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Exhibit R-2, RDT&E Budget Item Justification: PB 2016 Army **Date:** February 2015

Appropriation/Budget Activity 2040: Research, Development, Test & Evaluation, Army / BA 5: System Development & Demonstration (SDD)					R-1 Program Element (Number/Name) PE 0604601A / Infantry Support Weapons							
COST (\$ in Millions)	Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	Cost To Complete	Total Cost
Total Program Element	-	82.332	34.575	74.128	-	74.128	72.273	63.999	60.957	48.183	Continuing	Continuing
S58: Soldier Enhancement Program	-	3.812	3.529	5.554	-	5.554	8.705	7.475	5.099	3.101	Continuing	Continuing
S60: Clothing & Equipment	-	5.266	2.518	4.180	-	4.180	7.154	10.897	10.765	6.651	Continuing	Continuing
S61: Acis Engineering Development	-	13.716	1.742	3.463	-	3.463	3.893	3.880	3.812	1.861	Continuing	Continuing
S62: Counter-Defilade Target Engagement - SDD	-	12.545	7.861	21.077	-	21.077	10.109	6.105	0.987	-	Continuing	Continuing
S63: Small Arms Improvement	-	17.387	11.095	20.303	-	20.303	22.665	19.926	19.542	19.732	Continuing	Continuing
S64: Common Remotely Operated Wpn Sys (CROWS)	-	9.145	2.457	3.124	-	3.124	4.582	3.546	9.142	10.523	-	42.519
S70: Personnel Recovery Support System (PRSS)	-	1.094	0.543	1.252	-	1.252	1.328	1.328	1.328	1.346	Continuing	Continuing
VS5: Soldier Protective Equipment	-	19.367	4.830	15.175	-	15.175	13.837	10.842	10.282	4.969	Continuing	Continuing

A. Mission Description and Budget Item Justification

FY 2016 budget request funds Infantry Support Weapons. This program element (PE) Engineering and Manufacturing Development (EMD) manages the Soldier as a system, with the goal of increasing Soldiers' combat effectiveness, increasing survivability, and improving the Soldiers' quality of life. It develops and tests prototypes of weapons, clothing, equipment, and other items useful to support the Soldier.

Project S58 (Soldier Enhancement Program) supports accelerated integration, modernization, and enhancement efforts of lighter, more lethal weapons, and improved Soldier items including lighter, more comfortable load-bearing equipment, field gear, survivability items, communications equipment, and navigational aids.

Project S59 (Soldier Support Equipment) supports system development and prototyping of critical Soldier support systems and other combat service support equipment that will improve unit sustainability and combat effectiveness.

Project S60 (Clothing and Equipment) supports pre-production development of state-of-the-art individual clothing and equipment to improve the survivability, mobility and sustainment affecting the quality of life of the individual Soldier.

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Project S61 (Aircrew Integrated Systems) provides System Development programs with improved aviator safety, survivability, and human performance that amplify the warfighting effectiveness and facilitates full-spectrum dominance of the Army aircraft including the AH-64 Apache/Longbow, CH-47 Chinook, UH/HH-60 Blackhawk, Light Utility Helicopter, and Armed Reconnaissance Helicopter.						
Project S62 (Counter-Defilade Target Engagement) the XM25, Individual Airburst Weapon System (IAWS) delivers a 25mm programmable high explosive airburst (HEAB) round to defeat defilade and point areas targets out to approximately 600 meters. Accurate and lethal engagement of defilade targets at the squad level is the number one capability gap identified by the United States Army Infantry Center (USAIC).						
Project S63 (Small Arms Improvements) demonstrates engineering development models or integrated commercial items designed to enhance lethality, target acquisition, fire control, training effectiveness, and reliability for small arms weapon systems and ammunition. FY2011 new programs include Improved Weapons Coatings, Personal Defense Weapon, 30 Round 5.56mm Magazine, Modular Handgun and Precision Sniper Rifle.						
Project S64 (CROWS) continue enhancing CROWS capability and reliability, and to increase its application across combat and tactical platforms. This capability will enhance the Soldier's survivability, lethality and situational awareness.						
Project S70 (Personnel Recovery Support System) provides system research, development and testing of the Personal Recovery Support System/Personnel Recovery Support Equipment supporting operations to report and locate isolated, missing, detained or captured Soldiers.						
Project VS5 (Soldier Protective Equipment) supports engineering and manufacturing development of Individual Soldier Ballistic Protection equipment. It will leverage advancements in technology to continue incremental improvements to body armor (to include improved outer tactical vests, plate carriers, and helmets) and other personal protective equipment.						
B. Program Change Summary (\$ in Millions)		FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total
Previous President's Budget		85.054	27.884	62.605	-	62.605
Current President's Budget		82.332	34.575	74.128	-	74.128
Total Adjustments		-2.722	6.691	11.523	-	11.523
• Congressional General Reductions		-	-			
• Congressional Directed Reductions		-	-0.015			
• Congressional Rescissions		-	-			
• Congressional Adds		-	-			
• Congressional Directed Transfers		-	-			
• Reprogrammings		-	-			
• SBIR/STTR Transfer		-	-			
• Other Adjustments 1		-2.722	6.706	11.523	-	11.523

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Congressional Add Details (\$ in Millions, and Includes General Reductions)		FY 2014	FY 2015
Project: S63: <i>Small Arms Improvement</i>			
Congressional Add: <i>New Weapons Congressional Add</i>		-	4.875
Congressional Add: <i>Small Arms Weapons Enhancements Congressional Add</i>		-	0.700
Congressional Add: <i>Combat Optics Congressional Add</i>		-	0.600
Congressional Add: <i>Fire Control Congressional Add</i>		-	0.527
Congressional Add Subtotals for Project: S63		-	6.702
Congressional Add Totals for all Projects		-	6.702

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Exhibit R-2A, RDT&E Project Justification: PB 2016 Army										Date: February 2015		
Appropriation/Budget Activity 2040 / 5					R-1 Program Element (Number/Name) PE 0604601A / Infantry Support Weapons				Project (Number/Name) S58 / Soldier Enhancement Program			
COST (\$ in Millions)	Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	Cost To Complete	Total Cost
S58: Soldier Enhancement Program	-	3.812	3.529	5.554	-	5.554	8.705	7.475	5.099	3.101	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

The Soldier Enhancement Program (SEP) was established by the National Defense Authorization Acts for Fiscal Years 1990 and 1991. The purpose of the SEP is to evaluate Commercial Off the Shelf/Government Off the Shelf/Non-Developmental Items (COTS/GOTS/NDI) production that can increase combat effectiveness of the Soldier. The SEP uses a Buy, Try and Decide methodology to support accelerated evaluation, integration, modernization, and enhancement efforts of lighter, more lethal weapons, and improved Soldier items including lighter, more comfortable load-bearing equipment, field gear, survivability items, communications equipment, and navigational aids. Proposals are submitted by Soldiers and others at any time and received twice a year by the SEP council. Proposal which are approved and validated become SEP Initiatives. SEP Initiatives are procured, evaluated by Soldiers, and report completed within a goal of a 12 month timeframe. This RDT&E funding is primarily used for soldier evaluation/preparation of evaluation reports. The associated Procurement lines are primarily used for procuring the COTS/GOTS/NDI hardware for evaluation.

B. Accomplishments/Planned Programs (\$ in Millions)

	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total
Title: Soldier Enhancement Program (SEP) Evaluations	3.324	3.032	5.048	-	5.048
Description: Procured and evaluated COTS/GOTS/NDI items that has the potential to enhance Soldier combat effectiveness.					
FY 2014 Accomplishments: FY2014 funding supports product evaluation of Lightweight Carbon Fiber Wrapped Rifle Barrels; Precision Guided Firearm – AR; Biodegradable CLP; Binocular Link for Smart Phones (BLINKS); MK 19 Fire Control System; Bolt Carrier Cleaning Tool; Grip Rail Interface Protection System (GRIPS); GRIPS Sleeve; 40x46mm HEDP-IM ERLV; 40mm High Velocity Airburst Munition; White Phosphor I2 Monocular; Binocular Night Vision Device (BNVD), PHASE II; Binocular Bridge; Universal Thermal Clip-on (UTC); HelStar F2 Strobe Light System; Tactical Welding Jacket; Power Plus Mouth Guards; Rolatube Expeditionary Systems; Pocket Digital Data Link (DDL) Remote Terminal (RT); BTC-70911X Flex Charger; TSE-RF-SAT-MP-A12, Manpack Antenna; Variable Combat Optic Gunsight (VCOG); Modular Protection Attachment System (MPAS); Battery Harvester.					
FY 2015 Plans:					

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Exhibit R-2A, RDT&E Project Justification: PB 2016 Army				Date: February 2015		
Appropriation/Budget Activity 2040 / 5		R-1 Program Element (Number/Name) PE 0604601A / Infantry Support Weapons		Project (Number/Name) S58 / Soldier Enhancement Program		
B. Accomplishments/Planned Programs (\$ in Millions)		FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total
FY2015 funding will support evaluation as new initiatives approved by SEP Council of Colonels (COCs). Product evaluations will include safety testing and confirmation (as needed), collection, and analysis of user feedback/ results. Anticipate approving and evaluating approximately 18 initiatives.						
FY 2016 Base Plans: FY2016 funding will support evaluation as new initiatives approved by SEP Council of Colonels (COCs). Product evaluations will include safety testing and confirmation (as needed), collection, and analysis of user feedback/results and documentation of results. Anticipate approving and evaluating approximately 20 initiatives.						
Title: Systems Engineering and Program Management.		0.488	0.497	0.506	-	0.506
Description: Systems Engineering and Program Management.						
FY 2014 Accomplishments: FY2014 supported website development and development of Soldier outreach materials to better accommodate the number, quality and timeliness of SEP proposals. In addition, continued evaluation of incoming proposals submitted via the SEP web application (http://peosoldier.army.mil/SEP), . Additionally, coordination was performed with industry and US Army TRADOC proponents to ensure proposals satisfied user needs and the materiel alternatives were COTS/GOTS/NDI solutions that can be readily purchased. Initiatives that completed evaluations received recommendations as to whether the capability should transition to become an eventual fielded capability or the effort should be terminated IAW AR 71-9.						
FY 2015 Plans: Continue coordinated with industry and US Army TRADOC Proponents to ensure that proposals submitted satisfied user needs, materiel alternatives are COTS/GOTS/NDI solutions that can be readily purchased and evaluated, perform analysis of incoming proposals in preparation for the FY2015 SEP Council meetings that determines which proposals would be evaluated as SEP initiatives. Initiatives completing evaluations receive recommendations to either transition the capability to the field or terminate the effort IAW AR 71-9. Coordination with US ARMY TRADOC Proponents continues as screening process as well as to help ensure that SEP initiative evaluations inform the requirements process.						
FY 2016 Base Plans: Continue coordinated with industry and US Army TRADOC Proponents to ensure that proposals submitted satisfied user needs, materiel alternatives are COTS/GOTS/NDI solutions that can be readily purchased and evaluated, perform analysis of incoming proposals in preparation for the FY2016 SEP Council meetings that determines which proposals would be evaluated as SEP initiatives. Initiatives completing evaluations receive recommendations to either transition the capability to the field or terminate the effort IAW AR 71-9. Coordination						

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Exhibit R-2A, RDT&E Project Justification: PB 2016 Army										Date: February 2015	
Appropriation/Budget Activity 2040 / 5				R-1 Program Element (Number/Name) PE 0604601A / <i>Infantry Support Weapons</i>				Project (Number/Name) S58 / <i>Soldier Enhancement Program</i>			
B. Accomplishments/Planned Programs (\$ in Millions)											
				FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total			
with US ARMY TRADOC Proponents continues as screening process as well as to help ensure that SEP initiative evaluations inform the requirements process.											
Accomplishments/Planned Programs Subtotals				3.812	3.529	5.554	-	5.554			
C. Other Program Funding Summary (\$ in Millions)											
Line Item	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	Cost To Complete	Total Cost
• OPA3 MA6800: <i>Soldier Enhancement - Other Support Equipment - MA6800</i>	-	1.677	2.287	-	2.287	2.291	2.461	2.463	2.523	Continuing	Continuing
• OPA2 BA5300: <i>Soldier Enhancement - Comms & Electronics Equipment - BA5300</i>	-	0.294	0.349	-	0.349	0.382	0.485	0.489	0.507	Continuing	Continuing
• WTCV GC0076: <i>Soldier Enhancement - Smalls Arms Weapons - GC0076</i>	1.267	1.682	2.392	-	2.392	2.591	2.793	2.759	2.828	Continuing	Continuing
Remarks											
D. Acquisition Strategy											
SEP candidates are reviewed and approved semi-annually and procured Other Procurement Army (OPA) and Weapons and Tracked Combat Vehicles (WTCV).											
E. Performance Metrics											
N/A											

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2016 Army												Date: February 2015			
Appropriation/Budget Activity 2040 / 5						R-1 Program Element (Number/Name) PE 0604601A / Infantry Support Weapons				Project (Number/Name) S58 / Soldier Enhancement Program					
Management Services (\$ in Millions)				FY 2014		FY 2015		FY 2016 Base		FY 2016 OCO		FY 2016 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
Various	MIPR	PEO Soldier : Ft. Belvoir, VA	11.765	0.488	Mar 2014	0.497	Mar 2015	0.506	Mar 2016	-		0.506	Continuing	Continuing	Continuing
Subtotal			11.765	0.488		0.497		0.506		-		0.506	-	-	-
Remarks															
Systems Engineering and Program Management includes in-house engineering support and integration services, conducting technical evaluations, market research and program reviews.															
Product Development (\$ in Millions)				FY 2014		FY 2015		FY 2016 Base		FY 2016 OCO		FY 2016 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
Various	MIPR	PEO Soldier : Ft. Belvoir, VA	39.573	-		-		-		-		-	-	39.573	Continuing
Subtotal			39.573	-		-		-		-		-	-	39.573	-
Remarks															
Candidates for the Soldier Enhancement Program are received, reviewed, and approved semi-annually. Contractual efforts are focused on procuring prototypes for testing.															
Support (\$ in Millions)				FY 2014		FY 2015		FY 2016 Base		FY 2016 OCO		FY 2016 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
Various	MIPR	PEO Soldier : Ft. Belvoir, VA	6.424	-		-		-		-		-	Continuing	Continuing	Continuing
Subtotal			6.424	-		-		-		-		-	-	-	-
Test and Evaluation (\$ in Millions)				FY 2014		FY 2015		FY 2016 Base		FY 2016 OCO		FY 2016 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
Various	MIPR	PEO Soldier : Ft. Belvoir, VA	13.486	3.324	Aug 2014	3.032	Aug 2015	5.048	Aug 2016	-		5.048	Continuing	Continuing	Continuing

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2016 Army												Date: February 2015		
Appropriation/Budget Activity 2040 / 5						R-1 Program Element (Number/Name) PE 0604601A / <i>Infantry Support Weapons</i>				Project (Number/Name) S58 / <i>Soldier Enhancement Program</i>				

Test and Evaluation (\$ in Millions)				FY 2014		FY 2015		FY 2016 Base		FY 2016 OCO		FY 2016 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
Subtotal			13.486	3.324		3.032		5.048		-		5.048	-	-	-

Remarks Testing costs vary annually depending on number and type of items being evaluated.															
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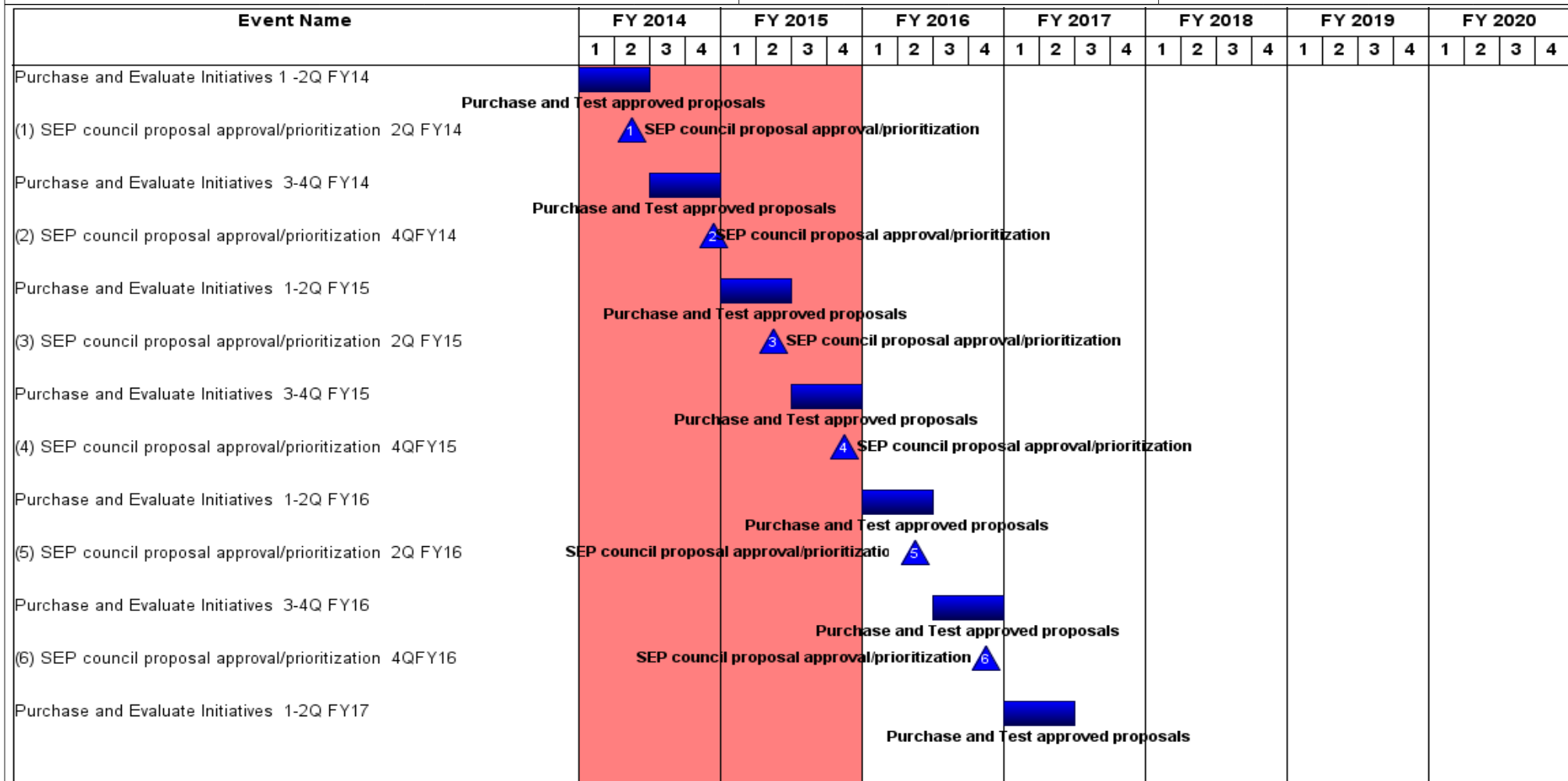
	Prior Years	FY 2014		FY 2015		FY 2016 Base		FY 2016 OCO		FY 2016 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	71.248	3.812		3.529		5.554		-		5.554	-	-	-

Remarks															
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Exhibit R-4, RDT&E Schedule Profile: PB 2016 Army **Date:** February 2015

Appropriation/Budget Activity 2040 / 5	R-1 Program Element (Number/Name) PE 0604601A / <i>Infantry Support Weapons</i>	Project (Number/Name) S58 / <i>Soldier Enhancement Program</i>
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Exhibit R-4, RDT&E Schedule Profile: PB 2016 Army																								Date: February 2015									
Appropriation/Budget Activity												R-1 Program Element (Number/Name)												Project (Number/Name)									
2040 / 5												PE 0604601A / Infantry Support Weapons												S58 / Soldier Enhancement Program									
Event Name	FY 2014				FY 2015				FY 2016				FY 2017				FY 2018				FY 2019				FY 2020								
	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					
(1) SEP council proposal approval/prioritization 2Q FY17													SEP council proposal approval/prioritization 1																				
Purchase and Evaluate Initiatives 3-4Q FY17																	Purchase and Test approved proposals																
(2) SEP council proposal approval/prioritization 4QFY17													SEP council proposal approval/prioritization 2																				
Purchase and Evaluate Initiatives 1-2Q FY18																	Purchase and Test approved proposals																
(3) SEP council proposal approval/prioritization 2Q FY18													SEP council proposal approval/prioritization 3																				
Purchase and Evaluate Initiatives 3-4Q FY18																	Purchase and Test approved proposals																
(4) SEP council proposal approval/prioritization 4QFY18													SEP council proposal approval/prioritization 4																				
Purchase and Evaluate Initiatives 1-2Q FY19																	Purchase and Test approved proposals																
(5) SEP council proposal approval/prioritization 2Q FY19													SEP council proposal approval/prioritization 5																				
Purchase and Evaluate Initiatives 3-4Q FY19																	Purchase and Test approved proposals																
(6) SEP council proposal approval/prioritization 4QFY19													SEP council proposal approval/prioritization 6																				
Purchase and Evaluate Initiatives 1-2Q FY20																					Purchase and Test approved prop												

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Exhibit R-4A, RDT&E Schedule Details: PB 2016 Army			Date: February 2015
Appropriation/Budget Activity 2040 / 5	R-1 Program Element (Number/Name) PE 0604601A / <i>Infantry Support Weapons</i>	Project (Number/Name) S58 / <i>Soldier Enhancement Program</i>	

Schedule Details

Events	Start		End	
	Quarter	Year	Quarter	Year
Purchase and Evaluate Initiatives 1 -2Q FY14	1	2014	2	2014
SEP council proposal approval/prioritization 2Q FY14	2	2014	2	2014
Purchase and Evaluate Initiatives 3-4Q FY14	3	2014	4	2014
SEP council proposal approval/prioritization 4QFY14	4	2014	4	2014
Purchase and Evaluate Initiatives 1-2Q FY15	1	2015	2	2015
SEP council proposal approval/prioritization 2Q FY15	2	2015	2	2015
Purchase and Evaluate Initiatives 3-4Q FY15	3	2015	4	2015
SEP council proposal approval/prioritization 4QFY15	4	2015	4	2015
Purchase and Evaluate Initiatives 1-2Q FY16	1	2016	2	2016
SEP council proposal approval/prioritization 2Q FY16	2	2016	2	2016
Purchase and Evaluate Initiatives 3-4Q FY16	3	2016	4	2016
SEP council proposal approval/prioritization 4QFY16	4	2016	4	2016
Purchase and Evaluate Initiatives 1-2Q FY17	1	2017	2	2017
SEP council proposal approval/prioritization 2Q FY17	2	2017	2	2017
Purchase and Evaluate Initiatives 3-4Q FY17	3	2017	4	2017
SEP council proposal approval/prioritization 4QFY17	4	2017	4	2017
Purchase and Evaluate Initiatives 1-2Q FY18	1	2018	2	2018
SEP council proposal approval/prioritization 2Q FY18	2	2018	2	2018
Purchase and Evaluate Initiatives 3-4Q FY18	3	2018	4	2018
SEP council proposal approval/prioritization 4QFY18	4	2018	4	2018
Purchase and Evaluate Initiatives 1-2Q FY19	1	2019	2	2019
SEP council proposal approval/prioritization 2Q FY19	2	2019	2	2019
Purchase and Evaluate Initiatives 3-4Q FY19	3	2019	4	2019

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Exhibit R-4A, RDT&E Schedule Details: PB 2016 Army			Date: February 2015	
Appropriation/Budget Activity 2040 / 5	R-1 Program Element (Number/Name) PE 0604601A / Infantry Support Weapons		Project (Number/Name) S58 / Soldier Enhancement Program	
	Start		End	
Events	Quarter	Year	Quarter	Year
SEP council proposal approval/prioritization 4QFY19	4	2019	4	2019
Purchase and Evaluate Initiatives 1-2Q FY20	1	2020	2	2020

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Appropriation/Budget Activity 2040 / 5					R-1 Program Element (Number/Name) PE 0604601A / <i>Infantry Support Weapons</i>				Project (Number/Name) S60 / <i>Clothing & Equipment</i>			
COST (\$ in Millions)	Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	Cost To Complete	Total Cost
S60: <i>Clothing & Equipment</i>	-	5.266	2.518	4.180	-	4.180	7.154	10.897	10.765	6.651	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

This funding supports engineering and manufacturing development tasks related to individual clothing, equipment and personnel parachutes with the goal of enhancing the survivability, mobility and quality of life of the individual Soldier. It funds system integration and formal Developmental Testing/Operational Testing of preproduction and production representative systems leveraging advancements in materials, fabrication techniques, moisture management, flame resistance, antimicrobial treatments, insect protection, extreme environmental protection and chemical/biological protection and camouflage, to include evaluation, test, and conduct of Soldier evaluations of Organizational Clothing and Individual Equipment appropriate for use in jungle/tropical and Arctic environments. Goal is to increase the capabilities and durability of tactical and non-tactical clothing and individual equipment. It also funds improvements and testing/evaluation of personnel parachute systems.

B. Accomplishments/Planned Programs (\$ in Millions)

	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total
Title: Soldier Uniforms and Clothing	3.479	0.518	3.180	-	3.180
Description: Develop and provide superior and sustainable integrated clothing for the Soldier in a rapidly changing global environment.					
FY 2014 Accomplishments: Environmental Clothing and Equipment. Obtained a Milestone (MS) C and Full Rate Production (FRP) Decision to transition the Rapid Fielding Initiative Army Combat Glove (ACG) to Program of Record in 1QFY14. Obtained MS C and Full Rate Production Decision in 1QFY14 for the Army Combat Shirt (ACS). Conducted photo simulation evaluations of existing transitional camouflage patterns in 2QFY14, followed by both photo simulation and field evaluations of existing Services' woodland, transitional, and arid patterns in 4QFY14. Conducted evaluation of most effective colors to be used on combat boots, T-shirts and belts used with the combat uniform. Developed shade standards to be used in leather handwear. Finalized production specifications for temperate and hot weather variants of the Mountain Combat Boot (MCB) and obtained MDD and MS C in 4QFY14. Tactical/Personal Clothing. Conducted market survey, procured prototype, conducted technical testing to include Pyroman burn tests, user evaluations and developed patterns for the Army Aircrew Combat Uniform–Women's (A2CU-W). Optimized performance of the deployment of camouflage uniform pattern across the Near Infrared spectrum. Clothing Bag. Continued to refine designs and incorporate new materials and designs into clothing bag items. Finalized patterns, Technical Data Package, and Supply Request Package for the next generation Army Physical Fitness Uniform (APFU) providing improved fit, moisture wicking and antimicrobial capabilities and					

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B. Accomplishments/Planned Programs (\$ in Millions)		FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total
transitioned to Defense Logistics Agency- Troop Support for production. Developed patterns and conducted initial user evaluation on Army Service Uniform (ASU) to address women's concerns in fit and function of the ASU. FY 2015 Plans: Flame Resistant Clothing. Will obtain MDD and Milestone C Decision for the Army Combat Pant (ACP) in 2QFY15. Clothing Bag. Procure prototypes of Garrison Food Service Uniform (GFSU), and conduct follow-on user evaluation to test modified patterns to incorporate commercial standards for burn protection, stain release, and professional appearance into the GFSU. GFSU MDD and MS-C anticipated 4QFY15. Develop revised patterns and conduct follow-on user evaluation on Army Service Uniform (ASU) slacks to address women's concerns in fit and function of the ASU. Tactical/Personal Clothing. Conduct evaluation of combat uniform fabrics and footwear suitable for use in hot/ humid (jungle) environments. FY 2016 Base Plans: Uniform Clothing and Environmental Clothing System. Obtain Milestone B (MS B) for hot weather footwear 2QFY16. Conduct market survey, and initiate Developmental Testing (DT) on footwear. Evaluate, test, and conduct Soldier evaluations of Organizational Clothing and Individual Equipment appropriate for use in jungle/ tropical and arctic environments. Conduct DT of the Capacitive Army Combat Gloves to interface with touch screen user devices. Conduct operational tests (OT) of improved fabrics to reduce weight of Winter overwhites. Clothing Bag. Will continue to refine designs and incorporate alternate materials and designs in clothing bag items including the Women's Army Service Uniform (ASU) slacks, the Women's Maternity Utility Uniform, alternate fabrics for the Army Physical Fitness Uniform, and redesign and testing of the medium and lightweight drawers.						
Title: Individual Equipment Description: Develop and provide superior and sustainable integrated individual equipment for the Soldier in a rapidly changing global environment. FY 2014 Accomplishments: Personnel Airdrop. Obtained Milestone C decision for RA-1 Military Free Fall Advanced Ram Air Parachute System (MFF ARAPS in 1QFY14). Obtained Pre-EMD Decision in 2QFY14 and Milestone B decision in 3QFY14 for the Parachute Navigation System (PARANAVSYS) program, with procurement of Developmental Testing (DT) 1 assets in 4QFY14. The PARANAVSYS will provide Global Positioning System (GPS) navigation		1.787	2.000	1.000	-	1.000

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Exhibit R-2A, RDT&E Project Justification: PB 2016 Army								Date: February 2015			
Appropriation/Budget Activity 2040 / 5				R-1 Program Element (Number/Name) PE 0604601A / Infantry Support Weapons				Project (Number/Name) S60 / Clothing & Equipment			
B. Accomplishments/Planned Programs (\$ in Millions)						FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	
capability to Military Free Fall (MFF) parachutists. Conducted DT 1 testing on PARANAVSYS to include environmental and physical properties testing. FY 2015 Plans: Personnel Airdrop. Will procure Developmental Test 2 (DT2) assets and conduct DT testing on PARANAVSYS which provides GPS navigation capabilities to MFF parachutists. Procure samples and conduct Developmental Testing (D T) of Individual Water Treatment Device (IWTD) and achieve MS C in 1FY16. NBC /Load Carriage: Conduct Limited User Evaluation of the Airborne Rucksack in 3QFY15. FY 2016 Base Plans: Airdrop. Obtain Milestone B (MS B) for the Enhanced Electronic Automatic Activation Device (EEAAD) in 2QFY16. Conduct Developmental Testing of the EEAAD for Military Free Fall Parachutes. Obtain MS C 1QFY16 for the Parachute Navigation System (PARANAVSYS) which will result in a Global Positioning System (GPS) capability for MFF Parachutists. Conduct Follow-on Test and Evaluation to support Full Material Release of PARANAVSYS. Conduct Developmental and Operational Tests on the ripcord design of the T-11 Reserve (R) parachute to reduce potential of accidental activation.											
Accomplishments/Planned Programs Subtotals						5.266	2.518	4.180	-	4.180	
C. Other Program Funding Summary (\$ in Millions)											
Line Item	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	Cost To Complete	Total Cost
• Clothing and Individual Eqp S53: RDTE, 0603827.S53, Clothing and Equipment	5.608	1.555	9.185	-	9.185	8.436	7.108	7.296	7.651	Continuing	Continuing
• Central Funding and Fielding: OMA, 121017, Central Funding and Fielding	88.771	127.085	126.907	-	126.907	134.879	134.876	133.442	150.872	Continuing	Continuing
• Advanced Tactical Parachute System: OPA, MA7801, Advanced Tactical Parachute System	35.177	25.996	26.303	-	26.303	26.108	40.854	43.546	12.235	Continuing	Continuing
Remarks											

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Exhibit R-2A, RDT&E Project Justification: PB 2016 Army		Date: February 2015
Appropriation/Budget Activity 2040 / 5	R-1 Program Element (Number/Name) PE 0604601A / <i>Infantry Support Weapons</i>	Project (Number/Name) S60 / <i>Clothing & Equipment</i>
D. Acquisition Strategy Acquisition strategies for these programs vary in methods, and range from: 1) Material Change programs that result in engineering changes to existing systems to; 2) traditional development programs that include an Engineering and Manufacturing Development phase ranging in duration from 12 to 48 months, depending on the level of complexity and testing required.		
E. Performance Metrics N/A		

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2016 Army												Date: February 2015			
Appropriation/Budget Activity 2040 / 5						R-1 Program Element (Number/Name) PE 0604601A / Infantry Support Weapons				Project (Number/Name) S60 / Clothing & Equipment					
Management Services (\$ in Millions)				FY 2014		FY 2015		FY 2016 Base		FY 2016 OCO		FY 2016 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
In-House Support	Various	PM SPIE : Various	8.025	0.450		-		0.800		-		0.800	Continuing	Continuing	Continuing
Subtotal			8.025	0.450		-		0.800		-		0.800	-	-	-
Product Development (\$ in Millions)				FY 2014		FY 2015		FY 2016 Base		FY 2016 OCO		FY 2016 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	Various	NSRDEC : Natick, MA	13.989	0.900		0.408		0.498		-		0.498	Continuing	Continuing	Continuing
Development Contracts	Various	Various : Various	38.912	2.519		1.210		0.892		-		0.892	Continuing	Continuing	Continuing
Subtotal			52.901	3.419		1.618		1.390		-		1.390	-	-	-
Support (\$ in Millions)				FY 2014		FY 2015		FY 2016 Base		FY 2016 OCO		FY 2016 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
Misc Support Costs	Various	Various : Various	15.046	0.250		-		0.790		-		0.790	Continuing	Continuing	Continuing
Subtotal			15.046	0.250		-		0.790		-		0.790	-	-	-
Test and Evaluation (\$ in Millions)				FY 2014		FY 2015		FY 2016 Base		FY 2016 OCO		FY 2016 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
Developmental Testing	MIPR	Various : Various	16.258	1.147		0.900		1.200		-		1.200	Continuing	Continuing	Continuing
Subtotal			16.258	1.147		0.900		1.200		-		1.200	-	-	-
			Prior Years	FY 2014		FY 2015		FY 2016 Base		FY 2016 OCO		FY 2016 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals			92.230	5.266		2.518		4.180		-		4.180	-	-	-
Remarks															

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Exhibit R-4, RDT&E Schedule Profile: PB 2016 Army **Date:** February 2015

Appropriation/Budget Activity 2040 / 5	R-1 Program Element (Number/Name) PE 0604601A / <i>Infantry Support Weapons</i>	Project (Number/Name) S60 / <i>Clothing & Equipment</i>
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Event Name	FY 2014				FY 2015				FY 2016				FY 2017				FY 2018				FY 2019				FY 2020			
	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
UNIFORM CLOTHING																												
(1) Hot Weather Footwear MS B												▲																
(2) Army Combat Glove MS C	▲																											
(3) Army Combat Shirt MS C	▲																											
(4) Mountain Combat Boot MS C				▲																								
(5) Army Combat Pant MS C								▲																				
Continue Fabric & FR Upgrades																												
Alternate Camo Pattern OT (Phase IV)																												
(6) Camo Decision				▲																								
Clothing Bag Upgrades and Evaluations																												
APFU Product Improvement																												
A2CU Improvements and women's sizing																												
Garrison Food Service Uniform Improvements																												

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Exhibit R-4, RDT&E Schedule Profile: PB 2016 Army															Date: February 2015														
Appropriation/Budget Activity 2040 / 5										R-1 Program Element (Number/Name) PE 0604601A / Infantry Support Weapons										Project (Number/Name) S60 / Clothing & Equipment									
Event Name	FY 2014				FY 2015				FY 2016				FY 2017				FY 2018				FY 2019				FY 2020				
	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	
(1) Garrison Food Service Uniform Milestone C								▲1																					
Transition A2CU improvements to DLA Troop Support																													
INDIVIDUAL EQUIPMENT																													
(2) EEAAD MDD and MS B												▲2																	
EEAAD Operational Testing																													
(3) Enhanced EAAD MS C																▲3													
(4) ILCS MS B												▲4																	
Integrated Load Carriage Equipment DT/OT																													
(5) Integrated Load Carriage Equipment MS C																													
(6) Environmental Protection Ensemble (EPE) MS B												▲6																	
EPE DT/OT																													
(7) EPE MS C																													
PARANAVSYS DT/OT																													

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Exhibit R-4, RDT&E Schedule Profile: PB 2016 Army																Date: February 2015												
Appropriation/Budget Activity 2040 / 5										R-1 Program Element (Number/Name) PE 0604601A / Infantry Support Weapons								Project (Number/Name) S60 / Clothing & Equipment										
Event Name	FY 2014				FY 2015				FY 2016				FY 2017				FY 2018				FY 2019				FY 2020			
	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
(1) PARANAVSYS MS C																												
(2) ARAPS MS-C																												
(3) IWTD Milestone C																												

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Exhibit R-4A, RDT&E Schedule Details: PB 2016 Army			Date: February 2015
Appropriation/Budget Activity 2040 / 5	R-1 Program Element (Number/Name) PE 0604601A / <i>Infantry Support Weapons</i>	Project (Number/Name) S60 / <i>Clothing & Equipment</i>	

Schedule Details

Events	Start		End	
	Quarter	Year	Quarter	Year
UNIFORM CLOTHING	1	2010	4	2015
Hot Weather Footwear MS B	2	2016	2	2016
Army Combat Glove MS C	1	2014	1	2014
Army Combat Shirt MS C	1	2014	1	2014
Mountain Combat Boot MS C	4	2014	4	2014
Army Combat Pant MS C	2	2015	2	2015
Continue Fabric & FR Upgrades	3	2009	4	2018
Alternate Camo Pattern OT (Phase IV)	1	2012	3	2014
Camo Decision	3	2014	3	2014
Clothing Bag Upgrades and Evaluations	1	2012	4	2018
APFU Product Improvement	1	2012	3	2015
A2CU Improvements and women's sizing	1	2012	4	2015
Garrison Food Service Uniform Improvements	1	2015	3	2015
Garrison Food Service Uniform Milestone C	4	2015	4	2015
Transition A2CU improvements to DLA Troop Support	3	2014	3	2014
INDIVIDUAL EQUIPMENT	2	2008	4	2015
EEAAD MDD and MS B	2	2016	2	2016
EEAAD Operational Testing	3	2016	1	2017
Enhanced EAAD MS C	2	2017	2	2017
ILCS MS B	4	2016	4	2016
Integrated Load Carriage Equipment DT/OT	2	2017	4	2017
Integrated Load Carriage Equipment MS C	4	2017	4	2017
Environmental Protection Ensemble (EPE) MS B	4	2016	4	2016

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Exhibit R-4A, RDT&E Schedule Details: PB 2016 Army			Date: February 2015	
Appropriation/Budget Activity 2040 / 5		R-1 Program Element (Number/Name) PE 0604601A / Infantry Support Weapons		Project (Number/Name) S60 / Clothing & Equipment
		Start		End
Events	Quarter	Year	Quarter	Year
EPE DT/OT	2	2017	4	2017
EPE MS C	1	2018	1	2018
PARANAVSYS DT/OT	3	2014	4	2014
PARANAVSYS MS C	1	2016	1	2016
ARAPS MS-C	2	2014	2	2014
IWTD Milestone C	4	2015	4	2015

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Exhibit R-2A, RDT&E Project Justification: PB 2016 Army										Date: February 2015		
Appropriation/Budget Activity 2040 / 5					R-1 Program Element (Number/Name) PE 0604601A / <i>Infantry Support Weapons</i>				Project (Number/Name) S61 / <i>Acis Engineering Development</i>			
COST (\$ in Millions)	Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	Cost To Complete	Total Cost
S61: <i>Acis Engineering Development</i>	-	13.716	1.742	3.463	-	3.463	3.893	3.880	3.812	1.861	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

This project conducts Engineering and Manufacturing Development (EMD) for the Air Soldier System (Air SS). The Air SS is Army aircrew survival and mission equipment that improves safety, survivability, and human performance. The Air SS Capability Development Document addresses capability gaps identified during sustained combat operations in Iraq and Afghanistan including inadequate crew station compatibility caused by equipment bulk, aircraft mishaps as a result of limited Situational Awareness (SA), and lack of functionally integrated aircrew mission and survival equipment. Air SS delivers reduced bulk and weight of survival equipment; improved crew station compatibility; and improved pilot SA and safety. The Air SS provides enhanced terrain, threat, and obstacle avoidance information; improved heads-up display (HUD) technologies that increase the aviator's ability to safely land or takeoff in Degraded Visual Environments (DVE); and the capability to perform extended missions in extreme environmental and chemical/biological threat conditions. This project also funds the development and test of the Air SS pre-planned product improvement phase that includes the Electronic Flight Bag (EFB), a digital replacement for paper-based DoD Flight Information Publications for Army aircrews; improved laser eye protection; and tactile cueing that enhances aviator SA in a DVE. This program does not duplicate any aircraft platform program efforts.

B. Accomplishments/Planned Programs (\$ in Millions)

	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total
Title: Aircrew Integrated Systems (ACIS) Engineering Development	13.716	1.742	3.463	-	3.463
Description: Development, Integration, evaluation, testing, and qualification of Air Soldier System multi-phased capabilities as technologies mature.					
FY 2014 Accomplishments: Continued the integration, developmental test, and qualification of production-representative Air Soldier System hardware; including head tracking, Soldier and aircraft mounted flight displays, and protective clothing. Conducted a Customer (Operational) Test supporting a 4Q FY15 Milestone C/LRIP decision on mature Air Soldier System items.					
FY 2015 Plans: Complete Operational Test and Evaluation of Air Soldier System capabilities supporting a Full Rate Production Decision.					
FY 2016 Base Plans:					

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Exhibit R-2A, RDT&E Project Justification: PB 2016 Army								Date: February 2015				
Appropriation/Budget Activity 2040 / 5				R-1 Program Element (Number/Name) PE 0604601A / <i>Infantry Support Weapons</i>				Project (Number/Name) S61 / <i>Acis Engineering Development</i>				
B. Accomplishments/Planned Programs (\$ in Millions)								FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total
Initial evaluation, modification, integration, and qualification of P3I candidate commercial products including an Electronic Flight Bag solution.												
Accomplishments/Planned Programs Subtotals								13.716	1.742	3.463	-	3.463
C. Other Program Funding Summary (\$ in Millions)												
Line Item	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	Cost To Complete	Total Cost	
• Aircrew Integrated Sys Adv Dev: <i>RDTE, A PE</i> <i>0603827A, PROJ S51 - Adv Dev</i>	0.159	0.161	0.152	-	0.152	0.157	0.153	0.198	0.198	Continuing	Continuing	
• Aircrew Integrated Systems: <i>Aircraft Procurement,</i> <i>Army SSN AZ3110 - ACIS</i>	45.841	48.081	44.085	-	44.085	48.441	47.380	47.374	50.136	Continuing	Continuing	
Remarks												
D. Acquisition Strategy												
Engineering and Manufacturing Development efforts for the Air Soldier System (Air SS) program include development, integration, test, and airworthiness qualification of aviator flight display symbology technologies that will increase crew member situational awareness in degraded visual environments (DVE), and aircrew protective and survival equipment that reduces bulk and weight and improves crew station compatibility and mission effectiveness. Air SS includes improvements to the current flight helmet; improvements to the survival gear carriage system; lightweight body armor; environmental protective clothing and personal survival equipment; and a day/night helmet-mounted flight symbology display with head tracking and 3D flight symbology for UH-60 and CH-47 aviators. The Air SS pre-planned product improvement (P3I) phase includes the development and qualification of the Electronic Flight Bag, a digital Army aviation replacement for paper-based DoD Flight Information Publications, and the continuing development of deferred capabilities as defined within the Capability Production Document (CDP). P3I capabilities also include tactile Situational Awareness enhancements and laser eye protection. Contracts with industry include both Cost and Firm Fixed Price using full and open competition, each evaluated and selected to appropriately share risk between industry and the government.												
E. Performance Metrics												
N/A												

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2016 Army												Date: February 2015			
Appropriation/Budget Activity 2040 / 5						R-1 Program Element (Number/Name) PE 0604601A / Infantry Support Weapons				Project (Number/Name) S61 I Acis Engineering Development					
Management Services (\$ in Millions)				FY 2014		FY 2015		FY 2016 Base		FY 2016 OCO		FY 2016 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 Administration	Allot	Various Government : Huntsville, Alabama	2.140	0.699		0.102		0.273		-		0.273	Continuing	Continuing	Continuing
Subtotal			2.140	0.699		0.102		0.273		-		0.273	-	-	-
Product Development (\$ in Millions)				FY 2014		FY 2015		FY 2016 Base		FY 2016 OCO		FY 2016 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
Air Warrior and Air Soldier System Development	C/TBD	Various Government : Various Locations	46.714	9.639		0.158		2.705		-		2.705	Continuing	Continuing	Continuing
Subtotal			46.714	9.639		0.158		2.705		-		2.705	-	-	-
Support (\$ in Millions)				FY 2014		FY 2015		FY 2016 Base		FY 2016 OCO		FY 2016 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
Matrix Support	RO	Various Government : Various Locations	2.838	0.626		0.093		0.258		-		0.258	Continuing	Continuing	Continuing
Subtotal			2.838	0.626		0.093		0.258		-		0.258	-	-	-
Test and Evaluation (\$ in Millions)				FY 2014		FY 2015		FY 2016 Base		FY 2016 OCO		FY 2016 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
Developmental and Operational Testing	RO	Various Activities : Various Locations	7.849	2.752		1.389		0.227		-		0.227	Continuing	Continuing	Continuing
Subtotal			7.849	2.752		1.389		0.227		-		0.227	-	-	-

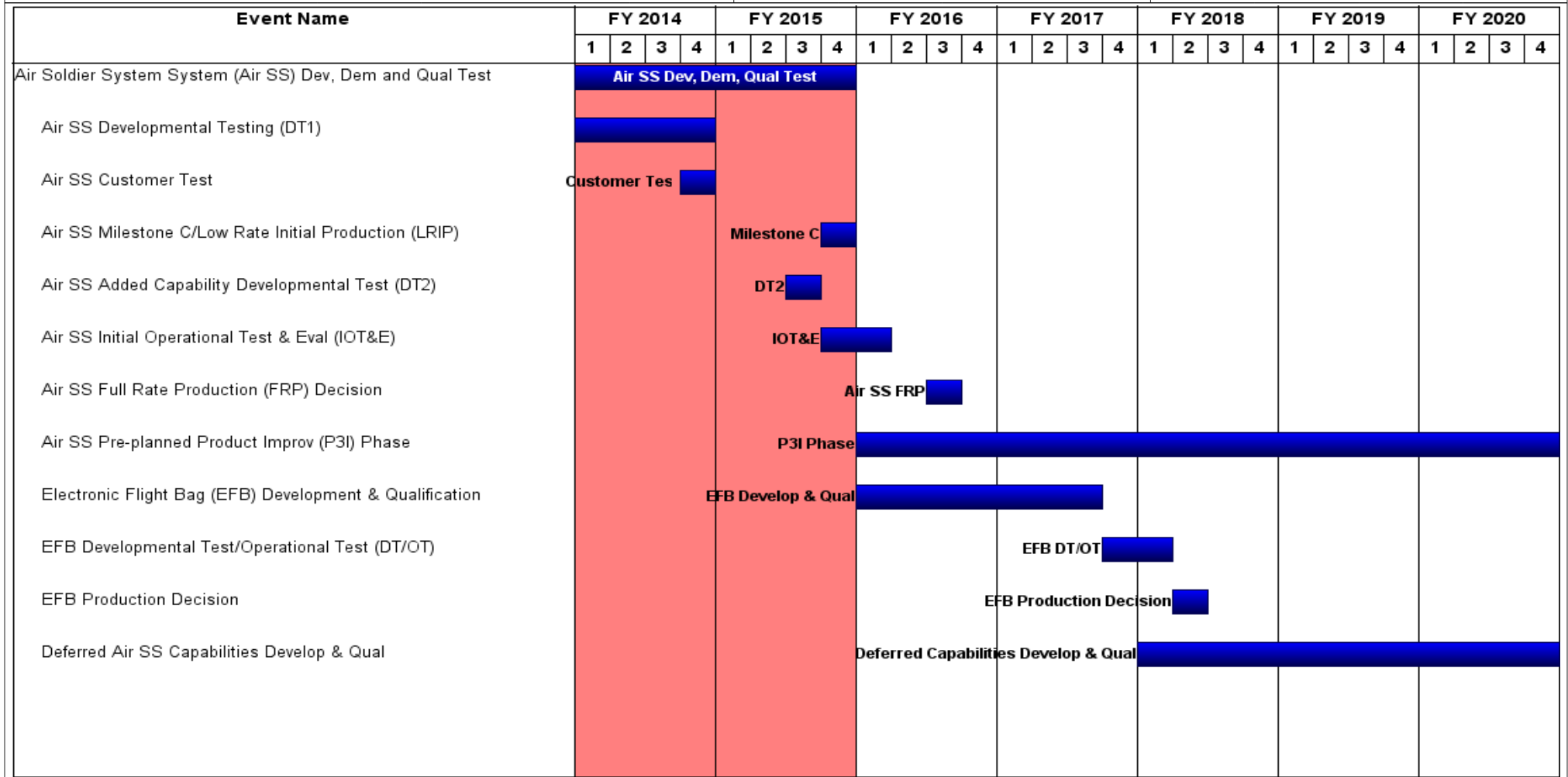
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Exhibit R-3, RDT&E Project Cost Analysis: PB 2016 Army										Date: February 2015			
Appropriation/Budget Activity 2040 / 5					R-1 Program Element (Number/Name) PE 0604601A / <i>Infantry Support Weapons</i>				Project (Number/Name) S61 / <i>Acis Engineering Development</i>				
	Prior Years	FY 2014		FY 2015		FY 2016 Base		FY 2016 OCO		FY 2016 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	59.541	13.716		1.742		3.463		-		3.463	-	-	-
Remarks													

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Exhibit R-4, RDT&E Schedule Profile: PB 2016 Army **Date:** February 2015

Appropriation/Budget Activity 2040 / 5	R-1 Program Element (Number/Name) PE 0604601A / <i>Infantry Support Weapons</i>	Project (Number/Name) S61 / <i>Acis Engineering Development</i>
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Exhibit R-4A, RDT&E Schedule Details: PB 2016 Army			Date: February 2015
Appropriation/Budget Activity 2040 / 5	R-1 Program Element (Number/Name) PE 0604601A / <i>Infantry Support Weapons</i>	Project (Number/Name) S61 / <i>Acis Engineering Development</i>	

Schedule Details

Events	Start		End	
	Quarter	Year	Quarter	Year
Air Soldier System System (Air SS) Dev, Dem and Qual Test	1	2012	4	2015
Air SS Developmental Testing (DT1)	1	2014	4	2014
Air SS Customer Test	4	2014	4	2014
Air SS Milestone C/Low Rate Initial Production (LRIP)	4	2015	4	2015
Air SS Added Capability Developmental Test (DT2)	3	2015	3	2015
Air SS Initial Operational Test & Eval (IOT&E)	4	2015	1	2016
Air SS Full Rate Production (FRP) Decision	3	2016	3	2016
Air SS Pre-planned Product Improv (P3I) Phase	1	2016	4	2020
Electronic Flight Bag (EFB) Development & Qualification	1	2016	3	2017
EFB Developmental Test/Operational Test (DT/OT)	4	2017	1	2018
EFB Production Decision	2	2018	2	2018
Deferred Air SS Capabilities Develop & Qual	1	2018	4	2021

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Exhibit R-2A, RDT&E Project Justification: PB 2016 Army										Date: February 2015		
Appropriation/Budget Activity 2040 / 5					R-1 Program Element (Number/Name) PE 0604601A / Infantry Support Weapons				Project (Number/Name) S62 / Counter-Defilade Target Engagement - SDD			
COST (\$ in Millions)	Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	Cost To Complete	Total Cost
S62: Counter-Defilade Target Engagement - SDD	-	12.545	7.861	21.077	-	21.077	10.109	6.105	0.987	-	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

The Maneuver Center of Excellence (MCoE), FT Benning, GA (User Community) identifies the Counter Defilade Target Engagement (CDTE) as a critical capability gap for our Soldiers in combat. The number one materiel solution to mitigate the critical capability gap (defeating defilade (hidden) targets from 35-500m) is the XM25. The XM25 provides the Infantry Soldier with a leap-ahead overmatch capability that dramatically increases lethality, range, and capability through the use of a family of programmable 25mm ammunition and allows the Soldier to engage defilade targets with a high degree of accuracy while posing minimal burden, in terms of weight and size. The XM25 fires 25mm munitions including high-explosive airburst (HEAB) and training rounds. The XM25 comes with a target acquisition/fire control subsystem that integrates thermal capability with direct-view optics, laser rangefinder, compass, fuze setter, ballistic computer, and internal display. The XM25 has a 500-meter point target range and a 700-meter area target range capable of defeating defilade targets.

B. Accomplishments/Planned Programs (\$ in Millions)

	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total
Title: Engineering and Manufacturing Development/Fabricate	9.460	5.000	13.990	-	13.990
Description: Description: Engineering Development and Fabrication					
FY 2014 Accomplishments: Fabricated and integrated design enhancements to the weapon system, subsystems, target acquisition/fire control (TA/FC) and ammunition identified through contractor and government subsystem testing and previously during the forward operational assessment safety confirmation.					
FY 2015 Plans: Establish an open system component design to incorporate technical and producible design improvements for critical electronics and optics and reduce integration complexity of components. Initiate build of hardware to support contractor and government testing. Conduct pre Milestone C system level trade studies to improve system effectiveness, as well as explore Engineering Change Proposals to potentially reduce weight, size, and power consumption.					
FY 2016 Base Plans:					

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Exhibit R-2A, RDT&E Project Justification: PB 2016 Army				Date: February 2015				
Appropriation/Budget Activity 2040 / 5		R-1 Program Element (Number/Name) PE 0604601A / Infantry Support Weapons		Project (Number/Name) S62 / Counter-Defilade Target Engagement - SDD				
B. Accomplishments/Planned Programs (\$ in Millions)				FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total
Will conduct pre Milestone C system level trade studies and test the results to improve system effectiveness. Will complete build of hardware to support government testing. Will continue to explore additional engineering changes to potentially reduce weight, size, and power consumption.								
Title: Engineering and Training Development Description: Description: Engineering and Training Development FY 2014 Accomplishments: Provided engineering support for weapon systems, subsystems, target acquisition/fire control (TA/FC), ammunition and software design enhancements required to perform technical design reviews and integration technical design efforts. Updated the acquisition program baseline. Developed new equipment training plan and training materials. FY 2015 Plans: Continue to provide engineering support for weapon systems, subsystems, target acquisition/fire control (TA/FC) and software design enhancements based on lessons learned from the Limited User Evaluations (LUE). Refine and update the training material based on lessons learned during the LUE soldier training. Provide continued engineering support for the development of the XM25 virtual training concept. FY 2016 Base Plans: Will continue to provide engineering support for weapons systems, subsystems, target acquisition/fire control (TA/FC), ammunition and software design modifications based on lessons learned from Pre-Production Qualification Testing (PPQT) #2 and Limited User Testing (LUT). Will refine and update training material based on lessons learned during user assessments, soldier training and pre log demo activities, as well as, PPQT#2 and LUT. Will provide continued engineering support for the development of the virtual training concept for the XM25.				0.530	0.625	0.860	-	0.860
Title: Development / Operational Test and Evaluation Activities Description: Description: Test and Evaluate FY 2014 Accomplishments: Conducted both government Pre-Production Qualification Testing (PPQT #1) and contractor test efforts of weapon system, target acquisition/fire control (TA/FC) and ammunition to address safety risks. Some of the PPQT activities completed were Airburst Accuracy, Dispersion, Fuze Arming, Part Interchangeability, Fuze Self Destruct, Thermal Shock, Long Term Storage, Electromagnetic Environmental Effects (E3), and Simulated				2.405	1.838	5.820	-	5.820

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Exhibit R-2A, RDT&E Project Justification: PB 2016 Army			Date: February 2015		
Appropriation/Budget Activity 2040 / 5		R-1 Program Element (Number/Name) PE 0604601A / <i>Infantry Support Weapons</i>		Project (Number/Name) S62 / <i>Counter-Defilade Target Engagement - SDD</i>	

B. Accomplishments/Planned Programs (\$ in Millions)	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total
<p>Natural Environment Tests. Conducted contractor system level verification testing of design improvements for the weapon system and TA/FC.</p> <p>FY 2015 Plans: Continue to conduct government, contractor and user test activities to evaluate engineering changes to the weapons system. Government will also evaluate and test efforts related to pre-planned product improvements. Plan, coordinate, and resource PPQT#2, LUT and Pre Logistics Demonstrations.</p> <p>FY 2016 Base Plans: Will conduct PPQT#2 consisting of government test efforts to evaluate engineering changes, fixes and design modifications to address anomalies. Will conduct Limited User Testing (LUT) and Pre-Logistics Demonstrations. Will plan and coordinate Production Qualification Test (PQT), Live Fire Test and Evaluations (LFT&E) and Final Logistics Demonstrations.</p>					
<p>Title: Program Management</p> <p>Description: Description: Program Management</p> <p>FY 2014 Accomplishments: Provided program management oversight for all government and contractor engineering and test activities. Ensured compliance with contract requirements, including timely delivery of products, services and invoicing.</p> <p>FY 2015 Plans: Continue to provide Program Management oversight pre Milestone C required to test and evaluate engineering changes and pre-planned product improvements to the weapon system.</p> <p>FY 2016 Base Plans: Will provide program management, logistical and life cycle support, to organize, coordinate and control program activities leading up to Milestone C and transition to Low Rate Initial Production (LRIP).</p>	0.150	0.398	0.407	-	0.407
Accomplishments/Planned Programs Subtotals	12.545	7.861	21.077	-	21.077

C. Other Program Funding Summary (\$ in Millions)

Line Item	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	Cost To Complete	Total Cost
• G16101: (G16101) <i>Integrated Air Burst Weapon System Family</i>	-	-	-	-	-	9.843	14.966	25.126	32.416	Continuing	Continuing

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Exhibit R-2A, RDT&E Project Justification: PB 2016 Army										Date: February 2015	
Appropriation/Budget Activity 2040 / 5				R-1 Program Element (Number/Name) PE 0604601A / <i>Infantry Support Weapons</i>				Project (Number/Name) S62 / <i>Counter-Defilade Target Engagement - SDD</i>			
C. Other Program Funding Summary (\$ in Millions)											
Line Item	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	Cost To Complete	Total Cost
• E92500: (E92500) CTG, 25MM, XM1083 High Explosive Air Burst (HEAB)	-	-	-	-	-	0.198	2.180	4.957	5.000	Continuing	Continuing
• E92510: (E92510) CTG, 25MM, XM1081 Target Practice (TP)	-	-	-	-	-	-	0.396	0.892	1.000	Continuing	Continuing
Remarks											
D. Acquisition Strategy											
<p>The XM25 transitioned from the Technology and Development phase to Engineering and Manufacturing Development (EMD) phase by achieving Milestone B in December 2010. The EMD phase completes development of the XM25 and verifies training solutions for the Milestone C approval currently scheduled for 4QTR FY2016. The Research and Development acquisition strategy is to use sole source contracting with ATK (formerly known as Alliant Techsystems), Plymouth, MN. RDT&E initiatives will continue post Milestone C for engineering changes and pre-planned product improvements to include family of munitions and target acquisition/fire control development.</p>											
E. Performance Metrics											
N/A											

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2016 Army												Date: February 2015			
Appropriation/Budget Activity 2040 / 5						R-1 Program Element (Number/Name) PE 0604601A / Infantry Support Weapons				Project (Number/Name) S62 / Counter-Defilade Target Engagement - SDD					
Management Services (\$ in Millions)				FY 2014		FY 2015		FY 2016 Base		FY 2016 OCO		FY 2016 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	Various	Performed by Government : Various Activities	2.593	0.150	Mar 2014	0.398	Jan 2015	0.407	Oct 2015	-		0.407	Continuing	Continuing	Continuing
Subtotal			2.593	0.150		0.398		0.407		-		0.407	-	-	-
Product Development (\$ in Millions)				FY 2014		FY 2015		FY 2016 Base		FY 2016 OCO		FY 2016 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
Design, Develop and Fabricate	SS/CPFF	ATK : Plymouth, MN	95.935	9.460	Mar 2014	5.000	Mar 2015	10.240	Oct 2015	-		10.240	Continuing	Continuing	Continuing
Subtotal			95.935	9.460		5.000		10.240		-		10.240	-	-	-
Support (\$ in Millions)				FY 2014		FY 2015		FY 2016 Base		FY 2016 OCO		FY 2016 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	Various	Various : Multiple	7.326	0.500	Mar 2014	0.555	Mar 2015	0.637	Oct 2015	-		0.637	Continuing	Continuing	Continuing
Training Development Support	MIPR	PEO STRI : PEO STRI	0.730	0.030	Mar 2014	0.070	Feb 2014	0.223	Jan 2016	-		0.223	Continuing	Continuing	Continuing
Subtotal			8.056	0.530		0.625		0.860		-		0.860	-	-	-
Test and Evaluation (\$ in Millions)				FY 2014		FY 2015		FY 2016 Base		FY 2016 OCO		FY 2016 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
Developmental/System Tests and Articles	SS/CPFF	Performed by Contractor : ATK, Plymouth, MN	14.854	1.000	Oct 2013	-		3.750	Oct 2015	-		3.750	-	19.604	-

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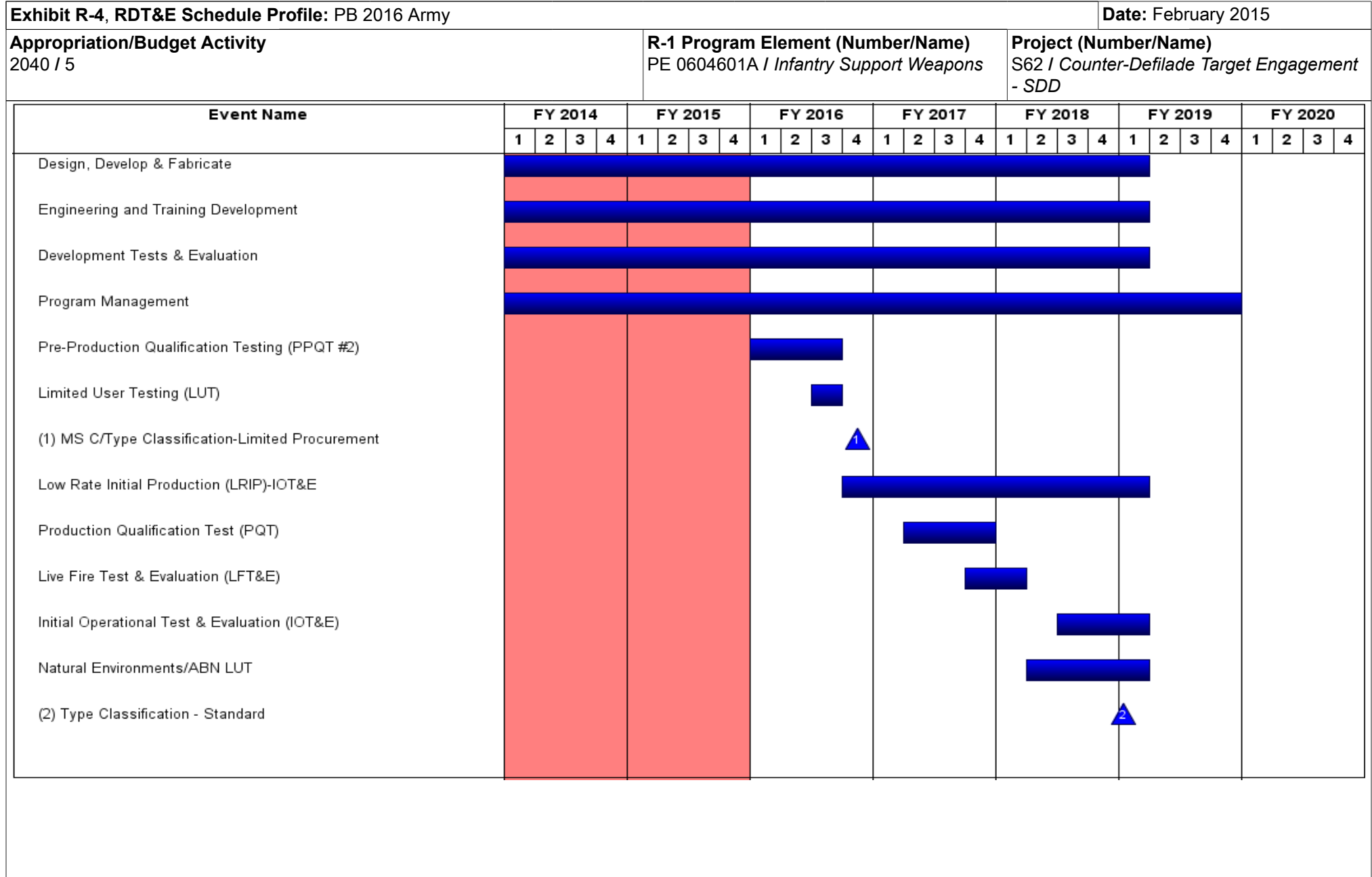
Exhibit R-3, RDT&E Project Cost Analysis: PB 2016 Army												Date: February 2015		
Appropriation/Budget Activity 2040 / 5						R-1 Program Element (Number/Name) PE 0604601A / <i>Infantry Support Weapons</i>				Project (Number/Name) S62 / <i>Counter-Defilade Target Engagement - SDD</i>				

Test and Evaluation (\$ in Millions)				FY 2014		FY 2015		FY 2016 Base		FY 2016 OCO		FY 2016 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
Developmental/ Operational Tests	Various	Performed by Government : Various Activities	10.629	1.405	Mar 2014	1.838	Jan 2015	5.820	Oct 2015	-		5.820	Continuing	Continuing	Continuing
Subtotal			25.483	2.405		1.838		9.570		-		9.570	-	-	-

			Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals			132.067	12.545	7.861	21.077	-	21.077	-	-	-

Remarks

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Exhibit R-4, RDT&E Schedule Profile: PB 2016 Army																Date: February 2015																
Appropriation/Budget Activity 2040 / 5								R-1 Program Element (Number/Name) PE 0604601A / Infantry Support Weapons								Project (Number/Name) S62 / Counter-Defilade Target Engagement - SDD																
Event Name	FY 2014				FY 2015				FY 2016				FY 2017				FY 2018				FY 2019				FY 2020							
	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				
Full Rate Production (FRP)																																

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Exhibit R-4A, RDT&E Schedule Details: PB 2016 Army			Date: February 2015
Appropriation/Budget Activity 2040 / 5	R-1 Program Element (Number/Name) PE 0604601A / <i>Infantry Support Weapons</i>	Project (Number/Name) <i>S62 / Counter-Defilade Target Engagement - SDD</i>	

Schedule Details

Events	Start		End	
	Quarter	Year	Quarter	Year
Design, Develop & Fabricate	1	2011	1	2019
Engineering and Training Development	1	2011	1	2019
Development Tests & Evaluation	1	2011	1	2019
Program Management	1	2011	4	2019
Pre-Production Qualification Testing (PPQT #2)	1	2016	3	2016
Limited User Testing (LUT)	3	2016	3	2016
MS C/Type Classification-Limited Procurement	4	2016	4	2016
Low Rate Initial Production (LRIP)-IOT&E	4	2016	1	2019
Production Qualification Test (PQT)	2	2017	4	2017
Live Fire Test & Evaluation (LFT&E)	4	2017	1	2018
Initial Operational Test & Evaluation (IOT&E)	3	2018	1	2019
Natural Environments/ABN LUT	2	2018	1	2019
Type Classification - Standard	1	2019	1	2019
Full Rate Production (FRP)	1	2019	4	2020

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Exhibit R-2A, RDT&E Project Justification: PB 2016 Army										Date: February 2015		
Appropriation/Budget Activity 2040 / 5					R-1 Program Element (Number/Name) PE 0604601A / Infantry Support Weapons				Project (Number/Name) S63 / Small Arms Improvement			
COST (\$ in Millions)	Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	Cost To Complete	Total Cost
S63: Small Arms Improvement	-	17.387	11.095	20.303	-	20.303	22.665	19.926	19.542	19.732	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

Note

New starts in FY 2016 include the following programs transitioning from Program Element 0603827A Project S54: Advanced Laser Protection for Optics, Advanced Fire Control with Hyperspectral Target Acquisition, Advanced Fire Control with Precision Projectile/Dynamic Target Tracking, Increased Barrel Life/Replace Chrome, and Individual Non-Lethal System.

A. Mission Description and Budget Item Justification

The Small Arms Improvement Engineering and Manufacturing Development (EMD) program provides funds to transition components or prototypes from Small Arms Improvement, Project S54, Program Element 0603827A, (Budget Activity 4) and other domestic and foreign sources of small arms weapons to demonstrate, test and evaluate capability near or at planned operational requirements. Small arms systems include weapons ranging up to 40 millimeter in caliber. Current and future efforts focus on system improvements designed to enhance lethality, target acquisition, fire control, training effectiveness and reliability of weapons to include ammunition when developing and/or evaluating standard and non-standard weapons. Focus areas include system development, integration, demonstration, test and evaluate components, prototypes and operational system prototypes of small arms weapons and/or enhancements. Benefits include continuous improvements to small arms weapons, fire control equipment, optics, gun barrels, ancillary equipment, training devices, component mounts, weapon mounts, and weapon/ammunition interface of current small arms fleet or new weapon systems.

B. Accomplishments/Planned Programs (\$ in Millions)

	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total
Title: New Weapons	2.551	3.793	8.619	-	8.619
Description: Description: Development of new weapons					
FY 2014 Accomplishments: Modular Handgun System (MHS): Prepared documentation required for Milestone C decision (MS-C) including the Acquisition Strategy, 80% of the Test & Evaluation Master Plan (TEMP), and 50% of the Acquisition Plan. Planned, coordinated and resourced operational events, ie. the Early Warfighter Acceptance and the Joint Warfighter Concept of Operations (CONOPS) Evaluations. Conducted Industry Days 1, 2 & 3 to inform industry of the Army's handgun requirement and to determine the technical maturity, and manufacturing capabilities readily available to meet/exceed the Army's requirement. Funded the Integrated Product Team (IPT) and released a draft solicitation.					
M3 Multi-Role Anti-Armor Anti-Personnel Weapon System (MAAWS): Adopted the Special Operations Command (SOCOM) requirements document and prepared additional documentation for the Milestone					

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Exhibit R-2A, RDT&E Project Justification: PB 2016 Army			Date: February 2015		
Appropriation/Budget Activity 2040 / 5		R-1 Program Element (Number/Name) PE 0604601A / Infantry Support Weapons	Project (Number/Name) S63 / Small Arms Improvement		
B. Accomplishments/Planned Programs (\$ in Millions)			FY 2014	FY 2015	FY 2016 Base FY 2016 OCO FY 2016 Total
Decision Authority (MDA) to render an official program of record decision. Completed 65% of both the systems engineering plan (SEP), and the test and evaluation master plan (TEMP). Planned, coordinated and resourced other test and evaluation activities.					
Precision Sniper Rifle: Supported requirements document comment adjudication from 1-Star Joint Capabilities Integration and Development System (JCIDS) staffing as well as cost-benefit analysis and Courses of Action drills to support program decision making.					
Squad Designated Marksman Rifle (SDM): Supported the Doctrine, Organization, Training, Materiel, Leadership & Education, Personnel, and Facilities (DOTMLPF) analysis for SDM and informing requirements. Conducted a recoil study comparing calibers effect on short range accuracy from different shooting positions. Orchestrated an SDM evaluation comparing three different SDM configurations in which a platoon sized element will operate through short Close Quarters Battle (CQB) scenarios as well as long range engagement.					
FY 2015 Plans: Modular Handgun System (MHS): Complete documentation required for MS-C decision and release final solicitation. Conduct bid sample testing, operational assessments and evaluations for the weapon systems and ammunition. Initiate source selection activities, obtain a safety release and conduct the Early Warfighter Acceptance and the Joint Warfighter CONOPS Evaluations. Plan, coordinate and resource Pre-Logistics Demonstration events.					
M3 Multi-Role Anti-Armor Anti-Personnel Weapon System (MAAWS): Obtain official program of record decision. Complete the System Engineering Plan (SEP), TEMP, performance specifications, supportability plans and other required acquisition documents. Conduct environmental and corrosion tests; perform health hazard, risk and safety assessments. Obtain weapon system safety release.					
FY 2016 Base Plans: Modular Handgun System (MHS): Will continue source selection activities to narrow the competitive range. Will award contracts for up to (3) Commercial Off The Shelf/Non Developmental Items weapon systems and ammunition. Will perform Pre-Logistics Demonstrations and begin the ammunition energetic materials qualification testing. Will conduct verification, validation and limited user test activities to facilitate down selecting to one (1) vendor. Will continue to fund the IPT and prepare Type Classification documentation.					

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Exhibit R-2A, RDT&E Project Justification: PB 2016 Army			Date: February 2015			
Appropriation/Budget Activity 2040 / 5		R-1 Program Element (Number/Name) PE 0604601A / Infantry Support Weapons	Project (Number/Name) S63 / Small Arms Improvement			
B. Accomplishments/Planned Programs (\$ in Millions)		FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total
M3 Multi-Role Anti-Armor Anti-Personnel Weapon System (MAAWS): Will conduct qualification, developmental and operational test and evaluation activities necessary to Type Classify the weapon system and ammunition. Will obtain Type Classification/Full Material Release.						
Precision Sniper Rifle: Will continue to perform production qualification and operational testing, finalize sustainment documentation, prepare environmental assessments, and prepare documentation for milestone reviews.						
Squad Designated Marksman Rifle (SDM): Will continue to inform requirements and the Doctrine, Organization, Training, Materiel, Leadership & Education, Personnel, and Facilities (DOTMLPF) analysis. The winner of the Compact Semi-Automatic Sniper System (CSASS) competition will be utilized in a user jury to evaluate its feasibility in the SDM role. Will develop Acquisition Strategy and initiate execution.						
Mini-guns: Will continue to evaluate various externally powered weapons, including miniguns, for suitability and performance, and potential standardization on remote weapon stations.						
Title: Small Arms Weapons Enhancements Description: Enhancements and developments of small arms weapons FY 2014 Accomplishments: Compact Semi-Automatic Sniper System (CSASS): Refined down-select and bid sample strategy and plan. Released Request for Proposal (RFP) 3QFY14 with extended response time (120 days) to submit 10 bid samples from each vendor. Powered Rail: Used test samples consisting of integrating Commercial Off-The-Shelf (COTS) components on powered rail platform in order to evaluate system level performance; system level integration efforts to further develop the components and ensure that the foundational architecture is sufficient for future applications; and optimizing power and data management to support integration of various data applications amongst peripherals. M4 Carbine Product Improvement Program (PIP): Completed comprehensive technical testing and limited user evaluation. The data was compiled and analyzed by the Source Selection Evaluation Board (SSEB). Technical evaluations were provided to ACC-NJ. Conducted new requirement analysis, technical evaluations, and cost benefit analysis to support a production decision.		4.953	0.250	3.735	-	3.735

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Exhibit R-2A, RDT&E Project Justification: PB 2016 Army			Date: February 2015			
Appropriation/Budget Activity 2040 / 5		R-1 Program Element (Number/Name) PE 0604601A / Infantry Support Weapons	Project (Number/Name) S63 / Small Arms Improvement			
B. Accomplishments/Planned Programs (\$ in Millions)		FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total
<p>Small Arms Signature Reduction (SASR) Suppressor Technology: Completed the human perception model with operational relevance for suppressor's flash and noise measurement with Marine Corps, John Hopkins University, Aberdeen Test Center and Armament Research, Development and Engineering Center's (ARDEC's) Acoustic Center of Excellence. Established Human Research and Engineering Directorate/Army Research Laboratory (HRED/ARL) Technology Program Agreement (TPA) for future suppressor detection/localization study to support small arm testing. Performed experiments on the test methodology for flash visualization with variations in background light levels and contrast conditions for flash detection model with HRED at Aberdeen Test Center. Participated in the North Atlantic Treaty Organization (NATO) Land Capability Group on Dismounted Soldier System (LCG DSS), Weapons & Sensors Working Group Team of Experts to develop a standardization test methodology for suppressor noise measurement. Supported the Maneuver Center of Excellence in development of draft Capability Development Document (CDD) for SASR.</p> <p>Gain Twist Rifling: Supported testing and data analysis of delivered prototype hardware.</p> <p>M4/M16 Baseline Reliability Study: Took receipt of 1,000 prototype magazines from Center Industries and began confirmatory test at AberdeenTest Center. Test and scoring conference completed in 3QFY14. The positive results informed an Engineering Change Proposal (ECP) to the technical data package. ECP was approved for current (open) production contracts.</p> <p>FY 2015 Plans: Compact Semi-Automatic Sniper System (CSASS): Down select CSASS competitors from competitive evaluation/testing phase to conduct system testing and user evaluation. Perform down selection of most qualified vendors and award a single competitive contract.</p> <p>FY 2016 Base Plans: Compact Semi-Automatic Sniper System (CSASS): Will conduct Production Qualification Test (PQT) and Limited User Test (LUT) on selected CSASS. Prepare for Milestone C and Type Classified Standard decisions.</p> <p>Powered Rail: Transitions from FY2015 Research and Analysis. Will continue further integration with weapon platform and soldier borne power and data management systems as well as integrating enablers to the weapon platform.</p> <p>Sniper Upgrades: Will perform feasibility, analysis of alternatives, and cost benefit analysis studies for various fire control and supporting precision enablers to include Shot Counter for Reliability and Maintainability (SCRAM), Extreme Accuracy Tasked Ordnance (EXACTO), and cross wind sensing technologies. Will develop</p>						

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Exhibit R-2A, RDT&E Project Justification: PB 2016 Army				Date: February 2015		
Appropriation/Budget Activity 2040 / 5		R-1 Program Element (Number/Name) PE 0604601A / Infantry Support Weapons		Project (Number/Name) S63 / Small Arms Improvement		
B. Accomplishments/Planned Programs (\$ in Millions)		FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total
requirements for Fire Control CDD - Precision Annex which includes Spotting Scope Optical Display (SSOD), Sniper Rifle Fire Control System (SRFCS), Eagle Eye (EE) and Barrel Studies.						
Small Business Innovation Research (SBIR) Enhancements: Will support Phase II Enhancement and/or initialization of Phase III SBIR activities.						
Protective Coatings: Will continue to develop manufacturing technology to support production of super-hydrophobic coatings in support of Fire Control Capability Development Document (CDD), Squad Annex. Will integrate samples produced in these activities into fire control systems and conduct limited user evaluation of optics with coating; focused on coating survivability during combat operations.						
FY2016 New Start Individual Non-Lethal System: Transition of technologies from Program Element 0603827A Project S54. Will complete review of requirements and start preparation of milestone documentation.						
FY2016 New Start Increased Barrel Life: Transition of technologies from Program Element 0603827A Project S54. Will perform barrel studies for alternate calibers (7.62mm, possibly 5.56mm) to improve/enhance barrel life. Utilize lesson-learned from initial prototype testing, further develop and acquire full length barrel liners for extended life testing and perform testing at Government facility.						
Weapon Upgrades and Accessories: Will continue to test, evaluate and analyze ongoing and new activities to enhance small arms weapons.						
Title: Ammunition		2.846	0.250	0.100	-	0.100
Description: Description: Improvement of small arms ammunition						
FY 2014 Accomplishments:						
XM1112 Airburst Non-Lethal Munition (ANLM): Completed integration test, conducted Critical Design Review (CDR) and built Developmental Test (DT) Hardware.						
XM1116 12 Gauge Non-Lethal Extended Range: Prepared for the Type Classification package which is awaiting the approved Capability Production Document (CPD) in Joint Capabilities Integration and Development System (JCIDS) staffing. Evaluated the rounds performance with the M26 Modular Accessory Shotgun Systems (MASS).						
FY 2015 Plans:						

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Exhibit R-2A, RDT&E Project Justification: PB 2016 Army			Date: February 2015			
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B. Accomplishments/Planned Programs (\$ in Millions)		FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total
XM1112 Airburst Non-Lethal Munition (ANLM): Complete Type Classification Package.						
Evaluate effect of new ammunition on small arms weapons.						
FY 2016 Base Plans: Will continue to evaluate the effect of new ammunition on small arms weapons.						
Title: Combat Optics		0.753	-	1.800	-	1.800
Description: Improvement of combat optics						
FY 2014 Accomplishments: Mounted Machine Gun Optic (MMO): Evaluated current technology and Off the Shelf Items, resulting in determination that capabilities outlined in the proposed material solution are readily available. Coordinated initial draft of MMO Capability Production Document (CPD) requirements, began development of Acquisition Strategy, support CPD, and provide Analysis of Alternatives for stakeholders.						
Squad Common Optic (SCO): Transitioned from Program Element 0603827A Project 54. Renamed to Fire Control, Squad.						
FY 2016 Base Plans: Mounted Machine Gun Optic: Will finalize Machine Gun Optic Capability Production Document (CPD), including anticipated final JROC approval. Will conduct final pre-Milestone C activities in preparation for transition to Program of Record in FY2017; emphasis will be on development of Test & Evaluation Master Plan (TEMP) and Production Readiness Review (PRR).						
Fire Control, Squad: Will finalize Fire Control Capability Development Document (CDD), Squad Annex, including anticipated final Joint Requirements Oversight Council (JROC) approval. Will initiate contracting effort to support pre-Milestone B activities, including Acquisition Strategy and System Engineering Plan (SEP), in preparation for transition to Program of Record.						
FY2016 New Start Advanced Laser Protection for Optics: Will transition technologies from Program Element 0603827A Project S54. Manufacturability and fire control system integration will be assessed. Will conduct technical comparison to determine if the protection solution should be integrated within a primary day sight (as contemporary laser filters are fitted into the M22 and M24 binoculars), or if the protection solution is best utilized in a clip on mode (as contemporary laser filters are fitted to the M150 and sniper optics).						

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Exhibit R-2A, RDT&E Project Justification: PB 2016 Army			Date: February 2015			
Appropriation/Budget Activity 2040 / 5		R-1 Program Element (Number/Name) PE 0604601A / Infantry Support Weapons		Project (Number/Name) S63 / Small Arms Improvement		
B. Accomplishments/Planned Programs (\$ in Millions)		FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total
Optics Upgrades: Will continue engineering evaluations, verification and validation of weapon optics performance requirements.						
Title: Fire Control		6.284	-	5.949	-	5.949
Description: Description: Improvement of small arms fire control						
FY 2014 Accomplishments: Grenadier Sighting System (GSS): Revised GSS program documentation to reflect change in strategy from a Non Developmental Item (NDI) to Research and Development effort. Developed technical design and operational specifications suitable for industry competition. Began development of detailed acquisition program planning and coordination, including test and evaluation and logistics. Conducted Market Surveys to assess industry readiness and concerns. Released a draft Statement of Work and Purchase Description as part of Market Survey #4.						
Integrated Ballistic Reticle System (IBRS): Completed Phase II testing of submissions by three (3) vendors and performed down-selection activities; Awarded contract to one (1) vendor and tested the single sighting system provided to demonstrate system integration and component design.						
FY 2016 Base Plans: Grenadier Sighting System (GSS): Will award developmental contract for the GSS, test and evaluation efforts, and system engineering analysis and reviews. Following award of the developmental contract the government will conduct a user experiment, system requirements review, and preliminary design review. Further test plans will also be developed, and plans for fielding, new equipment training, and development of a deployment logistics package.						
FY2016 New Start Advanced Fire Control with Hyperspectral Target Acquisition: Will transition technologies from Program Element 0603827A Project S54. Manufacturability and fire control system integration will be assessed. Technical comparison will be conducted to determine if the protection solution should be integrated within a primary day sight (as contemporary laser filters are fitted into the M22 and M24 binoculars), or if the protection solution is best utilized in a clip on mode (as contemporary laser filters are fitted to the M150 and sniper optics).						
FY2016 New Start Advanced Fire Control with Precision Projectile/Dynamic Target Tracking: Will transition technologies from Program Element 0603827A Project S54. Will support integration of component advanced						

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Exhibit R-2A, RDT&E Project Justification: PB 2016 Army				Date: February 2015		
Appropriation/Budget Activity 2040 / 5		R-1 Program Element (Number/Name) PE 0604601A / Infantry Support Weapons		Project (Number/Name) S63 / Small Arms Improvement		
B. Accomplishments/Planned Programs (\$ in Millions)		FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total
tracking technologies. Efforts will include initial integration of technologies, including contracting, System Requirements Review, System Functional Review, and preparations for Preliminary Design Review (PDR).						
Fire Control Upgrades: Will continue to test evaluate and anlyze ongoing and new activities to enhance small arms weapons fire control.						
Title: Research and Analysis Description: Market Research and Cost Benefit Analysis FY 2015 Plans: Continue Market Research and Cost Benefit Analysis of new small arms weapon and/or enhancements for engineering and manufacturing development. FY 2016 Base Plans: Will continue Market Research and Cost Benefit Analysis of new small arms weapon and/or enhancements for engineering and manufacturing development.		-	0.100	0.100	-	0.100
Accomplishments/Planned Programs Subtotals		17.387	4.393	20.303	-	20.303
		FY 2014	FY 2015			
Congressional Add: New Weapons Congressional Add FY 2015 Plans: Squad Designated Marksman Rifle (SDM): Will inform requirements and the Doctrine, Organization, Training, Materiel, Leadership & Education, Personnel, and Facilities (DOTMLPF) analysis. The winner of the Compact Semi-Automatic Sniper System (CSASS) competition will be utilized in a user jury to evaluate its feasibility in the SDM role. Will develop Acquisition Strategy and initiate execution. Mini-guns: Will evaluate various externally powered weapons, including miniguns, for suitability and performance, and potential standardization on remote weapon stations.		-	4.875			
Congressional Add: Small Arms Weapons Enhancements Congressional Add FY 2015 Plans: Small Business Innovation Research (SIBR) Enhancements: Support Phase II Enhancement efforts on Nano-structured Anti-reflective Coating and Down-Range Wind Sense SBIR's, including system level integration of the developed technologies, and limited user demonstration and evaluation of those technologies.		-	0.700			

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Exhibit R-2A, RDT&E Project Justification: PB 2016 Army								Date: February 2015			
Appropriation/Budget Activity 2040 / 5				R-1 Program Element (Number/Name) PE 0604601A / Infantry Support Weapons				Project (Number/Name) S63 / Small Arms Improvement			
								FY 2014	FY 2015		
Protective Coatings: Leverage related work conducted by Oak Ridge National Labs and discoveries from prior SBIR efforts to develop manufacturing technology to support production of super-hydrophobic coatings in support of Fire Control Capability Development Document (CDD), Squad Annex. Determine key performance tolerances of coatings to determine manufacturing requirements, and conduct limited run production of sample fire control system components.											
Weapon Upgrades and Accessories: Test, evaluate and analyze ongoing and new activities to enhance small arms weapons.											
Congressional Add: Combat Optics Congressional Add								-	0.600		
FY 2015 Plans: Mounted Machine Gun Optic (MMO): Support staffing of MMO Capability Production Document (CPD), including response to comments. Develop key documents in support of pre-Milestone C activities, with emphasis on Acquisition Strategy and draft System Engineering Plan.											
Fire Control, Squad: Coordinate with MCoE to finalize draft of Fire Control Capability Development Document (CDD), and the associated Squad Annex, and ensure this draft enters world-wide staffing. Continue evaluation of commercially available fire control solutions to determine utility and leverage opportunities. Establish technical team to ensure that capability requirements are technically achievable, and identify appropriate technologies to meet gaps.											
Congressional Add: Fire Control Congressional Add								-	0.527		
FY 2015 Plans: Grenadier Sighting System (GSS): Create procurement package for Draft Request for Proposal (RFP) release. Conduct second GSS industry day to provide an opportunity to answer any industry questions. Release the RFP and initiate Source Selection evaluation.											
Congressional Adds Subtotals								-	6.702		
C. Other Program Funding Summary (\$ in Millions)											
Line Item	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	Cost To Complete	Total Cost
• Small Arms Improvement: RDTE S54, Program Element 0603827A - Soldier Systems - Advanced Development	4.117	1.579	7.449	-	7.449	9.089	6.152	7.557	7.643	Continuing	Continuing
• M4 Carbine MODS: WTCV, GB3007, M4 Carbine MODS	9.900	6.446	27.566	-	27.566	28.310	24.207	23.214	21.301	Continuing	Continuing

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Exhibit R-2A, RDT&E Project Justification: PB 2016 Army									Date: February 2015			
Appropriation/Budget Activity 2040 / 5				R-1 Program Element (Number/Name) PE 0604601A / Infantry Support Weapons				Project (Number/Name) S63 / Small Arms Improvement				
C. Other Program Funding Summary (\$ in Millions)												
Line Item	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	Cost To Complete	Total Cost	
• Sniper Rifle MODS: WTCV, GZ1500, Sniper Rifle MODS	7.017	4.079	2.431	-	2.431	9.979	9.186	8.862	5.947	Continuing	Continuing	
• M249 SAW MODS: WTCV, GZ1290, M249 Squad Automatic Weapon (SAW) MODS	7.608	5.546	1.190	-	1.190	1.189	1.189	1.189	1.190	Continuing	Continuing	
• M240 Medium Machine Gun MODS: WTCV, GZ1300, M240 Medium Machine Gun MODS	2.719	2.635	1.424	-	1.424	1.798	1.945	1.953	1.982	Continuing	Continuing	
• M2 .50 CAL Heavy Machine Gun MODS: WTCV, GB4000, M2 .50 CAL Heavy Machine Gun MODS	28.242	25.296	44.004	-	44.004	57.915	51.133	28.697	22.797	Continuing	Continuing	
• Modification Less Than \$5.0M: WTCV, GC0925, Modifications Less Than \$5.0M	1.569	2.089	3.737	-	3.737	3.182	3.489	3.495	3.517	Continuing	Continuing	
• Handgun: WTCV, G15325, Handgun	0.300	3.957	5.417	-	5.417	14.629	15.391	15.437	16.354	Continuing	Continuing	
Remarks												
In support of Small Arms Requirements, components or prototypes developed in Small Arms Improvement, Project S54, Program Element 0603827A, (Budget Activity 4) is transitioned to Small Arms Improvement, Project S63, Program Element 0604601A, (Budget Activity 5) to conduct engineering and manufacturing development. Once the component, prototype or operational prototype achieves Milestone C and type classification the item transitions to small arms weapon production or modification program.												
D. Acquisition Strategy												
Primary strategy is to mature and finalize design efforts, award Research, Development, Test and Evaluation (RDT&E) hardware contracts, and test and evaluate systems that result in type classification and follow-on production contract awards.												
E. Performance Metrics												
N/A												

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2016 Army												Date: February 2015			
Appropriation/Budget Activity 2040 / 5						R-1 Program Element (Number/Name) PE 0604601A / <i>Infantry Support Weapons</i>				Project (Number/Name) S63 / <i>Small Arms Improvement</i>					
Management Services (\$ in Millions)				FY 2014		FY 2015		FY 2016 Base		FY 2016 OCO		FY 2016 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	Allot	PM Soldier Weapons, : Picatinny Arsenal	7.517	0.500	Mar 2014	0.500	Mar 2015	0.908	Oct 2015	-		0.908	Continuing	Continuing	Continuing
Travel	MIPR	PM Soldier Weapons, : Picatinny Arsenal	1.034	0.050	Mar 2014	0.103	Mar 2015	0.100	Oct 2015	-		0.100	Continuing	Continuing	Continuing
Subtotal			8.551	0.550		0.603		1.008		-		1.008	-	-	-
Product Development (\$ in Millions)				FY 2014		FY 2015		FY 2016 Base		FY 2016 OCO		FY 2016 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
Fabrication	Various	Various : Multiple Contractors	0.250	1.200	Mar 2014	0.450	Mar 2015	1.000	Oct 2015	-		1.000	Continuing	Continuing	Continuing
Hardware Development	MIPR	Army Research Development Engineering Centers, : Multiple	7.204	0.750	Mar 2014	0.050	Mar 2015	-		-		-	Continuing	Continuing	Continuing
Subtotal			7.454	1.950		0.500		1.000		-		1.000	-	-	-
Support (\$ in Millions)				FY 2014		FY 2015		FY 2016 Base		FY 2016 OCO		FY 2016 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	MIPR	Army Research Development Engineering Centers, : Multiple	31.322	8.412	Mar 2014	6.820	Mar 2015	9.395	Oct 2015	-		9.395	Continuing	Continuing	Continuing
Logistics	MIPR	TACOM, : Warren	2.946	1.200	Mar 2014	0.200	Mar 2015	0.400	Oct 2015	-		0.400	Continuing	Continuing	Continuing
Human Research and Engineering	MIPR	Army Research Laboratory, : Aberdeen Proving Ground	2.422	0.499	Mar 2014	0.200	Mar 2015	0.500	Oct 2015	-		0.500	Continuing	Continuing	Continuing

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2016 Army													Date: February 2015		
Appropriation/Budget Activity 2040 / 5					R-1 Program Element (Number/Name) PE 0604601A / Infantry Support Weapons					Project (Number/Name) S63 / Small Arms Improvement					
Support (\$ in Millions)				FY 2014		FY 2015		FY 2016 Base		FY 2016 OCO		FY 2016 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
Subtotal			36.690	10.111		7.220		10.295		-		10.295	-	-	-
Test and Evaluation (\$ in Millions)				FY 2014		FY 2015		FY 2016 Base		FY 2016 OCO		FY 2016 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
Developmental Testing	MIPR	Army Developmental Test Command, : Aberdeen Proving Ground	18.548	3.776	Mar 2014	1.020	Mar 2015	1.000	Oct 2015	-		1.000	Continuing	Continuing	Continuing
Operational Testing	MIPR	Army Test and Evaluation Command, : Aberdeen Proving Ground	8.446	0.800	Mar 2014	1.552	Mar 2015	3.000	Oct 2015	-		3.000	Continuing	Continuing	Continuing
Validation Testing	MIPR	Army Test and Evaluation Centers, : Multiple	4.812	0.200	Mar 2014	0.200	Mar 2015	4.000	Oct 2015	-		4.000	Continuing	Continuing	Continuing
Subtotal			31.806	4.776		2.772		8.000		-		8.000	-	-	-
			Prior Years	FY 2014		FY 2015		FY 2016 Base		FY 2016 OCO		FY 2016 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals			84.501	17.387		11.095		20.303		-		20.303	-	-	-
Remarks															

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Exhibit R-4, RDT&E Schedule Profile: PB 2016 Army **Date:** February 2015

Appropriation/Budget Activity 2040 / 5	R-1 Program Element (Number/Name) PE 0604601A / <i>Infantry Support Weapons</i>	Project (Number/Name) S63 / <i>Small Arms Improvement</i>
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Event Name	FY 2014				FY 2015				FY 2016				FY 2017				FY 2018				FY 2019				FY 2020			
	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
Modular Handgun																												
Precision Sniper Rifle																												
M3 Multi-Role Anti-Armor Anti-Personnel Weapon System (MAAWS)																												
Squad Designated Marksman Rifle (SDM)																												
Miniguns																												
Next Generation Squad Weapon (NGSW)																												
Gain Twist Rifling																												
Small Arms Signature Reduction (SASR) Suppressor Technology																												
Compact Semi-Automatic Sniper System (CSASS)																												
Increase Barrel Life/Replace Chrome																												
Individual Non-Lethal System																												
Protective Weapons Coating																												
Powered Rail																												

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Exhibit R-4, RDT&E Schedule Profile: PB 2016 Army **Date:** February 2015

Appropriation/Budget Activity 2040 / 5	R-1 Program Element (Number/Name) PE 0604601A / <i>Infantry Support Weapons</i>	Project (Number/Name) S63 / <i>Small Arms Improvement</i>
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Event Name	FY 2014				FY 2015				FY 2016				FY 2017				FY 2018				FY 2019				FY 2020			
	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
Sniper Weapon Upgrades and Accessories																												
XM1112 40MM Airburst Non-Lethal																												
XM1116 12 Gauge Non-Lethal Extended Range																												
Fire Control, Squad																												
Mounted Machine Gun Optic																												
Advanced Laser Protection for Optics																												
Optics Upgrades																												
Grenadier Sighting System for the M320 Grenade Launcher																												
Integrated Ballistic Reticle System (IBRS)																												
Advanced Fire Control with Precision Projectile/Dynamic Tracking																												
Advanced Fire Control with Hyperspectral Target Acquisition																												
Fire Control Upgrades																												
Research and Analysis of Small Arms																												

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Exhibit R-4A, RDT&E Schedule Details: PB 2016 Army			Date: February 2015
Appropriation/Budget Activity 2040 / 5	R-1 Program Element (Number/Name) PE 0604601A / <i>Infantry Support Weapons</i>	Project (Number/Name) S63 / <i>Small Arms Improvement</i>	

Schedule Details

Events	Start		End	
	Quarter	Year	Quarter	Year
Modular Handgun	1	2012	4	2016
Precision Sniper Rifle	1	2012	4	2016
M3 Multi-Role Anti-Armor Anti-Personnel Weapon System (MAAWS)	1	2014	4	2016
Squad Designated Marksman Rifle (SDM)	1	2014	4	2017
Miniguns	1	2015	4	2017
Next Generation Squad Weapon (NGSW)	1	2017	4	2020
Gain Twist Rifling	1	2013	4	2014
Small Arms Signature Reduction (SASR) Suppressor Technology	1	2011	4	2014
Compact Semi-Automatic Sniper System (CSASS)	1	2014	4	2016
Increase Barrel Life/Replace Chrome	1	2016	4	2017
Individual Non-Lethal System	1	2016	4	2018
Protective Weapons Coating	1	2011	4	2018
Powered Rail	1	2013	4	2017
Sniper Weapon Upgrades and Accessories	1	2008	4	2020
XM1112 40MM Airburst Non-Lethal	1	2010	4	2015
XM1116 12 Gauge Non-Lethal Extended Range	1	2014	4	2015
Fire Control, Squad	1	2014	4	2016
Mounted Machine Gun Optic	1	2013	4	2016
Advanced Laser Protection for Optics	1	2016	4	2017
Optics Upgrades	1	2008	4	2020
Grenadier Sighting System for the M320 Grenade Launcher	1	2009	4	2016
Integrated Ballistic Reticle System (IBRS)	1	2014	4	2018
Advanced Fire Control with Precision Projectile/Dynamic Tracking	1	2016	4	2018

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Exhibit R-4A, RDT&E Schedule Details: PB 2016 Army			Date: February 2015	
Appropriation/Budget Activity 2040 / 5	R-1 Program Element (Number/Name) PE 0604601A / Infantry Support Weapons		Project (Number/Name) S63 / Small Arms Improvement	
	Start		End	
Events	Quarter	Year	Quarter	Year
Advanced Fire Control with Hyperspectral Target Acquisition	1	2016	4	2018
Fire Control Upgrades	1	2008	4	2020
Research and Analysis of Small Arms	1	2015	4	2016

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Exhibit R-2A, RDT&E Project Justification: PB 2016 Army										Date: February 2015		
Appropriation/Budget Activity 2040 / 5					R-1 Program Element (Number/Name) PE 0604601A / Infantry Support Weapons				Project (Number/Name) S64 / Common Remotely Operated Wpn Sys (CROWS)			
COST (\$ in Millions)	Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	Cost To Complete	Total Cost
S64: Common Remotely Operated Wpn Sys (CROWS)	-	9.145	2.457	3.124	-	3.124	4.582	3.546	9.142	10.523	-	42.519
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

The Maneuver Support Center of Excellence (MSCoE) at FT Leonard Wood, MO (User community) has identified continued development of the Common Remotely Operated Weapon Station (CROWS) as a critical improvement for the Soldier in a combat environment. By addressing the capability gap of non-turreted, lightly armored vehicles where the gunner is exposed to enemy fire, the current CROWS system provides the ability to rapidly and accurately locate and engage the enemy while allowing platform gunners to remain under armor, thereby providing greater protection and increasing overall lethality.

While addressing obsolescence, additional modifications to address operational concerns were identified in the Operational Test Agency Milestone Assessment Report (OMAR). User community feedback in overseas contingency operations will be developed and integrated into the CROWS system. These modifications include: improved optics survivability; auto-zoom; improved auto-tracking; improved sensors for increased situational awareness; and improved rounds counter. In addition, development efforts will include system and component level reliability improvements that will extend system life and reduce overall CROWS logistics footprint.

Starting in FY2019, work will begin on CROWS Capability Development Document (CDD) Increment II requirements. CDD Increment 2 capability improvements will bolster overall situational awareness and precision targeting for the Warfighters by making the system capable of sharing targeting information from dismounted Soldiers, unmanned aerial vehicles, CROWS-equipped platforms and other battle space targeting nodes such as the Joint Effects Targeting System and Target Location Designation System. System development will improve upon current fielded systems by giving Army and Joint Services an adaptive system for a variety of legacy and future platforms, watercraft, and semi-autonomous and autonomous platforms. CDD Increment II will support a wide range of firepower, using current and future inventory of crew-served weapons, anti-armor and precision scalable lethal and non-lethal options, to include integration of Escalation of Force (EOF) capabilities.

B. Accomplishments/Planned Programs (\$ in Millions)

	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total
Title: Technology Refresh and Obsolescence	9.145	0.792	1.702	-	1.702
Description: Description: Technology Refresh and Obsolescence					
FY 2014 Accomplishments: As a prerequisite to developing improvements involving enhanced sensors, infrared sights, video capabilities and situational awareness, the contractor initiated design and fabrication of an improved fire control unit (FCU)					

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Exhibit R-2A, RDT&E Project Justification: PB 2016 Army				Date: February 2015		
Appropriation/Budget Activity 2040 / 5		R-1 Program Element (Number/Name) PE 0604601A / Infantry Support Weapons		Project (Number/Name) S64 / Common Remotely Operated Wpn Sys (CROWS)		
B. Accomplishments/Planned Programs (\$ in Millions)		FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total
processor, to include ethernet channels in the system's slip ring, in order to facilitate the greater data through-put required. FY 2015 Plans: Contractor to complete design and fabrication of an improved fire control unit (FCU) processor, to include ethernet channels in the system's slip ring, in order to facilitate the greater data through-put required. FY 2016 Base Plans: Contractor will design and fabricate an improved Thermal Imaging Module (TIM) with a smaller pixel pitch and higher pixel density focal plane array, and enhanced video processing capability allowing the module to provide a wider field of view for increased situational awareness.						
Title: Engineering Support Description: Description: Government Engineering Support. FY 2015 Plans: Provide engineering support and oversight of design improvements and contractor performance; development of enhanced sensors, infrared sights, video capabilities and situational awareness. FY 2016 Base Plans: Will continue to provide engineering support and oversight of design improvements and contractor performance; development of enhanced sensors, infrared sights, video capabilities and situational awareness. Begin development of training and technical publications associated with the system improvements.		-	0.805	0.638	-	0.638
Title: Development Test and Evaluation Description: Description: Test and Evaluation FY 2015 Plans: Develop testing and evaluation criteria and documentation and conduct initial developmental testing and evaluation of improvements. FY 2016 Base Plans: Will continue initial developmental testing and evaluation of improvements and develop testing and evaluation criteria and documentation for the Thermal Imaging Module.		-	0.110	0.195	-	0.195
Title: Program Management		-	0.750	0.589	-	0.589

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Exhibit R-2A, RDT&E Project Justification: PB 2016 Army							Date: February 2015				
Appropriation/Budget Activity 2040 / 5				R-1 Program Element (Number/Name) PE 0604601A / <i>Infantry Support Weapons</i>			Project (Number/Name) S64 / <i>Common Remotely Operated Wpn Sys (CROWS)</i>				
B. Accomplishments/Planned Programs (\$ in Millions)							FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total
Description: Description: Program Management. FY 2015 Plans: The program management office and the proponents in the User community at the Maneuver Support Center of Excellence provide oversight of product design and development, to include engineering support, contract actions and test activities throughout the fiscal year. Program management office facilitates test events at various government laboratories to test prototype units of the improved fire control unit processor and system slip ring, in order to quantify performance with the most current sensors and effectors, and manages the life cycle of the program to include future acquisition and sustainment plans. FY 2016 Base Plans: Will continue to provide oversight of product design and development, to include engineering support, contract actions and test activities throughout the fiscal year. Program management office will facilitate test events at various government laboratories to test prototype units of the improved fire control unit processor and system slip ring, in order to quantify performance with the most current sensors and effectors, and manages the life cycle of the program to include future acquisition and sustainment plans.											
Accomplishments/Planned Programs Subtotals							9.145	2.457	3.124	-	3.124
C. Other Program Funding Summary (\$ in Millions)											
Line Item	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	Cost To Complete	Total Cost
• CROWS (G04700, W&TCV): W&TCV, G04700, CROWS	47.012	13.409	8.367	19.000	27.367	8.368	8.360	8.312	-	-	112.828
Remarks											
D. Acquisition Strategy											
The Common Remotely Operated Weapon Station (CROWS) uses a single-step acquisition approach in its strategy. The CROWS achieved Type Classification Standard in 3QFY11, Full Materiel Release in 3QFY12 and Full Rate Production in 4QFY12, in accordance with the Capability Production Document (CPD) Increment One (1), as clarified in June 2009. The program objective is to continue developing, improving and fielding the CROWS on Up-Armored High Mobility Multipurpose Wheeled Vehicles (UA-HMMWV), M1A2 Abrams Main Battle Tank and other combat vehicles to the Army Acquisition Objective (AAO) in accordance with the Basis of Issue Plan (BOIP). The program will also											

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Exhibit R-2A, RDT&E Project Justification: PB 2016 Army		Date: February 2015
Appropriation/Budget Activity 2040 / 5	R-1 Program Element (Number/Name) PE 0604601A / <i>Infantry Support Weapons</i>	Project (Number/Name) S64 / <i>Common Remotely Operated Wpn Sys (CROWS)</i>
support new and emerging urgent requirements like the integration of the Mine Resistant Ambush Protected (MRAP) family of vehicles, ground combat systems, Joint Lightweight Tactical Vehicles (JLTV) and fixed site mounting systems.		
<u>E. Performance Metrics</u> N/A		

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2016 Army												Date: February 2015			
Appropriation/Budget Activity 2040 / 5						R-1 Program Element (Number/Name) PE 0604601A / Infantry Support Weapons				Project (Number/Name) S64 / Common Remotely Operated Wpn Sys (CROWS)					
Management Services (\$ in Millions)				FY 2014		FY 2015		FY 2016 Base		FY 2016 OCO		FY 2016 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 Soldier Weapons : Picatinny Arsenal, NJ	0.053	-		0.750	Mar 2015	0.589	Oct 2015	-		0.589	Continuing	Continuing	-
Subtotal			0.053	-		0.750		0.589		-		0.589	-	-	-
Product Development (\$ in Millions)				FY 2014		FY 2015		FY 2016 Base		FY 2016 OCO		FY 2016 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
Technology Refresh and Obsolescence	SS/FFP	Kongsberg Protech Systems USA : Johnstown, PA	0.000	9.145	Aug 2014	0.792	Mar 2015	1.702	Mar 2016	-		1.702	Continuing	Continuing	-
Subtotal			0.000	9.145		0.792		1.702		-		1.702	-	-	-
Support (\$ in Millions)				FY 2014		FY 2015		FY 2016 Base		FY 2016 OCO		FY 2016 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, NJ	0.103	-		0.805	Mar 2015	0.638	Oct 2015	-		0.638	Continuing	Continuing	-
Subtotal			0.103	-		0.805		0.638		-		0.638	-	-	-
Test and Evaluation (\$ in Millions)				FY 2014		FY 2015		FY 2016 Base		FY 2016 OCO		FY 2016 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
Test Planning and Execution	Various	Various : Multiple	0.017	-		0.110	Mar 2015	0.195	Oct 2015	-		0.195	Continuing	Continuing	-
Subtotal			0.017	-		0.110		0.195		-		0.195	-	-	-

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2016 Army										Date: February 2015			
Appropriation/Budget Activity 2040 / 5					R-1 Program Element (Number/Name) PE 0604601A / <i>Infantry Support Weapons</i>					Project (Number/Name) S64 / <i>Common Remotely Operated Wpn Sys (CROWS)</i>			
	Prior Years	FY 2014		FY 2015		FY 2016 Base		FY 2016 OCO		FY 2016 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	0.173	9.145		2.457		3.124		-		3.124	-	-	-
Remarks													

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Exhibit R-4, RDT&E Schedule Profile: PB 2016 Army																Date: February 2015												
Appropriation/Budget Activity 2040 / 5										R-1 Program Element (Number/Name) PE 0604601A / Infantry Support Weapons								Project (Number/Name) S64 / Common Remotely Operated Wpn Sys (CROWS)										
Event Name	FY 2014				FY 2015				FY 2016				FY 2017				FY 2018				FY 2019				FY 2020			
	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
Contractor Design and Fabrication																												
Engineering Support (Government)																												
Development Test & Evaluation																												
Program Management																												
Increment 2 Product Improvement																												

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Exhibit R-4A, RDT&E Schedule Details: PB 2016 Army			Date: February 2015
Appropriation/Budget Activity 2040 / 5	R-1 Program Element (Number/Name) PE 0604601A / <i>Infantry Support Weapons</i>	Project (Number/Name) S64 / <i>Common Remotely Operated Wpn Sys (CROWS)</i>	

Schedule Details

Events	Start		End	
	Quarter	Year	Quarter	Year
Contractor Design and Fabrication	4	2014	2	2018
Engineering Support (Government)	3	2015	4	2020
Development Test & Evaluation	3	2015	4	2020
Program Management	3	2015	4	2020
Increment 2 Product Improvement	2	2019	4	2020

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Exhibit R-2A, RDT&E Project Justification: PB 2016 Army										Date: February 2015		
Appropriation/Budget Activity 2040 / 5					R-1 Program Element (Number/Name) PE 0604601A / Infantry Support Weapons				Project (Number/Name) S70 / Personnel Recovery Support System (PRSS)			
COST (\$ in Millions)	Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	Cost To Complete	Total Cost
S70: Personnel Recovery Support System (PRSS)	-	1.094	0.543	1.252	-	1.252	1.328	1.328	1.328	1.346	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		
Note Not applicable for this item.												
A. Mission Description and Budget Item Justification This project provides the continued maturation of PRSS products that enable operations to report and locate isolated, missing, detained or captured Soldiers. The PRSS program consists of the enhancement of existing products to ensure continued successful interoperability within the relevant theater of operations and the Continental United States (CONUS), and the demonstration of a production representative encrypted Personnel Recovery Device (PRD) that operates over a secure architecture.												
B. Accomplishments/Planned Programs (\$ in Millions)								FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total
Title: Development of Personnel Recovery Support System (PRSS)								1.094	0.543	1.252	-	1.252
Description: Integration, evaluation, testing, and qualification of PRSS products to ensure continued successful interoperability within the relevant theater of operation, and development of a PRD that operates over a secure architecture.												
FY 2014 Accomplishments: Continued PRSS 1b system level test and evaluation, and begin integration of receivers onto the communications infrastructure of mission partners at various locations.												
FY 2015 Plans: Complete integration and test of receivers onto the communications infrastructure.												
FY 2016 Base Plans: Conduct evaluation and test of PRD production representative articles in support of competitive production contract downselect.												
Accomplishments/Planned Programs Subtotals								1.094	0.543	1.252	-	1.252

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Exhibit R-2A, RDT&E Project Justification: PB 2016 Army									Date: February 2015		
Appropriation/Budget Activity 2040 / 5				R-1 Program Element (Number/Name) PE 0604601A / Infantry Support Weapons				Project (Number/Name) S70 / Personnel Recovery Support System (PRSS)			
C. Other Program Funding Summary (\$ in Millions)											
Line Item	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	Cost To Complete	Total Cost
• Personnel Recovery Support Sys OPA: Other Procurement, Army, G01101-Personnel Recovery Support System (PRSS)	14.195	10.728	7.797	-	7.797	15.747	13.752	6.674	7.592	Continuing	Continuing
• Aircrew Integrated Systems APA: Aircraft Procurement, Army AZ3110-ACIS includes funding of Personnel Recovery Support Equipment aircraft mods	45.841	-	-	-	-	-	-	-	-	-	45.841
Remarks											
Aircraft Procurement, Army SSN of AZ3110 - ACIS primarily includes the funding of traditional Aircrew Integrated Systems efforts including Air Warrior and Air Soldier System requirements; as well as support Personnel Recovery Support System (PRSS) platform interoperability production program through FY2014.											
D. Acquisition Strategy											
Execute PRSS program development effort for performance optimization through contracts with industry and Military Interdepartmental Purchase Requests to other Governmental agencies. Perform continuing development and test of new waveforms on an annual basis to mitigate potential security compromises to the PRSS system.											
E. Performance Metrics											
N/A											

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2016 Army												Date: February 2015			
Appropriation/Budget Activity 2040 / 5						R-1 Program Element (Number/Name) PE 0604601A / Infantry Support Weapons				Project (Number/Name) S70 / Personnel Recovery Support System (PRSS)					
Management Services (\$ in Millions)				FY 2014		FY 2015		FY 2016 Base		FY 2016 OCO		FY 2016 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 Adminstration	Allot	Various Government : Huntsville, Alabama	0.717	0.050		0.052		0.105		-		0.105	Continuing	Continuing	Continuing
Subtotal			0.717	0.050		0.052		0.105		-		0.105	-	-	-
Product Development (\$ in Millions)				FY 2014		FY 2015		FY 2016 Base		FY 2016 OCO		FY 2016 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
Personnel Recovery Support System Development Systems Engineering	MIPR	Various Organizations : Various Locations	6.607	0.272		0.120		0.318		-		0.318	Continuing	Continuing	Continuing
Subtotal			6.607	0.272		0.120		0.318		-		0.318	-	-	-
Support (\$ in Millions)				FY 2014		FY 2015		FY 2016 Base		FY 2016 OCO		FY 2016 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
Matrix Support	MIPR	Various Organizations : Various Locations	1.263	0.337		-		-		-		-	Continuing	Continuing	Continuing
Subtotal			1.263	0.337		-		-		-		-	-	-	-
Test and Evaluation (\$ in Millions)				FY 2014		FY 2015		FY 2016 Base		FY 2016 OCO		FY 2016 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
Developmental Testing / Operational Testing	MIPR	Various Organizations : Various Locations	0.951	0.435		0.371		0.829		-		0.829	Continuing	Continuing	Continuing

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2016 Army												Date: February 2015		
Appropriation/Budget Activity 2040 / 5						R-1 Program Element (Number/Name) PE 0604601A / <i>Infantry Support Weapons</i>				Project (Number/Name) S70 / <i>Personnel Recovery Support System (PRSS)</i>				

Test and Evaluation (\$ in Millions)				FY 2014		FY 2015		FY 2016 Base		FY 2016 OCO		FY 2016 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
Subtotal			0.951	0.435		0.371		0.829		-		0.829	-	-	-

	Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	9.538	1.094	0.543	1.252	-	1.252	-	-	-

Remarks

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Exhibit R-4, RDT&E Schedule Profile: PB 2016 Army																Date: February 2015																				
Appropriation/Budget Activity 2040 / 5										R-1 Program Element (Number/Name) PE 0604601A / Infantry Support Weapons								Project (Number/Name) S70 / Personnel Recovery Support System (PRSS)																		
Event Name	FY 2014				FY 2015				FY 2016				FY 2017				FY 2018				FY 2019				FY 2020											
	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								
Personnel Recovery Support System (PRSS) Development Oversight	PRSS Oversight																																			
PRSS Development and Test	PRSS Development and Test																																			
PRSS Prototype Hardware Build and Integration	PRSS Proto HW Bld & Integ																																			
PRSS Operational Test													OT																							
PRSS Upgrades & Adaptations to New Platforms									PRSS Upgrades & Adaptations																											

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Exhibit R-4A, RDT&E Schedule Details: PB 2016 Army			Date: February 2015
Appropriation/Budget Activity 2040 / 5	R-1 Program Element (Number/Name) PE 0604601A / <i>Infantry Support Weapons</i>	Project (Number/Name) S70 / <i>Personnel Recovery Support System (PRSS)</i>	

Schedule Details

Events	Start		End	
	Quarter	Year	Quarter	Year
Personnel Recovery Support System (PRSS) Development Oversight	1	2010	4	2020
PRSS Development and Test	1	2010	4	2020
PRSS Prototype Hardware Build and Integration	3	2010	1	2016
PRSS Operational Test	1	2017	1	2017
PRSS Upgrades & Adaptations to New Platforms	1	2015	4	2020

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Exhibit R-2A, RDT&E Project Justification: PB 2016 Army									Date: February 2015			
Appropriation/Budget Activity 2040 / 5					R-1 Program Element (Number/Name) PE 0604601A / Infantry Support Weapons				Project (Number/Name) VS5 / Soldier Protective Equipment			
COST (\$ in Millions)	Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	Cost To Complete	Total Cost
VS5: Soldier Protective Equipment	-	19.367	4.830	15.175	-	15.175	13.837	10.842	10.282	4.969	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		
A. Mission Description and Budget Item Justification												
This funding supports the Engineering and Manufacturing Development (EMD) tasks related to Individual Soldier Ballistic Protection. It funds system integration and formal Developmental Testing/Operational Testing (DT/OT) of production representative systems leveraging advancements in technology to continue incremental improvements (sizing, functionality, heat management and reduction of weight/bulk) of body armor, and the transition of new technologies into production as they mature. It funds efforts to assess head protection component technologies to mitigate the effects of ballistic/blast and non-ballistic impact (crash) threats. It also funds effort to increase eyewear ballistic/blast protection, and transition products to production.												
B. Accomplishments/Planned Programs (\$ in Millions)								FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total
Title: Soldier Protective Equipment								19.367	4.830	15.175	-	15.175
Description: Funding line established in FY12. Effort was previously executed in Program Element 0604601 S60. Effort is to increase the Warfighter lethality and mobility, by optimizing Soldier protection while effectively managing all life cycle aspect of Personal Protective Equipment (PPE).												
FY 2014 Accomplishments: Completed characterization testing and initiated Soldier Human Factors Evaluations (HFE) of Authorized Protective Eyewear List (APEL) requalification candidates in 2QFY14. Completed APEL and Qualified Products list (QPL) requalification program (including Universal Prescription Lens Carrier) in 4QFY14. Initiated and completed Developmental Test 1 (DT 1) of Soldier Protection System (SPS) Transition Combat Eyewear Protection (TCEP) HFE testing of Phase I prototypes in 1QFY14. Initiated and completed TCEP DT 1 ballistic testing in 2QFY14 and exercised second options for DT2 hardware in 3QFY14. Awarded SPS Integrated Head Protection System (IHPS) development contracts in 1QFY14 and options for DT2 hardware 4QFY14. Awarded the Torso Protection (TP) Subsystem development contracts in 2QFY14 and awarded options for DT2 hardware in 3QFY14. Continued SPS System Capability & Manufacturing Process Demonstration (SC&MPD) activities. FY14 efforts focused on the completion of Vital Torso Protection (VTP) Characterization Testing in 3QFY14, and awarding Phase II contract options to support continued refinement and integration (build-test-fix-build) of the SPS subsystems in 3QFY14. Conducted Critical Design Reviews to enable the contractor to build test hardware for SPS DT/OT Human Factors and System-Level test through 2QFY15. Supported development of												

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Exhibit R-2A, RDT&E Project Justification: PB 2016 Army			Date: February 2015			
Appropriation/Budget Activity 2040 / 5		R-1 Program Element (Number/Name) PE 0604601A / Infantry Support Weapons		Project (Number/Name) VS5 / Soldier Protective Equipment		
B. Accomplishments/Planned Programs (\$ in Millions)		FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total
the SPS Capability Production Document and began preparation for a Milestone C Decision (Type Classification - Low Rate Initial Production (OMA, 121017, Central Funding and Fielding) by 3QFY15.						
FY 2015 Plans: Initiate development of SPS subsystems and components transitioned from Advanced Component Development and Prototypes (ACD&P) and also Integrated System Design (ISD). Complete Developmental Test 2 (DT2) of SPS Subsystems (VTP, TP, IHPS, TCEP). Continue engineering and manufacturing development tasks across the PPE portfolio (extremities, torso and vital torso, head and face protection) from emerging ballistic/blast threats. Continue efforts to reduce SPS weight and bulk at the system, subsystem and component level. Continue efforts to characterize and increase durability and functional service life. Continue development of ballistic inserts for female and small statured Soldiers through 1QFY16 as the components and subsystems mature. Conduct system level Human Factors Evaluation (HFE), system level Blast, and Pyroman/head testing in order to inform the Milestone C decision process and achieve a Milestone C Decision (Type Classification - Low Rate Initial Production (OMA, 121017, Central Funding and Fielding) by 3QFY15. Conduct Limited User Test/sizing study for Next Generation Advanced Bomb Suit (NGABS). Conduct limited User sizing study (Fit 2A).						
FY 2016 Base Plans: Continue system level development and integration of SPS subsystems and components transitioned from Advanced Component Development and Prototypes/Integrated System Design (ACD&P/ISD). Award DT/OT contract options of SPS Integrated Soldier Sensor System (ISSS) prototypes in 1QFY16. Conduct and complete DT/OT of SPS ISSS Subsystem by the end of 4QFY16 and prepare for a Milestone C Decision (Type Classification - Low Rate Initial Production (OMA, 121017, Central Funding and Fielding)) by 1QFY17. Continue to evaluate system and subsystem technologies across the PPE portfolio (extremities, torso and vital torso, head and face protection) from emerging ballistic/blast threats. Continue efforts to reduce SPS weight and bulk at the system, subsystem and component level. Continue efforts to characterize and increase durability and functional service life. Continue SPS system level blast, ballistic and characterization testing. Conduct system and subsystem level operational test for NGABS.						
Accomplishments/Planned Programs Subtotals		19.367	4.830	15.175	-	15.175

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Exhibit R-2A, RDT&E Project Justification: PB 2016 Army	Date: February 2015
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Appropriation/Budget Activity 2040 / 5	R-1 Program Element (Number/Name) PE 0604601A / <i>Infantry Support Weapons</i>	Project (Number/Name) VS5 / <i>Soldier Protective Equipment</i>
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C. Other Program Funding Summary (\$ in Millions)

<u>Line Item</u>	<u>FY 2014</u>	<u>FY 2015</u>	<u>FY 2016</u> <u>Base</u>	<u>FY 2016</u> <u>OCO</u>	<u>FY 2016</u> <u>Total</u>	<u>FY 2017</u>	<u>FY 2018</u>	<u>FY 2019</u>	<u>FY 2020</u>	<u>Cost To</u> <u>Complete</u>	<u>Total Cost</u>
• VS4 6.4 RDTE: <i>RDTE, 0603827A.VS4, Soldier Protective Equipment</i>	3.564	2.689	5.408	-	5.408	5.228	4.398	4.408	4.963	-	30.658
• OMA: <i>OMA, 121017, Central Funding & Fielding</i>	88.771	126.972	121.609	-	121.609	134.879	134.876	133.442	150.872	-	891.421

Remarks

D. Acquisition Strategy

Acquisition strategies for these programs vary in methods, and range from: 1) Material Change programs that result in engineering changes to existing systems to; 2) traditional development programs that include an Engineering and Manufacturing Development phase ranging in duration from 12 to 48 months, depending on the level of complexity and testing required.

E. Performance Metrics

N/A

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2016 Army												Date: February 2015			
Appropriation/Budget Activity 2040 / 5						R-1 Program Element (Number/Name) PE 0604601A / Infantry Support Weapons				Project (Number/Name) VS5 / Soldier Protective Equipment					
Management Services (\$ in Millions)				FY 2014		FY 2015		FY 2016 Base		FY 2016 OCO		FY 2016 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
SETA Support	Various	PM SPE : various	0.500	0.400		-		0.450		-		0.450	Continuing	Continuing	-
Subtotal			0.500	0.400		-		0.450		-		0.450	-	-	-
Product Development (\$ in Millions)				FY 2014		FY 2015		FY 2016 Base		FY 2016 OCO		FY 2016 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
Dev/Integ Contracts	Various	Various : Various	8.794	14.533		2.410		4.987		-		4.987	Continuing	Continuing	-
Prod Sys Engineering Spt	MIPR	various : various	1.497	1.095		0.530		5.350		-		5.350	Continuing	Continuing	-
Subtotal			10.291	15.628		2.940		10.337		-		10.337	-	-	-
Support (\$ in Millions)				FY 2014		FY 2015		FY 2016 Base		FY 2016 OCO		FY 2016 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
Misc Support Costs	MIPR	Various : Various	1.200	0.600		-		1.003		-		1.003	-	2.803	-
Subtotal			1.200	0.600		-		1.003		-		1.003	-	2.803	-
Test and Evaluation (\$ in Millions)				FY 2014		FY 2015		FY 2016 Base		FY 2016 OCO		FY 2016 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
DT/Ballistic & OT Test Costs	MIPR	Various DTC & OTC : Various DTC & OTC	2.514	2.739		1.890		3.385		-		3.385	Continuing	Continuing	-
Subtotal			2.514	2.739		1.890		3.385		-		3.385	-	-	-
			Prior Years	FY 2014		FY 2015		FY 2016 Base		FY 2016 OCO		FY 2016 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals			14.505	19.367		4.830		15.175		-		15.175	-	-	-

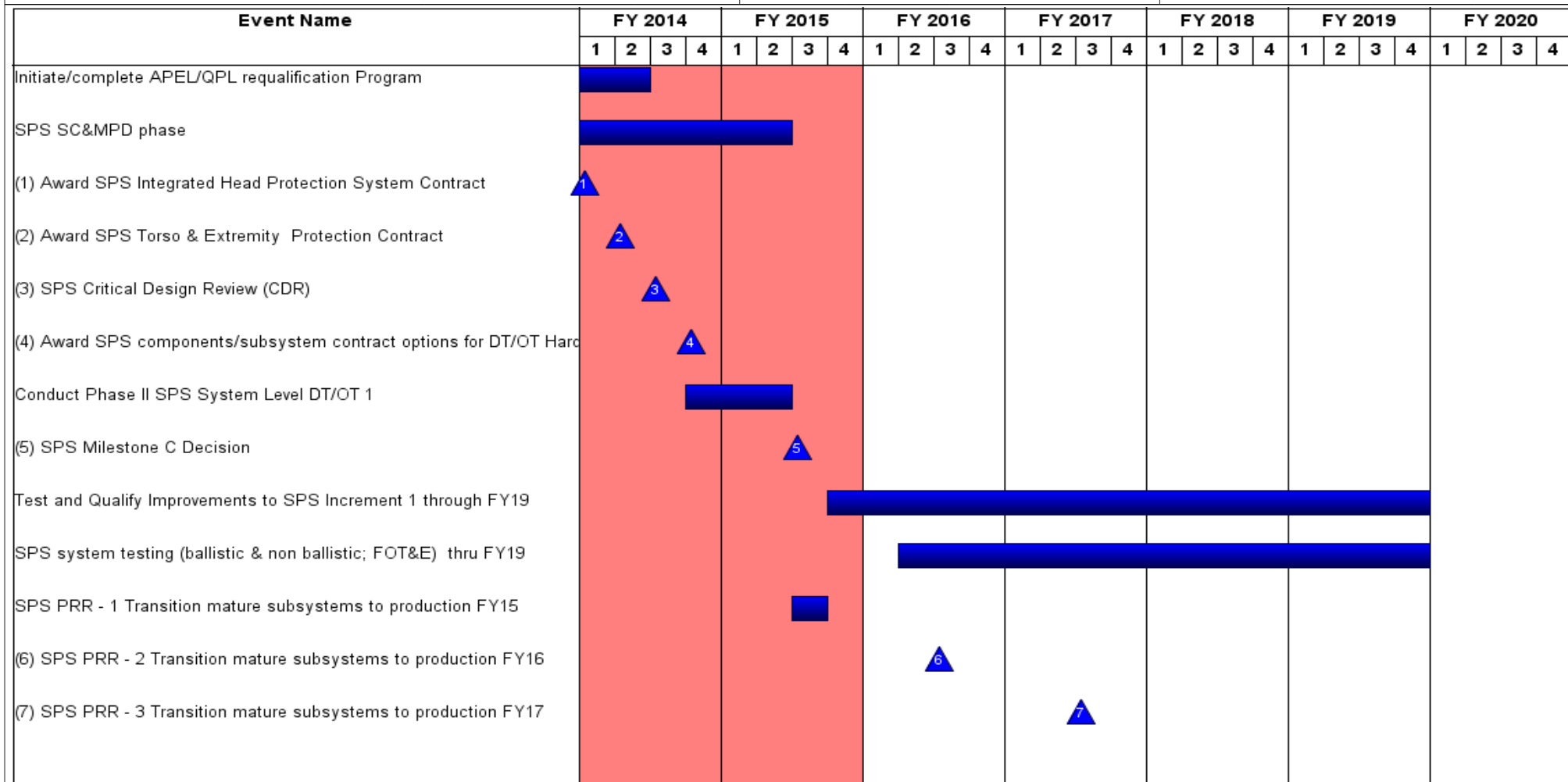
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Exhibit R-3, RDT&E Project Cost Analysis: PB 2016 Army							Date: February 2015			
Appropriation/Budget Activity				R-1 Program Element (Number/Name)		Project (Number/Name)				
2040 / 5				PE 0604601A / Infantry Support Weapons		VS5 / Soldier Protective Equipment				
	Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	Cost To Complete	Total Cost	Target Value of Contract	
Remarks										

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Exhibit R-4, RDT&E Schedule Profile: PB 2016 Army **Date:** February 2015

Appropriation/Budget Activity 2040 / 5	R-1 Program Element (Number/Name) PE 0604601A / <i>Infantry Support Weapons</i>	Project (Number/Name) VS5 / <i>Soldier Protective Equipment</i>
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Exhibit R-4, RDT&E Schedule Profile: PB 2016 Army													Date: February 2015															
Appropriation/Budget Activity					R-1 Program Element (Number/Name)								Project (Number/Name)															
2040 / 5					PE 0604601A / Infantry Support Weapons								VS5 / Soldier Protective Equipment															
Event Name	FY 2014				FY 2015				FY 2016				FY 2017				FY 2018				FY 2019				FY 2020			
	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
(1) SPS PRR - 4 Transition mature subsystems to production FY18																				▲1								
(2) SPS PRR - 5 Transition mature subsystems to production FY19																										▲2		
(3) SPS Increment 2 MS B																										▲3		
(4) Award SPS ISSS DT/OT Contract options																												
Conduct ISSS DT/OT 2																												
(5) ISSS MS C																												

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Exhibit R-4A, RDT&E Schedule Details: PB 2016 Army			Date: February 2015
Appropriation/Budget Activity 2040 / 5	R-1 Program Element (Number/Name) PE 0604601A / <i>Infantry Support Weapons</i>	Project (Number/Name) VS5 / <i>Soldier Protective Equipment</i>	

Schedule Details

Events	Start		End	
	Quarter	Year	Quarter	Year
Initiate/complete APEL/QPL requalification Program	3	2013	2	2014
SPS SC&MPD phase	3	2013	2	2015
Award SPS Integrated Head Protection System Contract	1	2014	1	2014
Award SPS Torso & Extremity Protection Contract	2	2014	2	2014
SPS Critical Design Review (CDR)	3	2014	3	2014
Award SPS components/subsystem contract options for DT/OT Hardware	4	2014	4	2014
Conduct Phase II SPS System Level DT/OT 1	4	2014	2	2015
SPS Milestone C Decision	3	2015	3	2015
Test and Qualify Improvements to SPS Increment 1 through FY19	4	2015	4	2019
SPS system testing (ballistic & non ballistic; FOT&E) thru FY19	2	2016	4	2019
SPS PRR - 1 Transition mature subsystems to production FY15	3	2015	3	2015
SPS PRR - 2 Transition mature subsystems to production FY16	3	2016	3	2016
SPS PRR - 3 Transition mature subsystems to production FY17	3	2017	3	2017
SPS PRR - 4 Transition mature subsystems to production FY18	3	2018	3	2018
SPS PRR - 5 Transition mature subsystems to production FY19	3	2019	3	2019
SPS Increment 2 MS B	3	2019	3	2019
Award SPS ISSS DT/OT Contract options	1	2016	1	2016
Conduct ISSS DT/OT 2	2	2016	4	2016
ISSS MS C	1	2017	1	2017