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Exhibit R-2, RDT&E Budget Item Justification: PB 2017 United States Special Operations Command **Date:** February 2016

Appropriation/Budget Activity 0400: <i>Research, Development, Test & Evaluation, Defense-Wide / BA 7: Operational Systems Development</i>	R-1 Program Element (Number/Name) PE 1160431BB / <i>Warrior Systems</i>
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COST (\$ in Millions)	Prior Years	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	Cost To Complete	Total Cost
Total Program Element	15.391	19.906	33.842	44.885	-	44.885	29.581	24.200	46.735	48.759	Continuing	Continuing
D476: <i>Military Information Support Operations</i>	2.177	3.566	6.430	4.711	-	4.711	3.489	1.087	1.109	1.131	Continuing	Continuing
S375: <i>Weapons Systems</i>	0.565	0.000	1.494	1.481	-	1.481	1.480	1.474	1.475	1.505	Continuing	Continuing
S385: <i>Soldier Protection and Survival Systems</i>	2.195	2.471	2.649	2.577	-	2.577	2.352	2.849	22.668	27.676	Continuing	Continuing
S385A: <i>Body Armor and Associated Equipment</i>	1.750	1.909	1.354	1.339	-	1.339	1.289	1.289	1.636	1.669	Continuing	Continuing
S395: <i>Visual Augmentation, Lasers and Sensor Systems</i>	0.000	1.422	2.189	1.482	-	1.482	1.517	1.546	1.575	1.602	Continuing	Continuing
S700: <i>Communications Equipment and Electronics Systems</i>	3.264	4.098	5.740	9.373	-	9.373	7.864	8.003	9.484	9.664	Continuing	Continuing
S710: <i>Tactical Systems Development</i>	0.243	0.930	0.868	2.640	-	2.640	2.416	2.523	3.031	3.083	Continuing	Continuing
S725: <i>Tactical Radio Systems</i>	1.811	4.777	2.170	3.884	-	3.884	3.683	4.892	5.219	1.880	Continuing	Continuing
S800: <i>Munitions Advanced Development</i>	3.386	0.733	10.948	17.398	-	17.398	5.491	0.537	0.538	0.549	Continuing	Continuing

A. Mission Description and Budget Item Justification

This program element provides for development, testing and integration of specialized equipment in the areas of automation, communication, radio, weapon, soldier protection and survival, visual augmentation, lasers and sensors, munition and military information support operations (MISO) systems. Warrior Systems specialized equipment will permit small, highly trained forces to conduct required operations across the entire spectrum of conflict. SOF must infiltrate by land, sea, and air to conduct unconventional warfare, direct action, or deep reconnaissance operations in denied areas against insurgent units, terrorists, or highly sophisticated threat forces. The requirement to operate in denied areas controlled by a sophisticated threat mandates that SOF systems remain technologically superior to threat forces to ensure mission success. The efforts within this PE improve SOF warfighting capabilities by continuing efforts to develop smaller, lighter, more efficient and more robust capabilities. The SOF mission mandates that SOF systems remain technologically superior to any threat to provide a maximum degree of survivability while, generally, being conducted in harsh environments for unspecified periods and in locations requiring small unit autonomy. Communications efforts will maintain a Command, Control, and Communications (C3) link between SOF Commanders and SOF Teams, and provide interoperability with all Services, various agencies of the U.S. Government, Air Traffic Control, commercial agencies and allied foreign forces. Efforts relating to soldier protection and survival requirements will improve survivability

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and mobility of SOF while conducting varied missions. Specialized visual augmentation, lasers and sensors will permit small, highly trained forces to conduct required operations across the entire spectrum of conflict. Munition efforts include advanced engineering operational system development and qualification efforts related to SOF-peculiar munitions and equipment. Additionally, MISO efforts include planned operations to convey selected information and indicators to foreign audiences to influence their emotions, motives, objective reasoning, and ultimately, the behavior of foreign governments, organizations, groups and individuals.

MISO:

This project provides for the development, test and integration of MISO equipment. MISO are planned operations to convey selected information and indicators to foreign audiences to influence their emotions, motives, objective reasoning, and ultimately, the behavior of foreign governments, organizations, groups, and individuals. This project funds transformational systems and equipment to conduct the seven phase MISO process (planning, targeting audience analysis, series development, product development and design, approval, production/distribution/dissemination, and measures of effectiveness) in support of combatant commanders.

Weapons Systems:

This project provides for next generation system development and pre-planned product improvements (P3I), testing, and integration of specialized weapon systems and weapon accessories to meet the unique requirements of SOF. Efforts include muzzle brakes and suppressors, and P3I for assault, sniper, and crew served weapons leveraging the latest technological advances to achieve overmatch capability against emerging threats.

Soldier Protection and Survival Systems:

This project provides for development, testing, and integration of specialized equipment to meet the unique soldier protection and survival requirements of SOF. Specialized equipment will improve survivability and mobility of SOF while conducting varied missions. Current efforts include, but are not limited to counter-improvised explosive device system development and testing to meet continually emerging Counter RC-IED threats.

Body Armor and Associated Equipment:

This project provides specialized equipment with ballistic protection to meet the unique soldier protection and survival requirements of SOF. Specialized ballistic equipment improves survivability and load bearing equipment impacting the mobility of SOF while conducting varied missions. This project enhances the SOF Personal Equipment Advanced Requirements program by providing for the research, development, and testing of body armor plates, soft armor, helmets, eye protection, and other personal protective equipment to meet current ballistic threats that exist on the battlefield.

Visual Augmentation, Lasers and Sensor Systems:

This project provides for development, testing, and integration of specialized visual augmentation, laser and sensor systems equipment to meet the unique requirements of SOF. Programs in this area include binocular/monocular devices and visual augmentation to include next generation laser designation and geo-location systems.

Communications Equipment and Electronics Systems:

This project provides for communication systems to meet emergent requirements to support SOF. SOF units require communications equipment that improves their warfighting capability without degrading their mobility. Therefore, SOF Communications Equipment and Electronics is a continuing effort to develop smaller, lighter, more efficient and more robust SOF Command, Control, Communications, and Computer (C4) capabilities.

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Tactical Systems Development:

This project provides for development, testing, and integration of specialized automation equipment to meet the unique requirements of SOF. Tactical systems provide forward deployed forces with advanced networking, automated data processing, storage, and display capabilities to support situational awareness, mission planning and execution, and command and control (C2) of forces.

Tactical Radio Systems:

This project is for development of all SOF tactical radio programs. SOF units require radio communication equipment that improves their warfighting capability without degrading their mobility. United States Special Operations Command (USSOCOM) has developed an overall strategy to ensure that Tactical Radio Systems continue to provide SOF with the required capabilities throughout the 21st century. SOF Tactical Radios provide the critical C3 link between SOF Commanders and SOF Teams involved in operational missions and training exercises. They also provide interoperability with all Services, various agencies of the U.S. Government, Air Traffic Control, commercial agencies, and allied/coalition forces. Tactical Radios rapidly and seamlessly establish and maintain mobile and fixed (C2) communications between infiltrated/operational elements and higher echelon headquarters, allowing SOF to operate with any force combination in multiple environments.

Munitions Development:

This project provides for the advanced engineering, operational system development, and qualification efforts related to SOF-peculiar and Foreign/Non-standard munitions and equipment. Funding supports development of Insensitive Munitions (IM) technology and evaluation, in accordance with statutory requirement set forth in U.S. Code, Title 10, Chapter 141, Section 2389 (December 2001). Testing is in accordance with the USSOCOM IM Strategic Plan. Funding also supports efforts to develop and improve Stand-Off Precision Guided Munitions (SOPGM), including the development and integration of improved warheads, seeker, guidance navigation and control systems, operational flight software and missile delivery to meet SOF requirements.

B. Program Change Summary (\$ in Millions)	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total
Previous President's Budget	20.573	25.342	20.243	-	20.243
Current President's Budget	19.906	33.842	44.885	-	44.885
Total Adjustments	-0.667	8.500	24.642	-	24.642
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-2.000			
• Congressional Rescissions	-	-			
• Congressional Adds	-	10.500			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-0.667	-			
• Other Adjustments	0.000	0.000	24.642	-	24.642

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Congressional Add Details (\$ in Millions, and Includes General Reductions)

Project: S800: *Munitions Advanced Development*

Congressional Add: *Stand-Off Precision Guided Munitions (SOPGM)*

Congressional Add Subtotals for Project: S800

Congressional Add Totals for all Projects

	FY 2015	FY 2016
	-	10.500
Congressional Add Subtotals for Project: S800	-	10.500
Congressional Add Totals for all Projects	-	10.500

Change Summary Explanation

Funding:

FY 2015: Decrease of \$0.667 million is due to a transfer of funds to Small Business Innovative Research/Small Business Technology Transfer programs.

FY 2016: Net Increase of \$8.500 million is due to a congressional add that supports the integration and testing of service-common munitions on SOF-unique platforms within the Stand-Off Guided Munitions (SOPGM) program (\$10.500 million) and Congressional Directed Reductions in Military Information Support Operations (-\$0.180 million), Soldier Protection and Survival Systems (-\$0.249 million), Body Armor and Associated Equipment (-\$0.193 million), Visual Augmentation, Lasers and Sensor Systems (-\$0.144 million), Communications Equipment and Electronics (-\$0.612 million), Tactical Systems Development (-\$0.100 million), Tactical Radio Systems (-\$0.448 million), and Advanced Munitions Development (-\$0.074 million).

FY 2017: Net Increase of \$24.642 million supports SDBII Missile integration into the SOPGM program (\$17.000 million), STC evolutionary technology insertions for radio equipment (\$2.148 million), new civil affairs technologies in the CIM program (\$1.847 million), advanced SDN encoding methods (\$1.330 million), systems integration efforts in the TACLN program (\$1.330 million), a realignment of \$0.750 million to support testing of the VAS program, \$0.500 million to support development of electronic warfare/electronic countermeasures for systems in the RC-CIED program, \$0.073 million that continues development and testing of new capability in BFT equipment, and a program decrease for economic assumptions (-0.336 million).

Schedule: None.

Technical: None.

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Exhibit R-2A, RDT&E Project Justification: PB 2017 United States Special Operations Command										Date: February 2016		
Appropriation/Budget Activity 0400 / 7					R-1 Program Element (Number/Name) PE 1160431BB / <i>Warrior Systems</i>				Project (Number/Name) D476 / <i>Military Information Support Operations</i>			
COST (\$ in Millions)	Prior Years	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	Cost To Complete	Total Cost
D476: <i>Military Information Support Operations</i>	2.177	3.566	6.430	4.711	-	4.711	3.489	1.087	1.109	1.131	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

This project provides for the development and acquisition of Military Information Support Operations (MISO) equipment. MISO are planned operations to convey selected information and indicators to foreign audiences to influence their emotions, motives, objective reasoning, and ultimately, the behavior of foreign governments, organizations, groups, and individuals. This project funds transformational systems and equipment to conduct MISO in support of combatant commanders.

- Prior to FY 2015, the MISO Broadcast Systems (MISOB) consisted of the Media Production Center (MPC) Family of Systems (FoS); Product Distribution System (PDS); Fly Away Broadcast System (FABS); and the Long Range Broadcast System (LRBS). Starting in FY 2015 the MISO Broadcast System will be split into these individual programs of records. These systems provide fixed or deployable technologies that fulfill the requirements of the MISO seven phase processes in support to theater commanders. This project is comprised of several interfacing systems that can stand alone or inter-operate with other MISO systems as determined by mission requirements and includes:
- Media Production and Broadcast Systems support the MPC and FABS MISO missions. The MPC includes the fixed site MPC with light and medium media production capability. FABS is a transit case fly-away broadcast system that consists of a combination of amplitude modulation (AM), frequency modulation (FM), shortwave (SW), cellular, and television (TV) transmitters.
- LRBS is a family of broadcast systems intended to be integrated to multiple manned and unmanned, long-loiter aerial systems with the capability of broadcasting in AM, FM, SW, TV, Very High Frequency (VHF), TV Ultra High Frequency (UHF) and cellular (Short Message Service, Multi-Media Messaging Service, and Voice). This system provides the capability of broadcasting MISO messages via multiple mediums into permissive, semi-permissive, and denied foreign areas.
- PDS provides the satellite communications (SATCOM) transport path for the worldwide Military Information Support Operations (MISO) architecture. PDS consists of three variants that are used at different levels of command from the Media Operations Complex (MOC) to the Tactical MISO Teams in order to link MISO planners with review/approval authorities, production facilities, and dissemination elements.
- FABS (previously reported in Media Production and Broadcast Systems) is a transit case fly-away broadcast system that consists of a combination of AM, FM, SW, cellular, and TV transmitters.

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

	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total
Title: Media Production and Broadcast System	2.185	1.894	-	-	-

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B. Accomplishments/Planned Programs (\$ in Millions)	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total
<p><i>FY 2015 Accomplishments:</i> Continued primary hardware development, systems engineering, and test and evaluation on product distribution technologies to enhance MISO product. Integrated and disseminated new analytical software tools to enhance production supporting MISO target audience assessment and measures of effectiveness requirements. Specific focus on a light cellular broadcast capability reducing size and weight and FABS/SOF Deployable Node (SDN) interoperability.</p> <p><i>FY 2016 Plans:</i> Test and evaluate new systems and components to enhance MISO product. Integrate and disseminate new analytical software tools to enhance production supporting MISO target audience assessment and measures of effectiveness requirements.</p>					
<p><i>Title:</i> LRBS</p> <p><i>FY 2015 Accomplishments:</i> Began primary hardware development, system engineering, and test and evaluation of pod-based FM and cellular broadcast, power, and antenna technologies.</p> <p><i>FY 2016 Plans:</i> Continue with primary hardware development, systems engineering, and test and evaluation of pod-based FM and cellular broadcast, power, and antenna technologies.</p> <p><i>FY 2017 Base Plans:</i> Continues with primary development, systems engineering, and test and evaluation of pod-based cellular and television broadcast, power, and antenna technologies.</p>	1.326	4.536	2.894	-	2.894
<p><i>Title:</i> PDS</p> <p><i>FY 2015 Accomplishments:</i> Completed advance technology, and test and evaluations of new PDS/SDN-P components integrating audio/visual capabilities for enhanced distribution and delivery of MISO products.</p>	0.055	-	-	-	-
<p><i>Title:</i> FABS</p> <p><i>FY 2017 Base Plans:</i></p>	-	-	1.817	-	1.817

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B. Accomplishments/Planned Programs (\$ in Millions)	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total
Tests and evaluates new systems and components to enhance MISO broadcasts. Continues with primary hardware development to reduce broadcast system weight and size while adding multi-mission capabilities.					
Accomplishments/Planned Programs Subtotals	3.566	6.430	4.711	-	4.711

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

<u>Line Item</u>	<u>FY 2015</u>	<u>FY 2016</u>	<u>FY 2017 Base</u>	<u>FY 2017 OCO</u>	<u>FY 2017 Total</u>	<u>FY 2018</u>	<u>FY 2019</u>	<u>FY 2020</u>	<u>FY 2021</u>	<u>Cost To Complete</u>	<u>Total Cost</u>
• PROC1/0204OTHER: OTHER ITEMS <\$5M	103.833	79.149	66.436	11.580	78.016	56.623	70.531	67.097	88.709	Continuing	Continuing

Remarks

D. Acquisition Strategy

- The Media Production and Broadcast system program has an evolutionary acquisition strategy. Commercial and government agency sources will be leveraged for required certifications, functional and operational tests, and acceptance support.
- The PDS program has an evolutionary acquisition strategy. Commercial and government agency sources will continue to be leveraged for required certifications, functional and operational tests, and acceptance support.
- The LRBS program has an evolutionary acquisition strategy. Commercial and government agency sources will be leveraged for required certifications, functional and operational tests, and acceptance support.
- The FABS program has an evolutionary acquisition strategy. Commercial and government agency sources will be leveraged for required certifications, functional and operational tests, and acceptance support.

E. Performance Metrics

N/A.

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2017 United States Special Operations Command **Date:** February 2016

Appropriation/Budget Activity 0400 / 7	R-1 Program Element (Number/Name) PE 1160431BB / <i>Warrior Systems</i>	Project (Number/Name) D476 / <i>Military Information Support Operations</i>
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Product Development (\$ in Millions)				FY 2015		FY 2016		FY 2017 Base		FY 2017 OCO		FY 2017 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
Media Production and Broadcast Systems	Reqn	JHU/APL : Laurel, MD	0.912	1.770	Jan 2015	1.694	Apr 2016	-		-		-	0.000	4.376	-
Long Range Broadcast System (LRBS)	MIPR	NSWC-Crane : Crane, IN : Crane, IN	-	1.326	Feb 2015	4.086	Jan 2016	2.684	Jan 2017	-		2.684	Continuing	Continuing	-
Product Distribution System	Reqn	CACI : Various	-	0.055	Apr 2015	-		-		-		-	0.000	0.055	-
Fly Away Broadcast Systems (FABS)	Reqn	JHU / APL : Laurel, MD	-	-		-		1.667	Feb 2017	-		1.667	Continuing	Continuing	-
FABS Cellular Broadcast Lite	Reqn	Digital Receiving Technologies (DRT) : Germantown, MD	1.265	0.340	Jun 2015	0.150	Apr 2016	-		-		-	0.000	1.755	-
Subtotal			2.177	3.491		5.930		4.351		-		4.351	-	-	-

Test and Evaluation (\$ in Millions)				FY 2015		FY 2016		FY 2017 Base		FY 2017 OCO		FY 2017 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
LRBS	MIPR	NSWC-Crane : Crane, IN : Crane, IN	-	-		0.450	Jan 2016	0.210		-		0.210	Continuing	Continuing	-
FABS	Reqn	Various : Various	-	0.075	Feb 2015	0.050	Jan 2016	0.150	Feb 2017	-		0.150	Continuing	Continuing	-
Subtotal			-	0.075		0.500		0.360		-		0.360	-	-	-

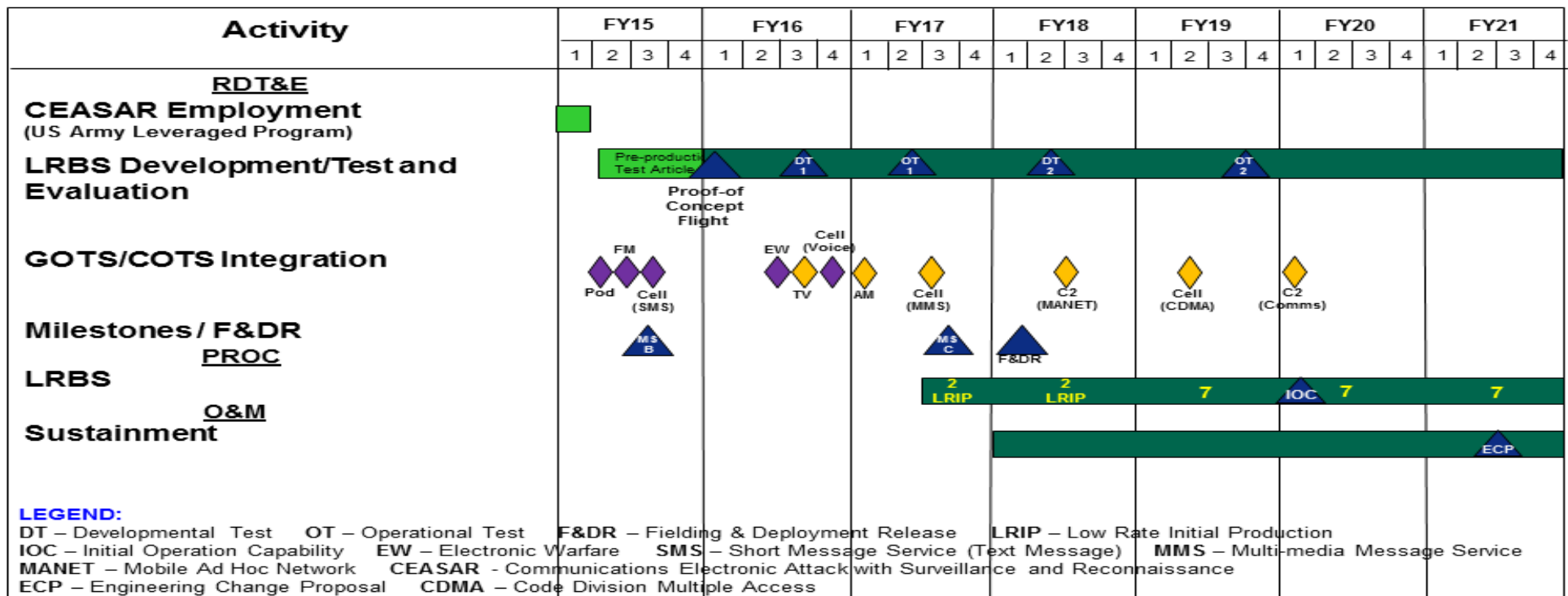
	Prior Years	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	2.177	3.566	6.430	4.711	-	4.711	-	-	-

Remarks

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Exhibit R-4, RDT&E Schedule Profile: PB 2017 United States Special Operations Command		Date: February 2016
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Long Range Broadcast System (LRBS) Schedule



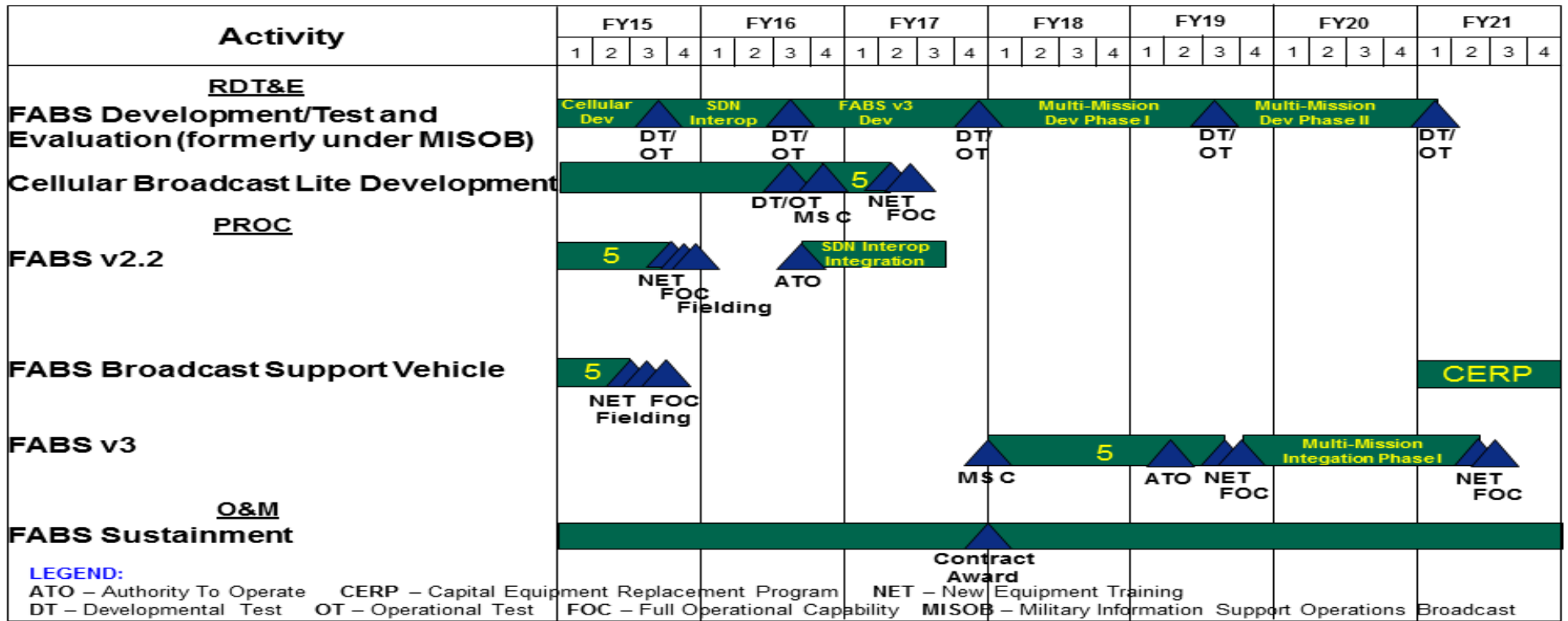
LEGEND:
 DT – Developmental Test OT – Operational Test F&DR – Fielding & Deployment Release LRIP – Low Rate Initial Production
 IOC – Initial Operation Capability EW – Electronic Warfare SMS – Short Message Service (Text Message) MMS – Multi-media Message Service
 MANET – Mobile Ad Hoc Network CEASAR – Communications Electronic Attack with Surveillance and Reconnaissance
 ECP – Engineering Change Proposal CDMA – Code Division Multiple Access

◆ GOTS Integration ◆ COTS Integration

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Exhibit R-4, RDT&E Schedule Profile: PB 2017 United States Special Operations Command		Date: February 2016
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Fly Away Broadcast System (FABS) Schedule



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Exhibit R-4A, RDT&E Schedule Details: PB 2017 United States Special Operations Command		Date: February 2016
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Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
<i>Media Production and Broadcast Systems</i>				
Hardware development and systems engineering	1	2015	4	2016
<i>Long Range Broadcast System</i>				
Material Research and Prototype	2	2015	2	2021
Test and Evaluation	1	2016	2	2021
<i>Product Distribution System</i>				
Hardware Development and Evaluation	3	2015	2	2016
<i>Family of Broadcast Systems</i>				
Hardware Development	2	2017	2	2021
Test and Evaluation	2	2015	1	2016

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Exhibit R-2A, RDT&E Project Justification: PB 2017 United States Special Operations Command **Date:** February 2016

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COST (\$ in Millions)	Prior Years	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	Cost To Complete	Total Cost
S375: <i>Weapons Systems</i>	0.565	0.000	1.494	1.481	-	1.481	1.480	1.474	1.475	1.505	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

This project provides for the development and testing of specialized, common caliber, individual, sniper, machine gun, pistol, crew served weapons systems that enable SOF to accurately engage enemy personnel and material in all SOF environments at ranges up to 1500 meters. Weapons include common caliber modular assault rifles to engage out to 600 meters, Sniper Support Rifles to engage out to 800 meters, sniper rifles to engage out to 1500 meters, shoulder fired Grenade Launchers, vehicle and man-portable high velocity grenade launchers, pistols, machine guns to engage out to 1000 meters, multi-barreled mini-guns which can be mounted on boats, vehicles, aircraft, and ground mounted to engage out to 3,500 meters, and Weapon Accessories to be used on both service-common and SOF weapons, enabling the operator to tailor the configuration of the weapon to the assigned mission and operational environment, enhancing the overall effectiveness of the weapons, which enables mission accomplishment and operator survivability.

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

	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total
Title: Weapons Accessories (WPNAC)	-	1.494	1.481	-	1.481
FY 2016 Plans: Develop enhanced capabilities to improve performance of individual sniper, machine gun, and pistol weapons.					
FY 2017 Base Plans: Develops enhanced capabilities to improve performance of individual sniper, machine gun, and pistol weapons.					
Accomplishments/Planned Programs Subtotals	-	1.494	1.481	-	1.481

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

Line Item	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	Cost To Complete	Total Cost
• PROC/0204WARRIOR: <i>Warrior Systems <\$5M</i>	276.590	205.609	245.781	-	245.781	225.803	232.418	223.832	235.891	Continuing	Continuing

Remarks

D. Acquisition Strategy

Weapons accessory development will take place within government laboratories as well as industry depending on the weapons system.

E. Performance Metrics

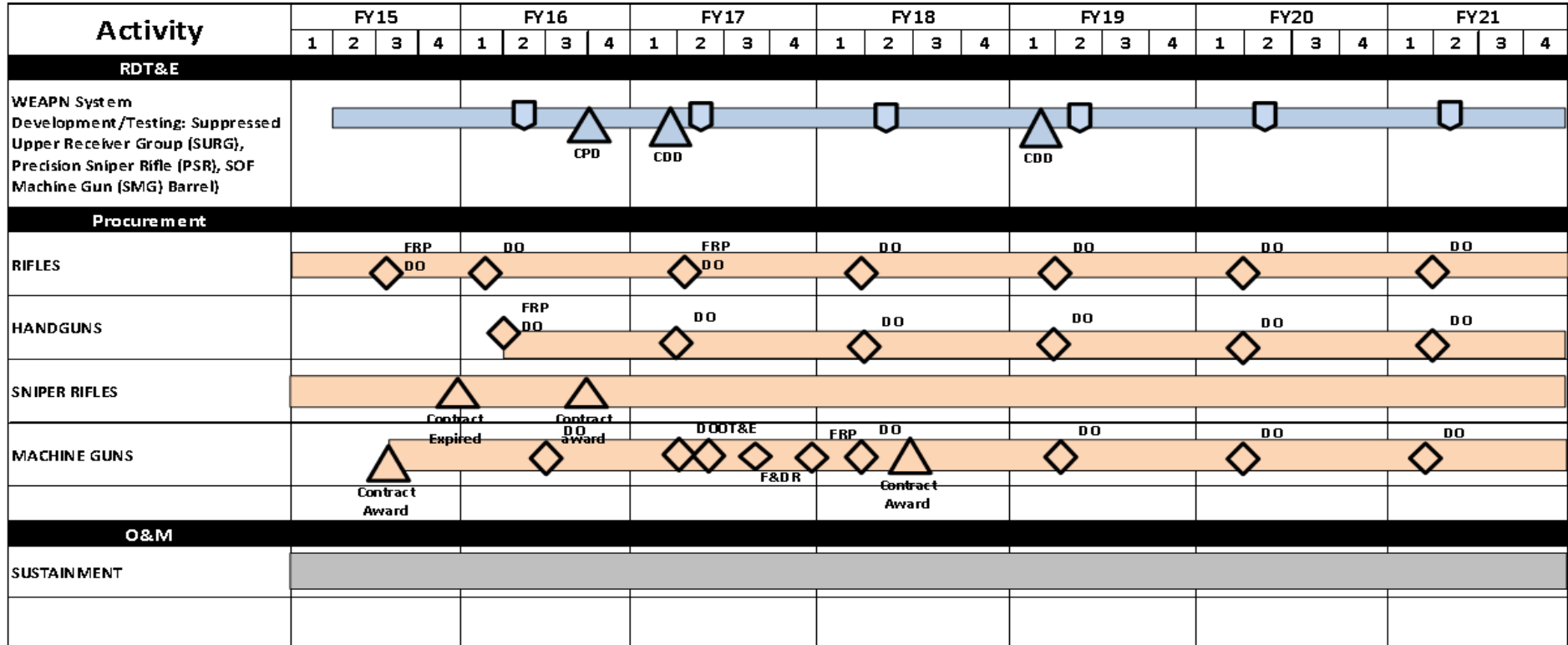
N/A

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Exhibit R-4, RDT&E Schedule Profile: PB 2017 United States Special Operations Command Date: February 2016

Appropriation/Budget Activity 0400 / 7	R-1 Program Element (Number/Name) PE 1160431BB / Warrior Systems	Project (Number/Name) S375 / Weapons Systems
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**Weapons Systems
Schedule**



Production Award
 RDT&E Award
 Major Event
 Previously Reported
 RDT&E
 Procurement
 O&M

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Exhibit R-4A, RDT&E Schedule Details: PB 2017 United States Special Operations Command **Date:** February 2016

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Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
<i>Weapons Systems</i>				
Weapons Development, Test & Evaluation	2	2015	4	2021

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COST (\$ in Millions)	Prior Years	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	Cost To Complete	Total Cost
S385: <i>Soldier Protection and Survival Systems</i>	2.195	2.471	2.649	2.577	-	2.577	2.352	2.849	22.668	27.676	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

This project provides specialized equipment to meet the unique operator protection and survival requirements of Special Operations Forces (SOF) to include: Army Rangers; Army Special Forces; Navy Sea, Air, Land (SEAL) teams; Navy Special Boat Units; Air Force Operators; and Marine Raiders. Specialized equipment improves survivability protection from the environment by providing the operator with hearing protection and clothing systems, as well load bearing equipment to improve the mobility of SOF while conducting varied missions and personnel safety equipment such as harnesses and safety retention devices. These missions are generally conducted in harsh environments, for unspecified periods and in locations requiring small unit autonomy.

SOF Personal Equipment Advanced Requirements (SPEAR) provides for the research, development, testing and evaluation of a variety of individual and survival equipment to include: ballistic and environmental protective systems, combat uniforms, load carriage systems, communications headsets, and visual augmentation system mounts.

Tactical Combat Casualty Care (TCCC) provides medical devices, ancillary equipment and Casualty Evacuation (CASEVAC) sets for SOF. The CASEVAC procures a suite of Food and Drug Administration approved medical items including, but not limited, to intraosseous infusion devices, patient monitoring and assessment devices, emergency airway kits, as well as devices that provide SOF the capability to support extraction, extrication, mobility, transportation, and sustainment of casualties in forward areas. This program fields tactical medical and CASEVAC capabilities with the intention to transition capabilities developed under the National Mission Force Tactical Medical Programs. This capability provides significant ability to lessen battlefield losses by providing timely, critical lifesaving and evacuation capabilities to the forward-deployed SOF operators.

Counter Radio Controlled-Improvised Explosive Device (RC-IED) program provides SOF with the ability to counter current and future RC-IED threats used by terrorist networks.

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

	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total
Title: SPEAR	0.887	1.295	0.474	-	0.474
FY 2015 Accomplishments: Continued profile refinement to support signature management and material research for uniforms. Continued testing and development of lightweight, high performance textiles for enhanced material solutions that support SPEAR requirements. Continued on-going prototype testing. Addressed emerging SOF-unique requirements					

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Exhibit R-2A, RDT&E Project Justification: PB 2017 United States Special Operations Command		Date: February 2016
Appropriation/Budget Activity 0400 / 7	R-1 Program Element (Number/Name) PE 1160431BB / <i>Warrior Systems</i>	Project (Number/Name) S385 / <i>Soldier Protection and Survival Systems</i>

B. Accomplishments/Planned Programs (\$ in Millions)	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total
<p>as SOF transitions from heavy deployments in Iraq and Afghanistan to a global focus. Continued maritime communication headset solicitation.</p> <p>FY 2016 Plans: Initiate research and development of a land communications material solution, safety belt and lanyard solicitations, arctic capability gap solutions, and subsurface operations equipment. Continue materials testing.</p> <p>FY 2017 Base Plans: Continues research and development of land communications material solutions, arctic uniform capability gap solutions, and initiates jungle uniform capability gap solutions. Continues materials testing and incorporation into commodity lines. Begins signature management evaluations.</p>					
<p>Title: TCCC</p> <p>FY 2015 Accomplishments: Provided test support to include program management, market surveys, test article acquisition, test and evaluation and systems engineering in direct support of the CASEVAC. Continued evaluation, airworthiness certification and miniaturization of TCCC CASEVAC components. Supported system prototype development, testing and research on advanced tactical medical equipment to lessen battlefield losses, with the goal of transitioning these medical technology items to a program of record.</p> <p>FY 2016 Plans: Provide for test support to include program management, market surveys, test article acquisition, test and evaluation and systems engineering in direct support of the CASEVAC. Support the evaluation of enhanced medical monitoring systems for incorporation into the CASEVAC. Develop and test water resistant solutions for maritime operations of components within the CASEVAC.</p> <p>FY 2017 Base Plans: Provides for test support to include program management, market surveys, test article acquisition, test and evaluation and systems engineering in direct support of the CASEVAC program. Supports the evaluation of enhanced medical monitoring systems for incorporation into the CASEVAC program. Develops and tests water resistant solutions for maritime operations of components within the CASEVAC set. Supports the re-compete of the CASEVAC program.</p>	0.542	0.389	0.396	-	0.396
<p>Title: RC-IED</p> <p>FY 2015 Accomplishments:</p>	1.042	0.965	1.707	-	1.707

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Exhibit R-2A, RDT&E Project Justification: PB 2017 United States Special Operations Command		Date: February 2016
Appropriation/Budget Activity 0400 / 7	R-1 Program Element (Number/Name) PE 1160431BB / <i>Warrior Systems</i>	Project (Number/Name) S385 / <i>Soldier Protection and Survival Systems</i>

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

	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total
<p>Provided National Assessment Group (NAG) test support to the Counter RC-IED program. Supported system engineering, test and evaluation, test article acquisition, and market research of the RC-IED programs. Maintained test range effectiveness and currency, ensuring the ability to accurately test against current and emerging threat systems.</p> <p>FY 2016 Plans: Provide for NAG test support to the Counter RC-IED program. Support system engineering, test and evaluation, test article acquisition, and market research of the RC-IED programs. Maintain test range effectiveness and currency, ensuring the ability to accurately test against current and emerging threat systems. Initiate development and testing of ECM systems capability and advanced software technique countermeasures.</p> <p>FY 2017 Base Plans: Continues NAG test support to the Counter RC-IED program. Supports system engineering, test and evaluation, test article acquisition, and market research of the RC-IED programs. Maintains range effectiveness and currency, ensuring the ability to accurately test against current and emerging threat systems. Continues development and testing of ECM systems capability to include advanced software technique countermeasures and loadsets for mounted and dismounted systems. Initiates open architecture development to increase efficiency of sharing software and firmware solutions across multiple industry original equipment manufacturer (OEM) vendors and government organizations.</p>					
Accomplishments/Planned Programs Subtotals	2.471	2.649	2.577	-	2.577

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

<u>Line Item</u>	<u>FY 2015</u>	<u>FY 2016</u>	<u>FY 2017 Base</u>	<u>FY 2017 OCO</u>	<u>FY 2017 Total</u>	<u>FY 2018</u>	<u>FY 2019</u>	<u>FY 2020</u>	<u>FY 2021</u>	<u>Cost To Complete</u>	<u>Total Cost</u>
• PROC/0204WARRIOR: <i>Warrior Systems <\$5M</i>	276.590	205.609	245.781	-	245.781	225.803	232.418	223.832	235.891	Continuing	Continuing

Remarks

D. Acquisition Strategy

SPEAR primarily takes advantage of modified commercial-off-the-shelf (COTS) or non-developmental items (NDI) through open competition.

TCCCE-CASEVAC takes advantage of COTS equipment and/or NDI.

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Exhibit R-2A, RDT&E Project Justification: PB 2017 United States Special Operations Command		Date: February 2016
Appropriation/Budget Activity 0400 / 7	R-1 Program Element (Number/Name) PE 1160431BB / <i>Warrior Systems</i>	Project (Number/Name) S385 / <i>Soldier Protection and Survival Systems</i>

RC-IED uses evolutionary development of hardware and software capabilities, leveraging collaborative development with Government Agencies and Industry partners.

E. Performance Metrics

N/A

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2017 United States Special Operations Command **Date:** February 2016

Appropriation/Budget Activity 0400 / 7	R-1 Program Element (Number/Name) PE 1160431BB / <i>Warrior Systems</i>	Project (Number/Name) <i>S385 / Soldier Protection and Survival Systems</i>
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Product Development (\$ in Millions)				FY 2015		FY 2016		FY 2017 Base		FY 2017 OCO		FY 2017 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
SOF Personal Equipment Advanced Requirements (SPEAR) - Protective Combat Uniform (PCU)	Various	PM-SSES : Natick, MA	0.100	0.092	Feb 2015	0.139	Jan 2016	0.083	Jan 2017	-		0.083	Continuing	Continuing	-
SPEAR - Modular Glove System (MGS)	Various	PM-SSES : Natick, MA	0.040	-		-		-		-		-	0	0.040	-
SPEAR - Modular Integrated Communications Helmet/Land Maritime Communication System	Various	PM-SSES : Natick, MA	0.220	0.230	Mar 2015	0.415	Jan 2016	0.129	Jan 2017	-		0.129	Continuing	Continuing	-
SPEAR - Load Carriage System (LCS) and Backpacks	Various	PM-SSES : Natick, MA	0.035	-		-		-		-		-	0	0.035	-
Subtotal			0.395	0.322		0.554		0.212		-		0.212	-	-	-

Test and Evaluation (\$ in Millions)				FY 2015		FY 2016		FY 2017 Base		FY 2017 OCO		FY 2017 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
SPEAR - PCU testing/P3I	Various	PM/SSES : Natick, MA	0.135	0.051	Jan 2015	0.070	Mar 2016	0.040	Feb 2017	-		0.040	Continuing	Continuing	-
SPEAR - Signature Management Profile Characteristics	Various	PM-SSES : Natick, MA	0.065	0.063	Jan 2015	0.097	Feb 2016	0.064	Jan 2017	-		0.064	Continuing	Continuing	-
SPEAR - MGS Testing	Various	PM-SSES : Natick, MA	0.025	0.023	Feb 2015	0.043	Feb 2016	0.044	Jan 2017	-		0.044	Continuing	Continuing	-
SPEAR - Maritime Comms Testing	Various	PM-SSES : Natick, MA	0.440	0.414	Feb 2015	0.503	Jan 2016	0.089	Jan 2017	-		0.089	Continuing	Continuing	-
SPEAR - LCS/Body Armor Vest/Backpack Material and Prototype Testing	Various	PM-SSES : Natick, MA	0.020	0.014	Jan 2015	0.028	Feb 2016	0.025	Jan 2017	-		0.025	Continuing	Continuing	-

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Exhibit R-4, RDT&E Schedule Profile: PB 2017 United States Special Operations Command		Date: February 2016
Appropriation/Budget Activity 0400 / 7	R-1 Program Element (Number/Name) PE 1160431BB / <i>Warrior Systems</i>	Project (Number/Name) S385 / <i>Soldier Protection and Survival Systems</i>

**SOF Personal Equipment Advanced Requirements (SPEAR)
Schedule**

Activity	FY15				FY16				FY17				FY18				FY19				FY20				FY21															
	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												
RDT&E																																								
Product Development PCU		☐	☐			☐	☐				☐				☐																									
Product Development MICH Comms		☐				☐					☐				☐																									
Test & Evaluation PCU		☐					☐	☐			☐				☐																									
Test & Evaluation MGS		☐					☐	☐			☐				☐																									
Test & Evaluation MICH Comms		☐				☐					☐				☐																									
Test & Evaluation LCS		☐					☐	☐			☐				☐																									
O&M																																								
Sustainment all capabilities		◊					◊				◊				◊																									

◊ Production Award	☐ RDT&E Award	△ Major Event	☐ Previously Reported	☐ RDT&E	☐ Procurement	☐ O&M
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Exhibit R-4, RDT&E Schedule Profile: PB 2017 United States Special Operations Command		Date: February 2016
Appropriation/Budget Activity 0400 / 7	R-1 Program Element (Number/Name) PE 1160431BB / <i>Warrior Systems</i>	Project (Number/Name) S385 / <i>Soldier Protection and Survival Systems</i>

**Tactical Combat Casualty Care (TCCC)
Schedule**

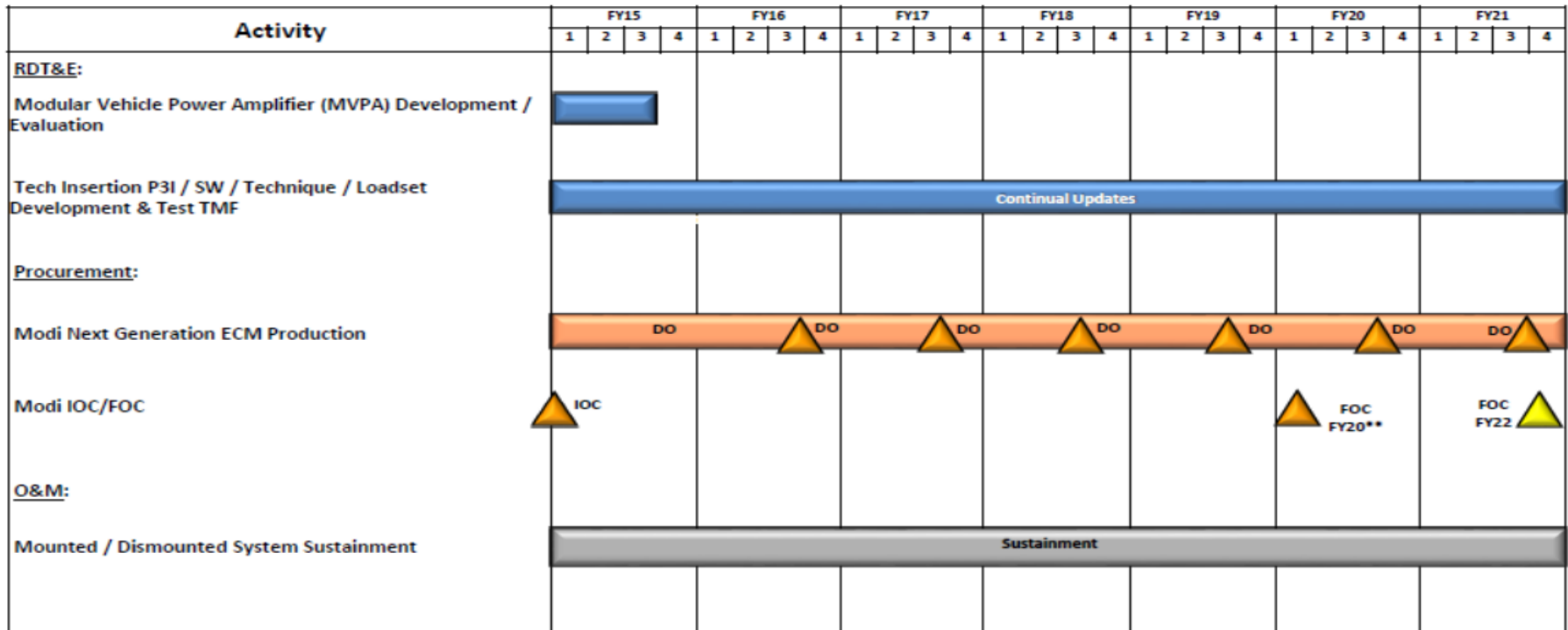
Activity	FY15				FY16				FY17				FY18				FY19				FY20				FY21			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
RDT&E																												
TCCC CASEVAC Set s Test and Evaluation	□				□				□				□				□				□				□			
Procurement																												
TCCC CASEVAC Set New Technology Insertion					◇				◇				◇				◇											
													FOC															
O&M																												
TCCC CASEVAC Set Sustainment									◇																			
									Recompete Contract Award																			
Operator Kit Sustainment	█																											
Medic Kit Sustainment	█																											

Production Award
 RDT&E Award
 Major Event
 Previously Reported
 RDT&E
 Procurement
 O&M

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Exhibit R-4, RDT&E Schedule Profile: PB 2017 United States Special Operations Command		Date: February 2016
Appropriation/Budget Activity 0400 / 7	R-1 Program Element (Number/Name) PE 1160431BB / <i>Warrior Systems</i>	Project (Number/Name) S385 / <i>Soldier Protection and Survival Systems</i>

Counter Radio Controlled – Improvised Explosive Device (RC-IED) Schedule



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Exhibit R-4A, RDT&E Schedule Details: PB 2017 United States Special Operations Command		Date: February 2016
Appropriation/Budget Activity 0400 / 7	R-1 Program Element (Number/Name) PE 1160431BB / <i>Warrior Systems</i>	Project (Number/Name) S385 / <i>Soldier Protection and Survival Systems</i>

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
<i>SPEAR-Protective Combat Uniform (PCU)</i>				
PCU Testing/Development	3	2015	4	2021
<i>SPEAR-Signature Management</i>				
Signature Management Profile Characterization	2	2015	4	2021
<i>SPEAR-Modular Glove System</i>				
Test	2	2015	2	2021
<i>SPEAR-MICH Comms</i>				
Market Research/Interoperability Assessment	2	2015	4	2021
<i>SPEAR-Maritime Comms</i>				
Various tests	2	2015	4	2021
<i>SPEAR-Load Carriage System/Vests and Backpacks</i>				
Material Research and Prototype testing	2	2015	4	2021
<i>Tactical Combat Casualty Care Evacuation Kits -CASEVAC</i>				
Prototype development testing and Airworthiness Certification	2	2015	4	2021
<i>Radio Controlled-Improvised Explosive Device</i>				
National Assessment Group Test Support	1	2015	4	2021

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Exhibit R-2A, RDT&E Project Justification: PB 2017 United States Special Operations Command										Date: February 2016		
Appropriation/Budget Activity 0400 / 7					R-1 Program Element (Number/Name) PE 1160431BB / <i>Warrior Systems</i>				Project (Number/Name) S385A / <i>Body Armor and Associated Equipment</i>			
COST (\$ in Millions)	Prior Years	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	Cost To Complete	Total Cost
S385A: <i>Body Armor and Associated Equipment</i>	1.750	1.909	1.354	1.339	-	1.339	1.289	1.289	1.636	1.669	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

This project provides specialized equipment to meet the unique operator protection and survival requirements of SOF, to include: Army Rangers; Army Special Forces; Navy Sea, Air, Land (SEAL) teams; Navy Special Boat Units; Air Force Operators; and Marine Raiders. Specialized ballistic equipment improves survivability impacting the mobility of SOF while conducting varied missions. These missions are generally conducted in harsh environments, for unspecified periods and in locations requiring small unit autonomy.

This project enhances the SOF Personal Equipment Advanced Requirement (SPEAR) program by supporting body armor plates, soft armor, helmets, and eye protection. It also provides for the research, development, and testing of a variety of body armor and personal protective equipment.

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

	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total
Title: SPEAR-Ballistic Protection	1.909	1.354	1.339	-	1.339
FY 2015 Accomplishments:					
Continued foreign ammunition testing and threat validation to assess armor effectiveness. Research and tested soldier worn sensors. Continued lightweight body armor material research and improved performance ballistic plates. Continued evaluation of transparent armor products which include ballistic and optical testing of photochromic, electrochromic and laser lenses. Continued work on anti-fogging technologies and testing. Addressed emerging SOF-unique requirements as SOF transitions from heavy deployments in Iraq and Afghanistan to a global focus.					
FY 2016 Plans:					
Continue foreign ammunition testing and threat validation to assess effectiveness of currently fielded personal protective equipment. Continue development and testing of lightweight body armor and helmets to upgrade systems that have been fielded. Continue evaluation of transparent armor products which include variable light transmission, anti-fogging, ballistic, and laser lenses to upgrade systems that have been fielded. Develop and test soldier worn sensors to upgrade armor systems that have been fielded and to refine SOF peculiar					

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Exhibit R-2A, RDT&E Project Justification: PB 2017 United States Special Operations Command		Date: February 2016
Appropriation/Budget Activity 0400 / 7	R-1 Program Element (Number/Name) PE 1160431BB / <i>Warrior Systems</i>	Project (Number/Name) S385A / <i>Body Armor and Associated Equipment</i>

B. Accomplishments/Planned Programs (\$ in Millions)	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total
requirements. Address emerging SOF-unique requirements as SOF transitions from deployments in Iraq and Afghanistan to a global focus. <i>FY 2017 Base Plans:</i> Continues foreign ammunition testing and threat validation to assess effectiveness of currently fielded personal protective equipment. Continues development and testing of lightweight body armor and helmets to upgrade systems that have been fielded. Continues evaluation of transparent armor products which include variable light transmission and laser lenses to upgrade systems that have been fielded. Initiates selection of maritime crewman helmet.					
Accomplishments/Planned Programs Subtotals	1.909	1.354	1.339	-	1.339

C. Other Program Funding Summary (\$ in Millions)											
<u>Line Item</u>	<u>FY 2015</u>	<u>FY 2016</u>	<u>FY 2017 Base</u>	<u>FY 2017 OCO</u>	<u>FY 2017 Total</u>	<u>FY 2018</u>	<u>FY 2019</u>	<u>FY 2020</u>	<u>FY 2021</u>	<u>Cost To Complete</u>	<u>Total Cost</u>
• PROC/0204WARRIOR: <i>Warrior Systems<\$5M</i>	276.590	205.609	245.781	-	245.781	225.803	232.418	223.832	235.891	Continuing	Continuing

Remarks

D. Acquisition Strategy
SPEAR ballistic protection equipment takes advantage of modified commercial-off-the-shelf or non-developmental items acquired through full and open competition. Currently these SPEAR purchases are made with the O&M appropriation. USSOCOM requirements are different from those of the Services, items leveraged from industry are often on the cutting edge of technology and require substantial testing in the SOF environments. Some SPEAR ballistic systems have transitioned to the U.S. Army, other services and other government agencies.

E. Performance Metrics
N/A

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2017 United States Special Operations Command **Date:** February 2016

Appropriation/Budget Activity 0400 / 7	R-1 Program Element (Number/Name) PE 1160431BB / <i>Warrior Systems</i>	Project (Number/Name) S385A / <i>Body Armor and Associated Equipment</i>
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Product Development (\$ in Millions)				FY 2015		FY 2016		FY 2017 Base		FY 2017 OCO		FY 2017 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
SOF Personal Equipment Advanced Requirement (SPEAR) - Body Armor	Various	PM-SSES : Natick, MA	0.350	0.290	Feb 2015	0.324	Jan 2016	0.370	Feb 2017	-		0.370	-	-	-
SPEAR - Lightweight Ballistic Helmets	Various	PM-SSES : Natick, MA	0.300	0.586	Jan 2015	0.269	Jan 2016	0.312	Jan 2017	-		0.312	-	-	-
SPEAR - Eye Protection	Various	PM-SSES : Natick, MA	0.030	0.030	Feb 2015	0.150	Mar 2016	0.119	Apr 2017	-		0.119	-	-	-
Subtotal			0.680	0.906		0.743		0.801		-		0.801	-	-	-

Test and Evaluation (\$ in Millions)				FY 2015		FY 2016		FY 2017 Base		FY 2017 OCO		FY 2017 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
SPEAR - Body Armor	Various	PM-SSES : Natick, MA	0.735	0.240	Jan 2015	0.211	Feb 2016	0.180	Feb 2017	-		0.180	-	-	-
SPEAR - Lightweight Ballistic Helmet	Various	PM-SSES : Natick, MA	0.300	0.715	Jan 2015	0.350	Feb 2016	0.318	Jan 2017	-		0.318	-	-	-
SPEAR - Transparent Armor	Various	PM-SSES : Natick, MA	0.035	0.048	Mar 2015	0.050	Jan 2016	0.040	Feb 2017	-		0.040	-	-	-
Subtotal			1.070	1.003		0.611		0.538		-		0.538	-	-	-

	Prior Years	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals		1.750	1.909	1.354	1.339	1.339	-	-	-

Remarks

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Exhibit R-4, RDT&E Schedule Profile: PB 2017 United States Special Operations Command		Date: February 2016
Appropriation/Budget Activity 0400 / 7	R-1 Program Element (Number/Name) PE 1160431BB / <i>Warrior Systems</i>	Project (Number/Name) S385A / <i>Body Armor and Associated Equipment</i>

SOF Personal Equipment Advanced Requirements (SPEAR) - Body Armor Schedule

Activity	FY15				FY16				FY17				FY18				FY19				FY20				FY21			
	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
RDT&E																												
Product Development Body Armor	RDT&E				RDT&E				RDT&E				RDT&E				RDT&E				RDT&E				RDT&E			
Product Development Lightweight Ballistic Helmets	RDT&E				RDT&E				RDT&E				RDT&E				RDT&E				RDT&E				RDT&E			
Product Development Eye Protection / Transparent Armor	RDT&E				RDT&E				RDT&E				RDT&E				RDT&E				RDT&E				RDT&E			
Test & Evaluation Body Armor	RDT&E				RDT&E				RDT&E				RDT&E				RDT&E				RDT&E				RDT&E			
Test & Evaluation Lightweight Ballistic Helmets	RDT&E				RDT&E				RDT&E				RDT&E				RDT&E				RDT&E				RDT&E			
Test & Evaluation Eye Protection / Transparent Armor	RDT&E				RDT&E				RDT&E				RDT&E				RDT&E				RDT&E				RDT&E			
O&M																												
Body Armor Sustainment	O&M				O&M				O&M				O&M				O&M				O&M				O&M			
									Soft Armor Recompete Contract Award								Hard Armor Recompete Contract Award											
Lightweight Ballistic Helmet Sustainment	O&M				O&M				O&M				O&M				O&M				O&M				O&M			
									Helmet Recompete Contract Award																			
Eye Protection / Transparent Armor Sustainment	O&M				O&M				O&M				O&M				O&M				O&M				O&M			
					Eye Protection P31 Award								Eye Protection P31 Award								Eye Protection P31 Award							

Production Award
 RDT&E Award
 Major Event
 Previously Reported
 RDT&E
 Procurement
 O&M

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Exhibit R-4A, RDT&E Schedule Details: PB 2017 United States Special Operations Command		Date: February 2016
Appropriation/Budget Activity 0400 / 7	R-1 Program Element (Number/Name) PE 1160431BB / <i>Warrior Systems</i>	Project (Number/Name) S385A / <i>Body Armor and Associated Equipment</i>

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
<i>SOF Personal Equipment Advanced Requirements (SPEAR)-Body Armor</i>				
Body Armor Development	2	2015	4	2021
Body Armor Material Testing	3	2015	4	2021
<i>SPEAR-Helmet</i>				
Lightweight Ballistic Helmet Development	2	2015	4	2021
Lightweight Ballistic Helmet Materials Testing	2	2015	4	2021
<i>SPEAR Eye Protection</i>				
Eye Protection Development	1	2015	4	2021
Transparent Armor Development	1	2015	4	2021
Transparent Armor Testing	2	2015	4	2021

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Exhibit R-2A, RDT&E Project Justification: PB 2017 United States Special Operations Command										Date: February 2016		
Appropriation/Budget Activity 0400 / 7					R-1 Program Element (Number/Name) PE 1160431BB / <i>Warrior Systems</i>				Project (Number/Name) S395 / <i>Visual Augmentation, Lasers and Sensor Systems</i>			
COST (\$ in Millions)	Prior Years	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	Cost To Complete	Total Cost
S395: <i>Visual Augmentation, Lasers and Sensor Systems</i>	0.000	1.422	2.189	1.482	-	1.482	1.517	1.546	1.575	1.602	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

This project provides for development, testing and integration of specialized visual augmentation, binocular and monocular night vision devices, laser markers, laser designators, geo-location systems, weapon optics, weapon aiming lasers, sensor systems, visible lights, infrared imagers, clandestine pointers, and accessories to meet the unique requirements of SOF. Sensor technology being developed includes image intensification (I2) thermal imaging, short wave infrared (SWIR), multi-spectral, fusion, and other sensor types. Developments will decrease weight, increase range, increase situational awareness, provide data, image processing, image filtering, determine wind speed, observe bullet trace, and sensor fusion to be able to detect, identify, classify and engage targets at greater ranges. These projects ensure SOF systems shall remain technologically superior to enemy threats to ensure mission success.

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

	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total
Title: Visual Augmentation Systems	1.422	2.189	1.482	-	1.482
FY 2015 Accomplishments: Continued the development of visual augmentation and laser devices to improve situational awareness, sharing of data/images and target acquisition.					
FY 2016 Plans: Continue to develop visual augmentation and laser devices to improve situational awareness, sharing of data/ images and target acquisition.					
FY 2017 Base Plans: Completes development and begins testing of visual augmentation and laser devices to improve situational awareness, sharing of data/images and target acquisition.					
Accomplishments/Planned Programs Subtotals	1.422	2.189	1.482	-	1.482

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

Line Item	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	Cost To Complete	Total Cost
• PROC/0204WARRIOR: <i>Warrior Systems</i> <\$5M	276.590	205.609	245.781	-	245.781	225.803	232.418	223.832	235.891	Continuing	Continuing

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Exhibit R-2A, RDT&E Project Justification: PB 2017 United States Special Operations Command		Date: February 2016
Appropriation/Budget Activity 0400 / 7	R-1 Program Element (Number/Name) PE 1160431BB / <i>Warrior Systems</i>	Project (Number/Name) S395 / <i>Visual Augmentation, Lasers and Sensor Systems</i>

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

<u>Line Item</u>	<u>FY 2015</u>	<u>FY 2016</u>	<u>FY 2017</u> <u>Base</u>	<u>FY 2017</u> <u>OCO</u>	<u>FY 2017</u> <u>Total</u>	<u>FY 2018</u>	<u>FY 2019</u>	<u>FY 2020</u>	<u>FY 2021</u>	<u>Cost To</u> <u>Complete</u>	<u>Total Cost</u>
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Remarks

D. Acquisition Strategy

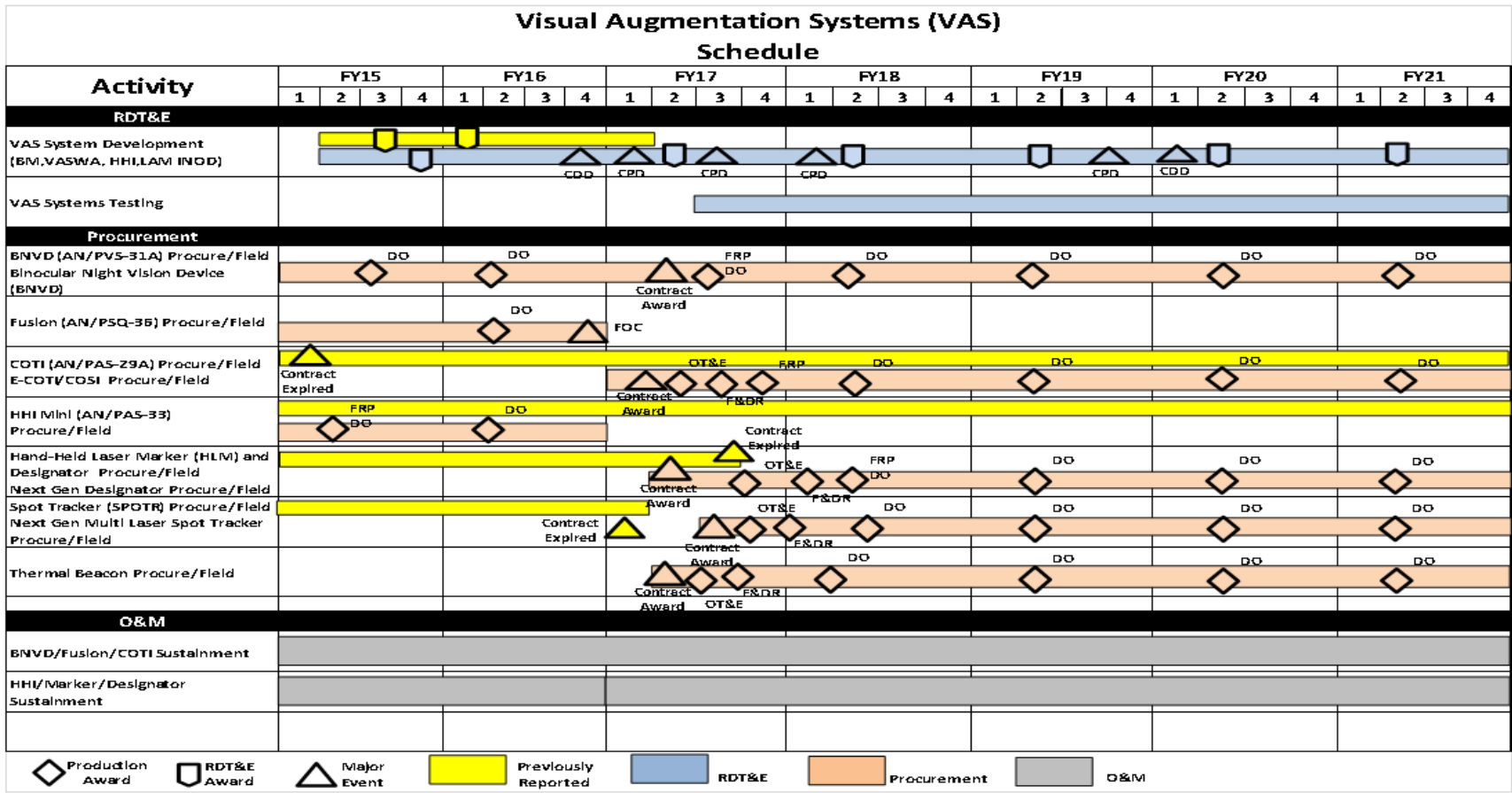
Develop prototypes for the next generation SOF operator borne visual augmentation devices. These developmental efforts will leverage Science and Technology projects to develop prototype systems for SOF to evaluate. VAS will award an Indefinite Delivery Indefinite Quantity production contract.

E. Performance Metrics

N/A

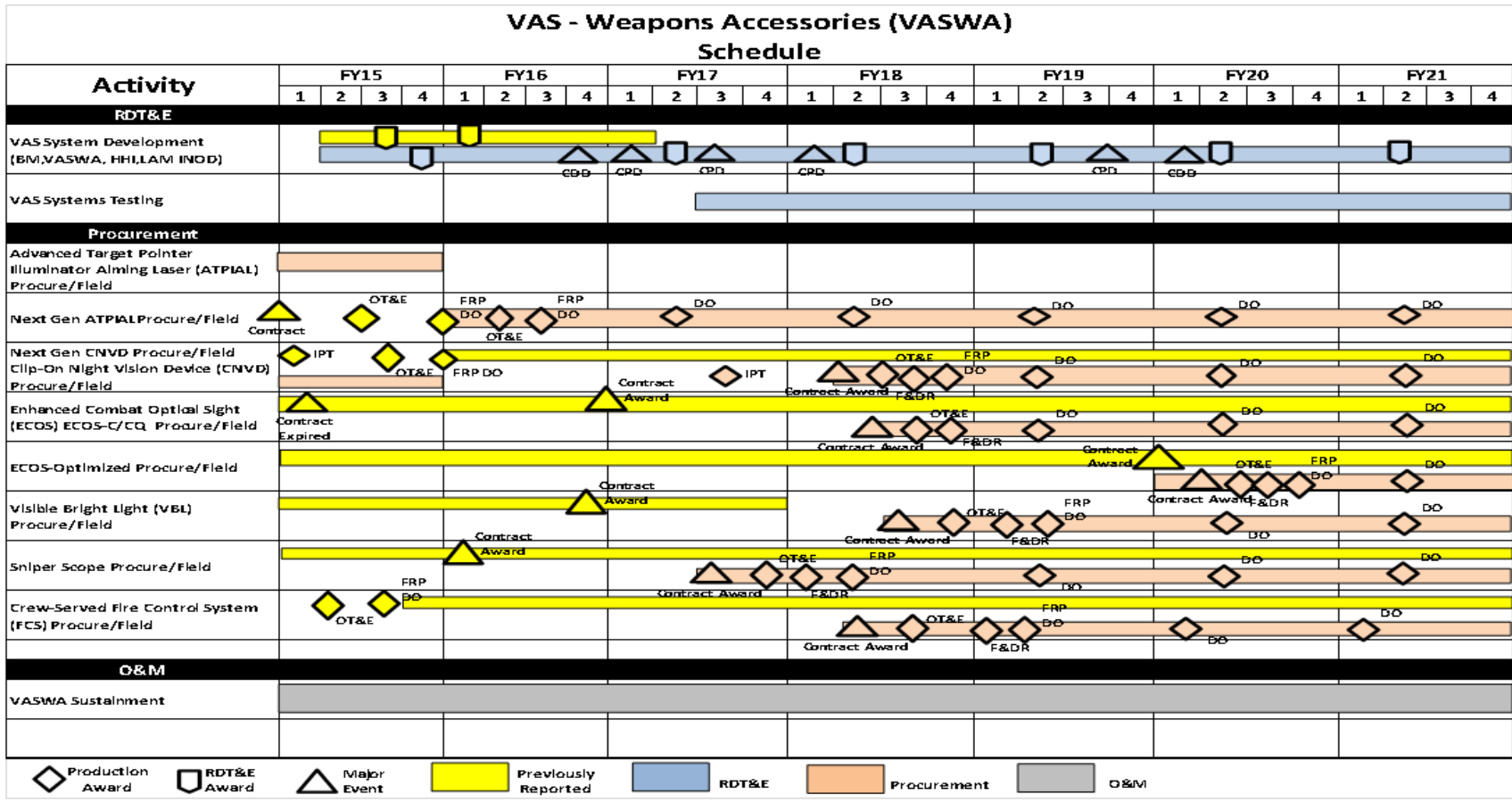
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Exhibit R-4, RDT&E Schedule Profile: PB 2017 United States Special Operations Command		Date: February 2016
Appropriation/Budget Activity 0400 / 7	R-1 Program Element (Number/Name) PE 1160431BB / <i>Warrior Systems</i>	Project (Number/Name) S395 / <i>Visual Augmentation, Lasers and Sensor Systems</i>



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Exhibit R-4, RDT&E Schedule Profile: PB 2017 United States Special Operations Command		Date: February 2016
Appropriation/Budget Activity 0400 / 7	R-1 Program Element (Number/Name) PE 1160431BB / Warrior Systems	Project (Number/Name) S395 / Visual Augmentation, Lasers and Sensor Systems



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Exhibit R-4A, RDT&E Schedule Details: PB 2017 United States Special Operations Command		Date: February 2016
Appropriation/Budget Activity 0400 / 7	R-1 Program Element (Number/Name) PE 1160431BB / <i>Warrior Systems</i>	Project (Number/Name) S395 / <i>Visual Augmentation, Lasers and Sensor Systems</i>

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
<i>Visual Augmentation System (VAS)</i>				
VAS Development	2	2015	1	2017
VAS Testing	4	2017	4	2021

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Exhibit R-2A, RDT&E Project Justification: PB 2017 United States Special Operations Command										Date: February 2016		
Appropriation/Budget Activity 0400 / 7					R-1 Program Element (Number/Name) PE 1160431BB / <i>Warrior Systems</i>				Project (Number/Name) S700 / <i>Communications Equipment and Electronics Systems</i>			
COST (\$ in Millions)	Prior Years	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	Cost To Complete	Total Cost
S700: <i>Communications Equipment and Electronics Systems</i>	3.264	4.098	5.740	9.373	-	9.373	7.864	8.003	9.484	9.664	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

This project provides for communication systems to meet emergent requirements to support Special Operations Forces (SOF). Communications Equipment and Electronics Systems is a continuing effort to develop smaller, lighter, more efficient and more robust SOF Command, Control, Communications, and Computer (C4) capabilities.

USSOCOM's C4 systems comprise an integrated network of systems providing positive command and control and the timely exchange of information to all organizational echelons. The C4I systems that support this new architecture employ the latest standards and technology by transitioning from separate systems to full integration within the Global Information Grid (GIG). The GIG is a multitude of existing and projected national assets that allows SOF elements to operate with any force combination in multiple environments.

- SOF Deployable Node (SDN) is a family of deployable, super high frequency, multi-band, Satellite Communications (SATCOM) systems providing the transport path for high-capacity, voice, data, video tele-conferencing (VTC), and full motion video at all levels of classification. It consists of SDN subprograms, transport for intelligence variants, technology insertions and capital equipment replacement.
- Civil Information Management (CIM). The CIM Data Processing System (CIMDPS) is an automation system that assists active Civil Affairs and others engaged in civil-military operations to collect, process, analyze, maintain, mine, and deliver Civil Information and analysis products in support of military operations.
- The Special Communications (SPCOM) Enterprise program, formerly justified as the Special Communication Enterprise (SCE) includes organizations, practices, processes, services, networks, systems and subsystems that manage and provide clandestine exchange of information between elements (field-to-field, field-to-base, base-to-field) for worldwide deployed SOF units, often in austere environments with heavy adversarial monitoring.

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

	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total
Title: SDN	2.319	2.606	2.940	-	2.940
FY 2015 Accomplishments: Assessed, tested and evaluated advanced antenna design and performance with focus on wideband SATCOM for ground-mobile and integration into maritime platforms. Conducted market research on multi-level security					

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Exhibit R-2A, RDT&E Project Justification: PB 2017 United States Special Operations Command		Date: February 2016
Appropriation/Budget Activity 0400 / 7	R-1 Program Element (Number/Name) PE 1160431BB / <i>Warrior Systems</i>	Project (Number/Name) S700 / <i>Communications Equipment and Electronics Systems</i>

B. Accomplishments/Planned Programs (\$ in Millions)	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total
<p>solutions for SDN application. Conducted testing using wideband global SATCOM and Global Express. Assessed Advanced Extremely High Frequency band. Assessed wideband satellite-on-the-move for ground-mobile. Tested and modified SDN systems for maritime use and maritime integration. Optimized size, weight and performance for SDN systems.</p> <p>FY 2016 Plans: Assess, test and evaluate advance antenna design and performance. Continue to integrate Evolutionary Technology Insertions (ETIs).</p> <p>FY 2017 Base Plans: Assesses, tests, and evaluates advanced antenna design and performance. Continues ETI integration. Assesses, tests, and evaluates design and development of distributed cloud architecture to reduce complexity, improve resiliency, empower mobility, and increase security of the SOF Information Environment.</p>					
<p>Title: CIM</p> <p>FY 2017 Base Plans: Begins development and integration of new capability in support of Civil Affairs (CA) communities.</p>	-	-	1.847	-	1.847
<p>Title: SPCOM</p> <p>FY 2015 Accomplishments: Continued segment development for the SPCOM enterprise; developed means and methods to provide near-term impact to operators. Conducted independent verification and validation.</p> <p>FY 2016 Plans: Continue segment development for the SPCOM enterprise; develop means and methods to provide near-term impact to operators. Increase emphasis on developing anti-intrusion/anti-tamper capabilities. Conduct independent verification and validation.</p> <p>FY 2017 Base Plans: Continues segment development for the SPCOM enterprise; develops means and methods to provide near-term impact to operators. Continues development of anti-intrusion/anti-tamper capabilities. Conducts independent verification and validation.</p>	1.779	3.134	4.586	-	4.586
Accomplishments/Planned Programs Subtotals	4.098	5.740	9.373	-	9.373

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Exhibit R-2A, RDT&E Project Justification: PB 2017 United States Special Operations Command									Date: February 2016		
Appropriation/Budget Activity 0400 / 7				R-1 Program Element (Number/Name) PE 1160431BB / <i>Warrior Systems</i>				Project (Number/Name) S700 / <i>Communications Equipment and Electronics Systems</i>			

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

<u>Line Item</u>	<u>FY 2015</u>	<u>FY 2016</u>	<u>FY 2017</u> <u>Base</u>	<u>FY 2017</u> <u>OCO</u>	<u>FY 2017</u> <u>Total</u>	<u>FY 2018</u>	<u>FY 2019</u>	<u>FY 2020</u>	<u>FY 2021</u>	<u>Cost To</u> <u>Complete</u>	<u>Total Cost</u>
• PROC/0204WARRIOR: <i>Warrior Systems <\$5M</i>	276.590	205.609	245.781	-	245.781	225.803	232.418	223.832	235.891	Continuing	Continuing
• PROC/0204OTHER: <i>OTHER ITEMS <\$5M</i>	103.833	79.149	66.436	11.580	78.016	56.623	70.531	69.097	88.709	Continuing	Continuing

Remarks

D. Acquisition Strategy

- SDN is a fielded program with ETIs into all variants: heavy, medium, and light, wideband SATCOM-On-The-Move, Mobile SOF Strategic Entry Point, and airborne Intelligence Surveillance Reconnaissance transport variants. Commercial and government agency sources will be leveraged for required certifications, functional and operational tests, and acceptance support.
- CIM has an evolutionary acquisition strategy to enhance its capability to meet the CA communities emerging requirements.
- SPCOM is an ETI effort to provide and support multiple field segment kits. Commercial and government agency sources will be leveraged for required certifications, functional and operational tests, and acceptance support.

E. Performance Metrics

N/A

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2017 United States Special Operations Command **Date:** February 2016

Appropriation/Budget Activity 0400 / 7	R-1 Program Element (Number/Name) PE 1160431BB / <i>Warrior Systems</i>	Project (Number/Name) S700 / <i>Communications Equipment and Electronics Systems</i>
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Product Development (\$ in Millions)				FY 2015		FY 2016		FY 2017 Base		FY 2017 OCO		FY 2017 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
SOF Deployable Node (SDN) Development	MIPR	Various : Various	1.092	1.113	Mar 2015	1.396	Mar 2016	1.535	Mar 2017	-		1.535	Continuing	Continuing	-
Civil Information Management (CIM)	TBD	TBD : TBD	-	-		-		1.847	Mar 2017	-		1.847	Continuing	Continuing	-
Special Communications (SPCOM) Enterprise Capability Development	TBD	Various : Various	1.633	1.228	Jan 2015	2.566	Feb 2016	3.780	Mar 2017	-		3.780	Continuing	Continuing	-
SPCOM Technology Vulnerability Assessments	MIPR	MITRE : Bedford, MA	0.270	0.276	Dec 2014	0.284	Dec 2015	0.504	Dec 2016	-		0.504	Continuing	Continuing	-
Subtotal			2.995	2.617		4.246		7.666		-		7.666	-	-	-

Test and Evaluation (\$ in Millions)				FY 2015		FY 2016		FY 2017 Base		FY 2017 OCO		FY 2017 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
SDN Market Research & Evaluation	MIPR	Naval Research Lab (NRL) : Washington, D.C.	0.000	1.206	Jan 2015	1.210	Dec 2015	1.405	Dec 2016	-		1.405	Continuing	Continuing	-
SPCOM Independent Verification and Validation	MIPR	MITRE : Bedford, MA	0.269	0.275	Mar 2015	0.284	Mar 2016	0.302	Mar 2016	-		0.302	Continuing	Continuing	-
Subtotal			0.269	1.481		1.494		1.707		-		1.707	-	-	-

	Prior Years	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	3.264	4.098	5.740	9.373	-	9.373	-	-	-

Remarks

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Exhibit R-4, RDT&E Schedule Profile: PB 2017 United States Special Operations Command		Date: February 2016
Appropriation/Budget Activity 0400 / 7	R-1 Program Element (Number/Name) PE 1160431BB / <i>Warrior Systems</i>	Project (Number/Name) <i>S700 / Communications Equipment and Electronics Systems</i>

SOF Deployable Node (SDN) Schedule

Activity	FY15				FY16				FY17				FY18				FY19				FY20				FY21			
	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
RDT&E																												
SDN Development																												
SDN Market Research & Evaluation																												
PROC																												
SDN Light Hardware	103				75																							
SDN Light Hardware – CERP	37				102				200				209				203				213				212			
SDN Light Hardware – Retrograde OCO	59																											
SDN Light vx Variant - CERP					5				30				44				38				40				40			
SDN Heavy Hardware – CERP	4				7				6				7				8				7				9			
SDN Medium Hardware – CERP	26				33				43				43				44				40				41			
SDN Medium Hardware – Retrograde OCO	10																											
Contract Awards																												
FMV ETI - CERP																												
KuSS	6																											
KuSS – CERP									4				4				4				5				5			
PRT	2				1																							
PRT – CERP									3				1				2				2				3			
SDN Full Motion Video SAAF - CERP													1															
Joint Task Force	2																											
SOTM Terminal (Afloat)																	1				1				1			
SOTM Terminal (Ground)																												

 Previously Reported

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Exhibit R-4, RDT&E Schedule Profile: PB 2017 United States Special Operations Command		Date: February 2016
Appropriation/Budget Activity 0400 / 7	R-1 Program Element (Number/Name) PE 1160431BB / <i>Warrior Systems</i>	Project (Number/Name) S700 / <i>Communications Equipment and Electronics Systems</i>

SDN Schedule (cont.)

Activity	FY15				FY16				FY17				FY18				FY19				FY20				FY21			
	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
SDN-EP – CERP	3				3				3				3				3				3							
SDN-EP – Retrograde OCO	5																											
MSSEP																	1				1				1			
3G/4G Wireless Capability																												

LEGEND:

CERP – Capital Equipment Replacement Program OCO – Other Contingency Operations FMV – Full Motion Video FoT – Family of Terminals
 ETI – Evolutionary Technology Insertions KuSS – Ku Spread Spectrum PRT – Predator Reaper Terminal SOTM – Satellite on the Move

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Exhibit R-4, RDT&E Schedule Profile: PB 2017 United States Special Operations Command		Date: February 2016
Appropriation/Budget Activity 0400 / 7	R-1 Program Element (Number/Name) PE 1160431BB / <i>Warrior Systems</i>	Project (Number/Name) S700 / <i>Communications Equipment and Electronics Systems</i>

Civil Information Management (CIM) Schedule

Activity	FY15				FY16				FY17				FY18				FY19				FY20				FY21			
	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
RDT&E CIM Software Development and Integration																												
PROC CIM Hardware/Software Procurement																												
O&M CIM Hardware/Software Maintenance																												

 Previously Reported

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Exhibit R-4A, RDT&E Schedule Details: PB 2017 United States Special Operations Command		Date: February 2016
Appropriation/Budget Activity 0400 / 7	R-1 Program Element (Number/Name) PE 1160431BB / <i>Warrior Systems</i>	Project (Number/Name) S700 / <i>Communications Equipment and Electronics Systems</i>

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
<i>SOF Deployable Node</i>				
SOF Deployable Node (SDN) Development	2	2015	4	2021
SDN Market Research and Testing	2	2015	4	2021
<i>CIVIL INFORMATION MANAGEMENT (CIM)</i>				
CIM Software Development	2	2017	2	2020
<i>Special Communications (SPCOM) Enterprise Program</i>				
Field Segment Kit Development	1	2015	4	2021
Base-End Segment Capabilities Development	1	2015	4	2021
Enterprise Segment Services Development	1	2015	4	2021

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Exhibit R-2A, RDT&E Project Justification: PB 2017 United States Special Operations Command										Date: February 2016		
Appropriation/Budget Activity 0400 / 7					R-1 Program Element (Number/Name) PE 1160431BB / <i>Warrior Systems</i>				Project (Number/Name) S710 / <i>Tactical Systems Development</i>			
COST (\$ in Millions)	Prior Years	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	Cost To Complete	Total Cost
<i>S710: Tactical Systems Development</i>	0.243	0.930	0.868	2.640	-	2.640	2.416	2.523	3.031	3.083	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

This project provides for development, testing, and integration of specialized automation equipment to meet the unique requirements of Special Operations Forces (SOF). Specialized automation equipment will permit small, highly trained forces to conduct required operations across the entire spectrum of conflict. These operations are generally conducted in harsh environments, for unspecified periods and in locations requiring small unit autonomy. SOF must infiltrate by land, sea, and air to conduct unconventional warfare, direct action, or deep reconnaissance operations in denied areas against insurgent units, terrorists, or highly sophisticated threat forces. The requirement to operate in denied areas controlled by a sophisticated threat mandates that SOF systems remain technologically superior to threat forces to ensure mission success.

- The Tactical Local Area Network (TACLAN) provides SOF operational commanders and forward deployed forces advanced networking, automated data processing, storage, and display capabilities to support situational awareness, mission planning and execution, and command and control of forces. The TACLN consists of Suites, Mission Planning Kits and Field Computing Devices, Coalition Local Area Network, and Full Motion Video Kits.

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

	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total
Title: TACLAN Suites	0.930	0.868	2.640	-	2.640
FY 2015 Accomplishments: Began integration and testing of Evolutionary Technology Insertion (ETI) for Secure Data At Rest, secure wireless and cross domain solutions.					
FY 2016 Plans: Continue integration and testing of ETI for Secure Data At Rest, secure wireless and cross domain solutions.					
FY 2017 Base Plans: Continues integration and testing of ETI for Secure Data At Rest, secure wireless and cross domain solutions. Begins assessing, testing and evaluating the design and development of distributed cloud architecture to reduce complexity, improve resiliency, empower mobility, and increase security of the SOF Information Environment.					
Accomplishments/Planned Programs Subtotals	0.930	0.868	2.640	-	2.640

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Exhibit R-2A, RDT&E Project Justification: PB 2017 United States Special Operations Command	Date: February 2016
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Appropriation/Budget Activity 0400 / 7	R-1 Program Element (Number/Name) PE 1160431BB / <i>Warrior Systems</i>	Project (Number/Name) S710 / <i>Tactical Systems Development</i>
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C. Other Program Funding Summary (\$ in Millions)

<u>Line Item</u>	<u>FY 2015</u>	<u>FY 2016</u>	<u>FY 2017</u> <u>Base</u>	<u>FY 2017</u> <u>OCO</u>	<u>FY 2017</u> <u>Total</u>	<u>FY 2018</u>	<u>FY 2019</u>	<u>FY 2020</u>	<u>FY 2021</u>	<u>Cost To</u> <u>Complete</u>	<u>Total Cost</u>
• PROC/0204OTHER: <i>OTHER ITEMS <\$5M</i>	103.833	79.149	66.436	11.580	78.016	56.623	70.531	67.097	88.709	Continuing	Continuing

Remarks

D. Acquisition Strategy

The TACLAN program has an evolutionary acquisition strategy. Commercial and government agency sources will be leveraged for required certifications, functional and operational test, and acceptance support.

E. Performance Metrics

N/A

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Exhibit R-4, RDT&E Schedule Profile: PB 2017 United States Special Operations Command		Date: February 2016
Appropriation/Budget Activity 0400 / 7	R-1 Program Element (Number/Name) PE 1160431BB / <i>Warrior Systems</i>	Project (Number/Name) S710 / <i>Tactical Systems Development</i>

TACLAN Schedule

Activity	FY15				FY16				FY17				FY18				FY19				FY20				FY21			
	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
<u>RDT&E</u>																												
Secure Data/Wireless Integration																												
Virtualized Network Management																												
Enterprise Network Infrastructure																												
<u>PROC</u>																												
TACLAN Suite Deliveries	18				18				9				16				15				14				16			
TACLAN Ancillary Equip																												
TACLAN ASOM Deliveries																												
TACLAN Baseline Integration	13.1				86				16.0				17.0				18.0				19.0				20.0			
<u>O&M</u>																												
TACLAN Sustainment																												
TACLAN Field Computing Devices																												
									111				97				99				88							

 **Previously Reported**

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Exhibit R-4A, RDT&E Schedule Details: PB 2017 United States Special Operations Command **Date:** February 2016

Appropriation/Budget Activity 0400 / 7	R-1 Program Element (Number/Name) PE 1160431BB / <i>Warrior Systems</i>	Project (Number/Name) S710 / <i>Tactical Systems Development</i>
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Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
TACLAN SUITES				
Secure Data / Wireless Capability Test and Evaluation	3	2015	4	2021
Virtualized Network Management Test and Evaluation	2	2017	4	2021
Enterprise Network Infrastructure Test and Evaluation	2	2017	4	2021

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Exhibit R-2A, RDT&E Project Justification: PB 2017 United States Special Operations Command										Date: February 2016		
Appropriation/Budget Activity 0400 / 7					R-1 Program Element (Number/Name) PE 1160431BB / <i>Warrior Systems</i>				Project (Number/Name) S725 / <i>Tactical Radio Systems</i>			
COST (\$ in Millions)	Prior Years	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	Cost To Complete	Total Cost
<i>S725: Tactical Radio Systems</i>	1.811	4.777	2.170	3.884	-	3.884	3.683	4.892	5.219	1.880	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

This project is for the development of all SOF tactical radio programs. Tactical Radios provide the critical Command, Control, Communications (C3) link between SOF Commanders and SOF Teams involved in operational missions and training exercises. They also provide interoperability with all Services, various agencies of the U.S. Government, Air Traffic Control, commercial agencies, and allied foreign forces. Tactical Radios, which includes SOF Tactical Communications, and Blue Force Tracking (BFT), rapidly and seamlessly establish and maintain mobile and fixed Command and Control (C2) communications between infiltrated/operational elements and higher echelon headquarters, allowing SOF to operate with any force combination in multiple environments.

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

	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total
Title: SOF Tactical Communications (STC)	2.841	1.653	3.812	-	3.812
FY 2015 Accomplishments: Developed and tested new capability in tactical radio equipment.					
FY 2016 Plans: Develop and test new capability in tactical radio equipment.					
FY 2017 Base Plans: Continues to develop and test new capability in tactical radio equipment.					
Title: BFT	1.936	0.517	0.072	-	0.072
FY 2015 Accomplishments: Developed and tested new capability in BFT equipment.					
FY 2016 Plans: Continue to develop and test new capability in BFT equipment.					
FY 2017 Base Plans: Continues development of new capability in BFT equipment.					
Accomplishments/Planned Programs Subtotals	4.777	2.170	3.884	-	3.884

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Exhibit R-2A, RDT&E Project Justification: PB 2017 United States Special Operations Command **Date:** February 2016

Appropriation/Budget Activity 0400 / 7	R-1 Program Element (Number/Name) PE 1160431BB / <i>Warrior Systems</i>	Project (Number/Name) S725 / <i>Tactical Radio Systems</i>
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C. Other Program Funding Summary (\$ in Millions)

<u>Line Item</u>	<u>FY 2015</u>	<u>FY 2016</u>	<u>FY 2017</u> <u>Base</u>	<u>FY 2017</u> <u>OCO</u>	<u>FY 2017</u> <u>Total</u>	<u>FY 2018</u>	<u>FY 2019</u>	<u>FY 2020</u>	<u>FY 2021</u>	<u>Cost To</u> <u>Complete</u>	<u>Total Cost</u>
• PROC/0204WARRIOR: <i>Warrior Systems<\$5M</i>	276.590	205.609	245.781	-	245.781	225.803	232.418	223.832	235.891	Continuing	Continuing

Remarks

D. Acquisition Strategy

- STC is a Commercial-Off-The-Shelf/Non-Development Item program with evolutionary technology insertions (ETIs). Commercial and government agency sources will be leveraged for required certifications, functional and operational tests, and acceptance support.
- BFT is a fielded program with ETIs leveraging commercial and other government agency sources for required certifications, functional and operational tests, and technology updates.

E. Performance Metrics

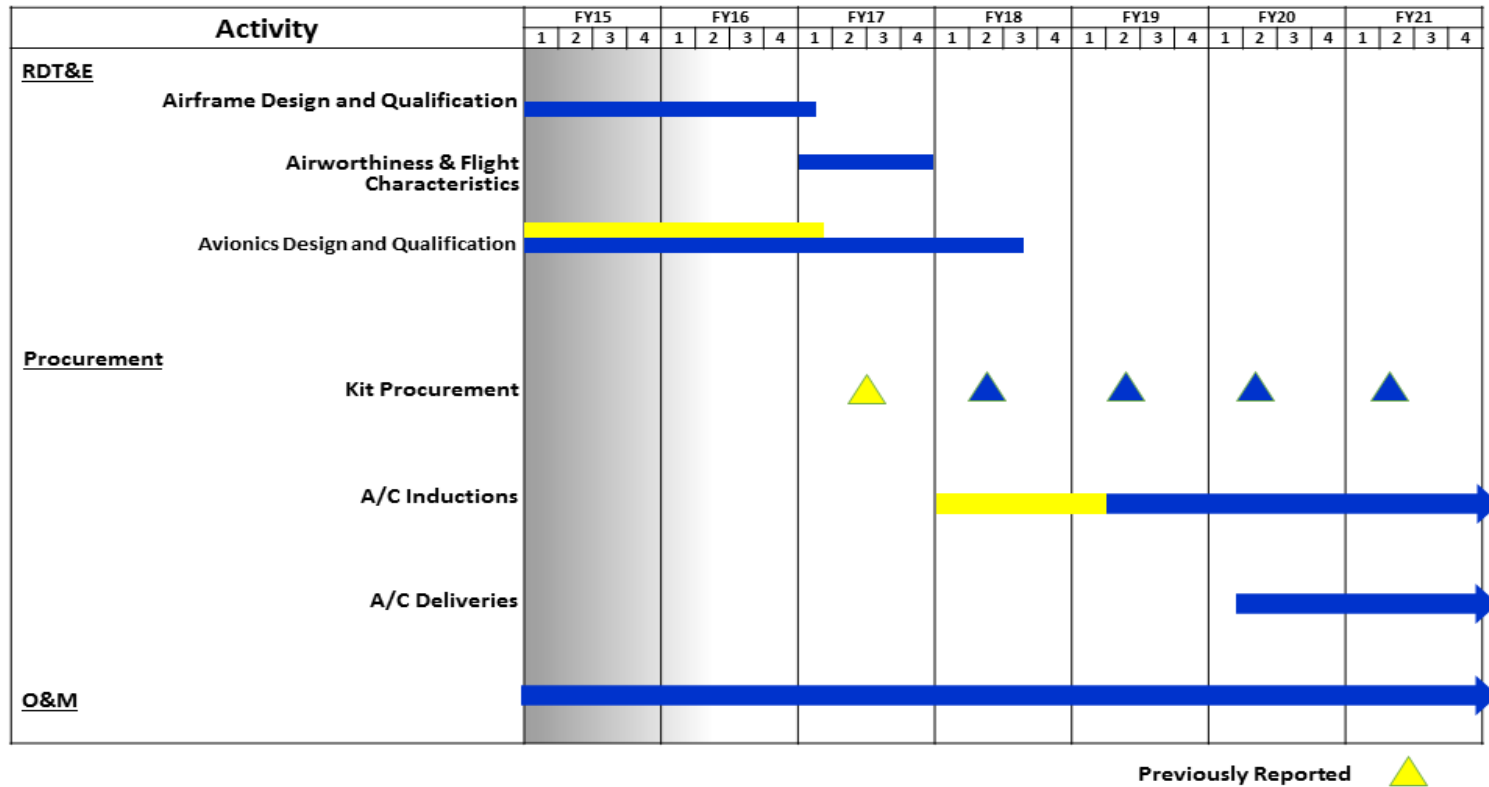
N/A.

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Exhibit R-4, RDT&E Schedule Profile: PB 2017 United States Special Operations Command **Date:** February 2016

Appropriation/Budget Activity 0400 / 7	R-1 Program Element (Number/Name) PE 1160431BB / <i>Warrior Systems</i>	Project (Number/Name) <i>S725 / Tactical Radio Systems</i>
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A/MH-6M Block 3.0 Upgrade Schedule



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Exhibit R-4, RDT&E Schedule Profile: PB 2017 United States Special Operations Command **Date:** February 2016

Appropriation/Budget Activity 0400 / 7	R-1 Program Element (Number/Name) PE 1160431BB / <i>Warrior Systems</i>	Project (Number/Name) <i>S725 / Tactical Radio Systems</i>
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BFT Schedule

Activity	FY15				FY16				FY17				FY18				FY19				FY20				FY21			
	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
Riverjack (RJT) Device Certification	▲ RJT																											
RDT&E - BFT Capability Improvement Development																												
PROC - Field BFT Devices	225				426				419				425				298				303				315			
O&M - Sustain Fielded Devices																												

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Exhibit R-4A, RDT&E Schedule Details: PB 2017 United States Special Operations Command **Date:** February 2016

Appropriation/Budget Activity 0400 / 7	R-1 Program Element (Number/Name) PE 1160431BB / <i>Warrior Systems</i>	Project (Number/Name) S725 / <i>Tactical Radio Systems</i>
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Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
<i>SOF Tactical Communications (STC)</i>				
STC Radio Development	2	2015	4	2021
<i>Blue Force Tracking (BFT)</i>				
BFT Capability Improvement Development	3	2015	4	2019

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Exhibit R-2A, RDT&E Project Justification: PB 2017 United States Special Operations Command **Date:** February 2016

Appropriation/Budget Activity 0400 / 7					R-1 Program Element (Number/Name) PE 1160431BB / <i>Warrior Systems</i>				Project (Number/Name) S800 / <i>Munitions Advanced Development</i>			
COST (\$ in Millions)	Prior Years	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	Cost To Complete	Total Cost
S800: <i>Munitions Advanced Development</i>	3.386	0.733	10.948	17.398	-	17.398	5.491	0.537	0.538	0.549	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

This project funds advanced engineering, operational system development and qualification efforts related to specialized munitions and equipment to meet the unique requirements of SOF.

Munitions Advanced Development. This program provides for Insensitive Munitions (IM) technology development and evaluations that allow SOF munitions to pass testing which includes bullet impact, sympathetic detonation, fast cook off, slow cook off and shaped charge test. Testing is in accordance with the United States Special Operations IM Testing Plan. Munitions product improvements are tested in accordance with command priorities.

Stand-Off Precision Guided Munitions (SOPGM). Provides for the integration and testing of service-common munitions on SOF-unique platforms. This project received a congressional add in FY 2016.

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

	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total
Title: Munitions Advanced Development	0.733	0.448	0.525	-	0.525
FY 2015 Accomplishments: Conducted proof of concept and IM testing on various munitions. Continued full scale testing to satisfy safety requirements in Military Standard 2105C (Department of Defense Test and Method Standard: Hazard Assessment Test for Non-Nuclear Munition, 26 Sep 2006).					
FY 2016 Plans: Conduct proof of concept and IM testing on various munitions. Continue full scale testing to satisfy safety requirements in Military Standard 2105C (Department of Defense Test and Method Standard: Hazard Assessment Test for Non-Nuclear Munition, 26 Sep 2006).					
FY 2017 Base Plans: Conducts proof of concept and IM testing on various munitions. Conduct SDB II flight test integration for SOF. Continues full scale testing to satisfy safety requirements in Military Standard 2105C (Department of Defense Test and Method Standard: Hazard Assessment Test for Non-Nuclear Munition, 26 Sep 2006).					
Title: Stand-Off Precision Guided Munitions (SOPGM)	-	-	16.873	-	16.873
FY 2017 Base Plans:					

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Exhibit R-2A, RDT&E Project Justification: PB 2017 United States Special Operations Command **Date:** February 2016

Appropriation/Budget Activity 0400 / 7	R-1 Program Element (Number/Name) PE 1160431BB / <i>Warrior Systems</i>	Project (Number/Name) S800 / <i>Munitions Advanced Development</i>
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B. Accomplishments/Planned Programs (\$ in Millions)	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total
Continues integration and testing of service-common precision guided munitions on SOF platforms.					
Accomplishments/Planned Programs Subtotals	0.733	0.448	17.398	-	17.398
	FY 2015	FY 2016			
Congressional Add: Stand-Off Precision Guided Munitions (SOPGM)	-	10.500			
FY 2016 Plans: Begins integration and testing of the Small Glide Munition (SGM) precision guided weapon on SOF platforms.					
Congressional Adds Subtotals	-	10.500			

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

<u>Line Item</u>	<u>FY 2015</u>	<u>FY 2016</u>	<u>FY 2017 Base</u>	<u>FY 2017 OCO</u>	<u>FY 2017 Total</u>	<u>FY 2018</u>	<u>FY 2019</u>	<u>FY 2020</u>	<u>FY 2021</u>	<u>Cost To Complete</u>	<u>Total Cost</u>
• PROC/0203ORDN: <i>Ordnance Items <\$5M</i>	169.737	210.033	105.267	52.504	157.771	112.821	124.858	134.615	144.476	Continuing	Continuing

Remarks

D. Acquisition Strategy

Munitions Advanced Development: Munitions and packaging redesign shall take place within government laboratories, as well as in industry, depending on the munitions. IM solutions shall be tested on a small scale for proof of principle. Plan product improvements are tested at Army, Navy, and Air Force test centers.

SOPGM: Integration and developmental testing of service-common precision guided munitions will be conducted using government laboratories or industry partners depending on the munitions for various SOF platforms.

E. Performance Metrics

N/A

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Exhibit R-4, RDT&E Schedule Profile: PB 2017 United States Special Operations Command

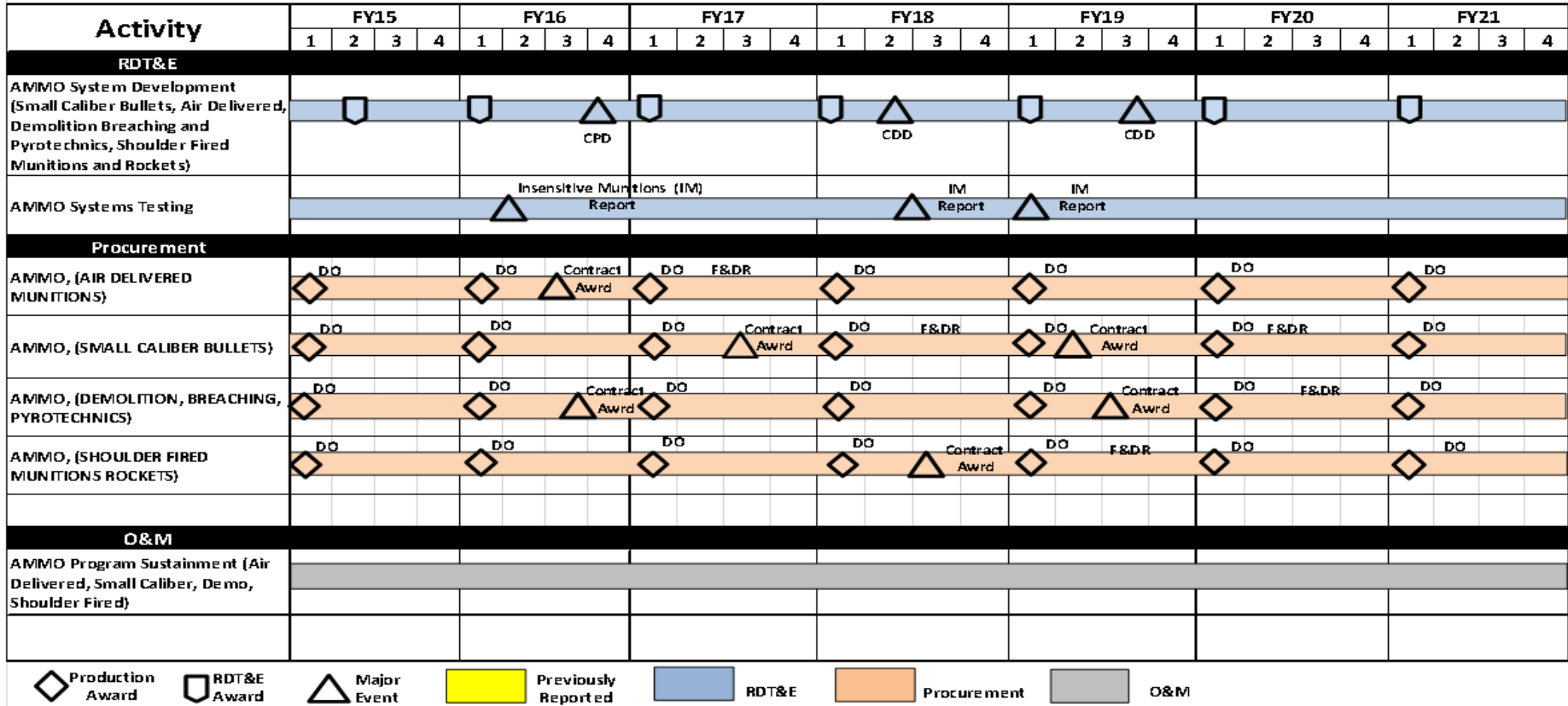
Date: February 2016

Appropriation/Budget Activity
0400 / 7

R-1 Program Element (Number/Name)
PE 1160431BB / Warrior Systems

Project (Number/Name)
S800 / Munitions Advanced Development

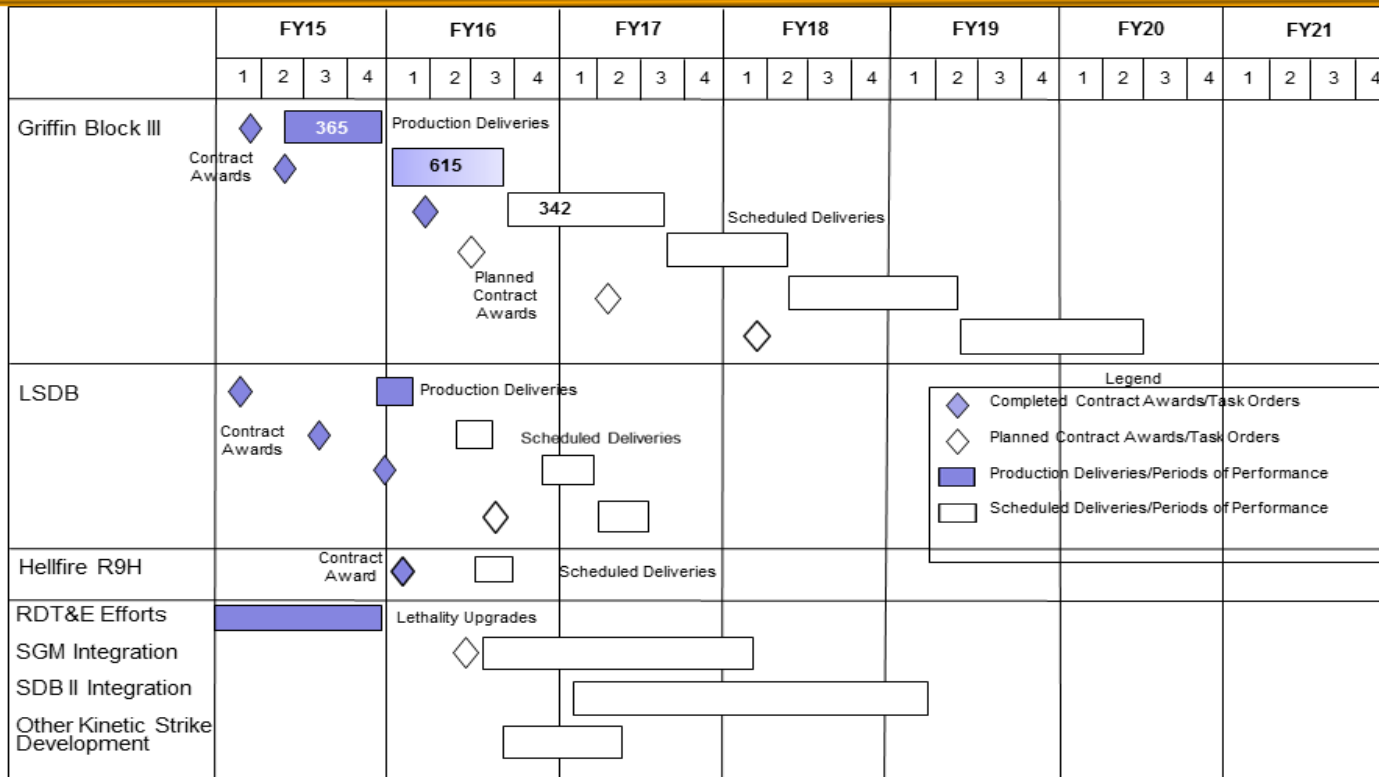
**Munitions Advanced Development
Schedule**



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Exhibit R-4, RDT&E Schedule Profile: PB 2017 United States Special Operations Command		Date: February 2016
Appropriation/Budget Activity 0400 / 7	R-1 Program Element (Number/Name) PE 1160431BB / <i>Warrior Systems</i>	Project (Number/Name) S800 / <i>Munitions Advanced Development</i>

SOPGM Schedule



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Exhibit R-4A, RDT&E Schedule Details: PB 2017 United States Special Operations Command **Date:** February 2016

Appropriation/Budget Activity 0400 / 7	R-1 Program Element (Number/Name) PE 1160431BB / <i>Warrior Systems</i>	Project (Number/Name) S800 / <i>Munitions Advanced Development</i>
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Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
<i>Munitions</i>				
Insensitive Munitions Evaluation	2	2015	4	2021
Munitions Testing	2	2015	4	2021
Purchase Test Articles	2	2015	4	2021
<i>Stand-Off Precision Guided Munitions</i>				
Evaluate Lethality Upgrades/Integration on SOF Platforms	2	2017	4	2018
Integration and Testing of the Small Glide Munition Precision Guided Weapon on SOF Platforms.	3	2016	3	2018