Complete: <span style="float: right;">Aug 2014</span> Initial/Final Project Award: <span style="float: right;">May 2014 / May 2014</span> Construction Complete: <span style="float: right;">Oct 2016</span> Equipment Installation Complete: <span style="float: right;">Oct 2016</span> Prove Out Begins: Prove Out Complete:						
B. Equipment Cost	-	-	-	-	-							
C. Equipment Installation Cost	0.391	-	-	-	-							
D. Contractor Support Cost	-	-	-	-	-							
E. Corps of Engineers Support Cost	-	-	-	-	-							
F. Other In-House Support Cost	-	-	-	-	-							
G. Total Facility Project Cost	-	-	-	-	-							
H. Other Costs	0.095	-	-	-	-							
<b>Total Project Cost</b>	<b>2.100</b>	-	-	-	-	<b>Related Projects</b>						
						<b>Project Number</b>	<b>Title</b>	<b>FY &amp; Appn</b>	<b>Value (\$ M)</b>	<b>Facing</b>	<b>Start Date</b>	<b>Compl Date</b>

**Narrative Explanation:**  
 Procurement dollars in the amount of \$2.100 million support effort to modernize degraded conductive flooring in the explosives manufacturing areas of Buildings, 1, 2, and 3 at Lake City Army Ammunition Plant. Based on safety regulations, a conductive floor is required to manufacture explosives.



**UNCLASSIFIED**

**Exhibit P-25, Production Support and Industrial Facilities Cost Analysis: PB 2016 Army** **Date:** February 2015

**Appropriation / Budget Activity / Budget Sub Activity:** 2034A / 02 / 10 **P-1 Line Item Number / Title:** EP1000 / Provision of Industrial Facilities

**Project Title:** Building Management System / Metering Upgrade **Project Number:** 5163782 **Project Category:** Production Support

**End Item Supported Model:** 5.56mm, 7.62mm, Cal .50 **Annual Capacity Before / After (1-8-5):** /

Cost Elements <i>(\$ in Millions)</i>	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	<b>Facility Name:</b> Lake City Army Ammunition Plant <b>Facility Location:</b> Independence, Missouri <b>Facility Type (GOGO, GOCO, COCO):</b> GOCO				
A. Construction Cost	-	-	-	-	-	<b>Principal Milestones</b> <span style="float: right;"><b>Month &amp; Year</b></span> Concept Design Complete: Final Design Complete: <span style="float: right;">Nov 2016</span> Initial/Final Project Award: <span style="float: right;">Mar 2016 / Mar 2016</span> Construction Complete: Equipment Installation Complete: <span style="float: right;">Mar 2019</span> Prove Out Begins: <span style="float: right;">Apr 2019</span> Prove Out Complete: <span style="float: right;">Apr 2019</span>				
B. Equipment Cost	-	-	1.439	-	1.439					
C. Equipment Installation Cost	-	-	2.159	-	2.159					
D. Contractor Support Cost	-	-	-	-	-					
E. Corps of Engineers Support Cost	-	-	-	-	-					
F. Other In-House Support Cost	-	-	-	-	-					
G. Total Facility Project Cost	-	-	-	-	-					
H. Other Costs	-	-	0.476	-	0.476					
Total Project Cost	-	-	4.074	-	4.074					
<b>Related Projects</b>										
	<b>Project Number</b>	<b>Title</b>	<b>FY &amp; Appn</b>	<b>Value (\$ M)</b>	<b>Facing</b>	<b>Start Date</b>	<b>Compl Date</b>			

**Narrative Explanation:**  
 FY 2016 Base procurement dollars in the amount of \$4.074 million support installation of metering to support utility monitoring and control at Lake City Army Ammunition Plant. Effort will evaluate, design and install meters that monitor water, air, gas and electrical utilities. Meters will be installed plant wide and will be incorporated into the overall Building Management System.

**UNCLASSIFIED**

**Exhibit P-25, Production Support and Industrial Facilities Cost Analysis: PB 2016 Army** **Date:** February 2015

**Appropriation / Budget Activity / Budget Sub Activity:** 2034A / 02 / 10 **P-1 Line Item Number / Title:** EP1000 / Provision of Industrial Facilities

**Project Title:** Exterior Steam Main Supports **Project Number:** 5163778 **Project Category:** Production Support

**End Item Supported Model:** 5.56mm, 7.62mm, Cal .50 **Annual Capacity Before / After (1-8-5):** /

Cost Elements <i>(\$ in Millions)</i>	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	<b>Facility Name:</b> Lake City Army Ammunition Plant <b>Facility Location:</b> Independence, Missouri <b>Facility Type (GOGO, GOCO, COCO):</b> GOCO						
A. Construction Cost	-	-	1.144	-	1.144	<b>Principal Milestones</b> <span style="float: right;"><b>Month &amp; Year</b></span> Concept Design Complete: Final Design Complete: <span style="float: right;">Nov 2016</span> Initial/Final Project Award: <span style="float: right;">Mar 2016 / Mar 2016</span> Construction Complete: <span style="float: right;">Mar 2017</span> Equipment Installation Complete: Prove Out Begins: <span style="float: right;">Apr 2017</span> Prove Out Complete: <span style="float: right;">Apr 2017</span>						
B. Equipment Cost	-	-	-	-	-							
C. Equipment Installation Cost	-	-	-	-	-							
D. Contractor Support Cost	-	-	-	-	-							
E. Corps of Engineers Support Cost	-	-	-	-	-							
F. Other In-House Support Cost	-	-	-	-	-							
G. Total Facility Project Cost	-	-	-	-	-							
H. Other Costs	-	-	0.087	-	0.087							
<b>Total Project Cost</b>	-	-	1.231	-	1.231	<b>Related Projects</b>						
						<b>Project Number</b>	<b>Title</b>	<b>FY &amp; Appn</b>	<b>Value (\$ M)</b>	<b>Facing</b>	<b>Start Date</b>	<b>Compl Date</b>

**Narrative Explanation:**  
 FY 2016 Base procurement dollars in the amount of \$1.231 million support modernization of exterior steam supports at Lake City Army Ammunition Plant. Effort will evaluate existing steam main supports and design and install new steam supports. Effort will improve safety, reduce steam loss to manufacturing buildings and reduce risk of production interruptions.

**UNCLASSIFIED**

**Exhibit P-25, Production Support and Industrial Facilities Cost Analysis: PB 2016 Army** **Date:** February 2015

**Appropriation / Budget Activity / Budget Sub Activity:** 2034A / 02 / 10 **P-1 Line Item Number / Title:** EP1000 / Provision of Industrial Facilities

**Project Title:** Building 15 Reverse Osmosis System **Project Number:** 5163779 **Project Category:** Production Support

**End Item Supported Model:** 5.56mm, 7.62mm, Cal .50 **Annual Capacity Before / After (1-8-5):** /

Cost Elements <i>(\$ in Millions)</i>	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	<b>Facility Name:</b> Lake City Army Ammunition Plant <b>Facility Location:</b> Independence, Missouri <b>Facility Type (GOGO, GOCO, COCO):</b> GOCO				
A. Construction Cost	-	-	-	-	-	<b>Principal Milestones</b> <span style="float: right;"><b>Month &amp; Year</b></span> Concept Design Complete: Final Design Complete: <span style="float: right;">Nov 2016</span> Initial/Final Project Award: <span style="float: right;">Mar 2016 / Mar 2016</span> Construction Complete: <span style="float: right;">Mar 2018</span> Equipment Installation Complete: <span style="float: right;">Mar 2018</span> Prove Out Begins: <span style="float: right;">Apr 2018</span> Prove Out Complete: <span style="float: right;">Apr 2018</span>				
B. Equipment Cost	-	-	0.139	-	0.139					
C. Equipment Installation Cost	-	-	0.207	-	0.207					
D. Contractor Support Cost	-	-	-	-	-					
E. Corps of Engineers Support Cost	-	-	-	-	-					
F. Other In-House Support Cost	-	-	-	-	-					
G. Total Facility Project Cost	-	-	-	-	-					
H. Other Costs	-	-	0.091	-	0.091					
Total Project Cost	-	-	0.437	-	0.437					
<b>Related Projects</b>										
	<b>Project Number</b>	<b>Title</b>	<b>FY &amp; Appn</b>	<b>Value (\$ M)</b>	<b>Facing</b>	<b>Start Date</b>	<b>Compl Date</b>			

**Narrative Explanation:**  
 FY 2016 Base procurement dollars in the amount of \$0.437 million support equipment upgrade in Building 15 at Lake City Army Ammunition Plant. The effort will design and install a reverse osmosis system in building 15. Project will improve water quality which reduces solids build up in boiler tubes. Reduction in solids build up will maximize the heat transfer in producing steam which will result in reduced water, natural gas, and chemical consumption.

**UNCLASSIFIED**

**Exhibit P-25, Production Support and Industrial Facilities Cost Analysis:** PB 2016 Army **Date:** February 2015

**Appropriation / Budget Activity / Budget Sub Activity:** 2034A / 02 / 10 **P-1 Line Item Number / Title:** EP1000 / Provision of Industrial Facilities

**Project Title:** Building 15 Programmable Logic Control (PLC) and Economizer Upgrade **Project Number:** 5163780 **Project Category:** Production Support

**End Item Supported Model:** 5.56mm, 7.62mm, Cal .50 **Annual Capacity Before / After (1-8-5):** /

Cost Elements <i>(\$ in Millions)</i>	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	Facility Name: Lake City Army Ammunition Plant Facility Location: Independence, Missouri Facility Type (GOGO, GOCO, COCO): GOCO						
A. Construction Cost	-	-	-	-	-	<b>Principal Milestones</b> <span style="float: right;"><b>Month &amp; Year</b></span> Concept Design Complete: Final Design Complete: <span style="float: right;">Nov 2016</span> Initial/Final Project Award: <span style="float: right;">Mar 2016 / Mar 2016</span> Construction Complete: Equipment Installation Complete: <span style="float: right;">Mar 2018</span> Prove Out Begins: <span style="float: right;">Apr 2018</span> Prove Out Complete: <span style="float: right;">Apr 2018</span>						
B. Equipment Cost	-	-	0.522	-	0.522							
C. Equipment Installation Cost	-	-	0.875	-	0.875							
D. Contractor Support Cost	-	-	-	-	-							
E. Corps of Engineers Support Cost	-	-	-	-	-							
F. Other In-House Support Cost	-	-	-	-	-							
G. Total Facility Project Cost	-	-	-	-	-							
H. Other Costs	-	-	0.061	-	0.061							
Total Project Cost	-	-	1.458	-	1.458							
<b>Related Projects</b>						<b>Project Number</b>	<b>Title</b>	<b>FY &amp; Appn</b>	<b>Value (\$ M)</b>	<b>Facing</b>	<b>Start Date</b>	<b>Compl Date</b>

**Narrative Explanation:**  
 FY 2016 Base procurement dollars in the amount of \$1.458 million support modernization upgrades to Building 15 Programmable Logic Control (PLC) and economizer at Lake City Army Ammunition Plant. Existing equipment does not meet National Fire Protection Agency code, is obsolete and replacement parts are difficult to procure. This effort will design and install new economizers and PLC on boilers 1-4. This system serves as a safety device to prevent boiler explosions.

**UNCLASSIFIED**

**Exhibit P-25, Production Support and Industrial Facilities Cost Analysis:** PB 2016 Army **Date:** February 2015

**Appropriation / Budget Activity / Budget Sub Activity:** 2034A / 02 / 10 **P-1 Line Item Number / Title:** EP1000 / Provision of Industrial Facilities

**Project Title:** Building 3 East Charging Wing Heating, Ventilation and Air Conditioning (HVAC) Upgrade **Project Number:** 5163781 **Project Category:** Production Support

**End Item Supported Model:** 5.56mm, 7.62mm, Cal .50 **Annual Capacity Before / After (1-8-5):** /

Cost Elements <i>(\$ in Millions)</i>	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	Facility Name: Lake City Army Ammunition Plant Facility Location: Independence, Missouri Facility Type (GOGO, GOCO, COCO): GOCO						
A. Construction Cost	-	-	-	-	-	<b>Principal Milestones</b> Concept Design Complete: Final Design Complete: Nov 2016 Initial/Final Project Award: Mar 2016 / Mar 2016 Construction Complete: Equipment Installation Complete: Mar 2018 Prove Out Begins: Apr 2018 Prove Out Complete: Apr 2018	<b>Month &amp; Year</b>					
B. Equipment Cost	-	-	0.409	-	0.409							
C. Equipment Installation Cost	-	-	0.648	-	0.648							
D. Contractor Support Cost	-	-	-	-	-							
E. Corps of Engineers Support Cost	-	-	-	-	-							
F. Other In-House Support Cost	-	-	-	-	-							
G. Total Facility Project Cost	-	-	-	-	-							
H. Other Costs	-	-	0.045	-	0.045							
Total Project Cost	-	-	1.102	-	1.102							
						<b>Related Projects</b>						
						<b>Project Number</b>	<b>Title</b>	<b>FY &amp; Appn</b>	<b>Value (\$ M)</b>	<b>Facing</b>	<b>Start Date</b>	<b>Compl Date</b>

**Narrative Explanation:**  
 FY 2016 Base procurement dollars in the amount of \$1.102 million support modernization to Building 3 East Charging Wing heating, ventilation and air conditioning (HVAC) at Lake City Army Ammunition Plant. Existing equipment is obsolete. Effort will evaluate, design and install a new HVAC system in Building 3 East Charging Wing. Installation will consist of new modular air handler with filtration, preheat, chilled water cooling, reheat, and humidification.

**UNCLASSIFIED**

**Exhibit P-25, Production Support and Industrial Facilities Cost Analysis:** PB 2016 Army **Date:** February 2015

**Appropriation / Budget Activity / Budget Sub Activity:** 2034A / 02 / 10 **P-1 Line Item Number / Title:** EP1000 / Provision of Industrial Facilities

**Project Title:** Structural Upgrades (Buildings 1, 2, 3, and 35) **Project Number:** 5163708 **Project Category:** Production Support

**End Item Supported Model:** 5.56mm, 7.62mm, .Cal .50, Enhanced Performing Rounds (EPRs), Links **Annual Capacity Before / After (1-8-5):** /

Cost Elements <i>(\$ in Millions)</i>	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	<b>Facility Name:</b> Lake City Army Ammunition Plant <b>Facility Location:</b> Independence, Missouri <b>Facility Type (GOGO, GOCO, COCO):</b> GOCO						
A. Construction Cost	-	-	3.221	-	3.221	<b>Principal Milestones</b> <span style="float: right;"><b>Month &amp; Year</b></span> Concept Design Complete: Final Design Complete: <span style="float: right;">Nov 2016</span> Initial/Final Project Award: <span style="float: right;">Mar 2016 / Mar 2016</span> Construction Complete: <span style="float: right;">Sep 2017</span> Equipment Installation Complete: Prove Out Begins: <span style="float: right;">Nov 2017</span> Prove Out Complete: <span style="float: right;">Nov 2017</span>						
B. Equipment Cost	-	-	-	-	-							
C. Equipment Installation Cost	-	-	-	-	-							
D. Contractor Support Cost	-	-	-	-	-							
E. Corps of Engineers Support Cost	-	-	-	-	-							
F. Other In-House Support Cost	-	-	-	-	-							
G. Total Facility Project Cost	-	-	-	-	-							
H. Other Costs	-	-	0.386	-	0.386							
<b>Total Project Cost</b>	-	-	3.607	-	3.607	<b>Related Projects</b>						
						<b>Project Number</b>	<b>Title</b>	<b>FY &amp; Appn</b>	<b>Value (\$ M)</b>	<b>Facing</b>	<b>Start Date</b>	<b>Compl Date</b>

**Narrative Explanation:**  
 FY 2016 Base procurement dollars in the amount of \$3.607 million supports this effort to correct structural deficiencies found in Buildings 1, 2, 3, and 35 at Lake City Army Ammunition Plant. Based on a Building Structural Evaluation Study, these buildings are structurally unsafe. This effort will include design and correction of structural deficiencies. This effort will also ensure the safety of personnel, protect production equipment, and assure Lake City AAP complies with Occupational Safety and Health Administration, National Fire Protection Agency, National Electrical Code, and Building Codes.

**UNCLASSIFIED**

**Exhibit P-25, Production Support and Industrial Facilities Cost Analysis: PB 2016 Army** **Date:** February 2015

**Appropriation / Budget Activity / Budget Sub Activity:** 2034A / 02 / 10 **P-1 Line Item Number / Title:** EP1000 / Provision of Industrial Facilities

**Project Title:** Building 16 Aerator Upgrade, Water Well Replacement **Project Number:** 5163715 **Project Category:** Production Support

**End Item Supported Model:** 5.56mm, 7.62mm, Cal .50 **Annual Capacity Before / After (1-8-5):** /

Cost Elements <i>(\$ in Millions)</i>	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	Facility Name: Lake City Army Ammunition Plant Facility Location: Independence, Missouri Facility Type (GOGO, GOCO, COCO): GOCO						
A. Construction Cost	-	-	0.510	-	0.510	<b>Principal Milestones</b> <span style="float: right;"><b>Month &amp; Year</b></span> Concept Design Complete: Final Design Complete: <span style="float: right;">Nov 2016</span> Initial/Final Project Award: <span style="float: right;">Mar 2016 / Mar 2016</span> Construction Complete: <span style="float: right;">Mar 2017</span> Equipment Installation Complete: <span style="float: right;">Mar 2017</span> Prove Out Begins: <span style="float: right;">Apr 2017</span> Prove Out Complete: <span style="float: right;">Apr 2017</span>						
B. Equipment Cost	-	-	5.410	-	5.410							
C. Equipment Installation Cost	-	-	1.539	-	1.539							
D. Contractor Support Cost	-	-	-	-	-							
E. Corps of Engineers Support Cost	-	-	-	-	-							
F. Other In-House Support Cost	-	-	-	-	-							
G. Total Facility Project Cost	-	-	-	-	-							
H. Other Costs	-	-	0.123	-	0.123							
Total Project Cost	-	-	7.582	-	7.582							
						<b>Related Projects</b>						
						<b>Project Number</b>	<b>Title</b>	<b>FY &amp; Appn</b>	<b>Value (\$ M)</b>	<b>Facing</b>	<b>Start Date</b>	<b>Compl Date</b>

**Narrative Explanation:**  
 FY 2016 Base procurement dollars in the amount of \$7.582 million support modernization upgrades to Building 16 aerator at Lake City Army Ammunition Plant. Efforts include evaluation, design, and replacement of internal components, motors and fans, and potable water wells. Project will also upgrade the main collection lines from the well houses and install take-out cleaning stations, and upgrades to the well water control system. This project will eliminate requirement for five air strippers located around the plant and facilitate the maintenance of adequate water supplies for production.

**UNCLASSIFIED**

**Exhibit P-25, Production Support and Industrial Facilities Cost Analysis: PB 2016 Army** **Date:** February 2015

**Appropriation / Budget Activity / Budget Sub Activity:** 2034A / 02 / 10 **P-1 Line Item Number / Title:** EP1000 / Provision of Industrial Facilities

**Project Title:** Install Occupational Safety and Health Administration (OSHA) Guarding **Project Number:** 5153933 **Project Category:** Production Support

**End Item Supported Model:** 5.56mm, 7.62mm, Cal .50 **Annual Capacity Before / After (1-8-5):** /

Cost Elements <i>(\$ in Millions)</i>	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	<b>Facility Name:</b> Lake City Army Ammunition Plant <b>Facility Location:</b> Independence, Missouri <b>Facility Type (GOGO, GOCO, COCO):</b> GOCO						
A. Construction Cost	-	-	-	-	-	<b>Principal Milestones</b> Concept Design Complete: Final Design Complete: Initial/Final Project Award: Construction Complete: Equipment Installation Complete: Prove Out Begins: Prove Out Complete:	<b>Month &amp; Year</b>					
B. Equipment Cost	-	2.261	-	-	-		Nov 2016					
C. Equipment Installation Cost	-	6.410	-	-	-		May 2015 / May 2015					
D. Contractor Support Cost	-	-	-	-	-		Apr 2018					
E. Corps of Engineers Support Cost	-	-	-	-	-		May 2018					
F. Other In-House Support Cost	-	0.173	-	-	-		May 2018					
G. Total Facility Project Cost	-	-	-	-	-		May 2018					
H. Other Costs	-	0.321	-	-	-		May 2018					
Total Project Cost	-	9.165	-	-	-		May 2018					
						Related Projects						
						Project Number	Title	FY & Appn	Value <i>(\$ M)</i>	Facing	Start Date	Compl Date

**Narrative Explanation:**  
 Procurement dollars in the amount of \$9.165 million support continued installation of Occupational Safety and Health Administration (OSHA) guards on machinery and equipment to comply with current regulations at Lake City Army Ammunition Plant. Production equipment to be guarded will include lead rope forming presses, wash barrels, oilers, washers, case lines, bullet lines, priming machines, loading machines, Cartridge Case Measurement Ejection System, packing lines, palletizers, can printers and tip identification machines. Material handling conveyors will also be guarded. The new machine guarding will be fully compliant with current OSHA Guarding Regulation 1910.212, Subpart O - 2004. This project will reduce operator risk of injury or death.



**UNCLASSIFIED**

**Exhibit P-25, Production Support and Industrial Facilities Cost Analysis:** PB 2016 Army **Date:** February 2015

**Appropriation / Budget Activity / Budget Sub Activity:** 2034A / 02 / 10 **P-1 Line Item Number / Title:** EP1000 / Provision of Industrial Facilities

**Project Title:** Construct New Nitrocellulose (NC) Facility **Project Number:** 51X2736 **Project Category:** Production Support

**End Item Supported Model:** Propellants for Large, Medium, and Small Cal Munitions **Annual Capacity Before / After (1-8-5):** /

Cost Elements <i>(\$ in Millions)</i>	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	Facility Name: Radford Army Ammunition Plant						
						Facility Location: Radford, Virginia						
A. Construction Cost	7.844	6.250	9.550	-	9.550	<b>Principal Milestones</b> <span style="float: right;"><b>Month &amp; Year</b></span> Concept Design Complete: Final Design Complete: Aug 2015 Initial/Final Project Award: Dec 2013 / Mar 2016 Construction Complete: Dec 2015 Equipment Installation Complete: Prove Out Begins: Dec 2016 Prove Out Complete: Dec 2016						
B. Equipment Cost	-	-	-	-	-							
C. Equipment Installation Cost	-	-	-	-	-							
D. Contractor Support Cost	-	-	-	-	-							
E. Corps of Engineers Support Cost	-	-	-	-	-							
F. Other In-House Support Cost	0.550	-	-	-	-							
G. Total Facility Project Cost	-	-	-	-	-							
H. Other Costs	3.287	0.750	3.081	-	3.081							
Total Project Cost	11.681	7.000	12.631	-	12.631	<b>Related Projects</b>						
						<b>Project Number</b>	<b>Title</b>	<b>FY &amp; Appn</b>	<b>Value (\$ M)</b>	<b>Facing</b>	<b>Start Date</b>	<b>Compl Date</b>

**Narrative Explanation:**  
 FY 2016 Base procurement dollars in the amount of \$12.631 million support effort to continue the modernization and construction of a new, right-sized facility to produce high quality Nitrocellulose (NC) at Radford Army Ammunition Plant. The current NC facility has exceeded its useful life and experienced as many as 70 failures in 12 months. This phase supports the design and construction of the deep foundations required for the new NC facility.

**UNCLASSIFIED**

**Exhibit P-25, Production Support and Industrial Facilities Cost Analysis:** PB 2016 Army **Date:** February 2015

**Appropriation / Budget Activity / Budget Sub Activity:** 2034A / 02 / 10 **P-1 Line Item Number / Title:** EP1000 / Provision of Industrial Facilities

**Project Title:** Upgrade Pumps, Water Plant (Building 409) **Project Number:** 5143566 **Project Category:** Production Support

**End Item Supported Model:** Propellants for Large, Medium, and Small Cal Munitions **Annual Capacity Before / After (1-8-5):** /

Cost Elements <i>(\$ in Millions)</i>	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	Facility Name: Radford Army Ammunition Plant Facility Location: Radford, Virginia Facility Type (GOGO, GOCO, COCO): GOCO																																												
A. Construction Cost	-	-	-	-	-	<table border="0" style="width: 100%;"> <tr> <td colspan="2"><b>Principal Milestones</b></td> <td align="right" colspan="3"><b>Month &amp; Year</b></td> </tr> <tr> <td colspan="2">Concept Design Complete:</td> <td align="right" colspan="3">Jan 2015</td> </tr> <tr> <td colspan="2">Final Design Complete:</td> <td align="right" colspan="3">Jul 2014 / Jan 2015</td> </tr> <tr> <td colspan="2">Initial/Final Project Award:</td> <td align="right" colspan="3">Jul 2016</td> </tr> <tr> <td colspan="2">Construction Complete:</td> <td align="right" colspan="3">Aug 2016</td> </tr> <tr> <td colspan="2">Equipment Installation Complete:</td> <td align="right" colspan="3">Aug 2016</td> </tr> <tr> <td colspan="2">Prove Out Begins:</td> <td align="right" colspan="3">Aug 2016</td> </tr> <tr> <td colspan="2">Prove Out Complete:</td> <td align="right" colspan="3">Aug 2016</td> </tr> </table>					<b>Principal Milestones</b>		<b>Month &amp; Year</b>			Concept Design Complete:		Jan 2015			Final Design Complete:		Jul 2014 / Jan 2015			Initial/Final Project Award:		Jul 2016			Construction Complete:		Aug 2016			Equipment Installation Complete:		Aug 2016			Prove Out Begins:		Aug 2016			Prove Out Complete:		Aug 2016		
<b>Principal Milestones</b>		<b>Month &amp; Year</b>																																																
Concept Design Complete:		Jan 2015																																																
Final Design Complete:		Jul 2014 / Jan 2015																																																
Initial/Final Project Award:		Jul 2016																																																
Construction Complete:		Aug 2016																																																
Equipment Installation Complete:		Aug 2016																																																
Prove Out Begins:		Aug 2016																																																
Prove Out Complete:		Aug 2016																																																
B. Equipment Cost	1.807	-	-	-	-																																													
C. Equipment Installation Cost	0.544	-	-	-	-																																													
D. Contractor Support Cost	-	-	-	-	-																																													
E. Corps of Engineers Support Cost	-	-	-	-	-																																													
F. Other In-House Support Cost	-	-	-	-	-																																													
G. Total Facility Project Cost	-	-	-	-	-																																													
H. Other Costs	0.250	-	-	-	-																																													
Total Project Cost	2.601	-	-	-	-																																													
<b>Related Projects</b>																																																		
	<b>Project Number</b>	<b>Title</b>	<b>FY &amp; Appn</b>	<b>Value (\$ M)</b>	<b>Facing</b>	<b>Start Date</b>	<b>Compl Date</b>																																											

**Narrative Explanation:**  
 Procurement dollars in the amount of \$2.601 million support this effort to modernize and replace both finished and raw water pumps and valves at Radford Army Ammunition Plant (AAP). This project ensures the water treatment operations continue to provide required filtered water for production processes, fire water and two drinking water plants.

**UNCLASSIFIED**

**Exhibit P-25, Production Support and Industrial Facilities Cost Analysis: PB 2016 Army** **Date:** February 2015

**Appropriation / Budget Activity / Budget Sub Activity:** 2034A / 02 / 10 **P-1 Line Item Number / Title:** EP1000 / Provision of Industrial Facilities

**Project Title:** Plant Operations, Request for Equitable Adjustment (REA)/Major Maintenance **Project Number:** 5143407 **Project Category:** Production Support

**End Item Supported Model:** Propellants for Large, Medium, and Small Cal Munitions **Annual Capacity Before / After (1-8-5):** /

Cost Elements <i>(\$ in Millions)</i>	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	Facility Name: Radford Army Ammunition Plant Facility Location: Radford, Virginia Facility Type (GOGO, GOCO, COCO): GOCO														
A. Construction Cost	-	-	-	-	-	<b>Principal Milestones</b> <span style="float: right;"><b>Month &amp; Year</b></span> Concept Design Complete: <span style="float: right;">Oct 2014</span> Final Design Complete: <span style="float: right;">Apr 2014 / Oct 2014</span> Initial/Final Project Award: Construction Complete: Equipment Installation Complete: Prove Out Begins: Prove Out Complete:														
B. Equipment Cost	-	-	-	-	-															
C. Equipment Installation Cost	-	-	-	-	-															
D. Contractor Support Cost	-	-	-	-	-															
E. Corps of Engineers Support Cost	-	-	-	-	-															
F. Other In-House Support Cost	-	-	-	-	-															
G. Total Facility Project Cost	-	-	-	-	-															
H. Other Costs	15.165	-	-	-	-															
<b>Total Project Cost</b>	15.165	-	-	-	-	<b>Related Projects</b>														
						<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 10%;">Project Number</th> <th style="width: 30%;">Title</th> <th style="width: 10%;">FY &amp; Appn</th> <th style="width: 10%;">Value (\$ M)</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> </td> <td> </td> <td> </td> <td> </td> <td> </td> <td> </td> </tr> </tbody> </table>	Project Number	Title	FY & Appn	Value (\$ M)	Facing	Start Date	Compl Date							
Project Number	Title	FY & Appn	Value (\$ M)	Facing	Start Date	Compl Date														

**Narrative Explanation:**  
 Procurement dollars in the amount of \$15.165 million support major maintenance activities, plant operations and Request for Equitable Adjustment (REA) claims at Radford Army Ammunition Plant. Major maintenance activities include, but are not limited to, repair of the pyro acid tanks, ceiling repairs, rebuild of Chain # 2 coal elevator, repairs to dikes 709 and 4414, and rebuild of the dehydration presses. The contractor submitted REAs on several aspects of the contract surrounding deficient equipment/processes, including deficient lead floors, steam leaks and trap replacement, water line breaks, and unrecovered environmental insurance premium.

**UNCLASSIFIED**

**Exhibit P-25, Production Support and Industrial Facilities Cost Analysis:** PB 2016 Army **Date:** February 2015

**Appropriation / Budget Activity / Budget Sub Activity:** 2034A / 02 / 10 **P-1 Line Item Number / Title:** EP1000 / Provision of Industrial Facilities

**Project Title:** Strong Nitric Acid (SNA) Tank Replacement **Project Number:** 51X3727 **Project Category:** Production Support

**End Item Supported Model:** Propellants for Large, Medium, and Small Cal Munitions **Annual Capacity Before / After (1-8-5):** /

Cost Elements <i>(\$ in Millions)</i>	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	Facility Name: Radford Army Ammunition Plant Facility Location: Radford, Virginia Facility Type (GOGO, GOCO, COCO): GOCO						
						Principal Milestones			Month & Year			
A. Construction Cost	-	-	-	-	-	Concept Design Complete:						
B. Equipment Cost	-	8.000	-	-	-	Final Design Complete:			Nov 2015			
C. Equipment Installation Cost	-	5.190	-	-	-	Initial/Final Project Award:			Jul 2015 / Jul 2015			
D. Contractor Support Cost	-	-	-	-	-	Construction Complete:						
E. Corps of Engineers Support Cost	-	-	-	-	-	Equipment Installation Complete:			Jul 2016			
F. Other In-House Support Cost	0.194	0.275	-	-	-	Prove Out Begins:			Jul 2016			
G. Total Facility Project Cost	-	-	-	-	-	Prove Out Complete:			Sep 2016			
H. Other Costs	1.931	3.708	-	-	-	<b>Related Projects</b>						
Total Project Cost	2.125	17.173	-	-	-	<b>Project Number</b>	<b>Title</b>	<b>FY &amp; Appn</b>	<b>Value (\$ M)</b>	<b>Facing</b>	<b>Start Date</b>	<b>Compl Date</b>

**Narrative Explanation:**  
 Procurement dollars in the amount of \$17.173 million support the second phase to upgrade and replace strong nitric acid tanks at Radford Army Ammunition Plant. Efforts include construction of six strong nitric acid storage tanks, dikes, instrumentation, auxiliary equipment, fume abatement, plumbing to the battery location, and commissioning.

**UNCLASSIFIED**

**Exhibit P-25, Production Support and Industrial Facilities Cost Analysis: PB 2016 Army** **Date:** February 2015

**Appropriation / Budget Activity / Budget Sub Activity:** 2034A / 02 / 10 **P-1 Line Item Number / Title:**  
EP1000 / Provision of Industrial Facilities

**Project Title:** Construct New Powerhouse Facility **Project Number:** 5143724 **Project Category:** Production Support

**End Item Supported Model:** Propellants for Large, Medium, and Small Cal Munitions **Annual Capacity Before / After (1-8-5):** /

Cost Elements <i>(\$ in Millions)</i>	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	<b>Facility Name:</b> Radford Army Ammunition Plant <b>Facility Location:</b> Radford, Virginia <b>Facility Type (GOGO, GOCO, COCO):</b> GOCO						
A. Construction Cost	25.500	-	-	-	-	<b>Principal Milestones</b> <span style="float: right;"><b>Month &amp; Year</b></span> Concept Design Complete: Final Design Complete: <span style="float: right;">Nov 2016</span> Initial/Final Project Award: <span style="float: right;">May 2014 / Oct 2015</span> Construction Complete: <span style="float: right;">May 2018</span> Equipment Installation Complete: <span style="float: right;">May 2018</span> Prove Out Begins: <span style="float: right;">Jun 2018</span> Prove Out Complete: <span style="float: right;">Jul 2018</span>						
B. Equipment Cost	15.320	-	-	-	-							
C. Equipment Installation Cost	25.000	-	-	-	-							
D. Contractor Support Cost	2.064	-	-	-	-							
E. Corps of Engineers Support Cost	1.000	-	-	-	-							
F. Other In-House Support Cost	-	-	-	-	-							
G. Total Facility Project Cost	-	-	-	-	-							
H. Other Costs	15.316	-	-	-	-							
<b>Total Project Cost</b>	<b>84.200</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>Related Projects</b>						
						<b>Project Number</b>	<b>Title</b>	<b>FY &amp; Appn</b>	<b>Value (\$ M)</b>	<b>Facing</b>	<b>Start Date</b>	<b>Compl Date</b>

**Narrative Explanation:**  
 Procurement dollars in the amount of \$84.200 million support construction of a new natural gas powerhouse facility at Radford Army Ammunition Plant (AAP). The new powerhouse facility will satisfy current utility (electric and steam) demand and comply with new Maximum Achievable Control Technology (MACT) environmental regulations. The existing Radford AAP coal fired powerhouse will not meet the new Hazardous Air Pollutant emissions standards and it has exceeded its operational useful life.

**UNCLASSIFIED**

**Exhibit P-25, Production Support and Industrial Facilities Cost Analysis:** PB 2016 Army **Date:** February 2015

**Appropriation / Budget Activity / Budget Sub Activity:** 2034A / 02 / 10 **P-1 Line Item Number / Title:** EP1000 / Provision of Industrial Facilities

**Project Title:** New Solvent Area Chiller **Project Number:** 5153764 **Project Category:** Production Support

**End Item Supported Model:** Propellants for Large, Medium, and Small Cal Munitions **Annual Capacity Before / After (1-8-5):** /

Cost Elements <i>(\$ in Millions)</i>	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	<b>Facility Name:</b> Radford Army Ammunition Plant <b>Facility Location:</b> Radford, Virginia <b>Facility Type (GOGO, GOCO, COCO):</b> GOCO				
A. Construction Cost	-	-	-	-	-	<b>Principal Milestones</b> <span style="float: right;"><b>Month &amp; Year</b></span> Concept Design Complete: Final Design Complete: <span style="float: right;">Apr 2015</span> Initial/Final Project Award: <span style="float: right;">Jan 2015 / Jan 2015</span> Construction Complete: Equipment Installation Complete: <span style="float: right;">Aug 2015</span> Prove Out Begins: <span style="float: right;">Aug 2015</span> Prove Out Complete: <span style="float: right;">Sep 2015</span>				
B. Equipment Cost	-	0.567	-	-	-					
C. Equipment Installation Cost	-	0.287	-	-	-					
D. Contractor Support Cost	-	-	-	-	-					
E. Corps of Engineers Support Cost	-	-	-	-	-					
F. Other In-House Support Cost	-	-	-	-	-					
G. Total Facility Project Cost	-	-	-	-	-					
H. Other Costs	-	0.183	-	-	-					
Total Project Cost	-	1.037	-	-	-					
<b>Related Projects</b>										
	<b>Project Number</b>	<b>Title</b>	<b>FY &amp; Appn</b>	<b>Value (\$ M)</b>	<b>Facing</b>	<b>Start Date</b>	<b>Compl Date</b>			

**Narrative Explanation:**  
 Procurement dollars in the amount of \$1.037 million support modernization effort to install a standalone chiller system for the new Solvent Recovery and Rectification Facility at Radford Army Ammunition Plant. Without this chiller, solvent streams from propellant production will not be able to be recovered and processed on site.

**UNCLASSIFIED**

**Exhibit P-25, Production Support and Industrial Facilities Cost Analysis:** PB 2016 Army **Date:** February 2015

**Appropriation / Budget Activity / Budget Sub Activity:** 2034A / 02 / 10 **P-1 Line Item Number / Title:** EP1000 / Provision of Industrial Facilities

**Project Title:** Solvent Propellant Manufacturing Facility (Preliminary Design) **Project Number:** 5153816 **Project Category:** Production Support

**End Item Supported Model:** Propellants for Large, Medium, and Small Cal Munitions **Annual Capacity Before / After (1-8-5):** /

Cost Elements <i>(\$ in Millions)</i>	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	Facility Name: Radford Army Ammunition Plant Facility Location: Radford, Virginia Facility Type (GOGO, GOCO, COCO): GOCO						
						Principal Milestones			Month & Year			
A. Construction Cost	-	-	-	-	-	Concept Design Complete:						
B. Equipment Cost	-	-	-	-	-	Final Design Complete:			Apr 2016			
C. Equipment Installation Cost	-	-	-	-	-	Initial/Final Project Award:			Aug 2015 / Aug 2015			
D. Contractor Support Cost	-	-	-	-	-	Construction Complete:						
E. Corps of Engineers Support Cost	-	-	-	-	-	Equipment Installation Complete:						
F. Other In-House Support Cost	-	-	-	-	-	Prove Out Begins:						
G. Total Facility Project Cost	-	-	-	-	-	Prove Out Complete:						
H. Other Costs	-	0.921	-	-	-	Related Projects						
Total Project Cost	-	0.921	-	-	-	Project Number	Title	FY & Appn	Value (\$ M)	Facing	Start Date	Compl Date

**Narrative Explanation:**  
 Procurement dollars in the amount of \$0.921 million support engineering and preliminary design efforts to improve the solvent propellant manufacturing process at Radford Army Ammunition Plant. These efforts will identify modernization upgrades that can be incorporated into the production process in future years. These improvements will reduce operating costs and enhance production efficiencies.

**UNCLASSIFIED**

**Exhibit P-25, Production Support and Industrial Facilities Cost Analysis: PB 2016 Army** **Date:** February 2015

**Appropriation / Budget Activity / Budget Sub Activity:** 2034A / 02 / 10 **P-1 Line Item Number / Title:** EP1000 / Provision of Industrial Facilities

**Project Title:** Electrical Distribution System Upgrades **Project Number:** 5153557 **Project Category:** Production Support

**End Item Supported Model:** Propellants for Large, Medium, and Small Cal Munitions **Annual Capacity Before / After (1-8-5):** /

Cost Elements <i>(\$ in Millions)</i>	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	<b>Facility Name:</b> Radford Army Ammunition Plant <b>Facility Location:</b> Radford, Virginia <b>Facility Type (GOGO, GOCO, COCO):</b> GOCO				
A. Construction Cost	-	-	-	-	-	<b>Principal Milestones</b> <span style="float: right;"><b>Month &amp; Year</b></span> Concept Design Complete: Final Design Complete: <span style="float: right;">Nov 2015</span> Initial/Final Project Award: <span style="float: right;">Feb 2015 / Feb 2015</span> Construction Complete: Equipment Installation Complete: <span style="float: right;">Apr 2016</span> Prove Out Begins: <span style="float: right;">Apr 2016</span> Prove Out Complete: <span style="float: right;">Nov 2016</span>				
B. Equipment Cost	-	0.827	-	-	-					
C. Equipment Installation Cost	-	0.775	-	-	-					
D. Contractor Support Cost	-	-	-	-	-					
E. Corps of Engineers Support Cost	-	-	-	-	-					
F. Other In-House Support Cost	-	-	-	-	-					
G. Total Facility Project Cost	-	-	-	-	-					
H. Other Costs	-	0.420	-	-	-					
Total Project Cost	-	2.022	-	-	-					
<b>Related Projects</b>										
	<b>Project Number</b>	<b>Title</b>	<b>FY &amp; Appn</b>	<b>Value (\$ M)</b>	<b>Facing</b>	<b>Start Date</b>	<b>Compl Date</b>			

**Narrative Explanation:**  
 Procurement dollars in the amount of \$2.022 million support assessment of the existing electrical distribution system to optimize the electrical load on circuit breakers for current and future production requirements at Radford Army Ammunition Plant. This project will also upgrade, replace and repair the obsolete electrical conductor circuits that service the new nitrocellulose facility. The existing components have exceeded their useful life, experience failures and impact production continuity.



**UNCLASSIFIED**

**Exhibit P-25, Production Support and Industrial Facilities Cost Analysis: PB 2016 Army** **Date:** February 2015

**Appropriation / Budget Activity / Budget Sub Activity:** 2034A / 02 / 10 **P-1 Line Item Number / Title:** EP1000 / Provision of Industrial Facilities

**Project Title:** Acid Area Improvements **Project Number:** 51X3735 **Project Category:** Production Support

**End Item Supported Model:** Propellants for Large, Medium, and Small Cal Munitions **Annual Capacity Before / After (1-8-5):** /

Cost Elements <i>(\$ in Millions)</i>	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	Facility Name: Radford Army Ammunition Plant						
						Facility Location: Radford, Virginia						
A. Construction Cost	-	1.600	2.808	-	2.808	<b>Principal Milestones</b> <span style="float: right;"><b>Month &amp; Year</b></span> Concept Design Complete: Final Design Complete: <span style="float: right;">Sep 2016</span> Initial/Final Project Award: <span style="float: right;">Apr 2015 / Mar 2016</span> Construction Complete: <span style="float: right;">Jul 2017</span> Equipment Installation Complete: <span style="float: right;">Jul 2017</span> Prove Out Begins: <span style="float: right;">Jul 2017</span> Prove Out Complete: <span style="float: right;">Sep 2017</span>						
B. Equipment Cost	-	4.000	2.615	-	2.615							
C. Equipment Installation Cost	-	0.704	1.253	-	1.253							
D. Contractor Support Cost	-	-	-	-	-							
E. Corps of Engineers Support Cost	-	-	-	-	-							
F. Other In-House Support Cost	-	-	-	-	-							
G. Total Facility Project Cost	-	-	-	-	-							
H. Other Costs	-	0.276	0.488	-	0.488							
Total Project Cost	-	6.580	7.164	-	7.164	<b>Related Projects</b>						
						<b>Project Number</b>	<b>Title</b>	<b>FY &amp; Appn</b>	<b>Value (\$ M)</b>	<b>Facing</b>	<b>Start Date</b>	<b>Compl Date</b>

**Narrative Explanation:**  
 FY 2016 Base procurement dollars in the amount of \$7.164 million support repair of critical bulk storage tanks and containment dikes in the acid area at Radford Army Ammunition Plant. Bulk storage tanks vary in age and several existing tanks were installed in the 1940s. Bulk storage capacity is required to handle sulfuric acid, oleum, strong nitric acid, weak nitric acid, and processed (pyro) acid. The safe and reliable storage of acids is critical for nitrocellulose operations. Containment dikes surrounding these bulk storage tanks have deteriorated and repairs are required to contain an acid release in the event of a catastrophic failure.

**UNCLASSIFIED**

**Exhibit P-25, Production Support and Industrial Facilities Cost Analysis: PB 2016 Army** **Date:** February 2015

**Appropriation / Budget Activity / Budget Sub Activity:** 2034A / 02 / 10 **P-1 Line Item Number / Title:** EP1000 / Provision of Industrial Facilities

**Project Title:** Upgrade Settling Basins (Building 409) **Project Number:** 5163572 **Project Category:** Production Support

**End Item Supported Model:** Propellants for Large, Medium, and Small Cal Munitions **Annual Capacity Before / After (1-8-5):** /

Cost Elements <i>(\$ in Millions)</i>	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	<b>Facility Name:</b> Radford Army Ammunition Plant <b>Facility Location:</b> Radford, Virginia <b>Facility Type (GOGO, GOCO, COCO):</b> GOCO						
A. Construction Cost	-	-	3.986	-	3.986	<b>Principal Milestones</b> <span style="float: right;"><b>Month &amp; Year</b></span> Concept Design Complete: Final Design Complete: <span style="float: right;">Jul 2016</span> Initial/Final Project Award: <span style="float: right;">Apr 2016 / Apr 2016</span> Construction Complete: <span style="float: right;">Feb 2017</span> Equipment Installation Complete: Prove Out Begins: <span style="float: right;">Feb 2017</span> Prove Out Complete: <span style="float: right;">Mar 2017</span>						
B. Equipment Cost	-	-	-	-	-							
C. Equipment Installation Cost	-	-	-	-	-							
D. Contractor Support Cost	-	-	-	-	-							
E. Corps of Engineers Support Cost	-	-	-	-	-							
F. Other In-House Support Cost	-	-	-	-	-							
G. Total Facility Project Cost	-	-	-	-	-							
H. Other Costs	-	-	1.296	-	1.296							
<b>Total Project Cost</b>	-	-	5.282	-	5.282	<b>Related Projects</b>						
						<b>Project Number</b>	<b>Title</b>	<b>FY &amp; Appn</b>	<b>Value (\$ M)</b>	<b>Facing</b>	<b>Start Date</b>	<b>Compl Date</b>

**Narrative Explanation:**  
 FY 2016 Base procurement dollars in the amount of \$5.282 million support repair of settling basins at Building 409 at Radford Army Ammunition Plant (AAP). The filtered water plant's capability to satisfy the on-plant needs for process water, fire protection water and drinking water is essential to the continued operation of Radford AAP.

**UNCLASSIFIED**

**Exhibit P-25, Production Support and Industrial Facilities Cost Analysis: PB 2016 Army** **Date:** February 2015

**Appropriation / Budget Activity / Budget Sub Activity:** 2034A / 02 / 10 **P-1 Line Item Number / Title:** EP1000 / Provision of Industrial Facilities

**Project Title:** Plant Wide Dike Upgrades **Project Number:** 5163755 **Project Category:** Production Support

**End Item Supported Model:** Propellants for Large, Medium, and Small Cal Munitions **Annual Capacity Before / After (1-8-5):** /

Cost Elements <i>(\$ in Millions)</i>	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	<b>Facility Name:</b> Radford Army Ammunition Plant <b>Facility Location:</b> Radford, Virginia <b>Facility Type (GOGO, GOCO, COCO):</b> GOCO				
A. Construction Cost	-	4.217	-	-	-	<b>Principal Milestones</b> <span style="float: right;"><b>Month &amp; Year</b></span> Concept Design Complete: Final Design Complete: Jun 2015 Initial/Final Project Award: Jun 2015 / Jun 2015 Construction Complete: May 2016 Equipment Installation Complete: Prove Out Begins: May 2016 Prove Out Complete: Jun 2016				
B. Equipment Cost	-	-	-	-	-					
C. Equipment Installation Cost	-	-	-	-	-					
D. Contractor Support Cost	-	-	-	-	-					
E. Corps of Engineers Support Cost	-	-	-	-	-					
F. Other In-House Support Cost	-	-	-	-	-					
G. Total Facility Project Cost	-	-	-	-	-					
H. Other Costs	-	0.962	-	-	-					
Total Project Cost	-	5.179	-	-	-					
<b>Related Projects</b>										
	<b>Project Number</b>	<b>Title</b>	<b>FY &amp; Appn</b>	<b>Value (\$ M)</b>	<b>Facing</b>	<b>Start Date</b>	<b>Compl Date</b>			

**Narrative Explanation:**  
 Procurement dollars in the amount of \$5.179 million support modernization upgrades to various containment dikes throughout Radford Army Ammunition Plant. Several containment dikes are in poor condition and in recent tank leaks, containment dikes have failed to adequately contain the liquid. This project will eliminate ground contamination from deteriorated dikes, ensure personnel safety in the area and eliminate the potential for environmental fines.

**UNCLASSIFIED**

**Exhibit P-25, Production Support and Industrial Facilities Cost Analysis:** PB 2016 Army **Date:** February 2015

**Appropriation / Budget Activity / Budget Sub Activity:** 2034A / 02 / 10 **P-1 Line Item Number / Title:** EP1000 / Provision of Industrial Facilities

**Project Title:** Workplace Safety **Project Number:** 5153753 **Project Category:** Production Support

**End Item Supported Model:** Nitrocellulose, Solvent Propellant, Solventless Propellant **Annual Capacity Before / After (1-8-5):** /

Cost Elements <i>(\$ in Millions)</i>	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	<b>Facility Name:</b> Radford Army Ammunition Plant <b>Facility Location:</b> Radford, Virginia <b>Facility Type (GOGO, GOCO, COCO):</b> GOCO						
A. Construction Cost	-	3.759	-	-	-	<b>Principal Milestones</b> <span style="float: right;"><b>Month &amp; Year</b></span> Concept Design Complete: Final Design Complete: <span style="float: right;">Jul 2015</span> Initial/Final Project Award: <span style="float: right;">May 2015 / May 2015</span> Construction Complete: <span style="float: right;">Mar 2016</span> Equipment Installation Complete: Prove Out Begins: <span style="float: right;">Mar 2016</span> Prove Out Complete: <span style="float: right;">May 2016</span>						
B. Equipment Cost	-	-	-	-	-							
C. Equipment Installation Cost	-	-	-	-	-							
D. Contractor Support Cost	-	-	-	-	-							
E. Corps of Engineers Support Cost	-	-	-	-	-							
F. Other In-House Support Cost	-	-	-	-	-							
G. Total Facility Project Cost	-	-	-	-	-							
H. Other Costs	-	1.005	-	-	-							
<b>Total Project Cost</b>	-	4.764	-	-	-	<b>Related Projects</b>						
						<b>Project Number</b>	<b>Title</b>	<b>FY &amp; Appn</b>	<b>Value (\$ M)</b>	<b>Facing</b>	<b>Start Date</b>	<b>Compl Date</b>

**Narrative Explanation:**  
 Procurement dollars in the amount of \$4.764 million support various safety upgrades throughout Radford Army Ammunition Plant. There are significant risks associated with handling/processing chemicals used in production of propellants and energetics. This project will reduce the risk of serious injury by upgrading safety showers to current Occupational Safety and Health Administration standards. Additionally, it will replace a failed retaining wall avoiding a potential landslide, which could affect Press 3 operations and risk the safety of personnel in the immediate area.

**UNCLASSIFIED**

**Exhibit P-25, Production Support and Industrial Facilities Cost Analysis:** PB 2016 Army **Date:** February 2015

**Appropriation / Budget Activity / Budget Sub Activity:** 2034A / 02 / 10 **P-1 Line Item Number / Title:** EP1000 / Provision of Industrial Facilities

**Project Title:** Energetic Waste Incinerator (EWI) Facility Upgrades **Project Number:** 5153723 **Project Category:** Production Support

**End Item Supported Model:** Propellants for Large, Medium, and Small Cal Munitions **Annual Capacity Before / After (1-8-5):** /

Cost Elements <i>(\$ in Millions)</i>	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	<b>Facility Name:</b> Radford Army Ammunition Plant <b>Facility Location:</b> Radford, Virginia <b>Facility Type (GOGO, GOCO, COCO):</b> GOCO						
A. Construction Cost	-	-	-	-	-	<b>Principal Milestones</b> <span style="float: right;"><b>Month &amp; Year</b></span> Concept Design Complete: Final Design Complete: Dec 2015 Initial/Final Project Award: Jul 2015 / Jul 2015 Construction Complete: Equipment Installation Complete: Dec 2016 Prove Out Begins: Dec 2016 Prove Out Complete: Dec 2016						
B. Equipment Cost	-	3.301	-	-	-							
C. Equipment Installation Cost	-	2.450	-	-	-							
D. Contractor Support Cost	-	-	-	-	-							
E. Corps of Engineers Support Cost	-	-	-	-	-							
F. Other In-House Support Cost	-	-	-	-	-							
G. Total Facility Project Cost	-	-	-	-	-							
H. Other Costs	-	1.134	-	-	-							
<b>Total Project Cost</b>	-	6.885	-	-	-	<b>Related Projects</b>						
						<b>Project Number</b>	<b>Title</b>	<b>FY &amp; Appn</b>	<b>Value (\$ M)</b>	<b>Facing</b>	<b>Start Date</b>	<b>Compl Date</b>

**Narrative Explanation:**  
 Procurement dollars in the amount of \$6.885 million support modernization of the Energetic Waste Incinerator (EWI) at Radford Army Ammunition Plant (AAP). Modernization effort will improve incinerator reliability, maintain environmental compliance and improve personnel safety during Radford AAP's waste handling processes.

**UNCLASSIFIED**

**Exhibit P-25, Production Support and Industrial Facilities Cost Analysis:** PB 2016 Army **Date:** February 2015

**Appropriation / Budget Activity / Budget Sub Activity:** 2034A / 02 / 10 **P-1 Line Item Number / Title:** EP1000 / Provision of Industrial Facilities

**Project Title:** Telephone Line Upgrades **Project Number:** 5153478 **Project Category:** Production Support

**End Item Supported Model:** Propellants for Large, Medium, and Small Cal Munitions **Annual Capacity Before / After (1-8-5):** /

Cost Elements <i>(\$ in Millions)</i>	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	Facility Name: Radford Army Ammunition Plant Facility Location: Radford, Virginia Facility Type (GOGO, GOCO, COCO): GOCO	
A. Construction Cost	-	-	-	-	-	<b>Principal Milestones</b> <span style="float: right;"><b>Month &amp; Year</b></span> Concept Design Complete: <span style="float: right;">Jul 2015</span> Final Design Complete: <span style="float: right;">Apr 2015 / Apr 2015</span> Initial/Final Project Award: Construction Complete: <span style="float: right;">Nov 2015</span> Equipment Installation Complete: Prove Out Begins: <span style="float: right;">Nov 2015</span> Prove Out Complete: <span style="float: right;">Dec 2015</span>	
B. Equipment Cost	-	0.670	-	-	-		
C. Equipment Installation Cost	-	0.558	-	-	-		
D. Contractor Support Cost	-	-	-	-	-		
E. Corps of Engineers Support Cost	-	-	-	-	-		
F. Other In-House Support Cost	-	-	-	-	-		
G. Total Facility Project Cost	-	-	-	-	-		
H. Other Costs	-	0.067	-	-	-		
Total Project Cost	-	1.295	-	-	-		
<b>Related Projects</b>							
	<b>Project Number</b>	<b>Title</b>	<b>FY &amp; Appn</b>	<b>Value (\$ M)</b>	<b>Facing</b>	<b>Start Date</b>	<b>Compl Date</b>

**Narrative Explanation:**  
 Procurement dollars in the amount of \$1.295 million support effort to upgrade the Private Branch Exchange (PBX) telephone system and avoid failed communications at Radford Army Ammunition Plant. Where recommended, effort will replace copper wire with fiber optic. In other areas, deteriorated copper wire will be replaced.

**UNCLASSIFIED**

**Exhibit P-25, Production Support and Industrial Facilities Cost Analysis: PB 2016 Army** **Date:** February 2015

**Appropriation / Budget Activity / Budget Sub Activity:** 2034A / 02 / 10 **P-1 Line Item Number / Title:** EP1000 / Provision of Industrial Facilities

**Project Title:** Acid Sewer Treatment Upgrade **Project Number:** 5153738 **Project Category:** Production Support

**End Item Supported Model:** Propellants for Large, Medium, and Small Cal Munitions **Annual Capacity Before / After (1-8-5):** /

Cost Elements <i>(\$ in Millions)</i>	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	<b>Facility Name:</b> Radford Army Ammunition Plant <b>Facility Location:</b> Radford, Virginia <b>Facility Type (GOGO, GOCO, COCO):</b> GOCO						
A. Construction Cost	-	-	-	-	-	<b>Principal Milestones</b> <span style="float: right;"><b>Month &amp; Year</b></span> Concept Design Complete: Final Design Complete: <span style="float: right;">Aug 2016</span> Initial/Final Project Award: <span style="float: right;">Apr 2016 / Apr 2016</span> Construction Complete: Equipment Installation Complete: <span style="float: right;">May 2017</span> Prove Out Begins: <span style="float: right;">May 2017</span> Prove Out Complete: <span style="float: right;">Jul 2017</span>						
B. Equipment Cost	-	-	4.000	-	4.000							
C. Equipment Installation Cost	-	-	1.053	-	1.053							
D. Contractor Support Cost	-	-	0.229	-	0.229							
E. Corps of Engineers Support Cost	-	-	-	-	-							
F. Other In-House Support Cost	-	-	-	-	-							
G. Total Facility Project Cost	-	-	-	-	-							
H. Other Costs	-	-	-	-	-							
Total Project Cost	-	-	5.282	-	5.282							
							Related Projects					
						Project Number	Title	FY & Appn	Value <i>(\$ M)</i>	Facing	Start Date	Compl Date

**Narrative Explanation:**  
 FY 2016 Base procurement dollars in the amount of \$5.282 million supports this effort to upgrade the acid sewer treatment at Radford Army Ammunition Plant (AAP). Slurry pumps and slakers are deteriorating which could potentially disrupt throughput and the ability to treat acidic wastewater. This effort will increase reliability of the acid wastewater treatment facility and allow for continuous operations in the production of propellants and energetics at Radford AAP.

**UNCLASSIFIED**

<b>Exhibit P-25, Production Support and Industrial Facilities Cost Analysis:</b> PB 2016 Army						<b>Date:</b> February 2015						
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2034A / 02 / 10						<b>P-1 Line Item Number / Title:</b> EP1000 / Provision of Industrial Facilities						
<b>Project Title:</b> Modernization of Flexible Machining Cell						<b>Project Number:</b> 5143013		<b>Project Category:</b> Production Support				
<b>End Item Supported Model:</b> 120mm Mortar, M1, M107, M110, M795						<b>Annual Capacity Before / After (1-8-5):</b> /						
<b>Cost Elements</b> <i>(\$ in Millions)</i>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016 Base</b>	<b>FY 2016 OCO</b>	<b>FY 2016 Total</b>	<b>Facility Name:</b> Scranton Army Ammunition Plant <b>Facility Location:</b> Scranton, Pennsylvania <b>Facility Type (GOGO, GOCO, COCO):</b> GOCO						
A. Construction Cost	-	-	-	-	-	<b>Principal Milestones</b> Concept Design Complete: Final Design Complete: Initial/Final Project Award: Construction Complete: Equipment Installation Complete: Prove Out Begins: Prove Out Complete:						
B. Equipment Cost	4.000	-	-	-	-						<b>Month &amp; Year</b>	
C. Equipment Installation Cost	1.260	-	-	-	-	Oct 2014						
D. Contractor Support Cost	0.221	-	-	-	-	Sep 2014 / Sep 2014						
E. Corps of Engineers Support Cost	-	-	-	-	-	Apr 2016						
F. Other In-House Support Cost	-	-	-	-	-	Apr 2016						
G. Total Facility Project Cost	-	-	-	-	-	May 2016						
H. Other Costs	0.950	-	-	-	-	<b>Related Projects</b>						
Total Project Cost	6.431	-	-	-	-	<b>Project Number</b>	<b>Title</b>	<b>FY &amp; Appn</b>	<b>Value (\$ M)</b>	<b>Facing</b>	<b>Start Date</b>	<b>Compl Date</b>

**Narrative Explanation:**

Procurement dollars in the amount of \$6.431 million support this effort to modernize various equipment utilized throughout the flexible machining cell at Scranton Army Ammunition Plant. The effort will design and build a new centering machine, along with upgrading three existing centering machines. The relay logic control system will be replaced with a Programmable Logic Controller (PLC). Numerous pieces of equipment supporting the projectile metal parts production lines will be upgraded, allowing multiple operations to be performed simultaneously. This modernization effort will result in energy savings, reduce maintenance costs due to leaks and contamination, and make troubleshooting safer due to the separation of high and low voltage components.



**UNCLASSIFIED**

**Exhibit P-25, Production Support and Industrial Facilities Cost Analysis:** PB 2016 Army **Date:** February 2015

**Appropriation / Budget Activity / Budget Sub Activity:** 2034A / 02 / 10 **P-1 Line Item Number / Title:** EP1000 / Provision of Industrial Facilities

**Project Title:** Rehabilitate Subway Floor and Arches **Project Number:** 5143550 **Project Category:** Production Support

**End Item Supported Model:** 120mm Mortars, M1, M107, M110, M795, MK64 **Annual Capacity Before / After (1-8-5):** /

Cost Elements <i>(\$ in Millions)</i>	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	Facility Name: Scranton Army Ammunition Plant Facility Location: Scranton, Pennsylvania Facility Type (GOGO, GOCO, COCO): GOCO							
A. Construction Cost	0.850	-	-	-	-	<b>Principal Milestones</b> <span style="float: right;"><b>Month &amp; Year</b></span> Concept Design Complete: Final Design Complete: <span style="float: right;">Oct 2014</span> Initial/Final Project Award: <span style="float: right;">Sep 2014 / Sep 2014</span> Construction Complete: <span style="float: right;">Jun 2015</span> Equipment Installation Complete: Prove Out Begins: Prove Out Complete:							
B. Equipment Cost	-	-	-	-	-								
C. Equipment Installation Cost	-	-	-	-	-								
D. Contractor Support Cost	0.101	-	-	-	-								
E. Corps of Engineers Support Cost	-	-	-	-	-								
F. Other In-House Support Cost	-	-	-	-	-								
G. Total Facility Project Cost	-	-	-	-	-								
H. Other Costs	0.156	-	-	-	-								
Total Project Cost	1.107	-	-	-	-								
<b>Related Projects</b>							<b>Project Number</b>	<b>Title</b>	<b>FY &amp; Appn</b>	<b>Value (\$ M)</b>	<b>Facing</b>	<b>Start Date</b>	<b>Compl Date</b>

**Narrative Explanation:**  
 Procurement dollars in the amount of \$1.107 million support this effort to rehabilitate subway floors and arches at Scranton Army Ammunition Plant. The building infrastructures experience water leaks, which causes rebar to rust and sections of concrete to break and fall into active work areas. This project will perform structural repairs and install driveway waterproofing to avoid production interruption and water damage.

**UNCLASSIFIED**

**Exhibit P-25, Production Support and Industrial Facilities Cost Analysis:** PB 2016 Army **Date:** February 2015

**Appropriation / Budget Activity / Budget Sub Activity:** 2034A / 02 / 10 **P-1 Line Item Number / Title:** EP1000 / Provision of Industrial Facilities

**Project Title:** Replace Waste Treatment Facility, Production Shop **Project Number:** 5143702 **Project Category:** Production Support

**End Item Supported Model:** 120mm Mortars, M1, M795 **Annual Capacity Before / After (1-8-5):** /

Cost Elements <i>(\$ in Millions)</i>	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	<b>Facility Name:</b> Scranton Army Ammunition Plant <b>Facility Location:</b> Scranton, Pennsylvania <b>Facility Type (GOGO, GOCO, COCO):</b> GOCO						
A. Construction Cost	0.100	-	-	-	-	<b>Principal Milestones</b> <span style="float: right;"><b>Month &amp; Year</b></span> Concept Design Complete: <span style="float: right;">Jun 2014</span> Final Design Complete: <span style="float: right;">Mar 2014 / Mar 2014</span> Initial/Final Project Award: <span style="float: right;">Dec 2014</span> Construction Complete: <span style="float: right;">Dec 2014</span> Equipment Installation Complete: <span style="float: right;">Dec 2014</span> Prove Out Begins: <span style="float: right;">Dec 2014</span> Prove Out Complete: <span style="float: right;">Dec 2014</span>						
B. Equipment Cost	0.570	-	-	-	-							
C. Equipment Installation Cost	0.089	-	-	-	-							
D. Contractor Support Cost	0.019	-	-	-	-							
E. Corps of Engineers Support Cost	-	-	-	-	-							
F. Other In-House Support Cost	-	-	-	-	-							
G. Total Facility Project Cost	-	-	-	-	-							
H. Other Costs	-	-	-	-	-							
<b>Total Project Cost</b>	<b>0.778</b>	-	-	-	-	<b>Related Projects</b>						
						<b>Project Number</b>	<b>Title</b>	<b>FY &amp; Appn</b>	<b>Value (\$ M)</b>	<b>Facing</b>	<b>Start Date</b>	<b>Compl Date</b>

**Narrative Explanation:**  
 Procurement dollars in the amount of \$0.778 million support the replacement of the waste treatment facility at Scranton Army Ammunition Plant (AAP). The current waste treatment facility is approximately 20 years old and replacement parts are difficult to produce or not available. The sand filter is ineffective which reduces the system efficiency. A new sewer permit has reduced the effluent limit for Zinc, and the existing system has problems maintaining proper levels when less than three bonderizer systems are running. This new treatment system will allow Scranton AAP to remain in compliance with the new sewer permit and avoid fines or penalties.

**UNCLASSIFIED**

**Exhibit P-25, Production Support and Industrial Facilities Cost Analysis: PB 2016 Army** **Date:** February 2015

**Appropriation / Budget Activity / Budget Sub Activity:** 2034A / 02 / 10 **P-1 Line Item Number / Title:** EP1000 / Provision of Industrial Facilities

**Project Title:** Quick Die Change for Press Lines **Project Number:** 5143707 **Project Category:** Production Support

**End Item Supported Model:** 120mm Mortars, M1, M795 **Annual Capacity Before / After (1-8-5):** /

Cost Elements <i>(\$ in Millions)</i>	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	Facility Name: Scranton Army Ammunition Plant Facility Location: Scranton, Pennsylvania Facility Type (GOGO, GOCO, COCO): GOCO																			
A. Construction Cost	-	-	-	-	-	<b>Principal Milestones</b> <span style="float: right;"><b>Month &amp; Year</b></span> Concept Design Complete: Final Design Complete: <span style="float: right;">Oct 2014</span> Initial/Final Project Award: <span style="float: right;">Sep 2014 / Sep 2014</span> Construction Complete: Equipment Installation Complete: <span style="float: right;">Jul 2015</span> Prove Out Begins: <span style="float: right;">Jul 2015</span> Prove Out Complete: <span style="float: right;">Jul 2015</span>																			
B. Equipment Cost	1.600	-	-	-	-																				
C. Equipment Installation Cost	0.393	-	-	-	-																				
D. Contractor Support Cost	0.057	-	-	-	-																				
E. Corps of Engineers Support Cost	-	-	-	-	-																				
F. Other In-House Support Cost	-	-	-	-	-																				
G. Total Facility Project Cost	-	-	-	-	-																				
H. Other Costs	0.180	-	-	-	-																				
Total Project Cost	2.230	-	-	-	-	<b>Related Projects</b>																			
						<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 10%;">Project Number</th> <th style="width: 40%;">Title</th> <th style="width: 15%;">FY &amp; Appn</th> <th style="width: 10%;">Value (\$ M)</th> <th style="width: 10%;">Facing</th> <th style="width: 10%;">Start Date</th> <th style="width: 5%;">Compl Date</th> </tr> </thead> <tbody> <tr> <td> </td> <td> </td> <td> </td> <td> </td> <td> </td> <td> </td> <td> </td> </tr> </tbody> </table>						Project Number	Title	FY & Appn	Value (\$ M)	Facing	Start Date	Compl Date							
Project Number	Title	FY & Appn	Value (\$ M)	Facing	Start Date	Compl Date																			

**Narrative Explanation:**  
 Procurement dollars in the amount of \$2.230 million support the procurement and installation of quick die change tooling handling systems on three forge press lines at Scranton Army Ammunition Plant. This quick die change system will improve the plant's ability to produce smaller quantity lots in a cost effective manner and improve operational safety.

**UNCLASSIFIED**

**Exhibit P-25, Production Support and Industrial Facilities Cost Analysis:** PB 2016 Army **Date:** February 2015

**Appropriation / Budget Activity / Budget Sub Activity:** 2034A / 02 / 10 **P-1 Line Item Number / Title:** EP1000 / Provision of Industrial Facilities

**Project Title:** Saw Area Transformation **Project Number:** 5143719 **Project Category:** Production Support

**End Item Supported Model:** 120mm Mortars, 5"/54, M1, M107, M110, M795 **Annual Capacity Before / After (1-8-5):** /

Cost Elements <i>(\$ in Millions)</i>	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	<b>Facility Name:</b> Scranton Army Ammunition Plant <b>Facility Location:</b> Scranton, Pennsylvania <b>Facility Type (GOGO, GOCO, COCO):</b> GOCO						
A. Construction Cost	-	-	-	-	-	<b>Principal Milestones</b> <span style="float: right;"><b>Month &amp; Year</b></span> Concept Design Complete: <span style="float: right;">Oct 2014</span> Final Design Complete: <span style="float: right;">Aug 2014 / Aug 2014</span> Initial/Final Project Award: Construction Complete: <span style="float: right;">Apr 2015</span> Equipment Installation Complete: <span style="float: right;">Apr 2015</span> Prove Out Begins: <span style="float: right;">May 2015</span> Prove Out Complete:						
B. Equipment Cost	0.530	-	-	-	-							
C. Equipment Installation Cost	0.150	-	-	-	-							
D. Contractor Support Cost	0.020	-	-	-	-							
E. Corps of Engineers Support Cost	-	-	-	-	-							
F. Other In-House Support Cost	-	-	-	-	-							
G. Total Facility Project Cost	-	-	-	-	-							
H. Other Costs	0.050	-	-	-	-							
Total Project Cost	0.750	-	-	-	-							
<b>Related Projects</b>												
						<b>Project Number</b>	<b>Title</b>	<b>FY &amp; Appn</b>	<b>Value (\$ M)</b>	<b>Facing</b>	<b>Start Date</b>	<b>Compl Date</b>

**Narrative Explanation:**  
 Procurement dollars in the amount of \$0.750 million support the replacement of metal saws at Scranton Army Ammunition Plant. Replacement of the metal saws will decrease maintenance and tooling costs, decrease electrical and raw material costs and increase productivity.

**UNCLASSIFIED**

**Exhibit P-25, Production Support and Industrial Facilities Cost Analysis: PB 2016 Army** **Date:** February 2015

**Appropriation / Budget Activity / Budget Sub Activity:** 2034A / 02 / 10 **P-1 Line Item Number / Title:** EP1000 / Provision of Industrial Facilities

**Project Title:** Upgrade Nitrogen Gas Supply System **Project Number:** 5143720 **Project Category:** Production Support

**End Item Supported Model:** 120mm Mortars, 5"/54, M1, M107, M110, M795 **Annual Capacity Before / After (1-8-5):** /

Cost Elements <i>(\$ in Millions)</i>	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	Facility Name: Scranton Army Ammunition Plant						
						Facility Location: Scranton, Pennsylvania						
A. Construction Cost	-	-	-	-	-	Facility Type (GOGO, GOCO, COCO): GOCO						
B. Equipment Cost	0.400	-	-	-	-	<b>Principal Milestones</b>			<b>Month &amp; Year</b>			
C. Equipment Installation Cost	0.233	-	-	-	-	Concept Design Complete:			Aug 2014			
D. Contractor Support Cost	0.027	-	-	-	-	Final Design Complete:			May 2014 / May 2014			
E. Corps of Engineers Support Cost	-	-	-	-	-	Initial/Final Project Award:			May 2014 / May 2014			
F. Other In-House Support Cost	-	-	-	-	-	Construction Complete:			Jan 2015			
G. Total Facility Project Cost	-	-	-	-	-	Equipment Installation Complete:			Jan 2015			
H. Other Costs	0.040	-	-	-	-	Prove Out Begins:			Jan 2015			
Total Project Cost	0.700	-	-	-	-	Prove Out Complete:			Jan 2015			
						<b>Related Projects</b>						
						<b>Project Number</b>	<b>Title</b>	<b>FY &amp; Appn</b>	<b>Value (\$ M)</b>	<b>Facing</b>	<b>Start Date</b>	<b>Compl Date</b>

**Narrative Explanation:**  
 Procurement dollars in the amount of \$0.700 million support the procurement and installation of three nitrogen generators and one air compressor for the heat treat and forging operations at Scranton Army Ammunition Plant. This effort will reduce costs associated with purchasing liquid nitrogen, decrease scrap, and increase productivity in the heat treat and forging operations.

**UNCLASSIFIED**

**Exhibit P-25, Production Support and Industrial Facilities Cost Analysis:** PB 2016 Army **Date:** February 2015

**Appropriation / Budget Activity / Budget Sub Activity:** 2034A / 02 / 10 **P-1 Line Item Number / Title:** EP1000 / Provision of Industrial Facilities

**Project Title:** Modernize Forge Shop Exhaust **Project Number:** 5143917 **Project Category:** Production Support

**End Item Supported Model:** 120mm Mortars, M1, M107, M110, M795, MK64 **Annual Capacity Before / After (1-8-5):** /

Cost Elements <i>(\$ in Millions)</i>	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	Facility Name: Scranton Army Ammunition Plant Facility Location: Scranton, Pennsylvania Facility Type (GOGO, GOCO, COCO): GOCO																																																								
A. Construction Cost	0.300	-	-	-	-	<table style="width: 100%; border-collapse: collapse;"> <tr> <th align="left" colspan="3">Principal Milestones</th> <th align="left" colspan="2">Month &amp; Year</th> </tr> <tr> <td colspan="3">Concept Design Complete:</td> <td colspan="2">Dec 2014</td> </tr> <tr> <td colspan="3">Final Design Complete:</td> <td colspan="2">Aug 2014 / Aug 2014</td> </tr> <tr> <td colspan="3">Initial/Final Project Award:</td> <td colspan="2">Aug 2014 / Aug 2014</td> </tr> <tr> <td colspan="3">Construction Complete:</td> <td colspan="2">Jan 2015</td> </tr> <tr> <td colspan="3">Equipment Installation Complete:</td> <td colspan="2">Jun 2015</td> </tr> <tr> <td colspan="3">Prove Out Begins:</td> <td colspan="2">Jun 2015</td> </tr> <tr> <td colspan="3">Prove Out Complete:</td> <td colspan="2">Jun 2015</td> </tr> <tr> <th align="center" colspan="5">Related Projects</th> </tr> <tr> <th align="center">Project Number</th> <th align="center">Title</th> <th align="center">FY &amp; Appn</th> <th align="center">Value <i>(\$ M)</i></th> <th align="center">Facing</th> <th align="center">Start Date</th> <th align="center">Compl Date</th> </tr> </table>					Principal Milestones			Month & Year		Concept Design Complete:			Dec 2014		Final Design Complete:			Aug 2014 / Aug 2014		Initial/Final Project Award:			Aug 2014 / Aug 2014		Construction Complete:			Jan 2015		Equipment Installation Complete:			Jun 2015		Prove Out Begins:			Jun 2015		Prove Out Complete:			Jun 2015		Related Projects					Project Number	Title	FY & Appn	Value <i>(\$ M)</i>	Facing	Start Date	Compl Date
Principal Milestones			Month & Year																																																											
Concept Design Complete:			Dec 2014																																																											
Final Design Complete:			Aug 2014 / Aug 2014																																																											
Initial/Final Project Award:			Aug 2014 / Aug 2014																																																											
Construction Complete:			Jan 2015																																																											
Equipment Installation Complete:			Jun 2015																																																											
Prove Out Begins:			Jun 2015																																																											
Prove Out Complete:			Jun 2015																																																											
Related Projects																																																														
Project Number	Title	FY & Appn	Value <i>(\$ M)</i>	Facing	Start Date	Compl Date																																																								
B. Equipment Cost	1.500	-	-	-	-																																																									
C. Equipment Installation Cost	0.435	-	-	-	-																																																									
D. Contractor Support Cost	0.074	-	-	-	-																																																									
E. Corps of Engineers Support Cost	-	-	-	-	-																																																									
F. Other In-House Support Cost	0.179	-	-	-	-																																																									
G. Total Facility Project Cost	-	-	-	-	-																																																									
H. Other Costs	-	-	-	-	-																																																									
Total Project Cost	2.488	-	-	-	-																																																									

**Narrative Explanation:**  
 Procurement dollars in the amount of \$2.488 million support effort to modernize the forge shop exhaust at Scranton Army Ammunition Plant. This effort will reduce the chance of production interruption due to a failed exhaust system, and improve air quality and personnel health.

**UNCLASSIFIED**

**Exhibit P-25, Production Support and Industrial Facilities Cost Analysis:** PB 2016 Army **Date:** February 2015

**Appropriation / Budget Activity / Budget Sub Activity:** 2034A / 02 / 10 **P-1 Line Item Number / Title:** EP1000 / Provision of Industrial Facilities

**Project Title:** Replace Forge Shop Exterior Wall Siding **Project Number:** 5143731 **Project Category:** Production Support

**End Item Supported Model:** 120mm Mortars, 5"/54, M1, M107, M110, M795 **Annual Capacity Before / After (1-8-5):** /

Cost Elements <i>(\$ in Millions)</i>	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	<b>Facility Name:</b> Scranton Army Ammunition Plant <b>Facility Location:</b> Scranton, Pennsylvania <b>Facility Type (GOGO, GOCO, COCO):</b> GOCO						
A. Construction Cost	0.450	-	-	-	-	<b>Principal Milestones</b> <span style="float: right;"><b>Month &amp; Year</b></span> Concept Design Complete: Final Design Complete: <span style="float: right;">Jan 2015</span> Initial/Final Project Award: <span style="float: right;">Sep 2014 / Sep 2014</span> Construction Complete: <span style="float: right;">Jun 2015</span> Equipment Installation Complete: <span style="float: right;">Jun 2015</span> Prove Out Begins: Prove Out Complete:						
B. Equipment Cost	-	-	-	-	-							
C. Equipment Installation Cost	0.142	-	-	-	-							
D. Contractor Support Cost	0.066	-	-	-	-							
E. Corps of Engineers Support Cost	-	-	-	-	-							
F. Other In-House Support Cost	-	-	-	-	-							
G. Total Facility Project Cost	-	-	-	-	-							
H. Other Costs	0.066	-	-	-	-							
<b>Total Project Cost</b>	<b>0.724</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>Related Projects</b>						
						<b>Project Number</b>	<b>Title</b>	<b>FY &amp; Appn</b>	<b>Value (\$ M)</b>	<b>Facing</b>	<b>Start Date</b>	<b>Compl Date</b>

**Narrative Explanation:**  
 Procurement dollars in the amount of \$0.724 million support removal and replacement of transite panels from the Forge Shop at Scranton Army Ammunition Plant. The installation of new panels will eliminate personnel exposure to asbestos.

**UNCLASSIFIED**

**Exhibit P-25, Production Support and Industrial Facilities Cost Analysis:** PB 2016 Army **Date:** February 2015

**Appropriation / Budget Activity / Budget Sub Activity:** 2034A / 02 / 10 **P-1 Line Item Number / Title:** EP1000 / Provision of Industrial Facilities

**Project Title:** Rehabilitate Storm Water Collection and Treatment System **Project Number:** 5143732 **Project Category:** Production Support

**End Item Supported Model:** 120mm Mortars, 5"/54, M1, M107, M110, M795 **Annual Capacity Before / After (1-8-5):** /

Cost Elements <i>(\$ in Millions)</i>	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	Facility Name: Scranton Army Ammunition Plant Facility Location: Scranton, Pennsylvania Facility Type (GOGO, GOCO, COCO): GOCO																			
A. Construction Cost	-	-	-	-	-	<b>Principal Milestones</b> <span style="float: right;"><b>Month &amp; Year</b></span> Concept Design Complete: Final Design Complete: <span style="float: right;">Sep 2014</span> Initial/Final Project Award: <span style="float: right;">Aug 2014 / Aug 2014</span> Construction Complete: Equipment Installation Complete: <span style="float: right;">Jan 2015</span> Prove Out Begins: <span style="float: right;">Jan 2015</span> Prove Out Complete: <span style="float: right;">Jan 2015</span>																			
B. Equipment Cost	0.250	-	-	-	-																				
C. Equipment Installation Cost	0.300	-	-	-	-																				
D. Contractor Support Cost	0.038	-	-	-	-																				
E. Corps of Engineers Support Cost	-	-	-	-	-																				
F. Other In-House Support Cost	-	-	-	-	-																				
G. Total Facility Project Cost	-	-	-	-	-																				
H. Other Costs	0.085	-	-	-	-																				
Total Project Cost	0.673	-	-	-	-	<b>Related Projects</b>																			
						<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 10%;">Project Number</th> <th style="width: 40%;">Title</th> <th style="width: 15%;">FY &amp; Appn</th> <th style="width: 10%;">Value <i>(\$ M)</i></th> <th style="width: 10%;">Facing</th> <th style="width: 10%;">Start Date</th> <th style="width: 5%;">Compl Date</th> </tr> </thead> <tbody> <tr> <td> </td> <td> </td> <td> </td> <td> </td> <td> </td> <td> </td> <td> </td> </tr> </tbody> </table>						Project Number	Title	FY & Appn	Value <i>(\$ M)</i>	Facing	Start Date	Compl Date							
Project Number	Title	FY & Appn	Value <i>(\$ M)</i>	Facing	Start Date	Compl Date																			

**Narrative Explanation:**  
 Procurement dollars in the amount of \$0.673 million support a new storm water collection and treatment system at Scranton Army Ammunition Plant (AAP). The new treatment system will allow Scranton AAP to avoid fines by complying with storm water and non-contact cooling water National Pollutant Discharge Elimination System permit and avoid paying any penalties.



**UNCLASSIFIED**

**Exhibit P-25, Production Support and Industrial Facilities Cost Analysis:** PB 2016 Army **Date:** February 2015

**Appropriation / Budget Activity / Budget Sub Activity:** 2034A / 02 / 10 **P-1 Line Item Number / Title:** EP1000 / Provision of Industrial Facilities

**Project Title:** Electrical Upgrades **Project Number:** 5162985 **Project Category:** Production Support

**End Item Supported Model:** 120mm Mortars, M1, M107, M110, M795, MK64 **Annual Capacity Before / After (1-8-5):** /

Cost Elements <i>(\$ in Millions)</i>	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	Facility Name: Scranton Army Ammunition Plant Facility Location: Scranton, Pennsylvania Facility Type (GOGO, GOCO, COCO): GOCO														
A. Construction Cost	-	-	-	-	-	<b>Principal Milestones</b> <span style="float: right;"><b>Month &amp; Year</b></span> Concept Design Complete: Final Design Complete: Mar 2016 Initial/Final Project Award: Mar 2016 / Mar 2016 Construction Complete: Equipment Installation Complete: Nov 2016 Prove Out Begins: Dec 2016 Prove Out Complete: Dec 2016	<b>Related Projects</b>													
B. Equipment Cost	-	-	3.060	-	3.060															
C. Equipment Installation Cost	-	-	1.081	-	1.081															
D. Contractor Support Cost	-	-	0.146	-	0.146															
E. Corps of Engineers Support Cost	-	-	-	-	-															
F. Other In-House Support Cost	-	-	-	-	-															
G. Total Facility Project Cost	-	-	-	-	-															
H. Other Costs	-	-	0.382	-	0.382															
Total Project Cost	-	-	4.669	-	4.669															
												<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 10%;">Project Number</th> <th style="width: 40%;">Title</th> <th style="width: 10%;">FY &amp; Appn</th> <th style="width: 10%;">Value <i>(\$ M)</i></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> </td> <td> </td> <td> </td> <td> </td> <td> </td> <td> </td> </tr> </tbody> </table>	Project Number	Title	FY & Appn	Value <i>(\$ M)</i>	Facing	Start Date	Compl Date	
Project Number	Title	FY & Appn	Value <i>(\$ M)</i>	Facing	Start Date	Compl Date														

**Narrative Explanation:**  
 FY 2016 Base procurement dollars in the amount of \$4.669 million support the continuation in modernization of Scranton Army Ammunition Plant's electrical system. This project will clean and retrofit substation circuit breakers to prevent electrical hazards, as well as correct deficiencies identified from past fire.

**UNCLASSIFIED**

**Exhibit P-25, Production Support and Industrial Facilities Cost Analysis:** PB 2016 Army **Date:** February 2015

**Appropriation / Budget Activity / Budget Sub Activity:** 2034A / 02 / 10 **P-1 Line Item Number / Title:** EP1000 / Provision of Industrial Facilities

**Project Title:** External Wall Repairs (Mattes Ave/River Street) and Structural Repairs **Project Number:** 5163704 **Project Category:** Production Support

**End Item Supported Model:** 120mm Mortars, M1, M795 **Annual Capacity Before / After (1-8-5):** /

Cost Elements <i>(\$ in Millions)</i>	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	Facility Name: Scranton Army Ammunition Plant Facility Location: Scranton, Pennsylvania Facility Type (GOGO, GOCO, COCO): GOCO														
A. Construction Cost	-	-	2.701	-	2.701	<b>Principal Milestones</b> <span style="float: right;"><b>Month &amp; Year</b></span> Concept Design Complete: Final Design Complete: <span style="float: right;">Apr 2016</span> Initial/Final Project Award: <span style="float: right;">Mar 2016 / Mar 2016</span> Construction Complete: <span style="float: right;">Oct 2016</span> Equipment Installation Complete: Prove Out Begins: Prove Out Complete:														
B. Equipment Cost	-	-	-	-	-															
C. Equipment Installation Cost	-	-	-	-	-															
D. Contractor Support Cost	-	-	0.310	-	0.310															
E. Corps of Engineers Support Cost	-	-	-	-	-															
F. Other In-House Support Cost	-	-	-	-	-															
G. Total Facility Project Cost	-	-	-	-	-															
H. Other Costs	-	-	0.494	-	0.494															
Total Project Cost	-	-	3.505	-	3.505															
						<b>Related Projects</b>														
						<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 10%;">Project Number</th> <th style="width: 30%;">Title</th> <th style="width: 10%;">FY &amp; Appn</th> <th style="width: 10%;">Value <i>(\$ M)</i></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> </td> <td> </td> <td> </td> <td> </td> <td> </td> <td> </td> </tr> </tbody> </table>	Project Number	Title	FY & Appn	Value <i>(\$ M)</i>	Facing	Start Date	Compl Date							
Project Number	Title	FY & Appn	Value <i>(\$ M)</i>	Facing	Start Date	Compl Date														

**Narrative Explanation:**  
 FY 2016 Base procurement dollars in the amount of \$3.505 million support exterior wall and structural repairs at Scranton Army Ammunition Plant. Effort will repair the exterior wall of the facility along Mattes Ave and River St and structural repairs to the subway and catacombs.

**UNCLASSIFIED**

**Exhibit P-25, Production Support and Industrial Facilities Cost Analysis: PB 2016 Army** **Date:** February 2015

**Appropriation / Budget Activity / Budget Sub Activity:** 2034A / 02 / 10 **P-1 Line Item Number / Title:** EP1000 / Provision of Industrial Facilities

**Project Title:** New Small Batch Heat Treat **Project Number:** 5143771 **Project Category:** Production Support

**End Item Supported Model:** 120mm Mortars, 5"/54, M1, M795 **Annual Capacity Before / After (1-8-5):** /

Cost Elements <i>(\$ in Millions)</i>	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	Facility Name: Scranton Army Ammunition Plant Facility Location: Scranton, Pennsylvania Facility Type (GOGO, GOCO, COCO): GOCO						
A. Construction Cost	-	-	-	-	-	<b>Principal Milestones</b> <span style="float: right;"><b>Month &amp; Year</b></span> Concept Design Complete: Final Design Complete: <span style="float: right;">Oct 2014</span> Initial/Final Project Award: <span style="float: right;">Sep 2014 / Sep 2014</span> Construction Complete: Equipment Installation Complete: <span style="float: right;">Sep 2015</span> Prove Out Begins: <span style="float: right;">Sep 2015</span> Prove Out Complete: <span style="float: right;">Sep 2015</span>						
B. Equipment Cost	3.750	-	-	-	-							
C. Equipment Installation Cost	0.988	-	-	-	-							
D. Contractor Support Cost	0.145	-	-	-	-							
E. Corps of Engineers Support Cost	-	-	-	-	-							
F. Other In-House Support Cost	-	-	-	-	-							
G. Total Facility Project Cost	-	-	-	-	-							
H. Other Costs	0.460	-	-	-	-							
<b>Total Project Cost</b>	<b>5.343</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>Related Projects</b>						
						<b>Project Number</b>	<b>Title</b>	<b>FY &amp; Appn</b>	<b>Value (\$ M)</b>	<b>Facing</b>	<b>Start Date</b>	<b>Compl Date</b>

**Narrative Explanation:**  
 Procurement dollars in the amount of \$5.343 million support project to install a Small Batch Heat Treatment Furnace in the Forge Shop using an area created by the Verson Press System removal project at Scranton Army Ammunition Plant. The new Heat Treatment System will be a package system and include all necessary material handling and support equipment for operation. The new heat treat system's ability to heat treat smaller quantities will decrease overheads associated with the Heat Treat Building.

**UNCLASSIFIED**

**Exhibit P-25, Production Support and Industrial Facilities Cost Analysis: PB 2016 Army** **Date:** February 2015

**Appropriation / Budget Activity / Budget Sub Activity:** 2034A / 02 / 10 **P-1 Line Item Number / Title:** EP1000 / Provision of Industrial Facilities

**Project Title:** New Rough Turn Lathes **Project Number:** 5143772 **Project Category:** Production Support

**End Item Supported Model:** 120mm Mortars, 5"/54, M1, M795 **Annual Capacity Before / After (1-8-5):** /

Cost Elements <i>(\$ in Millions)</i>	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	Facility Name: Scranton Army Ammunition Plant						
						Facility Location: Scranton, Pennsylvania						
A. Construction Cost	-	-	-	-	-	Facility Type (GOGO, GOCO, COCO): GOCO						
B. Equipment Cost	1.180	-	-	-	-	<b>Principal Milestones</b>	<b>Month &amp; Year</b>					
C. Equipment Installation Cost	0.300	-	-	-	-	Concept Design Complete:	Oct 2014					
D. Contractor Support Cost	0.068	-	-	-	-	Final Design Complete:	Sep 2014 / Sep 2014					
E. Corps of Engineers Support Cost	-	-	-	-	-	Initial/Final Project Award:						
F. Other In-House Support Cost	-	-	-	-	-	Construction Complete:	Dec 2015					
G. Total Facility Project Cost	-	-	-	-	-	Equipment Installation Complete:	Dec 2015					
H. Other Costs	0.376	-	-	-	-	Prove Out Begins:	Dec 2015					
Total Project Cost	1.924	-	-	-	-	Prove Out Complete:	Dec 2015					
						<b>Related Projects</b>						
						<b>Project Number</b>	<b>Title</b>	<b>FY &amp; Appn</b>	<b>Value (\$ M)</b>	<b>Facing</b>	<b>Start Date</b>	<b>Compl Date</b>

**Narrative Explanation:**  
 Procurement dollars in the amount of \$1.924 million support project to install a new rough turn lathes in the Forge Shop using an area created by the Verson Press System removal project at Scranton Army Ammunition Plant. The new lathes will be a package system and include all necessary material handling and support equipment for operation. Project will eliminate the need to ship or transport forgings to Production Shop for rough machining and shot blasting prior to heat treat.

**UNCLASSIFIED**

**Exhibit P-25, Production Support and Industrial Facilities Cost Analysis: PB 2016 Army** **Date:** February 2015

**Appropriation / Budget Activity / Budget Sub Activity:** 2034A / 02 / 10 **P-1 Line Item Number / Title:** EP1000 / Provision of Industrial Facilities

**Project Title:** Replace and Upgrade Shell Rotating Band Welders **Project Number:** 5143767 **Project Category:** Production Support

**End Item Supported Model:** M795, XM1128 **Annual Capacity Before / After (1-8-5):** /

Cost Elements <i>(\$ in Millions)</i>	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	Facility Name: Scranton Army Ammunition Plant Facility Location: Scranton, Pennsylvania Facility Type (GOGO, GOCO, COCO): GOCO					
A. Construction Cost	-	-	-	-	-	<b>Principal Milestones</b> <span style="float: right;"><b>Month &amp; Year</b></span> Concept Design Complete: Final Design Complete: <span style="float: right;">Oct 2014</span> Initial/Final Project Award: <span style="float: right;">Sep 2014 / Sep 2014</span> Construction Complete: Equipment Installation Complete: <span style="float: right;">Jun 2016</span> Prove Out Begins: <span style="float: right;">Jun 2016</span> Prove Out Complete: <span style="float: right;">Jun 2016</span>					
B. Equipment Cost	5.200	-	-	-	-						
C. Equipment Installation Cost	1.001	-	-	-	-						
D. Contractor Support Cost	0.175	-	-	-	-						
E. Corps of Engineers Support Cost	-	-	-	-	-						
F. Other In-House Support Cost	-	-	-	-	-						
G. Total Facility Project Cost	-	-	-	-	-						
H. Other Costs	0.750	-	-	-	-						
Total Project Cost	7.126	-	-	-	-						
<b>Related Projects</b>											
	<b>Project Number</b>	<b>Title</b>	<b>FY &amp; Appn</b>	<b>Value (\$ M)</b>	<b>Facing</b>	<b>Start Date</b>	<b>Compl Date</b>				

**Narrative Explanation:**  
 Procurement dollars in the amount of \$7.126 million support project to provide Scranton Army Ammunition Plant with the highest quality welded rotating bands, on the latest state-of-the-art equipment available, in the most cost effective and efficient manner. It will increase the capacity and capability to weld rotating bands on multiple projectile bodies simultaneously.

**UNCLASSIFIED**

**Exhibit P-25, Production Support and Industrial Facilities Cost Analysis:** PB 2016 Army **Date:** February 2015

**Appropriation / Budget Activity / Budget Sub Activity:** 2034A / 02 / 10 **P-1 Line Item Number / Title:** EP1000 / Provision of Industrial Facilities

**Project Title:** Boiler for Bonderizers **Project Number:** 5143722 **Project Category:** Production Support

**End Item Supported Model:** 120mm Mortars, 5"/54, M1, M107, M110, M795 **Annual Capacity Before / After (1-8-5):** /

Cost Elements <i>(\$ in Millions)</i>	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	Facility Name: Scranton Army Ammunition Plant Facility Location: Scranton, Pennsylvania Facility Type (GOGO, GOCO, COCO): GOCO						
A. Construction Cost	-	-	-	-	-	<b>Principal Milestones</b> <span style="float: right;"><b>Month &amp; Year</b></span> Concept Design Complete: Final Design Complete: <span style="float: right;">Oct 2014</span> Initial/Final Project Award: <span style="float: right;">Aug 2014 / Aug 2014</span> Construction Complete: Equipment Installation Complete: <span style="float: right;">Feb 2015</span> Prove Out Begins: <span style="float: right;">Feb 2015</span> Prove Out Complete: <span style="float: right;">Feb 2015</span>						
B. Equipment Cost	0.275	-	-	-	-							
C. Equipment Installation Cost	0.260	-	-	-	-							
D. Contractor Support Cost	0.032	-	-	-	-							
E. Corps of Engineers Support Cost	-	-	-	-	-							
F. Other In-House Support Cost	-	-	-	-	-							
G. Total Facility Project Cost	-	-	-	-	-							
H. Other Costs	0.055	-	-	-	-							
Total Project Cost	0.622	-	-	-	-							
						<b>Related Projects</b>						
						<b>Project Number</b>	<b>Title</b>	<b>FY &amp; Appn</b>	<b>Value (\$ M)</b>	<b>Facing</b>	<b>Start Date</b>	<b>Compl Date</b>

**Narrative Explanation:**  
 Procurement dollars in the amount of \$0.622 million support project to relocate the boiler closer to the bonderizers at Scranton Army Ammunition Plant. The steam boilers that feed the bonderizers are located 1,200 feet from where steam is required. Project will eliminate several hundred feet of piping, thus reducing the amount of steam lost in transportation and maintenance costs.

**UNCLASSIFIED**

**Exhibit P-25, Production Support and Industrial Facilities Cost Analysis:** PB 2016 Army **Date:** February 2015

**Appropriation / Budget Activity / Budget Sub Activity:** 2034A / 02 / 10 **P-1 Line Item Number / Title:** EP1000 / Provision of Industrial Facilities

**Project Title:** Relocate 800 lb/hr Induction Heater **Project Number:** 5165048 **Project Category:** Production Support

**End Item Supported Model:** 120mm Mortars, M1, M107, M110, M795, MK64 **Annual Capacity Before / After (1-8-5):** /

Cost Elements <i>(\$ in Millions)</i>	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	Facility Name: Scranton Army Ammunition Plant Facility Location: Scranton, Pennsylvania Facility Type (GOGO, GOCO, COCO): GOCO				
A. Construction Cost	-	-	-	-	-	<b>Principal Milestones</b> <span style="float: right;"><b>Month &amp; Year</b></span> Concept Design Complete: Final Design Complete: Initial/Final Project Award: <span style="float: right;">Mar 2016 / Mar 2016</span> Construction Complete: Equipment Installation Complete: <span style="float: right;">Jun 2016</span> Prove Out Begins: <span style="float: right;">Jul 2016</span> Prove Out Complete: <span style="float: right;">Jul 2016</span>				
B. Equipment Cost	-	-	0.045	-	0.045					
C. Equipment Installation Cost	-	-	0.170	-	0.170					
D. Contractor Support Cost	-	-	-	-	-					
E. Corps of Engineers Support Cost	-	-	-	-	-					
F. Other In-House Support Cost	-	-	0.045	-	0.045					
G. Total Facility Project Cost	-	-	-	-	-					
H. Other Costs	-	-	-	-	-					
Total Project Cost	-	-	0.260	-	0.260					
<b>Related Projects</b>										
	<b>Project Number</b>	<b>Title</b>	<b>FY &amp; Appn</b>	<b>Value (\$ M)</b>	<b>Facing</b>	<b>Start Date</b>	<b>Compl Date</b>			

**Narrative Explanation:**  
 FY 2016 Base procurement dollars in the amount of \$0.260 million support modernization upgrades to Scranton Army Ammunition Plant's Forge Press and Billet Heating Systems. This project will relocate the 800 pound/hr Induction Heater to support the Bliss III press system.

**UNCLASSIFIED**

**Exhibit P-25, Production Support and Industrial Facilities Cost Analysis:** PB 2016 Army **Date:** February 2015

**Appropriation / Budget Activity / Budget Sub Activity:** 2034A / 02 / 10 **P-1 Line Item Number / Title:** EP1000 / Provision of Industrial Facilities

**Project Title:** Relocate Rough Turn Lathes & Welders to the Subway **Project Number:** 5165049 **Project Category:** Production Support

**End Item Supported Model:** 120mm Mortars, M1, M107, M110, M795, MK64 **Annual Capacity Before / After (1-8-5):** /

Cost Elements <i>(\$ in Millions)</i>	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	Facility Name: Scranton Army Ammunition Plant Facility Location: Scranton, Pennsylvania Facility Type (GOGO, GOCO, COCO): GOCO							
A. Construction Cost	-	-	0.055	-	0.055	<b>Principal Milestones</b> Concept Design Complete: Final Design Complete: Mar 2016 Initial/Final Project Award: Mar 2016 / Mar 2016 Construction Complete: Apr 2016 Equipment Installation Complete: Jul 2016 Prove Out Begins: Aug 2016 Prove Out Complete: Aug 2016	<b>Month &amp; Year</b>						
B. Equipment Cost	-	-	0.045	-	0.045								
C. Equipment Installation Cost	-	-	0.115	-	0.115								
D. Contractor Support Cost	-	-	-	-	-								
E. Corps of Engineers Support Cost	-	-	-	-	-								
F. Other In-House Support Cost	-	-	-	-	-								
G. Total Facility Project Cost	-	-	-	-	-								
H. Other Costs	-	-	0.045	-	0.045								
Total Project Cost	-	-	0.260	-	0.260								
<b>Related Projects</b>							<b>Project Number</b>	<b>Title</b>	<b>FY &amp; Appn</b>	<b>Value (\$ M)</b>	<b>Facing</b>	<b>Start Date</b>	<b>Compl Date</b>

**Narrative Explanation:**  
 FY 2016 Base procurement dollars in the amount of \$0.260 million support modernization upgrades to Scranton Army Ammunition Plant's Rough Turn Machining Cell and Welder systems. This project will move existing Rough Turn Lathes and Rotating Band Welders in the facility into the Subway under the Forge Shop. This project will also modify the structure of the Subway under the Forge Shop to allow for this effort.



**UNCLASSIFIED**

**Exhibit P-25, Production Support and Industrial Facilities Cost Analysis: PB 2016 Army** **Date:** February 2015

**Appropriation / Budget Activity / Budget Sub Activity:** 2034A / 02 / 10 **P-1 Line Item Number / Title:** EP1000 / Provision of Industrial Facilities

**Project Title:** Retrofit Erie IV Press for Nosing Capability **Project Number:** 5165050 **Project Category:** Production Support

**End Item Supported Model:** 120mm Mortars, M1, M107, M110, M795, MK64 **Annual Capacity Before / After (1-8-5):** /

Cost Elements <i>(\$ in Millions)</i>	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	Facility Name: Scranton Army Ammunition Plant Facility Location: Scranton, Pennsylvania Facility Type (GOGO, GOCO, COCO): GOCO						
A. Construction Cost	-	-	-	-	-	<b>Principal Milestones</b> <span style="float: right;"><b>Month &amp; Year</b></span> Concept Design Complete: Final Design Complete: Mar 2016 Initial/Final Project Award: Mar 2016 / Mar 2016 Construction Complete: Equipment Installation Complete: May 2016 Prove Out Begins: Dec 2016 Prove Out Complete: Dec 2016	<b>Related Projects</b>					
B. Equipment Cost	-	-	0.110	-	0.110							
C. Equipment Installation Cost	-	-	0.340	-	0.340							
D. Contractor Support Cost	-	-	-	-	-							
E. Corps of Engineers Support Cost	-	-	-	-	-							
F. Other In-House Support Cost	-	-	-	-	-							
G. Total Facility Project Cost	-	-	-	-	-							
H. Other Costs	-	-	0.589	-	0.589							
<b>Total Project Cost</b>	-	-	1.039	-	1.039							
						<b>Project Number</b>	<b>Title</b>	<b>FY &amp; Appn</b>	<b>Value (\$ M)</b>	<b>Facing</b>	<b>Start Date</b>	<b>Compl Date</b>

**Narrative Explanation:**  
 FY 2016 Base procurement dollars in the amount of \$1.039 million support modernization upgrades to Scranton Army Ammunition Plant's Erie IV Press system. This project will use existing equipment at the facility to retrofit the Erie IV Press for Nosing operations and develop appropriate standards and documents for use of this system.

**UNCLASSIFIED**

**Exhibit P-25, Production Support and Industrial Facilities Cost Analysis:** PB 2016 Army **Date:** February 2015

**Appropriation / Budget Activity / Budget Sub Activity:** 2034A / 02 / 10 **P-1 Line Item Number / Title:** EP1000 / Provision of Industrial Facilities

**Project Title:** Forge Shop Addition and Flex Cell Relocation **Project Number:** 5165051 **Project Category:** Production Support

**End Item Supported Model:** 120mm Mortars, M1, M107, M110, M795, MK64 **Annual Capacity Before / After (1-8-5):** /

Cost Elements <i>(\$ in Millions)</i>	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	Facility Name: Scranton Army Ammunition Plant Facility Location: Scranton, Pennsylvania Facility Type (GOGO, GOCO, COCO): GOCO						
A. Construction Cost	-	-	0.730	-	0.730	<b>Principal Milestones</b> Concept Design Complete: Final Design Complete: Mar 2016 Initial/Final Project Award: Mar 2016 / Mar 2016 Construction Complete: Jun 2016 Equipment Installation Complete: Aug 2016 Prove Out Begins: Sep 2016 Prove Out Complete: Sep 2016	<b>Month &amp; Year</b>					
B. Equipment Cost	-	-	0.320	-	0.320							
C. Equipment Installation Cost	-	-	0.110	-	0.110							
D. Contractor Support Cost	-	-	-	-	-							
E. Corps of Engineers Support Cost	-	-	-	-	-							
F. Other In-House Support Cost	-	-	-	-	-							
G. Total Facility Project Cost	-	-	-	-	-							
H. Other Costs	-	-	0.139	-	0.139							
Total Project Cost	-	-	1.299	-	1.299							
						<b>Related Projects</b>						
						<b>Project Number</b>	<b>Title</b>	<b>FY &amp; Appn</b>	<b>Value (\$ M)</b>	<b>Facing</b>	<b>Start Date</b>	<b>Compl Date</b>

**Narrative Explanation:**  
 FY 2016 Base procurement dollars in the amount of \$1.299 million support modernization upgrades to Scranton Army Ammunition Plant's Forge Shop and Flex Cell. This project will build an addition onto the Forge Shop along the steel yard to house the equipment from the Flex Cell and relocate that equipment to the new addition.

**UNCLASSIFIED**

**Exhibit P-25, Production Support and Industrial Facilities Cost Analysis: PB 2016 Army** **Date:** February 2015

**Appropriation / Budget Activity / Budget Sub Activity:** 2034A / 02 / 10 **P-1 Line Item Number / Title:** EP1000 / Provision of Industrial Facilities

**Project Title:** Engineering in Support of Provision of Industrial Facilities **Project Number:** 5XX3046 **Project Category:** Production Support

**End Item Supported Model:** Multiple **Annual Capacity Before / After (1-8-5):** /

Cost Elements <i>(\$ in Millions)</i>	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	Facility Name: Various Army Ammunition Plants Facility Location: Multiple Facility Type (GOGO, GOCO, COCO): GOCO						
A. Construction Cost	-	-	-	-	-	<b>Principal Milestones</b> <span style="float: right;"><b>Month &amp; Year</b></span> Concept Design Complete: Final Design Complete: Initial/Final Project Award: Construction Complete: Equipment Installation Complete: Prove Out Begins: Prove Out Complete:						
B. Equipment Cost	-	-	-	-	-							
C. Equipment Installation Cost	-	-	-	-	-							
D. Contractor Support Cost	-	-	-	-	-							
E. Corps of Engineers Support Cost	-	-	-	-	-							
F. Other In-House Support Cost	-	-	-	-	-							
G. Total Facility Project Cost	-	-	-	-	-							
H. Other Costs	3.263	4.453	4.558	-	4.558	<b>Related Projects</b>						
Total Project Cost	3.263	4.453	4.558	-	4.558							
						<b>Project Number</b>	<b>Title</b>	<b>FY &amp; Appn</b>	<b>Value (\$ M)</b>	<b>Facing</b>	<b>Start Date</b>	<b>Compl Date</b>

**Narrative Explanation:**  
 FY 2016 Base procurement dollars in the amount of \$4.558 million support the procurement of processing and engineering support efforts, including technical and pre-design analyses of future modernization investments for Production Base Support program execution.

**UNCLASSIFIED**

**Exhibit P-25, Production Support and Industrial Facilities Cost Analysis: PB 2016 Army** **Date:** February 2015

**Appropriation / Budget Activity / Budget Sub Activity:** 2034A / 02 / 10 **P-1 Line Item Number / Title:** EP1000 / Provision of Industrial Facilities

**Project Title:** Replace Test Instrumentation in Production Acceptance Testing (Ammunition) **Project Number:** 5XX5060 **Project Category:** Production Support

**End Item Supported Model:** Initial Production Acceptance & Product Improvements for Ammunition **Annual Capacity Before / After (1-8-5):** /

Cost Elements <i>(\$ in Millions)</i>	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	<b>Facility Name:</b> Yuma Proving Ground / Aberdeen Test Center <b>Facility Location:</b> Yuma, Arizona / Aberdeen, Maryland <b>Facility Type (GOGO, GOCO, COCO):</b> GOCO						
A. Construction Cost	-	-	-	-	-	<b>Principal Milestones</b> <span style="float: right;"><b>Month &amp; Year</b></span> Concept Design Complete: Final Design Complete: Initial/Final Project Award: Construction Complete: Equipment Installation Complete: Prove Out Begins: Prove Out Complete:						
B. Equipment Cost	-	-	-	-	-							
C. Equipment Installation Cost	-	-	-	-	-							
D. Contractor Support Cost	-	-	-	-	-							
E. Corps of Engineers Support Cost	-	-	-	-	-							
F. Other In-House Support Cost	-	-	-	-	-							
G. Total Facility Project Cost	-	-	-	-	-							
H. Other Costs	2.449	1.525	1.482	-	1.482	<b>Related Projects</b>						
Total Project Cost	2.449	1.525	1.482	-	1.482							
						<b>Project Number</b>	<b>Title</b>	<b>FY &amp; Appn</b>	<b>Value (\$ M)</b>	<b>Facing</b>	<b>Start Date</b>	<b>Compl Date</b>

**Narrative Explanation:**  
 FY 2016 Base procurement dollars in the amount of \$1.482 million replace analog video scoring and data collection equipment with a digital capability at the multipurpose impact firing range, which is used for testing munitions; acquires precision, high-dynamic, rugged sensors to include displacement, pyro-shock/acceleration, infrared flash detector, and pressure transducers; replaces outdated Lot Acceptance Test/Munition instrumentation, calibration equipment, and test sets with modern components (includes firing boxes, ballistic fuse test sets, Rocket Pad Test Sets, boresight Targets, etc.) and procures high speed digital imaging cameras for ammunition testing that will follow a direct fire projectile's flight path in lieu of using many cameras lined along the flight path. The majority of the instrumentation being upgraded or replaced is obsolete and has met or exceeded its economic life. This instrumentation is required to ensure complete and accurate test data is collected and safety and environmental hazards are minimized. Benefits of this project include increased test efficiencies and decreased costs and risks to Army Program Managers.

**UNCLASSIFIED**

<b>Exhibit P-26, Maintenance of Inactive Facilities: PB 2016 Army</b>					<b>Date: February 2015</b>	
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2034A / 02 / 10			<b>P-1 Line Item Number / Title:</b> EP1000 / Provision of Industrial Facilities			
<b>Project Type:</b> Inactive Lines at Active Plants		<b>Facility:</b> Crane Army Ammunition Activity		<b>Contractor / Facility Coordinator:</b> Not Applicable		
<b>Funding</b> <i>(\$ in Millions)</i>	<b>Prior Years</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016 Base</b>	<b>FY 2016 OCO</b>	<b>FY 2016 Total</b>
Maintenance	-	0.307	0.309	0.310	-	0.310
Total Funding	-	0.307	0.309	0.310	-	0.310
<b>Description:</b> FY 2016 Base procurement dollars in the amount of \$0.310 million support the care and maintenance of laid-away ammunition industrial facilities and equipment at Crane Army Ammunition Activity. This effort includes non-severable equipment, plant equipment, special tooling, and special test equipment being retained as part of approved plant equipment packages, which are required to support future replenishment requirements.						
<b>Project Type:</b> Inactive Lines at Active Plants		<b>Facility:</b> Hawthorne Army Depot		<b>Contractor / Facility Coordinator:</b> Day & Zimmerman		
<b>Funding</b> <i>(\$ in Millions)</i>	<b>Prior Years</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016 Base</b>	<b>FY 2016 OCO</b>	<b>FY 2016 Total</b>
Maintenance	-	0.054	0.097	0.099	-	0.099
Total Funding	-	0.054	0.097	0.099	-	0.099
<b>Description:</b> FY 2016 Base procurement dollars in the amount of \$0.099 million support the maintenance and long-term storage of reserved unique production equipment with long replacement lead times at Hawthorne Army Depot.						
<b>Project Type:</b> Inactive Lines at Active Plants		<b>Facility:</b> Holston Army Ammunition Plant		<b>Contractor / Facility Coordinator:</b> BAE Systems Ordnance		
<b>Funding</b> <i>(\$ in Millions)</i>	<b>Prior Years</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016 Base</b>	<b>FY 2016 OCO</b>	<b>FY 2016 Total</b>
Maintenance	-	0.019	0.052	0.053	-	0.053
Total Funding	-	0.019	0.052	0.053	-	0.053
<b>Description:</b> FY 2016 Base procurement dollars in the amount of \$0.053 million support the care and maintenance of laid-away critical production facilities at Holston Army Ammunition Plant. This effort includes periodic inspections of equipment and buildings, corrective maintenance, preservation efforts, asbestos management, and minimum maintenance of specialized production equipment.						
<b>Project Type:</b> Inactive Lines at Active Plants		<b>Facility:</b> Iowa Army Ammunition Plant		<b>Contractor / Facility Coordinator:</b> American Ordnance		
<b>Funding</b> <i>(\$ in Millions)</i>	<b>Prior Years</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016 Base</b>	<b>FY 2016 OCO</b>	<b>FY 2016 Total</b>
Maintenance	-	0.099	0.147	0.250	-	0.250
Recurring	-	0.132	0.206	0.300	-	0.300
Environmental	-	0.071	0.105	0.185	-	0.185
Total Funding	-	0.302	0.458	0.735	-	0.735
<b>Description:</b> FY 2016 Base procurement dollars in the amount of \$0.735 million support the care and maintenance of laid-away critical production facilities at Iowa Army Ammunition Plant. They include periodic inspections of equipment and buildings, corrective maintenance to maintain weather-tightness of buildings, preservation touchup, asbestos management, and minimum maintenance of specialized production equipment. These efforts are responsible for associated MIF costs and provide for monitoring of excess facilities until they can be disposed.						
<b>Project Type:</b> Inactive Lines at Active Plants		<b>Facility:</b> McAlester Army Ammunition Plant		<b>Contractor / Facility Coordinator:</b> Not Applicable		
<b>Funding</b> <i>(\$ in Millions)</i>	<b>Prior Years</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016 Base</b>	<b>FY 2016 OCO</b>	<b>FY 2016 Total</b>
Maintenance	-	0.080	0.083	0.085	-	0.085
Recurring	-	0.075	0.075	0.076	-	0.076
Total Funding	-	0.155	0.158	0.161	-	0.161
<b>Description:</b> FY 2016 Base procurement dollars in the amount of \$0.161 million support the care and maintenance of laid-away ammunition industrial facilities to include utilities, buildings, non-severable equipment, plant equipment, special tooling, and special test equipment being retained to support potential future requirements at McAlester Army Ammunition Plant. This effort also includes associated maintenance of inactive facilities costs such as grounds maintenance, fire protection, equipment security, and administrative support.						
<b>Project Type:</b> Inactive Lines at Active Plants		<b>Facility:</b> Milan Army Ammunition Plant		<b>Contractor / Facility Coordinator:</b> American Ordnance		

**UNCLASSIFIED**

**Exhibit P-26, Maintenance of Inactive Facilities: PB 2016 Army** **Date:** February 2015

**Appropriation / Budget Activity / Budget Sub Activity:** 2034A / 02 / 10 **P-1 Line Item Number / Title:** EP1000 / Provision of Industrial Facilities

Funding (\$ in Millions)	Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total
Maintenance	-	0.116	0.083	0.083	-	0.083
Recurring	-	0.032	0.033	0.036	-	0.036
Environmental	-	0.049	0.049	0.049	-	0.049
<b>Total Funding</b>	-	<b>0.197</b>	<b>0.165</b>	<b>0.168</b>	-	<b>0.168</b>

**Description:** FY 2016 Base procurement dollars in the amount of \$0.168 million support the care and maintenance of laid-away critical production facilities at Milan Army Ammunition Plant. These activities include periodic inspections of equipment and buildings, corrective maintenance, preservation efforts, plant equipment, special tooling, and special test equipment being retained to support potential future requirements. This effort includes asbestos management, minimum maintenance of specialized production equipment and associated MIF costs such as grounds maintenance, fire protection, equipment security, and administrative support.

**Project Type:** Inactive Lines at Active Plants **Facility:** Pine Bluff Arsenal **Contractor / Facility Coordinator:** Not Applicable

Funding (\$ in Millions)	Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total
Maintenance	-	0.173	0.163	0.160	-	0.160
Recurring	-	0.160	0.150	0.153	-	0.153
<b>Total Funding</b>	-	<b>0.333</b>	<b>0.313</b>	<b>0.313</b>	-	<b>0.313</b>

**Description:** FY 2016 Base procurement dollars in the amount of \$0.313 million support the care and maintenance of laid-away ammunition industrial facilities to include utilities, buildings, non-severable equipment, plant equipment, special tooling and special test equipment being retained to support potential future requirements at Pine Bluff Arsenal. These funds also support associated MIF costs such as grounds maintenance, fire protection, equipment security, and administrative support.

**Project Type:** Inactive Lines at Active Plants **Facility:** Quad City Cartridge Case Facility **Contractor / Facility Coordinator:** Not Applicable

Funding (\$ in Millions)	Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total
Maintenance	-	-	0.259	0.400	-	0.400
Recurring	-	0.006	0.024	0.025	-	0.025
<b>Total Funding</b>	-	<b>0.006</b>	<b>0.283</b>	<b>0.425</b>	-	<b>0.425</b>

**Description:** FY 2016 Base procurement dollars in the amount of \$0.425 million support the care and maintenance of laid-away deep draw cartridge case production line located at the Quad City Cartridge Case Facility in Rock Island, IL. This effort includes periodic inspections of equipment and buildings, corrective maintenance, utilities, preservation efforts, and minimum maintenance of specialized production equipment.

**Project Type:** Inactive Lines at Active Plants **Facility:** Radford Army Ammunition Plant **Contractor / Facility Coordinator:** BAE Systems Ordnance

Funding (\$ in Millions)	Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total
Maintenance	-	0.075	0.129	0.134	-	0.134
Recurring	-	0.111	0.257	0.258	-	0.258
Environmental	-	0.033	0.043	0.045	-	0.045
<b>Total Funding</b>	-	<b>0.219</b>	<b>0.429</b>	<b>0.437</b>	-	<b>0.437</b>

**Description:** FY 2016 Base procurement dollars in the amount of \$0.437 million support the care and maintenance of laid-away critical production facilities at Radford Army Ammunition Plant. They include periodic inspections of equipment and buildings, corrective maintenance to maintain weather-tightness of buildings, preservation efforts, asbestos management, and minimum maintenance of specialized production equipment. These efforts support associated MIF costs and provide monitoring of excess facilities.

**Project Type:** Inactive Lines at Active Plants **Facility:** Scranton Army Ammunition Plant **Contractor / Facility Coordinator:** General Dynamics Ordnance and Tactical System (GD-OTS)

Funding (\$ in Millions)	Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total
Maintenance	-	-	0.052	0.053	-	0.053

**UNCLASSIFIED**

**Exhibit P-26, Maintenance of Inactive Facilities: PB 2016 Army** **Date:** February 2015

<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2034A / 02 / 10	<b>P-1 Line Item Number / Title:</b> EP1000 / Provision of Industrial Facilities
--	---

Total Funding	-	-	0.052	0.053	-	0.053
---------------	---	---	-------	-------	---	-------

**Description:** FY 2016 Base procurement dollars in the amount of \$0.053 million support the care and maintenance of large caliber metal parts equipment at Scranton Army Ammunition Plant. This effort includes periodic inspections of equipment and buildings, corrective maintenance, preservation efforts and minimum maintenance of specialized production equipment and associated storage costs.

Project Type: Inactive Lines at Active Plants	Facility: Various		Contractor / Facility Coordinator: Various			
Funding <i>(\$ in Millions)</i>	Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total
Maintenance	-	-	0.850	1.733	-	1.733
Environmental	-	-	0.752	1.550	-	1.550
Other	-	4.207	-	-	-	-
<b>Total Funding</b>	-	4.207	1.602	3.283	-	3.283

**Description:** FY 2016 Base procurement dollars in the amount of \$3.283 million support the maintenance and long-term storage of reserved unique production equipment at various facilities.

--	--	--	--

**UNCLASSIFIED**

**Exhibit P-40, Budget Line Item Justification:** PB 2016 Army **Date:** February 2015

<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2034A: Procurement of Ammunition, Army / BA 02: Ammunition Production Base Support / BSA 10: Production Base Support	<b>P-1 Line Item Number / Title:</b> EP1700 / Conventional Munitions Demilitarization
---	--

ID Code (A=Service Ready, B=Not Service Ready) :	Program Elements for Code B Items:						Other Related Program Elements:					
Resource Summary	Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	To Complete	Total
Procurement Quantity (Units in Each)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (\$ in Millions)	2,327.482	199.604	113.881	113.250	-	113.250	204.813	222.598	157.429	128.058	-	3,467.115
Less PY Advance Procurement (\$ in Millions)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P1) (\$ in Millions)	2,327.482	199.604	113.881	113.250	-	113.250	204.813	222.598	157.429	128.058	-	3,467.115
Plus CY Advance Procurement (\$ in Millions)	-	-	-	-	-	-	-	-	-	-	-	-
<b>Total Obligation Authority (\$ in Millions)</b>	<b>2,327.482</b>	<b>199.604</b>	<b>113.881</b>	<b>113.250</b>	<b>-</b>	<b>113.250</b>	<b>204.813</b>	<b>222.598</b>	<b>157.429</b>	<b>128.058</b>	<b>-</b>	<b>3,467.115</b>
<i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i>												
Initial Spares (\$ in Millions)	-	-	-	-	-	-	-	-	-	-	-	-
Flyaway Unit Cost (\$ in Dollars)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (\$ in Dollars)	-	-	-	-	-	-	-	-	-	-	-	-

**Description:**

The Conventional Munitions Demilitarization Program provides for the demilitarization (demil) and disposal of Single Manager for Conventional Ammunition (SMCA) conventional ammunition for all Military Services per DoD Directive 5160.65 and DoD Instruction 5160.68 that is unserviceable, obsolete, unsafe, or excess to requirements. The program accomplishes demil using open burning/open detonation (OB/OD) processes or closed disposal technologies (CDT) with primary emphasis on resource recovery and recycling (R3). This program also provides for operations and technical support and services; packaging, crating, handling, and transportation (PCHT) of ammunition for demil projects at United States Army depots, plants and activities; commercial contracts that provide CDT demil support and services, and international operations, which include the European and Pacific Theatres.



**UNCLASSIFIED**

**Exhibit P-40, Budget Line Item Justification:** PB 2016 Army **Date:** February 2015

**Appropriation / Budget Activity / Budget Sub Activity:**  
2034A: Procurement of Ammunition, Army / BA 02: Ammunition Production Base Support / BSA 10: Production Base Support

**P-1 Line Item Number / Title:**  
EP1700 / Conventional Munitions Demilitarization

Exhibits Schedule			Program Elements for Code B Items:			Other Related Program Elements:		
Title*	Exhibits	ID CD	Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total
			Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)
EP1800 / CONVENTIONAL AMMUNITION DEMILITARIZATION (SMCA)	P-5		- / 1,968.650	- / 153.250	- / 63.578	- / 60.641	- / -	- / 60.641
EP1801 / Other Non-Army Service Demil Items (non-SMCA)	P-5		- / 22.158	- / 1.730	- / 7.386	- / 9.898	- / -	- / 9.898
EP1802 / Army Missile Demilitarization	P-5		- / 314.343	- / 43.904	- / 40.068	- / 40.183	- / -	- / 40.183
EP1803 / Non-Army Missile Demilitarization	P-5		- / 22.331	- / 0.720	- / 2.849	- / 2.528	- / -	- / 2.528
<b>Total Gross/Weapon System Cost</b>			<b>- / 2,327.482</b>	<b>- / 199.604</b>	<b>- / 113.881</b>	<b>- / 113.250</b>	<b>- / -</b>	<b>- / 113.250</b>

\*Title represents 1) the Number / Title for Items; 2) the Number / Title [DODIC] for Ammunition; and/or 3) the Number / Title (Modification Type) for Modifications.  
 Note: Totals in this Exhibit P-40 set may not be exact or add due to rounding.

**Justification:**  
 FY 2016 Base procurement dollars in the amount of \$113.250 million will support the demilitarization of conventional ammunition as well as missile and missile components (msl/comp) for all Military Services.

FY 2016 funds will support the US demil operations of conventional ammunition in both Continental United States (CONUS) and Outside the Continental United States (OCONUS). CONUS demil operations are performed by a combination of Government Owned, Government Operated (GOGO) depots, Government Owned, Contractor Operated (GOCO) depots as well as commercial contractors. OCONUS demil operations are performed at Demilitarization Facilities (DEFACs) in the Republic of Korea and Japan as well as commercial contractors in the European Union.

As of the end of September 2014, the conventional ammunition demil account contained 537,679 tons of ammunition in CONUS wholesale storage locations: 492,433 tons of conventional ammunition and 45,246 tons (369,361 eaches) of msl/comp. As of the end of September 2014, 73,612 tons of conventional ammunition were demilitarized. As of the end of September 2014, 11,602 tons (94,714 eaches) of msl/comp were demilitarized.

Stockpile growth and generations: An estimated 70,204 tons of conventional ammunition will be generated into the SMCA Resource, Recovery and Disposition Account (B5A) in FY 2015. For FY 2016 through FY 2020, 533,917 tons of conventional ammunition are forecasted to be added into the B5A. For missile demil, an estimated 6,143 tons (40,199 eaches) of msl/comp are planned for generations into the B5A in FY 2015. For FY 2016 through FY 2020, 48,872 tons (319,819 eaches) msl/comp are forecasted to be added into the B5A.

Stockpile growth factors: The demil stockpile is expected to grow as a result of Military Services generations as well as other factors such as cluster munitions, land mine policies and the disestablishment of War Reserve Stocks Allies (WRSA) accounts at OCONUS locations. Currently, there are approximately 221,502 tons of cluster munitions in the demil stockpile. An additional 250,224 tons are expected to be added into the B5A no later than FY 2018 to ensure compliance with the Cluster Munitions Policy.

**UNCLASSIFIED**

<b>Exhibit P-5, Cost Analysis: PB 2016 Army</b>		<b>Date:</b> February 2015
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2034A / 02 / 10	<b>P-1 Line Item Number / Title:</b> EP1700 / Conventional Munitions Demilitarization	<b>Item Number / Title [DODIC]:</b> EP1800 / CONVENTIONAL AMMUNITION DEMILITARIZATION (SMCA)

<b>ID Code</b> (A=Service Ready, B=Not Service Ready) :	<b>MDAP/MAIS Code:</b>
---	------------------------

Resource Summary	Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total
Procurement Quantity (Units in Each)	-	-	-	-	-	-
Gross/Weapon System Cost (\$ in Millions)	1,968.650	153.250	63.578	60.641	-	60.641
Less PY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
Net Procurement (P1) (\$ in Millions)	1,968.650	153.250	63.578	60.641	-	60.641
Plus CY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
<b>Total Obligation Authority (\$ in Millions)</b>	<b>1,968.650</b>	<b>153.250</b>	<b>63.578</b>	<b>60.641</b>	<b>-</b>	<b>60.641</b>

*(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)*

Initial Spares (\$ in Millions)	-	-	-	-	-	-
Gross/Weapon System Unit Cost (\$ in Dollars)	-	-	-	-	-	-

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or add, due to rounding.

Cost Elements	Prior Years			FY 2014			FY 2015			FY 2016 Base			FY 2016 OCO			FY 2016 Total		
	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)
Support Cost																		
WHITE PHOSPHORUS	-	-	34.066	11,195K	1	11.195	-	-	-	-	-	-	-	-	-	-	-	-
DEMOLITION MATERIAL	-	-	-	412,000.00	1	0.412	-	-	-	-	-	-	-	-	-	-	-	-
HE DETONATORS/ BOOSTERS	-	-	5.000	797,000.00	1	0.797	795,000.00	1	0.795	829,000.00	1	0.829	-	-	-	829,000.00	1	0.829
HE BOMBS	-	-	3.000	410,000.00	1	0.410	-	-	-	-	-	-	-	-	-	-	-	-
HE CARTRIDGES	-	-	64.778	11,580K	1	11.580	6,193K	1	6.193	5,000K	1	5.000	-	-	-	5,000K	1	5.000
GRENADES	-	-	45.000	191,000.00	1	0.191	56,000.00	1	0.056	58,000.00	1	0.058	-	-	-	58,000.00	1	0.058
HE DEPTH CHARGES	-	-	30.000	492,000.00	1	0.492	-	-	-	-	-	-	-	-	-	-	-	-
CLUSTER BOMBS/ ICM; ANTI-TANK & PERSONNEL	-	-	64.145	35,167K	1	35.167	9,354K	1	9.354	9,762K	1	9.762	-	-	-	9,762K	1	9.762
HE LAND MINES	-	-	62.468	134,000.00	1	0.134	448,000.00	1	0.448	467,000.00	1	0.467	-	-	-	467,000.00	1	0.467
INERT	-	-	16.055	5,635K	1	5.635	-	-	-	-	-	-	-	-	-	-	-	-
MULTIPLE FAMILY	-	-	240.335	1,841K	1	1.841	3,174K	1	3.174	2,309K	1	2.309	-	-	-	2,309K	1	2.309
BULK HIGH EXPLOSIVES	-	-	-	375,000.00	1	0.375	-	-	-	-	-	-	-	-	-	-	-	-
PROPELLANT CHARGES/INCREMENT CHARGES	-	-	3.494	9,105K	1	9.105	5,452K	1	5.452	4,685K	1	4.685	-	-	-	4,685K	1	4.685
TARGET PRACTICES/ 40MM ANTI-AIRCRAFT	-	-	16.747	16,747K	1	16.747	52,000.00	1	0.052	54,000.00	1	0.054	-	-	-	54,000.00	1	0.054

**UNCLASSIFIED**

<b>Exhibit P-5, Cost Analysis: PB 2016 Army</b>		<b>Date:</b> February 2015
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2034A / 02 / 10		<b>P-1 Line Item Number / Title:</b> EP1700 / Conventional Munitions Demilitarization
		<b>Item Number / Title [DODIC]:</b> EP1800 / CONVENTIONAL AMMUNITION DEMILITARIZATION (SMCA)

<b>ID Code</b> (A=Service Ready, B=Not Service Ready) :	<b>MDAP/MAIS Code:</b>
---	------------------------

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or add, due to rounding.

Cost Elements	Prior Years			FY 2014			FY 2015			FY 2016 Base			FY 2016 OCO			FY 2016 Total		
	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)
SMALL ARMS AMMO THRU 20MM	-	-	2.613	446,000.00	1	0.446	291,000.00	1	0.291	303,000.00	1	0.303	-	-	-	303,000.00	1	0.303
INCINERABLE MUNITIONS/ MISCELLANEOUS	-	-	11.302	2,984K	1	2.984	314,000.00	1	0.314	327,000.00	1	0.327	-	-	-	327,000.00	1	0.327
FUZES	-	-	15.786	1,430K	1	1.430	1,191K	1	1.191	1,252K	1	1.252	-	-	-	1,252K	1	1.252
SMOKE MUNITIONS	-	-	-	370,000.00	1	0.370	-	-	-	-	-	-	-	-	-	-	-	-
PROGRAM SUPPORT	-	-	700.000	1,105K	1	1.105	1,000K	1	1.000	750,000.00	1	0.750	-	-	-	750,000.00	1	0.750
TRANSPORTATION	-	-	150.000	8,010K	1	8.010	6,100K	1	6.100	5,345K	1	5.345	-	-	-	5,345K	1	5.345
MUNITIONS CHARACTERIZATION	-	-	-	4,905K	1	4.905	-	-	-	-	-	-	-	-	-	-	-	-
OCONUS DEMIL - EUCOM	-	-	61.192	443,000.00	1	0.443	5,000K	1	5.000	2,000K	1	2.000	-	-	-	2,000K	1	2.000
OCONUS DEMIL - PACOM	-	-	49.493	37,000.00	1	0.037	1,500K	1	1.500	5,000K	1	5.000	-	-	-	5,000K	1	5.000
CONTRACT - CONUS DEMIL	-	-	393.176	39,439K	1	39.439	22,658K	1	22.658	22,500K	1	22.500	-	-	-	22,500K	1	22.500
<i>Subtotal: Support Cost</i>	-	-	<i>1,968.650</i>	-	-	<i>153.250</i>	-	-	<i>63.578</i>	-	-	<i>60.641</i>	-	-	-	-	-	<i>60.641</i>
<b>Gross/Weapon System Cost</b>	-	-	<b>1,968.650</b>	-	-	<b>153.250</b>	-	-	<b>63.578</b>	-	-	<b>60.641</b>	-	-	-	-	-	<b>60.641</b>

**UNCLASSIFIED**

<b>Exhibit P-5, Cost Analysis: PB 2016 Army</b>		<b>Date:</b> February 2015
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2034A / 02 / 10	<b>P-1 Line Item Number / Title:</b> EP1700 / Conventional Munitions Demilitarization	<b>Item Number / Title [DODIC]:</b> EP1801 / Other Non-Army Service Demil Items (non-SMCA)

<b>ID Code</b> (A=Service Ready, B=Not Service Ready) :				<b>MDAP/MAIS Code:</b>					
<b>Resource Summary</b>				<b>Prior Years</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016 Base</b>	<b>FY 2016 OCO</b>	<b>FY 2016 Total</b>
Procurement Quantity (Units in Each)				-	-	-	-	-	-
Gross/Weapon System Cost (\$ in Millions)				22.158	1.730	7.386	9.898	-	9.898
Less PY Advance Procurement (\$ in Millions)				-	-	-	-	-	-
Net Procurement (P1) (\$ in Millions)				22.158	1.730	7.386	9.898	-	9.898
Plus CY Advance Procurement (\$ in Millions)				-	-	-	-	-	-
<b>Total Obligation Authority (\$ in Millions)</b>				<b>22.158</b>	<b>1.730</b>	<b>7.386</b>	<b>9.898</b>	<b>-</b>	<b>9.898</b>
<i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i>									
Initial Spares (\$ in Millions)				-	-	-	-	-	-
Gross/Weapon System Unit Cost (\$ in Dollars)				-	-	-	-	-	-

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or add, due to rounding.

Cost Elements	Prior Years			FY 2014			FY 2015			FY 2016 Base			FY 2016 OCO			FY 2016 Total		
	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)
Support Cost																		
TORPEDOES	-	-	22.158	1,730K	1	1.730	7,386K	1	7.386	9,898K	1	9.898	-	-	-	9,898K	1	9.898
<i>Subtotal: Support Cost</i>	-	-	22.158	-	-	1.730	-	-	7.386	-	-	9.898	-	-	-	-	-	9.898
<b>Gross/Weapon System Cost</b>	-	-	<b>22.158</b>	-	-	<b>1.730</b>	-	-	<b>7.386</b>	-	-	<b>9.898</b>	-	-	-	-	-	<b>9.898</b>

**UNCLASSIFIED**

<b>Exhibit P-5, Cost Analysis: PB 2016 Army</b>					<b>Date:</b> February 2015			
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2034A / 02 / 10			<b>P-1 Line Item Number / Title:</b> EP1700 / Conventional Munitions Demilitarization			<b>Item Number / Title [DODIC]:</b> EP1802 / Army Missile Demilitarization		
<b>ID Code</b> (A=Service Ready, B=Not Service Ready) :				<b>MDAP/MAIS Code:</b>				
<b>Resource Summary</b>			<b>Prior Years</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016 Base</b>	<b>FY 2016 OCO</b>	<b>FY 2016 Total</b>
Procurement Quantity ( <i>Units in Each</i> )			-	-	-	-	-	-
Gross/Weapon System Cost ( <i>\$ in Millions</i> )			314.343	43.904	40.068	40.183	-	40.183
Less PY Advance Procurement ( <i>\$ in Millions</i> )			-	-	-	-	-	-
Net Procurement (P1) ( <i>\$ in Millions</i> )			314.343	43.904	40.068	40.183	-	40.183
Plus CY Advance Procurement ( <i>\$ in Millions</i> )			-	-	-	-	-	-
<b>Total Obligation Authority</b> ( <i>\$ in Millions</i> )			<b>314.343</b>	<b>43.904</b>	<b>40.068</b>	<b>40.183</b>	-	<b>40.183</b>
<i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i>								
Initial Spares ( <i>\$ in Millions</i> )			-	-	-	-	-	-
Gross/Weapon System Unit Cost ( <i>\$ in Dollars</i> )			-	-	-	-	-	-

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or add, due to rounding.

Cost Elements	Prior Years			FY 2014			FY 2015			FY 2016 Base			FY 2016 OCO			FY 2016 Total		
	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)
Support Cost																		
MULTIPLE LAUNCH ROCKET SYSTEM	-	-	123.546	30,256K	1	30.256	34,416K	1	34.416	31,403K	1	31.403	-	-	-	31,403K	1	31.403
TOW CD/R3	-	-	46.399	1,162K	1	1.162	1,705K	1	1.705	596,000.00	1	0.596	-	-	-	596,000.00	1	0.596
HELLFIRE	-	-	2.011	17,000.00	1	0.017	26,000.00	1	0.026	23,000.00	1	0.023	-	-	-	23,000.00	1	0.023
STINGER	-	-	3.520	55,000.00	1	0.055	-	-	-	98,000.00	1	0.098	-	-	-	98,000.00	1	0.098
PATRIOT	-	-	0.096	96,000.00	1	0.096	-	-	-	492,000.00	1	0.492	-	-	-	492,000.00	1	0.492
HONEST JOHN	-	-	2.000	-	-	-	331,000.00	1	0.331	150,000.00	1	0.150	-	-	-	150,000.00	1	0.150
MISSILE COMPONENTS	-	-	40.253	2,247K	1	2.247	301,000.00	1	0.301	2,471K	1	2.471	-	-	-	2,471K	1	2.471
HAWK MOTORS	-	-	2.205	-	-	-	-	-	-	581,000.00	1	0.581	-	-	-	581,000.00	1	0.581
DEMIL PROCESS IMPROVEMENTS	-	-	70.930	6,600K	1	6.600	532,000.00	1	0.532	758,000.00	1	0.758	-	-	-	758,000.00	1	0.758
PROGRAM SUPPORT	-	-	23.383	3,471K	1	3.471	2,757K	1	2.757	3,611K	1	3.611	-	-	-	3,611K	1	3.611
<i>Subtotal: Support Cost</i>	-	-	314.343	-	-	43.904	-	-	40.068	-	-	40.183	-	-	-	-	-	40.183
<b>Gross/Weapon System Cost</b>	-	-	<b>314.343</b>	-	-	<b>43.904</b>	-	-	<b>40.068</b>	-	-	<b>40.183</b>	-	-	-	-	-	<b>40.183</b>

**UNCLASSIFIED**

<b>Exhibit P-5, Cost Analysis: PB 2016 Army</b>		<b>Date:</b> February 2015
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2034A / 02 / 10	<b>P-1 Line Item Number / Title:</b> EP1700 / Conventional Munitions Demilitarization	<b>Item Number / Title [DODIC]:</b> EP1803 / Non-Army Missile Demilitarization

<b>ID Code</b> (A=Service Ready, B=Not Service Ready) :	<b>MDAP/MAIS Code:</b>
---	------------------------

<b>Resource Summary</b>	<b>Prior Years</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016 Base</b>	<b>FY 2016 OCO</b>	<b>FY 2016 Total</b>
Procurement Quantity (Units in Each)	-	-	-	-	-	-
Gross/Weapon System Cost (\$ in Millions)	22.331	0.720	2.849	2.528	-	2.528
Less PY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
Net Procurement (P1) (\$ in Millions)	22.331	0.720	2.849	2.528	-	2.528
Plus CY Advance Procurement (\$ in Millions)	-	-	-	-	-	-
<b>Total Obligation Authority (\$ in Millions)</b>	<b>22.331</b>	<b>0.720</b>	<b>2.849</b>	<b>2.528</b>	<b>-</b>	<b>2.528</b>

*(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)*

Initial Spares (\$ in Millions)	-	-	-	-	-	-
Gross/Weapon System Unit Cost (\$ in Dollars)	-	-	-	-	-	-

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or add, due to rounding.

<b>Cost Elements</b>	<b>Prior Years</b>			<b>FY 2014</b>			<b>FY 2015</b>			<b>FY 2016 Base</b>			<b>FY 2016 OCO</b>			<b>FY 2016 Total</b>		
	<b>Unit Cost (\$)</b>	<b>Qty (Each)</b>	<b>Total Cost (\$ M)</b>	<b>Unit Cost (\$)</b>	<b>Qty (Each)</b>	<b>Total Cost (\$ M)</b>	<b>Unit Cost (\$)</b>	<b>Qty (Each)</b>	<b>Total Cost (\$ M)</b>	<b>Unit Cost (\$)</b>	<b>Qty (Each)</b>	<b>Total Cost (\$ M)</b>	<b>Unit Cost (\$)</b>	<b>Qty (Each)</b>	<b>Total Cost (\$ M)</b>	<b>Unit Cost (\$)</b>	<b>Qty (Each)</b>	<b>Total Cost (\$ M)</b>
Support Cost																		
HE MISSILES	-	-	22.331	1,000.00	720	0.720	2,849K	1	2.849	2,528K	1	2.528	-	-	-	2,528K	1	2.528
<i>Subtotal: Support Cost</i>	-	-	22.331	-	-	0.720	-	-	2.849	-	-	2.528	-	-	-	-	-	2.528
<b>Gross/Weapon System Cost</b>	-	-	<b>22.331</b>	-	-	<b>0.720</b>	-	-	<b>2.849</b>	-	-	<b>2.528</b>	-	-	-	-	-	<b>2.528</b>

**UNCLASSIFIED**

**Exhibit P-40, Budget Line Item Justification:** PB 2016 Army **Date:** February 2015

**Appropriation / Budget Activity / Budget Sub Activity:**  
 2034A: Procurement of Ammunition, Army / BA 02: Ammunition Production Base  
 Support / BSA 10: Production Base Support

**P-1 Line Item Number / Title:**  
 EP2500 / ARMS Initiative

**ID Code** (A=Service Ready, B=Not Service Ready) : **Program Elements for Code B Items:** **Other Related Program Elements:**

Resource Summary	Prior Years	Program Elements for Code B Items:					Other Related Program Elements:					
		FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	To Complete	Total
Procurement Quantity (Units in Each)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Cost (\$ in Millions)	347.438	3.436	2.504	3.575	-	3.575	3.646	3.719	3.797	3.811	-	371.926
Less PY Advance Procurement (\$ in Millions)	-	-	-	-	-	-	-	-	-	-	-	-
Net Procurement (P1) (\$ in Millions)	347.438	3.436	2.504	3.575	-	3.575	3.646	3.719	3.797	3.811	-	371.926
Plus CY Advance Procurement (\$ in Millions)	-	-	-	-	-	-	-	-	-	-	-	-
<b>Total Obligation Authority (\$ in Millions)</b>	<b>347.438</b>	<b>3.436</b>	<b>2.504</b>	<b>3.575</b>	<b>-</b>	<b>3.575</b>	<b>3.646</b>	<b>3.719</b>	<b>3.797</b>	<b>3.811</b>	<b>-</b>	<b>371.926</b>

*(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)*

Initial Spares (\$ in Millions)	-	-	-	-	-	-	-	-	-	-	-	-
Flyaway Unit Cost (\$ in Dollars)	-	-	-	-	-	-	-	-	-	-	-	-
Gross/Weapon System Unit Cost (\$ in Dollars)	-	-	-	-	-	-	-	-	-	-	-	-

**Description:**

The Armament Retooling and Manufacturing Support (ARMS) program reuses idle capacity at active and inactive Government-Owned, Contractor-Operated (GOCO) Army Ammunition Plants and GOCO Army Depots through commercialization. Congress enacted this program in the FY 1993 Defense Authorization Act (Public Law (PL) 102-484) and codified in FY 2000 (10 U.S.C. 4551-4555). ARMS resources are used for facility strategic reuse plans, marketing plans, building renovation and recapitalization, equipment purchase, relocation, or consolidation, and environmental baseline studies to encourage commercial use of underutilized Army assets. The ARMS objectives include sustaining critical manufacturing capabilities and critical skills; reducing facility operating and maintenance costs; decreasing product cost; providing opportunities for small business; and accelerating private sector economic development, employment and investment. The ARMS program allows the Army to manage portions of the ammunition infrastructure as a commercial business. This management concept has allowed the Army to apply overhead costs across multiple commercial contracts to reduce operating costs.

**UNCLASSIFIED**

**Exhibit P-40, Budget Line Item Justification:** PB 2016 Army **Date:** February 2015

**Appropriation / Budget Activity / Budget Sub Activity:**  
 2034A: Procurement of Ammunition, Army / BA 02: Ammunition Production Base Support / BSA 10: Production Base Support

**P-1 Line Item Number / Title:**  
 EP2500 / ARMS Initiative

ID Code (A=Service Ready, B=Not Service Ready) :			Program Elements for Code B Items:			Other Related Program Elements:		
Exhibits Schedule			Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total
Title*	Exhibits	ID CD	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)	Quantity / Total Cost (Each) / (\$ M)
EP2500 / ARMS Initiative	P-5		- / 347.438	- / 3.436	- / 2.504	- / 3.575	- / -	- / 3.575
<b>Total Gross/Weapon System Cost</b>			<b>- / 347.438</b>	<b>- / 3.436</b>	<b>- / 2.504</b>	<b>- / 3.575</b>	<b>- / -</b>	<b>- / 3.575</b>

\*Title represents 1) the Number / Title for Items; 2) the Number / Title [DODIC] for Ammunition; and/or 3) the Number / Title (Modification Type) for Modifications.

Note: Totals in this Exhibit P-40 set may not be exact or add due to rounding.

**Justification:**  
 FY 2016 Base procurement dollars in the amount of \$3.575 million support financial and marketing investments to attract revenue-producing tenants to locate on GOCO Army Ammunition Plants and GOCO Army Depots. The ARMS Program reduces Army cost of ownership and maintains critical munitions industrial base skills. Revenues collected will be utilized to reduce overhead and total annual operating costs, improve and maintain existing buildings for current tenants, and perform improvements to other vacant buildings to entice potential tenants.



**UNCLASSIFIED**

<b>Exhibit P-5, Cost Analysis: PB 2016 Army</b>		<b>Date:</b> February 2015
<b>Appropriation / Budget Activity / Budget Sub Activity:</b> 2034A / 02 / 10	<b>P-1 Line Item Number / Title:</b> EP2500 / ARMS Initiative	<b>Item Number / Title [DODIC]:</b> EP2500 / ARMS Initiative

<b>ID Code</b> (A=Service Ready, B=Not Service Ready) :				<b>MDAP/MAIS Code:</b>		
<b>Resource Summary</b>	<b>Prior Years</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016 Base</b>	<b>FY 2016 OCO</b>	<b>FY 2016 Total</b>
Procurement Quantity ( <i>Units in Each</i> )	-	-	-	-	-	-
Gross/Weapon System Cost ( <i>\$ in Millions</i> )	347.438	3.436	2.504	3.575	-	3.575
Less PY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-
Net Procurement (P1) ( <i>\$ in Millions</i> )	347.438	3.436	2.504	3.575	-	3.575
Plus CY Advance Procurement ( <i>\$ in Millions</i> )	-	-	-	-	-	-
<b>Total Obligation Authority</b> ( <i>\$ in Millions</i> )	<b>347.438</b>	<b>3.436</b>	<b>2.504</b>	<b>3.575</b>	-	<b>3.575</b>
<i>(The following Resource Summary rows are for informational purposes only. The corresponding budget requests are documented elsewhere.)</i>						
Initial Spares ( <i>\$ in Millions</i> )	-	-	-	-	-	-
Gross/Weapon System Unit Cost ( <i>\$ in Dollars</i> )	-	-	-	-	-	-

Note: Subtotals or Totals in this Exhibit P-5 may not be exact or add, due to rounding.

Cost Elements	Prior Years			FY 2014			FY 2015			FY 2016 Base			FY 2016 OCO			FY 2016 Total		
	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)	Unit Cost (\$)	Qty (Each)	Total Cost (\$ M)
Support Cost																		
Holston Army Ammunition Plant (AAP)	-	-	5.056	-	-	0.050	-	-	0.050	-	-	0.500	-	-	-	-	-	0.500
Hawthorne Army Depot	-	-	-	-	-	-	-	-	0.150	-	-	0.100	-	-	-	-	-	0.100
Iowa AAP	-	-	73.108	-	-	0.723	-	-	0.200	-	-	0.300	-	-	-	-	-	0.300
Lake City AAP	-	-	100.207	-	-	0.991	-	-	0.950	-	-	1.300	-	-	-	-	-	1.300
Milan AAP	-	-	12.639	-	-	0.125	-	-	0.300	-	-	0.200	-	-	-	-	-	0.200
Radford AAP	-	-	-	-	-	-	-	-	0.250	-	-	0.100	-	-	-	-	-	0.100
Administrative and Management Support	-	-	50.558	-	-	0.500	-	-	0.604	-	-	0.850	-	-	-	-	-	0.850
Various AAP	-	-	105.870	-	-	1.047	-	-	-	-	-	0.225	-	-	-	-	-	0.225
<i>Subtotal: Support Cost</i>	-	-	<i>347.438</i>	-	-	<i>3.436</i>	-	-	<i>2.504</i>	-	-	<i>3.575</i>	-	-	-	-	-	<i>3.575</i>
<b>Gross/Weapon System Cost</b>	-	-	<b>347.438</b>	-	-	<b>3.436</b>	-	-	<b>2.504</b>	-	-	<b>3.575</b>	-	-	-	-	-	<b>3.575</b>