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Exhibit R-2, RDT&E Budget Item Justification: PB 2015 Army										Date: March 2014		
Appropriation/Budget Activity 2040: Research, Development, Test & Evaluation, Army / BA 5: System Development & Demonstration (SDD)					R-1 Program Element (Number/Name) PE 0604802A / Weapons and Munitions - Eng Dev							
COST (\$ in Millions)	Prior Years	FY 2013	FY 2014	FY 2015 Base	FY 2015 OCO #	FY 2015 Total	FY 2016	FY 2017	FY 2018	FY 2019	Cost To Complete	Total Cost
Total Program Element	-	12.999	15.712	15.006	-	15.006	3.488	2.952	1.578	10.053	-	61.788
EC1: 40mm Hi Vel and Low Vel Thermal Training Cartridge	-	-	-	6.964	-	6.964	-	-	-	-	-	6.964
EC4: Non-Standard Simulator Munitions	-	-	-	0.885	-	0.885	0.984	1.281	1.578	1.977	-	6.705
S36: Precision Guidance Kit	-	12.999	15.712	7.157	-	7.157	2.504	1.671	-	8.076	-	48.119

The FY 2015 OCO Request will be submitted at a later date.

Note
FY 2013/2014: Budget adjustments.
FY 2015: Resulted from the adjustment of S36 and addition of Projects EC1 and EC4.

A. Mission Description and Budget Item Justification
This program element funds multiple efforts for engineering development of weapons and munitions systems.

Project S36: This program funds engineering development of precision guidance systems applicable to Indirect Fire artillery weapon systems. The Precision Guidance Kit (PGK) is a Global Positioning System guidance kit with fuzing functions. PGK provides near precision accuracy and effectiveness for 155mm High Explosive artillery projectiles. PGK will improve the accuracy of existing artillery ammunition by correcting the trajectory of projectiles to their designated target location. Precision guidance systems will effectively reduce target delivery error reducing the number of rounds required to conduct a fire mission.

Project EC1: The Target Practice Day/ Night/ Thermal (TP D/N/T) cartridges are 40mm grenade training cartridges. The low velocity variant is for training with the M203/ M320 grenade launchers and the high velocity variant is for training with the Mk19 grenade machine gun. Both of these cartridges will provide the War Fighter with a non dud producing, environmentally friendly training cartridge which provides a visual and thermal impact signature that can be seen day or night, by the unaided eye or through night vision devices and thermal weapon sights. The program will carry competitive prototypes for each cartridge variant through the Engineering and Manufacturing Development (EMD) phase.

Project EC4: Army's Combat Training Centers are currently using non-standard munitions to replicate both conventional and asymmetric warfare battlefield effects. These modified commercial-off-the-shelf products have not been type classified, material released, and are not sustainable; because of these issues, risk assessment, and risk mitigation lies with the individual Training Center. Standardization of these munitions will reduce training costs, eliminate redundancies between systems, and mitigate safety risks associated with realistic scenario based training.

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Exhibit R-2, RDT&E Budget Item Justification: PB 2015 Army				Date: March 2014	
Appropriation/Budget Activity 2040: Research, Development, Test & Evaluation, Army / BA 5: System Development & Demonstration (SDD)		R-1 Program Element (Number/Name) PE 0604802A / Weapons and Munitions - Eng Dev			
B. Program Change Summary (\$ in Millions)	FY 2013	FY 2014	FY 2015 Base	FY 2015 OCO	FY 2015 Total
Previous President's Budget	14.581	15.721	15.971	-	15.971
Current President's Budget	12.999	15.712	15.006	-	15.006
Total Adjustments	-1.582	-0.009	-0.965	-	-0.965
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-0.413	-			
• Adjustments to Budget Years	-	-	-0.965	-	-0.965
• Budget Adjustments	-1.169	-0.009	-	-	-

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Exhibit R-2A, RDT&E Project Justification: PB 2015 Army										Date: March 2014		
Appropriation/Budget Activity 2040 / 5					R-1 Program Element (Number/Name) PE 0604802A / Weapons and Munitions - Eng Dev				Project (Number/Name) EC1 / 40mm Hi Vel and Low Vel Thermal Training Cartridge			
COST (\$ in Millions)	Prior Years	FY 2013	FY 2014	FY 2015 Base	FY 2015 OCO #	FY 2015 Total	FY 2016	FY 2017	FY 2018	FY 2019	Cost To Complete	Total Cost
EC1: 40mm Hi Vel and Low Vel Thermal Training Cartridge	-	-	-	6.964	-	6.964	-	-	-	-	-	6.964
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		
# The FY 2015 OCO Request will be submitted at a later date.												
Note In FY 2015 these funds transferred from PE 603639 Project 694.												
A. Mission Description and Budget Item Justification The Target Practice Day Night Thermal (TP-DNT) cartridges are 40mm grenade training cartridges. The low velocity variant is for training with the M203/M320 grenade launchers; the high velocity variant is for training with the Mk19 grenade machine gun. Both cartridges will provide the Warfighter with a non-dud producing, environmentally friendly training cartridge that provides a visual impact signature seen day or night, by the naked eye, through night vision devices, and thermal weapon sights. These cartridges will replace the 40mm Target Practice, M918/M385A1 (Mixed Belt) cartridges and the 40mm M781 cartridges. It is expected that the unit price for high velocity cartridges will be lower than the Mixed Belt cartridges.												
B. Accomplishments/Planned Programs (\$ in Millions)									FY 2013	FY 2014	FY 2015	
Title: Target Practice Day Night Thermal Cartridges									-	-	6.964	
Description: The Target Practice Day Night Thermal (TP-DNT) Cartridges are 40mm grenade training cartridges												
FY 2015 Plans: FY 2015 activities include EMD contracts award for both the HV and LV variants, Preliminary Design Reviews (PDRs), Test Readiness Reviews (TRRs), and Developmental Engineering Test 1 (DET1).												
Accomplishments/Planned Programs Subtotals									-	-	6.964	
C. Other Program Funding Summary (\$ in Millions)												
Line Item	FY 2013	FY 2014	FY 2015 Base	FY 2015 OCO	FY 2015 Total	FY 2016	FY 2017	FY 2018	FY 2019	Cost To Complete	Total Cost	
• Target Pracice Day Night Thermal: Target Practice Day Night Thermal Cartridges	-	40.466	1.972	-	1.972	34.830	61.277	78.442	75.682	Continuing	Continuing	

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Exhibit R-2A, RDT&E Project Justification: PB 2015 Army										Date: March 2014	
Appropriation/Budget Activity 2040 / 5				R-1 Program Element (Number/Name) PE 0604802A / Weapons and Munitions - Eng Dev				Project (Number/Name) EC1 / 40mm Hi Vel and Low Vel Thermal Training Cartridge			
C. Other Program Funding Summary (\$ in Millions)											
			<u>FY 2015</u>	<u>FY 2015</u>	<u>FY 2015</u>					<u>Cost To</u>	
<u>Line Item</u>	<u>FY 2013</u>	<u>FY 2014</u>	<u>Base</u>	<u>OCO</u>	<u>Total</u>	<u>FY 2016</u>	<u>FY 2017</u>	<u>FY 2018</u>	<u>FY 2019</u>	<u>Complete</u>	<u>Total Cost</u>
Remarks											
Production dollars will be used to procure 40mm training cartridges. If not 40mm DNT cartridges, 40mm mixed belt will be procured.											
D. Acquisition Strategy											
The TP-DNT cartridges will be developed through a competitive Engineering and Manufacturing Development (EMD) program. The EMD phase will develop both High Velocity (HV) and Low Velocity (LV) variants that will most likely utilize the same critical technologies, making concurrent acquisitions a logical approach to reduce overall acquisition costs. As part of the EMD source selection, a Bid Sample shoot-off competition will be conducted to evaluate potential designs. Within funding constraints, multiple contractor designs will be awarded EMD contracts with intent to down select to one contractor for the HV variant and one contractor for the LV variant. Following the down select, begin LRIP and two production year options. Milestone C scheduled for 1Q FY 2017.											
E. Performance Metrics											
N/A											

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2015 Army												Date: March 2014			
Appropriation/Budget Activity 2040 / 5						R-1 Program Element (Number/Name) PE 0604802A / Weapons and Munitions - Eng Dev						Project (Number/Name) EC1 / 40mm Hi Vel and Low Vel Thermal Training Cartridge			
Product Development (\$ in Millions)				FY 2013		FY 2014		FY 2015 Base		FY 2015 OCO		FY 2015 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Contractor 1 Low Velocity	C/FFP	TBD : TBD	0.000	-		-		0.951		-		0.951	-	0.951	-
Contractor 2 Low Velocity	C/FFP	TBD : TBD	0.000	-		-		0.951		-		0.951	-	0.951	-
Contractor 1 High Velocity	C/FFP	TBD : TBD	0.000	-		-		0.951		-		0.951	-	0.951	-
Contractor 2 High Velocity	C/FFP	TBD : TBD	0.000	-		-		0.951		-		0.951	-	0.951	-
PM MAS labor and travel	MIPR	PICATINNY ARSENAL : NJ	0.000	-		-		0.460		-		0.460	-	0.460	-
Subtotal			0.000	-		-		4.264		-		4.264	-	4.264	-
Support (\$ in Millions)				FY 2013		FY 2014		FY 2015 Base		FY 2015 OCO		FY 2015 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
ARDEC	MIPR	PICATINNY ARSENAL : NJ	0.000	-		-		1.390		-		1.390	-	1.390	-
Subtotal			0.000	-		-		1.390		-		1.390	-	1.390	-
Test and Evaluation (\$ in Millions)				FY 2013		FY 2014		FY 2015 Base		FY 2015 OCO		FY 2015 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Yuma Proving Ground (YPG)	MIPR	Yuma : AZ	0.000	-		-		1.210		-		1.210	-	1.210	-
Aberdeen Test and Evaluation Center (ATEC)	MIPR	Aberdeen : MD	0.000	-		-		0.100		-		0.100	-	0.100	-
Subtotal			0.000	-		-		1.310		-		1.310	-	1.310	-
			Prior Years	FY 2013		FY 2014		FY 2015 Base		FY 2015 OCO		FY 2015 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals			0.000	-		-		6.964		-		6.964	-	6.964	-

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2015 Army							Date: March 2014			
Appropriation/Budget Activity 2040 / 5			R-1 Program Element (Number/Name) PE 0604802A / Weapons and Munitions - Eng Dev			Project (Number/Name) EC1 / 40mm Hi Vel and Low Vel Thermal Training Cartridge				
	Prior Years	FY 2013	FY 2014	FY 2015 Base	FY 2015 OCO	FY 2015 Total	Cost To Complete	Total Cost	Target Value of Contract	
Remarks										

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Exhibit R-4, RDT&E Schedule Profile: PB 2015 Army																Date: March 2014			
Appropriation/Budget Activity 2040 / 5								R-1 Program Element (Number/Name) PE 0604802A / <i>Weapons and Munitions - Eng Dev</i>								Project (Number/Name) EC1 / <i>40mm Hi Vel and Low Vel Thermal Training Cartridge</i>			

	FY 2013				FY 2014				FY 2015				FY 2016				FY 2017				FY 2018				FY 2019			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
MS-B																												
Engineering Manufacturing Development																												
Bid Sample Testing																												
Preliminary Design Review																												
Development Engineering Test Phase I																												
Development Engineering Test Phase II																												
Critical Design Review																												
Development Test & Evaluation																												
MS-C																												

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Exhibit R-4A, RDT&E Schedule Details: PB 2015 Army			Date: March 2014
Appropriation/Budget Activity 2040 / 5	R-1 Program Element (Number/Name) PE 0604802A / <i>Weapons and Munitions - Eng Dev</i>	Project (Number/Name) EC1 / <i>40mm Hi Vel and Low Vel Thermal Training Cartridge</i>	

Schedule Details

Events	Start		End	
	Quarter	Year	Quarter	Year
MS-B	3	2014	3	2014
Engineering Manufacturing Development	3	2014	1	2017
Bid Sample Testing	4	2014	1	2015
Preliminary Design Review	3	2015	3	2015
Development Engineering Test Phase I	4	2015	4	2015
Development Engineering Test Phase II	2	2016	2	2016
Critical Design Review	3	2016	3	2016
Development Test & Evaluation	4	2016	4	2016
MS-C	1	2017	1	2017

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Exhibit R-2A, RDT&E Project Justification: PB 2015 Army										Date: March 2014		
Appropriation/Budget Activity 2040 / 5					R-1 Program Element (Number/Name) PE 0604802A / Weapons and Munitions - Eng Dev				Project (Number/Name) EC4 / Non-Standard Simulator Munitions			
COST (\$ in Millions)	Prior Years	FY 2013	FY 2014	FY 2015 Base	FY 2015 OCO #	FY 2015 Total	FY 2016	FY 2017	FY 2018	FY 2019	Cost To Complete	Total Cost
EC4: Non-Standard Simulator Munitions	-	-	-	0.885	-	0.885	0.984	1.281	1.578	1.977	-	6.705
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		
# The FY 2015 OCO Request will be submitted at a later date.												
Note In FY15 this project is a new start.												
A. Mission Description and Budget Item Justification Army's Combat Training Centers (CTCs), are currently using non-standard munitions to replicate both conventional and asymmetric warfare battlefield effects. These modified commercial-off-the-shelf products have not been type classified, material released, and are not sustainable; because of these issues, risk assessment, and risk mitigation lies with the individual Training Center. Standardization of these munitions will reduce training costs, eliminate redundancies between systems, and mitigate safety risks associated with realistic scenario based training.												
B. Accomplishments/Planned Programs (\$ in Millions)									FY 2013	FY 2014	FY 2015	
Title: Standardize Special Use Ammunition									-	-	0.885	
Description: Standardize non-standard pyrotechnic battlefield effects currently used by CTCs .												
FY 2015 Plans: This project will support development and preparation of documentation for MDD approval. The following items were identified as required capabilities to simulate battlefield effects: a. Black smoke signature (burning vehicles, buildings, and equipment) that is interoperable with existing launcher configurations. b. Yellow smoke signature to simulate chemical, biological or nuclear effects that is interoperable with existing launcher configurations. c. Macro pyrotechnics to simulate hostile fire and small Improvised Explosive Devices (IED's) during mounted operations in urban terrain. d. Micro pyrotechnics to simulate indoor hostile fire and IED effects that are capable of being integrated into existing facilities. e. RPG on a wire to replicate the flight of a Rocket Propelled Grenade. The signature leaves a smoke trail that gives a launch point location, visible spark signature, smoke trail along with an audible launch and thrusting sound. f. High Order Blast Effect (HOBE) used to replicate a Vehicle Borne Improvised Explosive Device (VBIED), building explosions, and other significant explosive events. The signature is a large orange or red-colored fireball and smoke.												

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Exhibit R-2A, RDT&E Project Justification: PB 2015 Army		Date: March 2014	
Appropriation/Budget Activity 2040 / 5	R-1 Program Element (Number/Name) PE 0604802A / <i>Weapons and Munitions - Eng Dev</i>	Project (Number/Name) EC4 / <i>Non-Standard Simulator Munitions</i>	
B. Accomplishments/Planned Programs (\$ in Millions)		FY 2013	FY 2014
g. Artillery airburst simulator to replicate indirect fire that is interoperable with existing launcher configurations: MS C 3rd Qtr FY15; IOC 4th Qtr FY16.			
h. Simulator to replicate a MANPAD firing that is interoperable with existing launcher configurations: MS C 3rd Qtr FY15; IOC 4th Qtr FY16.			
i. Victim operated trigger methods for firing pyrotechnic devices for mounted and dismounted troops i.e. pressure plate, trip wire, radio frequency (RF) and motion detectors.			
j. Tracer Fire-back simulator to replicate enemy small arms fire and anti-aircraft fire. Signature is red or green balls of fire.			
Accomplishments/Planned Programs Subtotals		-	0.885
C. Other Program Funding Summary (\$ in Millions)			
N/A			
Remarks			
D. Acquisition Strategy			
Strategy is under development and will be approved by the MDA once complete.			
E. Performance Metrics			
N/A			

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2015 Army												Date: March 2014			
Appropriation/Budget Activity 2040 / 5						R-1 Program Element (Number/Name) PE 0604802A / Weapons and Munitions - Eng Dev				Project (Number/Name) EC4 / Non-Standard Simulator Munitions					

Management Services (\$ in Millions)				FY 2013		FY 2014		FY 2015 Base		FY 2015 OCO		FY 2015 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Program Management	MIPR	PM Close Combat Systems : PICATINNY ARSENAL	0.000	-		-		0.278	Dec 2014	-		0.278	-	0.278	-
Subtotal			0.000	-		-		0.278		-		0.278	-	0.278	-

Support (\$ in Millions)				FY 2013		FY 2014		FY 2015 Base		FY 2015 OCO		FY 2015 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Engineering Support	MIPR	ARDEC : PICATINNY ARSENAL	0.000	-		-		0.607	Jan 2015	-		0.607	-	0.607	-
Subtotal			0.000	-		-		0.607		-		0.607	-	0.607	-

Prior Years	FY 2013	FY 2014	FY 2015 Base	FY 2015 OCO	FY 2015 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	0.000	-	-	0.885	-	0.885	-	0.885

Remarks

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Exhibit R-4, RDT&E Schedule Profile: PB 2015 Army																Date: March 2014																			
Appropriation/Budget Activity 2040 / 5								R-1 Program Element (Number/Name) PE 0604802A / Weapons and Munitions - Eng Dev								Project (Number/Name) EC4 / Non-Standard Simulator Munitions																			
								FY 2013				FY 2014				FY 2015				FY 2016				FY 2017				FY 2018				FY 2019			
								1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4				
Material Development Decision								<div></div>																											

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Exhibit R-4A, RDT&E Schedule Details: PB 2015 Army		Date: March 2014
Appropriation/Budget Activity 2040 / 5	R-1 Program Element (Number/Name) PE 0604802A / Weapons and Munitions - Eng Dev	Project (Number/Name) EC4 / Non-Standard Simulator Munitions

Schedule Details

Events	Start		End	
	Quarter	Year	Quarter	Year
Material Development Decision	4	2015	4	2015

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Exhibit R-2A, RDT&E Project Justification: PB 2015 Army										Date: March 2014		
Appropriation/Budget Activity 2040 / 5					R-1 Program Element (Number/Name) PE 0604802A / Weapons and Munitions - Eng Dev				Project (Number/Name) S36 / Precision Guidance Kit			
COST (\$ in Millions)	Prior Years	FY 2013	FY 2014	FY 2015 Base	FY 2015 OCO #	FY 2015 Total	FY 2016	FY 2017	FY 2018	FY 2019	Cost To Complete	Total Cost
S36: Precision Guidance Kit	-	12.999	15.712	7.157	-	7.157	2.504	1.671	-	8.076	-	48.119
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		
# The FY 2015 OCO Request will be submitted at a later date.												
A. Mission Description and Budget Item Justification												
This program funds engineering development of precision guidance systems applicable to Indirect Fire artillery weapon systems. The Precision Guidance Kit (PGK) is a Global Positioning System guidance kit with fuzing functions. PGK provides near precision accuracy and effectiveness for 155mm High Explosive artillery projectiles. PGK improves the accuracy of existing artillery ammunition by correcting the trajectory of projectiles to their designated target location. Precision guidance systems will effectively reduce target delivery error reducing the number of rounds required to conduct a fire mission.												
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)										FY 2013	FY 2014	FY 2015
Title: Contractor Engineering and Manufacturing Development Articles: Description: Contractor Engineering and Manufacturing Development FY 2013 Accomplishments: Engineering and Manufacturing Development FY 2014 Plans: GPS Anti-Jam Development FY 2015 Plans: GPS Anti-Jam Development										9.019	9.615	0.500
										-	-	-
Title: Government and Engineering Support Articles: Description: Continue Engineering Support FY 2013 Accomplishments: Continue Engineering Support FY 2014 Plans: Continue Engineering Support FY 2015 Plans:										3.255	3.390	3.013
										-	-	-

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Appropriation/Budget Activity 2040 / 5				R-1 Program Element (Number/Name) PE 0604802A / Weapons and Munitions - Eng Dev				Project (Number/Name) S36 / Precision Guidance Kit			
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)								FY 2013	FY 2014	FY 2015	
Continue Engineering Support											
Title: Continue Development/Operational Testing Description: Continue Development/Operational Test FY 2013 Accomplishments: Continue Development/Operational Test FY 2014 Plans: Continue Development for Anti-Jam FY 2015 Plans: Continue Development for Anti-Jam								Articles: 0.725 -	2.707 -	3.644 -	
Accomplishments/Planned Programs Subtotals								12.999	15.712	7.157	
C. Other Program Funding Summary (\$ in Millions)											
<u>Line Item</u>	<u>FY 2013</u>	<u>FY 2014</u>	<u>FY 2015</u> <u>Base</u>	<u>FY 2015</u> <u>OCO</u>	<u>FY 2015</u> <u>Total</u>	<u>FY 2016</u>	<u>FY 2017</u>	<u>FY 2018</u>	<u>FY 2019</u>	<u>Cost To</u> <u>Complete</u>	<u>Total Cost</u>
• E99250: Procurement of Ammunition Army: Precision Guidance Kit (PGK)	37.902	62.234	61.285	-	61.285	62.420	65.455	63.512	64.061	Continuing	Continuing
Remarks											
D. Acquisition Strategy											
<p>The Precision Guidance Kit (PGK) is a Global Positioning System (GPS) guidance kit with fuzing functions for 155mm High Explosive (HE) artillery projectiles. PGK provides near precision accuracy and effectiveness for 155mm HE projectiles. Using an integrated GPS receiver, the PGK corrects the inherent errors associated with ballistic firing solutions and reduces the number of artillery projectiles required to execute the mission. The current PGK Increment qualified the PGK for the M795 and M549A1 HE projectiles. The Acquisition Strategy/Acquisition Plan for the PGK program was approved by the Milestone Decision Authority on 20 October 2005, subsequently revised and approved on 14 December 2012. Alliant Techsystems (ATK) was competitively awarded the Engineering and Manufacturing Development (EMD) phase in May 2007 following a Technology Development Demonstration. Approval to initiate the procurement of Low Rate Initial Production (LRIP) occurred at Milestone C in March 2013. Initial Operational Test and Evaluation (IOT&E) is planned to be completed by 3Q FY 2015, a Full Material Release (FMR) decision is planned for 4Q FY 2015 and Initial Operational Capability (IOC) is scheduled for 1Q FY 2016. Future production will incorporate a GPS anti-jam capability.</p>											

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E. Performance Metrics N/A		

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2015 Army												Date: March 2014			
Appropriation/Budget Activity 2040 / 5						R-1 Program Element (Number/Name) PE 0604802A / Weapons and Munitions - Eng Dev						Project (Number/Name) S36 / Precision Guidance Kit			
Management Services (\$ in Millions)				FY 2013		FY 2014		FY 2015 Base		FY 2015 OCO		FY 2015 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Management Support	MIPR	Camber : Mt Arlington, NJ	1.788	0.061	Feb 2013	0.066	May 2014	-		-		-	-	1.915	1.909
Miscellaneous Support Contract	MIPR	MITRE Corporation : Fort Monmouth, NJ	0.600	-		-		-		-		-	-	0.600	0.600
PGK Parallel Studies and Analysis Support -	MIPR	Command and Control Directorate : Ft Monmouth, NJ	0.300	-		-		-		-		-	-	0.300	0.300
Subtotal			2.688	0.061		0.066		-		-		-	-	2.815	2.809
Product Development (\$ in Millions)				FY 2013		FY 2014		FY 2015 Base		FY 2015 OCO		FY 2015 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
PGK TD Contract	C/CPAF	Alliant Techsystems (ATK) : Plymouth, MN	5.279	-		-		-		-		-	-	5.279	5.279
PGK TD Contract	C/CPAF	BAE : Minneapolis, MN	3.103	-		-		-		-		-	-	3.103	3.103
Soft Recovery Modules	MIPR	SubSystems Technology : Rosslyn, VA	0.116	-		-		-		-		-	-	0.116	0.116
M107 Metal Parts	MIPR	US ARMY Field Support Command : Rock Island, IL	0.079	-		-		-		-		-	-	0.079	0.079
PGK EMD & Phase 1-2 (Reliability Failure/Root Cause Analysis)	C/CPAF	Alliant Techsystems (ATK) : Plymouth, MN	53.947	-		-		-		-		-	-	53.947	53.947
PGK EMD - Phase 3a to 5	C/FFP	Alliant Techsystems (ATK) : Plymouth, MN	23.314	0.788	Jan 2013	1.015	May 2014	-		-		-	-	25.117	24.474
DOTC - PGK GPS Anti-Jam	C/CPFF	Alliant Techsystems (ATK) : Plymouth, MN	0.000	7.626	Aug 2013	8.600	Aug 2014	0.500	Apr 2015	-		0.500	Continuing	Continuing	21.123

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2015 Army												Date: March 2014			
Appropriation/Budget Activity 2040 / 5						R-1 Program Element (Number/Name) PE 0604802A / Weapons and Munitions - Eng Dev				Project (Number/Name) S36 / Precision Guidance Kit					
Product Development (\$ in Millions)				FY 2013		FY 2014		FY 2015 Base		FY 2015 OCO		FY 2015 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
DOTC - GDOTS - Engineering & Technology Assessment. Low Cost Roll Control Solutions	C/CPFF	General Dynamics Ordnance & Tactical Systems : Bothell, WA	0.500	0.500	Jun 2013	-		-		-		-	-	1.000	0.500
DOTC - BAE Systems - Engineering & Technology Assessment. Low Cost Course Correction solutions.	C/CPFF	BAE/Rokar : Minneapolis, MN	0.500	-		-		-		-		-	-	0.500	0.500
High Angle Software Configuration	C/CPFF	Raytheon : Ft Wayne, IN	0.000	0.105	Jun 2013	-		-		-		-	-	0.105	-
Subtotal			86.838	9.019		9.615		0.500		-		0.500	-	-	109.121
Support (\$ in Millions)				FY 2013		FY 2014		FY 2015 Base		FY 2015 OCO		FY 2015 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
PM Office	PO	PM CAS : Picatinny, NJ	8.801	1.004	Nov 2012	0.958	Dec 2013	0.903	Dec 2014	-		0.903	Continuing	Continuing	11.494
Government Engineering Support	MIPR	ARDEC : Picatinny, NJ	24.311	2.190	Dec 2012	2.182	Jan 2014	1.840	Dec 2014	-		1.840	Continuing	Continuing	32.136
Jammer Support	MIPR	Electronic Proving Ground : Ft Huachuca, AZ	0.000	-		0.250	Aug 2014	0.250	Mar 2015	-		0.250	-	0.500	-
ATEC Support	MIPR	Army Test and Evaluation Command : Aberdeen, MD	0.000	-		-		0.020	Feb 2015	-		0.020	-	0.020	-
Subtotal			33.112	3.194		3.390		3.013		-		3.013	-	-	43.630

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Appropriation/Budget Activity 2040 / 5						R-1 Program Element (Number/Name) PE 0604802A / Weapons and Munitions - Eng Dev						Project (Number/Name) S36 / Precision Guidance Kit			
Test and Evaluation (\$ in Millions)				FY 2013		FY 2014		FY 2015 Base		FY 2015 OCO		FY 2015 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Component Air Gun/ Railgun Testing	MIPR	ARDEC : Picatinny, NJ	0.317	-		-		-		-		-	-	0.317	0.317
Other Development Testing	MIPR	Various : Various	1.725	-		-		-		-		-	-	1.725	1.725
System Development Testing Increment 1	MIPR	Yuma Proving Ground : Yuma, AZ	9.797	0.645	Dec 2012	-		-		-		-	-	10.442	10.487
Limited User Test	MIPR	Yuma Proving Ground : Yuma, AZ	0.000	0.080	Nov 2013	1.551	Nov 2013	-		-		-	-	1.631	-
Initial Operational Test & Evaluation - Increment 1	MIPR	Yuma Proving Ground : Yuma, AZ	0.000	-		-		3.000	Feb 2015	-		3.000	-	3.000	3.500
Development Testing for GPS Anti-Jam	MIPR	Yuma Proving Ground : Yuma, AZ	0.000	-		0.590	Aug 2014	0.644	Mar 2015	-		0.644	-	1.234	3.606
Cold Region Testing	MIPR	Cold Region Test Center : Yuma, AZ	0.000	-		0.300	Sep 2014	-		-		-	-	0.300	0.900
Airdrop Testing	MIPR	Yuma Proving Ground : Yuma, AZ	0.000	-		0.200	Sep 2014	-		-		-	-	0.200	0.200
Subtotal			11.839	0.725		2.641		3.644		-		3.644	-	18.849	20.735
			Prior Years	FY 2013		FY 2014		FY 2015 Base		FY 2015 OCO		FY 2015 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals			134.477	12.999		15.712		7.157		-		7.157	-	-	176.295
Remarks															

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Exhibit R-4, RDT&E Schedule Profile: PB 2015 Army																Date: March 2014			
Appropriation/Budget Activity 2040 / 5								R-1 Program Element (Number/Name) PE 0604802A / <i>Weapons and Munitions - Eng Dev</i>								Project (Number/Name) S36 / <i>Precision Guidance Kit</i>			

	FY 2013				FY 2014				FY 2015				FY 2016				FY 2017				FY 2018				FY 2019			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Engineering & Manufacturing Development																												
GPS Anti-Jam Development																												
Milestone C - Type Classification Limited Procurement																												
Limited User Test																												
First Article Test (FAT)																												
Initial Operational Test and Evaluation (IOT&E)																												
Type Classification Standard / Full Materiel Release																												
Initial Operational Capability (IOC)																												

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Exhibit R-4A, RDT&E Schedule Details: PB 2015 Army			Date: March 2014
Appropriation/Budget Activity 2040 / 5	R-1 Program Element (Number/Name) PE 0604802A / <i>Weapons and Munitions - Eng Dev</i>	Project (Number/Name) S36 / <i>Precision Guidance Kit</i>	

Schedule Details

Events	Start		End	
	Quarter	Year	Quarter	Year
Engineering & Manufacturing Development	4	2009	4	2014
GPS Anti-Jam Development	4	2013	4	2017
Milestone C - Type Classification Limited Procurement	2	2013	2	2013
Limited User Test	2	2014	2	2014
First Article Test (FAT)	1	2015	1	2015
Initial Operational Test and Evaluation (IOT&E)	2	2015	3	2015
Type Classification Standard / Full Materiel Release	4	2015	4	2015
Initial Operational Capability (IOC)	1	2016	1	2016