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Exhibit R-2, RDT&E Budget Item Justification: FY 2018 United States Special Operations Command	Date: May 2017
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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>											
COST (\$ in Millions)	Prior Years	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total	FY 2019	FY 2020	FY 2021	FY 2022	Cost To Complete	Total Cost
Total Program Element	35.231	32.677	45.285	45.935	-	45.935	32.761	40.879	37.950	25.359	Continuing	Continuing
D476: <i>Military Information Support Operations</i>	5.508	6.144	4.711	4.843	-	4.843	2.848	2.883	2.922	1.808	Continuing	Continuing
S375: <i>Weapons Systems</i>	0.565	1.417	1.481	1.480	-	1.480	1.474	1.475	1.505	1.535	Continuing	Continuing
S385: <i>Soldier Protection and Survival Systems</i>	4.663	2.516	2.977	2.852	-	2.852	2.849	2.668	2.676	2.819	Continuing	Continuing
S385A: <i>Body Armor and Associated Equipment</i>	3.659	1.286	1.339	1.289	-	1.289	1.289	1.636	1.669	1.716	Continuing	Continuing
S395: <i>Visual Augmentation, Lasers and Sensor Systems</i>	1.422	2.075	1.482	1.517	-	1.517	1.546	1.575	1.602	0.000	Continuing	Continuing
S700: <i>Communications Equipment and Electronics Systems</i>	7.241	5.466	9.373	12.864	-	12.864	14.803	16.354	16.664	11.858	Continuing	Continuing
S710: <i>Tactical Systems Development</i>	1.172	0.804	2.640	2.416	-	2.416	2.523	3.031	3.083	3.145	Continuing	Continuing
S725: <i>Tactical Radio Systems</i>	6.882	2.036	3.884	13.183	-	13.183	4.892	10.719	7.280	1.918	Continuing	Continuing
S800: <i>Munitions Advanced Development</i>	4.119	10.933	17.398	5.491	-	5.491	0.537	0.538	0.549	0.560	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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<p>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.</p> <p>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.</p> <p>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.</p> <p>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.</p> <p>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.</p> <p>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.</p> <p>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. 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.</p>		

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Appropriation/Budget Activity 0400: Research, Development, Test & Evaluation, Defense-Wide / BA 7: Operational Systems Development		R-1 Program Element (Number/Name) PE 1160431BB / Warrior Systems				
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 the 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 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total
Previous President's Budget		33.842	44.885	29.581	-	29.581
Current President's Budget		32.677	45.285	45.935	-	45.935
Total Adjustments		-1.165	0.400	16.354	-	16.354
• Congressional General Reductions		-	-			
• Congressional Directed Reductions		-	-			
• Congressional Rescissions		-	-			
• Congressional Adds		-	-			
• Congressional Directed Transfers		-	-			
• Reprogrammings		-	-			
• SBIR/STTR Transfer		-1.165	-			
• Other Adjustments		-	-	16.354	-	16.354
• FY 2017 REQUEST FOR ADDITIONAL APPROPRIATIONS		-	0.400	-	-	-

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<u>Congressional Add Details (\$ in Millions, and Includes General Reductions)</u>		FY 2016	FY 2017
Project: S800: <i>Munitions Advanced Development</i>			
Congressional Add: <i>Stand-Off Precision Guided Munitions (SOPGM)</i>		10.500	-
Congressional Add Subtotals for Project: S800		10.500	-
Congressional Add Totals for all Projects		10.500	-
<u>Change Summary Explanation</u>			
Funding:			
FY 2016: Decrease of -\$1.165 million is due to a transfer of funds to Small Business Innovative Research/Small Business Technology Transfer programs.			
FY 2017: Increase of \$0.400 million is due to an increase in the FY 2017 Request for Additional Appropriations required to address emergency warfighting readiness requirements. This effort continues to ensure the ability to defeat current and emerging threat systems. Project S385 Soldier Protection and Survival Systems funding provides for development and testing of new capability in electronic counter measure equipment.			
FY 2018: Net increase of \$16.354 million is due to an increase in MISO (\$1.352 million), an increase in SOF Deployable Nodes Communications-on-the-Move development (\$5.121 million), an increase in SOF Tactical Communications radio development integration and testing (\$9.331 million), and an increase in Counter-Improvised Explosive Devise for Modi future technology integration (\$0.550 million).			
Schedule: None.			
Technical: None.			

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Exhibit R-2A, RDT&E Project Justification: FY 2018 United States Special Operations Command										Date: May 2017		
Appropriation/Budget Activity 0400 / 7					R-1 Program Element (Number/Name) PE 1160431BB / Warrior Systems				Project (Number/Name) D476 / Military Information Support Operations			
COST (\$ in Millions)	Prior Years	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total	FY 2019	FY 2020	FY 2021	FY 2022	Cost To Complete	Total Cost
D476: Military Information Support Operations	5.508	6.144	4.711	4.843	-	4.843	2.848	2.883	2.922	1.808	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 and includes:

- Media Production and Broadcast Systems support the Media Production Center (MPC) and the Fly Away Broadcast System (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.
- Long Range Broadcast System (LRBS) is a family of broadcast systems intended to be integrated into 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.
- FABS is a transit case fly-away broadcast system that consists of a combination of AM, FM, SW, cellular, and TV transmitters.
- Family Of Loudspeakers (FOL) is a portable loudspeaker system that is capable of disseminating high quality recorded and live audio messages by MISO Forces in varied geographical areas and climate conditions. The new variant of the FOL is the Next Generation Loudspeaker System (NGLS). The NGLS consists of a Dismounted and Mounted variants that are lighter, smaller, and louder than legacy speaker systems, with added clarity and durability.

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

	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total
Title: Media Production and Broadcast Systems	1.789	-	-	-	-
FY 2016 Accomplishments: Tested and evaluated new systems and components to enhance MISO product. Integrated and disseminated new analytical software tools to enhance production supporting MISO target audience assessment and measures of effectiveness requirements.					
Title: LRBS	4.355	2.894	1.632	-	1.632

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Appropriation/Budget Activity 0400 / 7	R-1 Program Element (Number/Name) PE 1160431BB / Warrior Systems	Project (Number/Name) D476 / Military Information Support Operations				
B. Accomplishments/Planned Programs (\$ in Millions)		FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total
FY 2016 Accomplishments: Continued with primary hardware development, systems engineering, and test and evaluation of pod-based FM and cellular broadcast, power, and antenna technologies.						
FY 2017 Plans: Continue with primary development, systems engineering, and test and evaluation of pod-based cellular and television broadcast, power, and antenna technologies.						
FY 2018 Base Plans: Continues with primary development, systems engineering, and test and evaluation of pod-based cellular and television broadcast, power, and antenna technologies.						
Title: FABS		-	1.817	2.757	-	2.757
FY 2017 Plans: Continue to test and evaluate new systems and components to enhance MISO broadcasts. Continue with primary hardware development to reduce broadcast system weight and size while adding multi-mission capabilities.						
FY 2018 Base Plans: Continues testing and evaluation of 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.						
Title: FOL		-	-	0.454	-	0.454
FY 2018 Base Plans: Begins testing and evaluation of new systems and components to enhance MISO broadcasts. Focuses on wireless, Common Operating Picture, and Mobile Ad Hoc Network development to reduce broadcast system weight and size while adding multi-mission capabilities.						
Accomplishments/Planned Programs Subtotals		6.144	4.711	4.843	-	4.843

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

<u>Line Item</u>	<u>FY 2016</u>	<u>FY 2017</u>	<u>FY 2018</u> <u>Base</u>	<u>FY 2018</u> <u>OCO</u>	<u>FY 2018</u> <u>Total</u>	<u>FY 2019</u>	<u>FY 2020</u>	<u>FY 2021</u>	<u>FY 2022</u>	<u>Cost To</u> <u>Complete</u>	<u>Total Cost</u>
• PROC1/0204OTHER: OTHER ITEMS <\$5M	76.709	78.016	54.592	-	54.592	90.958	77.732	92.076	58.694	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 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.
- The FOL 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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Appropriation/Budget Activity 0400 / 7					R-1 Program Element (Number/Name) PE 1160431BB / <i>Warrior Systems</i>				Project (Number/Name) S375 / <i>Weapons Systems</i>			
COST (\$ in Millions)	Prior Years	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total	FY 2019	FY 2020	FY 2021	FY 2022	Cost To Complete	Total Cost
S375: <i>Weapons Systems</i>	0.565	1.417	1.481	1.480	-	1.480	1.474	1.475	1.505	1.535	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 (WPNA) 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 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total
Title: Weapons Accessories	1.417	1.481	1.480	-	1.480
FY 2016 Accomplishments: Developed enhanced capabilities to improve performance of individual sniper and machine gun weapons.					
FY 2017 Plans: Develop enhanced capabilities to improve performance of individual sniper and machine gun weapons.					
FY 2018 Base Plans: Develops enhanced capabilities to improve performance of individual sniper and machine gun weapons.					
Accomplishments/Planned Programs Subtotals	1.417	1.481	1.480	-	1.480

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

Line Item	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total	FY 2019	FY 2020	FY 2021	FY 2022	Cost To Complete	Total Cost
• PROC/0204WARRIOR: <i>Warrior Systems <\$5M</i>	233.629	246.381	252.070	20.215	272.285	258.375	251.203	264.258	257.103	Continuing	Continuing

Remarks

D. Acquisition Strategy

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

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

E. Performance Metrics
N/A

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Exhibit R-2A, RDT&E Project Justification: FY 2018 United States Special Operations Command										Date: May 2017		
Appropriation/Budget Activity 0400 / 7					R-1 Program Element (Number/Name) PE 1160431BB / Warrior Systems				Project (Number/Name) S385 / Soldier Protection and Survival Systems			
COST (\$ in Millions)	Prior Years	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total	FY 2019	FY 2020	FY 2021	FY 2022	Cost To Complete	Total Cost
S385: Soldier Protection and Survival Systems	4.663	2.516	2.977	2.852	-	2.852	2.849	2.668	2.676	2.819	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. 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 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total
Title: SPEAR	1.230	0.474	0.493	-	0.493
FY 2016 Accomplishments: Continued research and development of a Maritime communications material solution, safety belt and lanyard test standardization and arctic capability gap solutions. Continued materials testing. Completed user evaluations, developmental testing (I.e., weight measurements, volume, drop-testing, and environmental					

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B. Accomplishments/Planned Programs (\$ in Millions)		FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total
exposure) and initiated fielding of hot weather rucks, softshell jackets and pants, updated glove suites and overwhites. Completed initial downselects of rucksack suite and maritime Body Armor Vests and Load Carriage Systems. FY 2017 Plans: Continue research and development of land communications material solutions, arctic uniform capability gap solutions, and initiates jungle uniform capability gap solutions. Continue materials testing and incorporation into commodity lines. Begin signature management evaluations. FY 2018 Base Plans: Continues research and development of land communications material solutions and protective combat uniforms. Continues materials testing and incorporation into commodity lines. Begins wireless headset evaluations. Completes interoperability of headsets with SOCOM handheld radios.						
Title: TCCC FY 2016 Accomplishments: Provided for test support to include program management, market surveys, test article acquisition, test and evaluation and systems engineering in direct support of the CASEVAC. Completed laboratory airworthiness testing of enhanced electronic medical systems, including patient ventilation and fluid warming capabilities for use while aboard SOCOM air platforms. Initiated evaluations for the integration of these systems into the CASEVAC program. FY 2017 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 program. Support the evaluation of enhanced medical monitoring systems for incorporation into the CASEVAC program. Develop and test water resistant solutions for maritime operations of components within the CASEVAC set. Support the re-compete of the CASEVAC program. FY 2018 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.		0.369	0.396	0.199	-	0.199
Title: RC-IED		0.917	2.107	2.160	-	2.160

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B. Accomplishments/Planned Programs (\$ in Millions)								FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total
<p><i>FY 2016 Accomplishments:</i> Provided for 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. Initiated development and testing of ECM systems capability and advanced software technique countermeasures.</p> <p><i>FY 2017 Plans:</i> Continue 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 range effectiveness and currency, ensuring the ability to accurately test against current and emerging threat systems. Continue development and testing of ECM systems capability to include advanced software technique countermeasures and loadsets for mounted and dismounted systems. Continue open architecture development to increase efficiency of sharing software and firmware solutions across multiple industry original equipment manufacturer (OEM) vendors and government organizations.</p> <p><i>FY 2018 Base Plans:</i> 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. Implements Modi software refactoring, improving stability and future technology integration.</p>												
Accomplishments/Planned Programs Subtotals								2.516	2.977	2.852	-	2.852
C. Other Program Funding Summary (\$ in Millions)												
<u>Line Item</u>	<u>FY 2016</u>	<u>FY 2017</u>	<u>FY 2018 Base</u>	<u>FY 2018 OCO</u>	<u>FY 2018 Total</u>	<u>FY 2019</u>	<u>FY 2020</u>	<u>FY 2021</u>	<u>FY 2022</u>	<u>Cost To Complete</u>	<u>Total Cost</u>	
• PROC/0204WARRIOR: Warrior Systems<\$5M	233.629	246.381	252.070	20.215	272.285	258.375	251.203	264.258	257.103	Continuing	Continuing	
Remarks												

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<p><u>D. Acquisition Strategy</u></p> <p>SPEAR primarily takes advantage of modified commercial-off-the-shelf (COTS) or non-developmental items (NDI) through open competition.</p> <p>TCCCE-CASEVAC takes advantage of COTS equipment and/or NDI.</p> <p>RC-IED uses evolutionary development of hardware and software capabilities, leveraging collaborative development with Government Agencies and Industry partners.</p> <p><u>E. Performance Metrics</u></p> <p>N/A</p>		

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COST (\$ in Millions)	Prior Years	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total	FY 2019	FY 2020	FY 2021	FY 2022	Cost To Complete	Total Cost
S385A: Body Armor and Associated Equipment	3.659	1.286	1.339	1.289	-	1.289	1.289	1.636	1.669	1.716	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 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total
Title: SPEAR-Ballistic Protection	1.286	1.339	1.289	-	1.289
FY 2016 Accomplishments: Continued foreign ammunition testing and threat validation to assess effectiveness of currently fielded personal protective equipment. Continued development and testing of lightweight body armor and helmets to upgrade systems that have been fielded. Continued evaluation of transparent armor products which include variable light transmission, anti-fogging, ballistic, and laser lenses to upgrade systems that have been fielded. Addressed emerging SOF-unique requirements as SOF transitions from deployments in Iraq and Afghanistan to a global focus.					
FY 2017 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 and laser lenses to upgrade systems that have been fielded. Initiate selection of maritime crewman helmet.					
FY 2018 Base Plans:					

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Exhibit R-2A, RDT&E Project Justification: FY 2018 United States Special Operations Command								Date: May 2017				
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 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total
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 development and testing of technologies to upgrade the maritime crewman helmet.												
Accomplishments/Planned Programs Subtotals								1.286	1.339	1.289	-	1.289
C. Other Program Funding Summary (\$ in Millions)												
Line Item	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total	FY 2019	FY 2020	FY 2021	FY 2022	Cost To Complete	Total Cost	
• PROC/0204WARRIOR: <i>Warrior Systems<\$5M</i>	233.629	246.381	252.070	20.215	272.285	258.375	251.203	264.258	257.103	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-2A, RDT&E Project Justification: FY 2018 United States Special Operations Command										Date: May 2017		
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			
COST (\$ in Millions)	Prior Years	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total	FY 2019	FY 2020	FY 2021	FY 2022	Cost To Complete	Total Cost
S395: Visual Augmentation, Lasers and Sensor Systems	1.422	2.075	1.482	1.517	-	1.517	1.546	1.575	1.602	0.000	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 thermal imaging, short wave infrared, 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 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total
Title: Visual Augmentation Systems								2.075	1.482	1.517	-	1.517
FY 2016 Accomplishments: Continued to develop visual augmentation and laser devices to improve situational awareness, sharing of data/ images and target acquisition.												
FY 2017 Plans: Continue development and begin testing of visual augmentation and laser devices to improve situational awareness, sharing of data/images and target acquisition.												
FY 2018 Base Plans: Continues development and testing of visual augmentation and laser devices to improve situational awareness, sharing of data/images and target acquisition.												
Accomplishments/Planned Programs Subtotals								2.075	1.482	1.517	-	1.517
C. Other Program Funding Summary (\$ in Millions)												
Line Item	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total	FY 2019	FY 2020	FY 2021	FY 2022	Cost To Complete	Total Cost	
• PROC/0204WARRIOR: Warrior Systems<\$5M	233.629	246.381	252.070	20.215	272.285	258.375	251.203	264.258	257.103	Continuing	Continuing	

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Exhibit R-2A, RDT&E Project Justification: FY 2018 United States Special Operations Command			Date: May 2017
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	

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

<u>Line Item</u>	<u>FY 2016</u>	<u>FY 2017</u>	<u>FY 2018</u> <u>Base</u>	<u>FY 2018</u> <u>OCO</u>	<u>FY 2018</u> <u>Total</u>	<u>FY 2019</u>	<u>FY 2020</u>	<u>FY 2021</u>	<u>FY 2022</u>	<u>Cost To</u> <u>Complete</u>	<u>Total Cost</u>
Remarks											

D. Acquisition Strategy

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-2A, RDT&E Project Justification: FY 2018 United States Special Operations Command										Date: May 2017		
Appropriation/Budget Activity 0400 / 7					R-1 Program Element (Number/Name) PE 1160431BB / Warrior Systems				Project (Number/Name) S700 / Communications Equipment and Electronics Systems			
COST (\$ in Millions)	Prior Years	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total	FY 2019	FY 2020	FY 2021	FY 2022	Cost To Complete	Total Cost
S700: Communications Equipment and Electronics Systems	7.241	5.466	9.373	12.864	-	12.864	14.803	16.354	16.664	11.858	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 (CA) 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 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total
Title: SDN	2.461	2.940	7.982	-	7.982
FY 2016 Accomplishments:					

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Exhibit R-2A, RDT&E Project Justification: FY 2018 United States Special Operations Command			Date: May 2017			
Appropriation/Budget Activity 0400 / 7	R-1 Program Element (Number/Name) PE 1160431BB / Warrior Systems	Project (Number/Name) S700 / Communications Equipment and Electronics Systems				
B. Accomplishments/Planned Programs (\$ in Millions)		FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total
Assessed, tested and evaluated advance antenna design and performance. Continued to integrate Evolutionary Technology Insertions (ETIs). FY 2017 Plans: Assess, test, and evaluate advanced antenna design and performance. Continue ETI integration. Assess, test, and evaluate design and development of distributed cloud architecture to reduce complexity, improve resiliency, empower mobility, and increase security of the SOF Information Environment. FY 2018 Base Plans: Assesses, tests and evaluates wide-band Communications-on-the-Move (COTM) airborne technologies. Continues ETI integration. Evaluates new SATCOM constellations.						
Title: CIM FY 2017 Plans: Begin development and integration of new capabilities in support of CA communities. FY 2018 Base Plans: Continues development and integration of new capabilities in support of CA communities.		-	1.847	0.207	-	0.207
Title: SPCOM FY 2016 Accomplishments: Continued segment development for the SPCOM enterprise; developed means and methods to provide near-term impact to operators. Increased emphasis on developing anti-intrusion/anti-tamper capabilities. Conducted extensive vulnerability assessments plus independent verification and validation. FY 2017 Plans: Continue segment development for the SPCOM enterprise; develop means and methods to provide near-term impact to operators. Continue development of anti-intrusion/anti-tamper capabilities. Conduct extensive vulnerability assessments plus independent verification and validation. FY 2018 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 extensive vulnerability assessments plus independent verification and validation.		3.005	4.586	4.675	-	4.675
Accomplishments/Planned Programs Subtotals		5.466	9.373	12.864	-	12.864

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Exhibit R-2A, RDT&E Project Justification: FY 2018 United States Special Operations Command								Date: May 2017			
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 2016</u>	<u>FY 2017</u>	<u>FY 2018</u> <u>Base</u>	<u>FY 2018</u> <u>OCO</u>	<u>FY 2018</u> <u>Total</u>	<u>FY 2019</u>	<u>FY 2020</u>	<u>FY 2021</u>	<u>FY 2022</u>	<u>Cost To</u> <u>Complete</u>	<u>Total Cost</u>
• PROC/0204WARRIOR: <i>Warrior Systems<\$5M</i>	233.629	246.381	252.070	20.215	272.285	258.375	251.203	264.258	257.103	Continuing	Continuing
• PROC/0204OTHER: <i>OTHER ITEMS <\$5M</i>	76.709	78.016	54.592	-	54.592	90.958	77.732	92.076	58.694	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

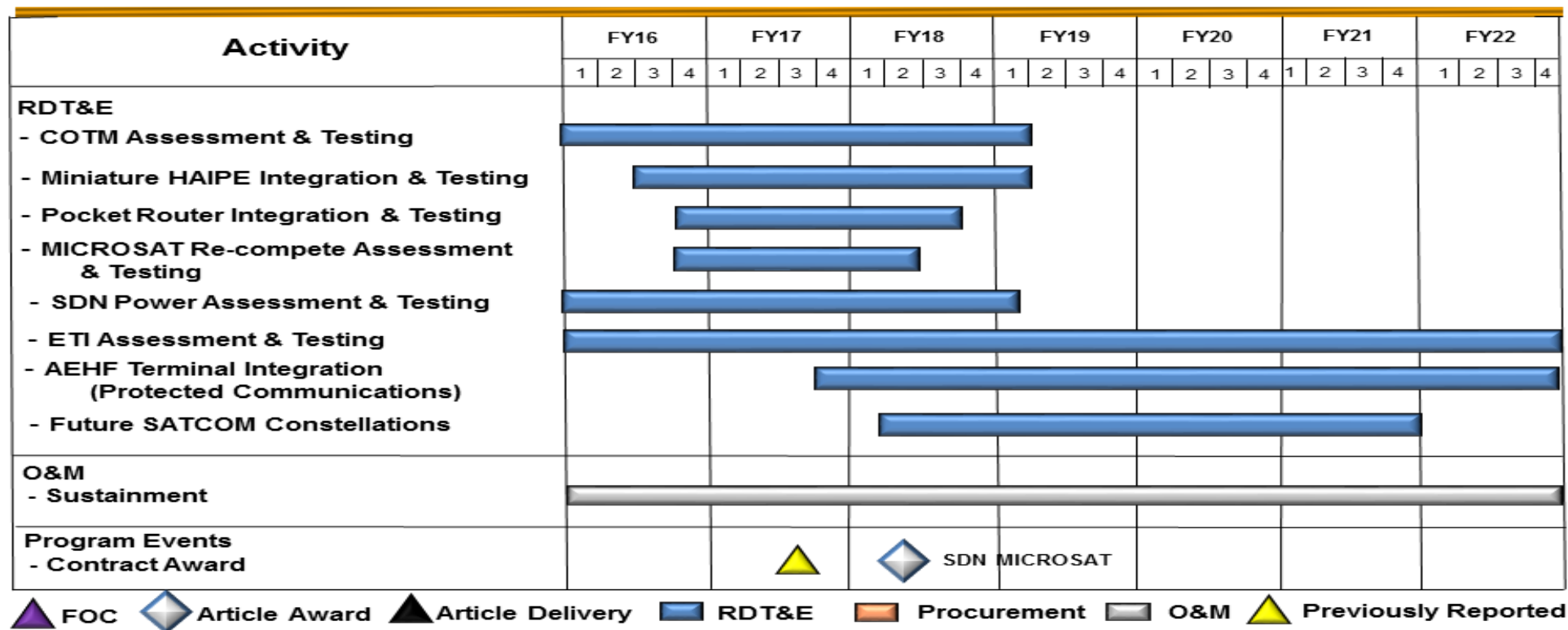
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Exhibit R-3, RDT&E Project Cost Analysis: FY 2018 United States Special Operations Command												Date: May 2017			
Appropriation/Budget Activity 0400 / 7						R-1 Program Element (Number/Name) PE 1160431BB / Warrior Systems				Project (Number/Name) S700 / Communications Equipment and Electronics Systems					
Product Development (\$ in Millions)				FY 2016		FY 2017		FY 2018 Base		FY 2018 OCO		FY 2018 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
SOF Deployable Node (SDN) Development Assessment	MIPR	Various : Various	2.205	1.251	Jun 2016	1.535	Mar 2017	2.110	Feb 2018	-		2.110	Continuing	Continuing	-
Civil Information Management Data Processing System (CIMDPS) Development	TBD	TBD : TBD	-	-		1.847	Mar 2017	0.207	Mar 2018	-		0.207	0.211	2.265	2.265
Special Communications (SPCOM) Enterprise Capability Development	TBD	Various : Various	2.699	2.118	Feb 2016	3.780	Mar 2017	3.845	Feb 2018	-		3.845	Continuing	Continuing	-
SPCOM Technology Vulnerability Assessments	MIPR	MITRE : Bedford, MA	0.567	0.603	Dec 2015	0.504	Dec 2016	0.530	Dec 2017	-		0.530	Continuing	Continuing	-
Subtotal			5.471	3.972		7.666		6.692		-		6.692	-	-	-
Test and Evaluation (\$ in Millions)				FY 2016		FY 2017		FY 2018 Base		FY 2018 OCO		FY 2018 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
SDN Market Research Evaluation and Testing	MIPR	Naval Research Lab (NRL) : Washington, D.C.	1.206	1.210	Dec 2015	1.405	Mar 2017	5.872	Jan 2018	-		5.872	Continuing	Continuing	-
SPCOM Operational Testing and Evaluation Independent Verification and Validation	MIPR	MITRE : Bedford, MA	0.564	0.284	Mar 2016	0.302	Mar 2016	0.300	Dec 2017	-		0.300	Continuing	Continuing	-
Subtotal			1.770	1.494		1.707		6.172		-		6.172	-	-	-
			Prior Years	FY 2016		FY 2017		FY 2018 Base		FY 2018 OCO		FY 2018 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals			7.241	5.466		9.373		12.864		-		12.864	-	-	-
Remarks															

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Exhibit R-4, RDT&E Schedule Profile: FY 2018 United States Special Operations Command			Date: May 2017
Appropriation/Budget Activity 0400 / 7	R-1 Program Element (Number/Name) PE 1160431BB / Warrior Systems	Project (Number/Name) S700 / Communications Equipment and Electronics Systems	

SOF Deployable Node (SDN) Schedule



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Exhibit R-4, RDT&E Schedule Profile: FY 2018 United States Special Operations Command

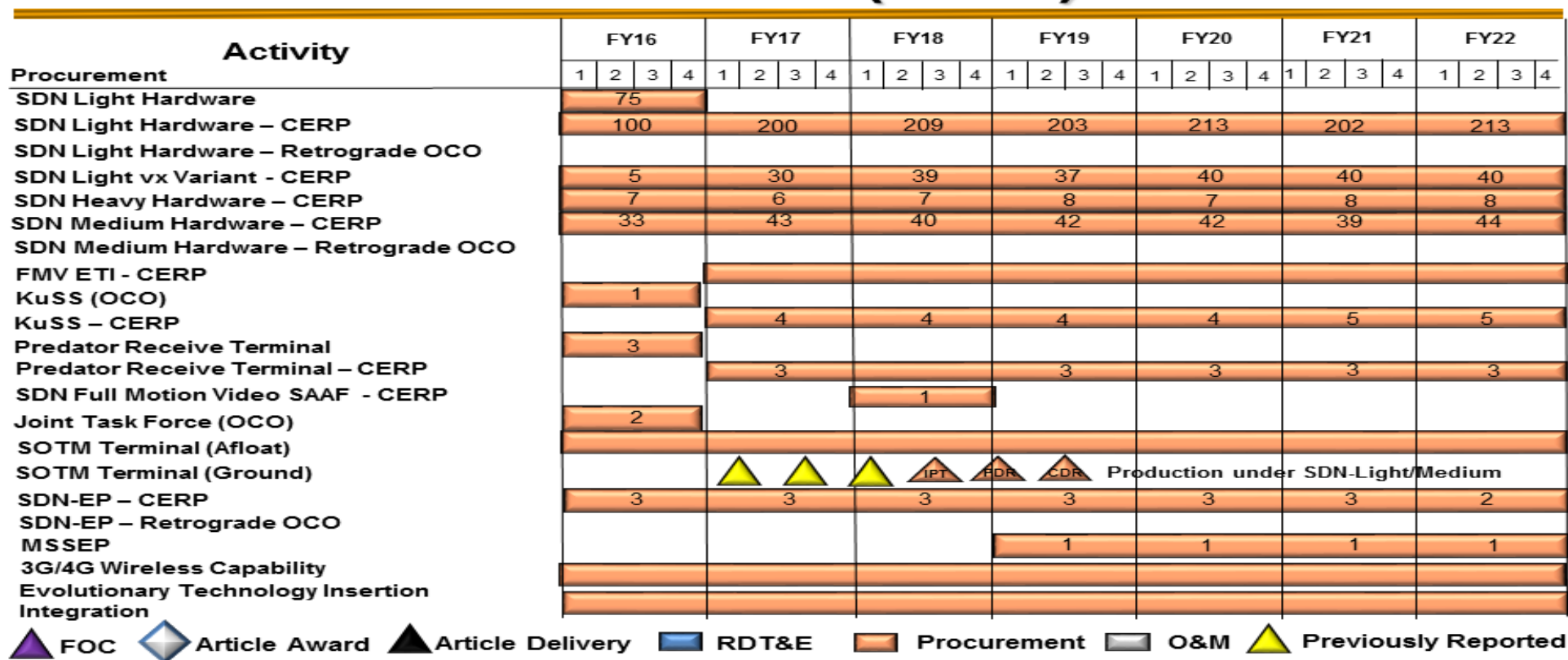
Date: May 2017

Appropriation/Budget Activity
0400 / 7

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

Project (Number/Name)
S700 / Communications Equipment and Electronics Systems

SOF Deployable Node (SDN) Schedule (con't)



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Exhibit R-4, RDT&E Schedule Profile: FY 2018 United States Special Operations Command			Date: May 2017
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>	

Civil Information Management System Schedule

Activity	FY16				FY17				FY18				FY19				FY20				FY21				FY22			
	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																												
NextGen CIMDPS Sync Tool																												
NextGen CIMDPS Hardware Platform																												
Procurement																												
NextGen CIMDPS with Initial Maintenance																												
O&M																												
NextGen CIMDPS Integration, Configuration and Software Endpoint Development																												
Sustainment CIMDPS and NextGen CIMDPS																												

 FOC
  Article Award
  Article Delivery
  RDT&E
  Procurement
  O&M
  Previously Reported

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Exhibit R-4, RDT&E Schedule Profile: FY 2018 United States Special Operations Command			Date: May 2017
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>	

Special Communications Enterprise Schedule

Activity	FY16				FY17				FY18				FY19				FY20				FY21				FY22			
	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
Field Segment Development																												
Field Segment Procurement	14				13				22				20				20				20				20			
Enterprise Segment Capabilities Development																												
Enterprise Segment Procurement																												
Enterprise/Transport Segments Operations & Maintenance																												
"Market" Survey																												
IV&V Event																												
Annual Vulnerability Assessment																												

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Exhibit R-4A, RDT&E Schedule Details: FY 2018 United States Special Operations Command			Date: May 2017
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	1	2016	4	2022
SDN Market Research and Testing	1	2016	4	2022
<i>CIVIL INFORMATION MANAGEMENT (CIM)</i>				
CIMDPS Sync Tool Development	2	2017	2	2019
<i>Special Communications (SPCOM) Enterprise Program</i>				
Field Segment Kit Development	1	2016	4	2022
Enterprise Segment Services Development	1	2016	4	2022

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Exhibit R-2A, RDT&E Project Justification: FY 2018 United States Special Operations Command										Date: May 2017		
Appropriation/Budget Activity 0400 / 7					R-1 Program Element (Number/Name) PE 1160431BB / Warrior Systems				Project (Number/Name) S710 / Tactical Systems Development			
COST (\$ in Millions)	Prior Years	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total	FY 2019	FY 2020	FY 2021	FY 2022	Cost To Complete	Total Cost
S710: Tactical Systems Development	1.172	0.804	2.640	2.416	-	2.416	2.523	3.031	3.083	3.145	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		
A. Mission Description and Budget Item Justification												
<p>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.</p> <p>- 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 TACLAN consists of Suites, Mission Planning Kits and Field Computing Devices, Coalition Local Area Network, and Full Motion Video Kits.</p>												
B. Accomplishments/Planned Programs (\$ in Millions)								FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total
Title: TACLAN Suites								0.804	2.640	2.416	-	2.416
FY 2016 Accomplishments: Continued integration and testing of evolutionary technology insertions (ETI) for Secure Data At Rest, secure wireless and cross domain solutions.												
FY 2017 Plans: Continue integration and testing of ETI for Secure Data At Rest, secure wireless and cross domain solutions. Begin assessment, test and evaluation of the design and development of distributed cloud architecture to reduce complexity, improve resiliency, empower mobility, and increase security of the SOF Information Environment (SIE).												
FY 2018 Base Plans: Continues integration and testing of ETI for Secure Data At Rest, secure wireless and cross domain solutions. Continues assessment, test and evaluation of the design and development of distributed cloud architecture to reduce complexity, improve resiliency, empower mobility, and increase security of the SIE.												
Accomplishments/Planned Programs Subtotals								0.804	2.640	2.416	-	2.416

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Exhibit R-2A, RDT&E Project Justification: FY 2018 United States Special Operations Command			Date: May 2017
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>	

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

<u>Line Item</u>	<u>FY 2016</u>	<u>FY 2017</u>	<u>FY 2018</u> <u>Base</u>	<u>FY 2018</u> <u>OCO</u>	<u>FY 2018</u> <u>Total</u>	<u>FY 2019</u>	<u>FY 2020</u>	<u>FY 2021</u>	<u>FY 2022</u>	<u>Cost To</u> <u>Complete</u>	<u>Total Cost</u>
• PROC/0204OTHER: OTHER ITEMS <\$5M	76.709	78.016	54.592	-	54.592	90.958	77.732	92.076	58.694	Continuing	Continuing

Remarks

D. Acquisition Strategy

The TACLAN evolutionary acquisition strategy includes the use of commercial and government agency sources, that will be leveraged for required certifications, functional and operational test, and acceptance support.

E. Performance Metrics

N/A

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Exhibit R-2A, RDT&E Project Justification: FY 2018 United States Special Operations Command										Date: May 2017		
Appropriation/Budget Activity 0400 / 7					R-1 Program Element (Number/Name) PE 1160431BB / Warrior Systems				Project (Number/Name) S725 / Tactical Radio Systems			
COST (\$ in Millions)	Prior Years	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total	FY 2019	FY 2020	FY 2021	FY 2022	Cost To Complete	Total Cost
S725: Tactical Radio Systems	6.882	2.036	3.884	13.183	-	13.183	4.892	10.719	7.280	1.918	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 (STC), 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 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total
Title: STC	1.571	3.812	13.112	-	13.112
FY 2016 Accomplishments: Developed and tested new capabilities in tactical radio equipment.					
FY 2017 Plans: Continue to develop and test new capabilities in tactical radio equipment.					
FY 2018 Base Plans: Continues development, integration and testing of new capabilities in tactical radio equipment. Enables modernization and testing of Cryptography and Global Positioning System (GPS) technology in accordance with Department of Defense modernization directives for a fleet of more than 33,000 tactical radios. Enables integration and testing of emerging High Frequency (HF) waveform, the Mobile User Objective Waveform, emerging Mobile Ad-hoc Networking (MANET) waveforms, and the Link-16 Tactical Data Link (TDL) waveform.					
Title: BFT	0.465	0.072	0.071	-	0.071
FY 2016 Accomplishments: Continued to develop and test new capabilities in BFT equipment.					
FY 2017 Plans: Continue development and testing of new capabilities in BFT equipment.					
FY 2018 Base Plans:					

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Exhibit R-2A, RDT&E Project Justification: FY 2018 United States Special Operations Command								Date: May 2017				
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>				
B. Accomplishments/Planned Programs (\$ in Millions)								FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total
Continues development of new capabilities in BFT equipment.												
Accomplishments/Planned Programs Subtotals								2.036	3.884	13.183	-	13.183
C. Other Program Funding Summary (\$ in Millions)												
Line Item	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total	FY 2019	FY 2020	FY 2021	FY 2022	Cost To Complete	Total Cost	
• PROC/0204WARRIOR: <i>Warrior Systems<\$5M</i>	233.629	246.381	252.070	20.215	272.285	258.375	251.203	264.258	257.103	Continuing	Continuing	
Remarks												
D. Acquisition Strategy												
<ul style="list-style-type: none"> • 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-3, RDT&E Project Cost Analysis: FY 2018 United States Special Operations Command												Date: May 2017			
Appropriation/Budget Activity 0400 / 7						R-1 Program Element (Number/Name) PE 1160431BB / Warrior Systems				Project (Number/Name) S725 / Tactical Radio Systems					
Product Development (\$ in Millions)				FY 2016		FY 2017		FY 2018 Base		FY 2018 OCO		FY 2018 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
SOF Tactical Communications Radio Development and Integration	MIPR	Various : Various	4.954	1.351	Apr 2016	3.276	Jan 2017	11.276	Jan 2018	-		11.276	Continuing	Continuing	-
Blue Force Tracking Development	MIPR	Various : Various	1.928	0.465	Nov 2015	0.072	Oct 2016	0.071	Jan 2018	-		0.071	Continuing	Continuing	-
Subtotal			6.882	1.816		3.348		11.347		-		11.347	-	-	-
Test and Evaluation (\$ in Millions)				FY 2016		FY 2017		FY 2018 Base		FY 2018 OCO		FY 2018 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
STC Testing	Option/ TBD	Various : Various	-	0.220	Apr 2016	0.536	Jan 2017	1.836	Jan 2018	-		1.836	Continuing	Continuing	-
Subtotal			-	0.220		0.536		1.836		-		1.836	-	-	-
			Prior Years	FY 2016		FY 2017		FY 2018 Base		FY 2018 OCO		FY 2018 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals			6.882	2.036		3.884		13.183		-		13.183	-	-	-
Remarks															

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Exhibit R-4, RDT&E Schedule Profile: FY 2018 United States Special Operations Command

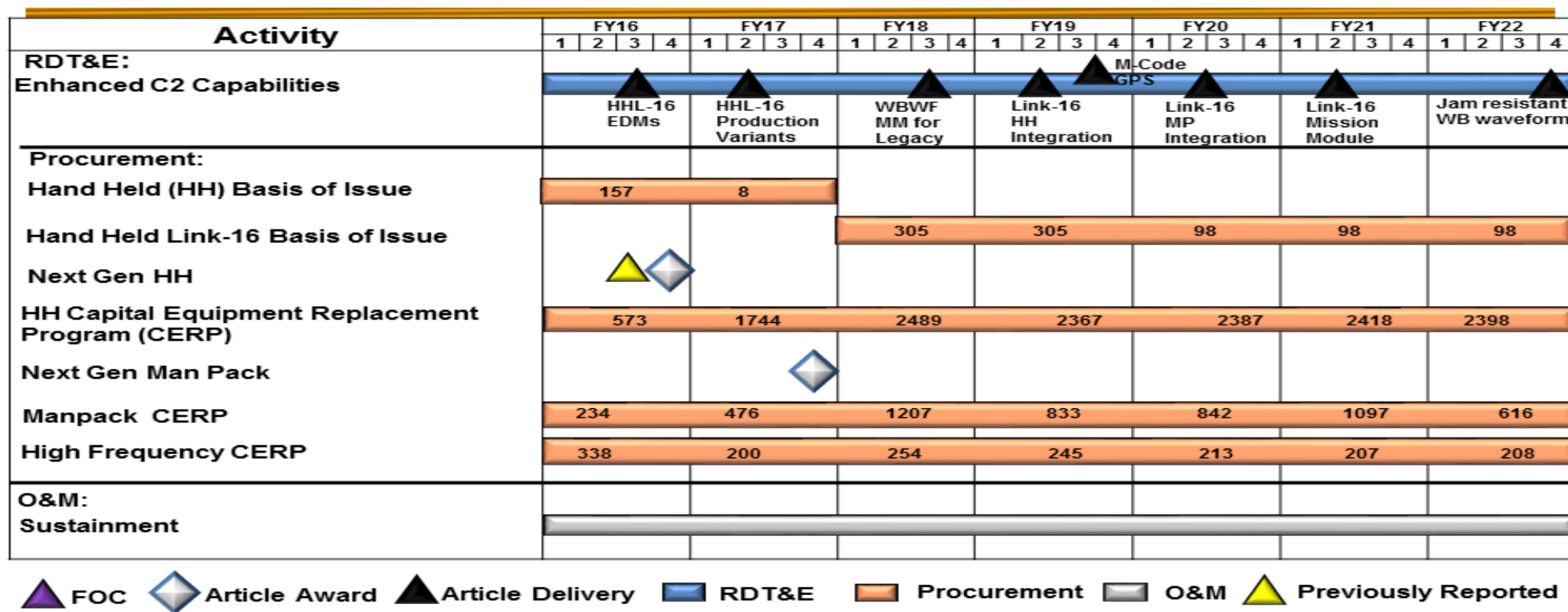
Date: May 2017

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

Project (Number/Name) <i>S725 / Tactical Radio Systems</i>
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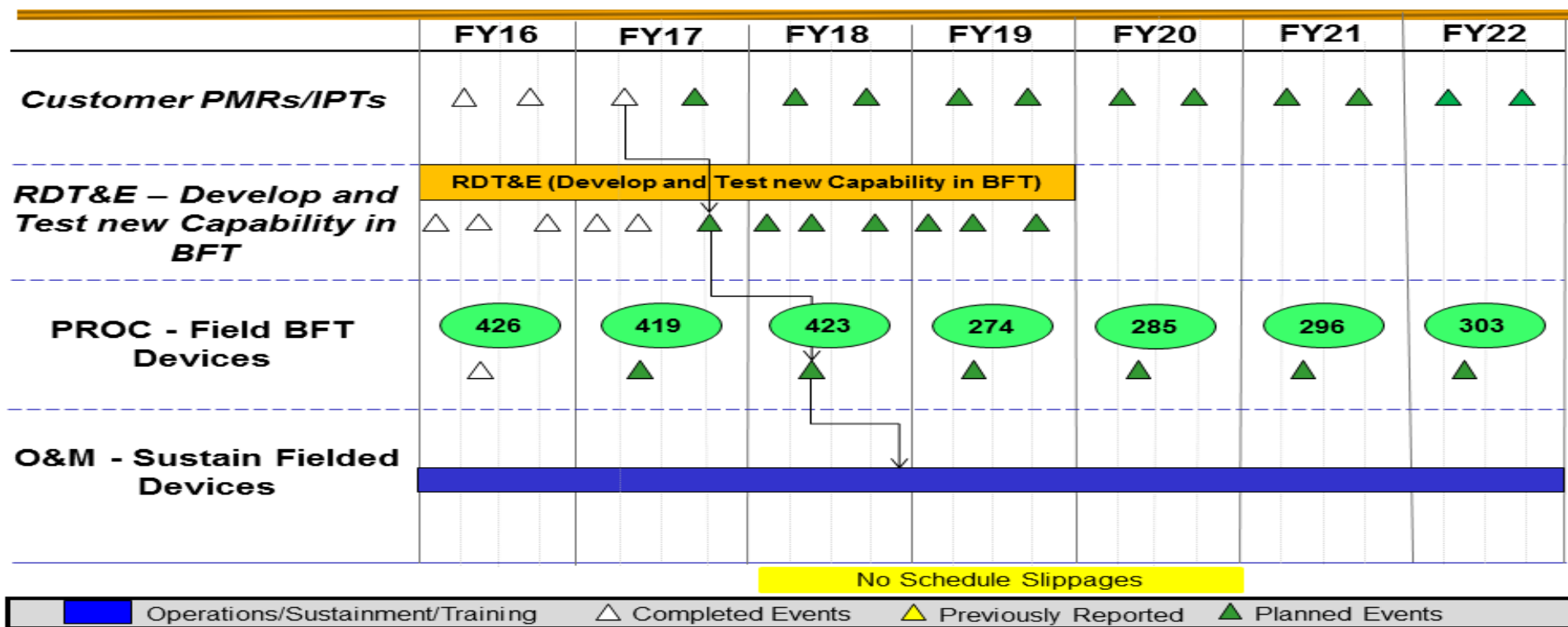
SOF Tactical Communications (STC) Schedule



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Exhibit R-4, RDT&E Schedule Profile: FY 2018 United States Special Operations Command				Date: May 2017	
Appropriation/Budget Activity 0400 / 7		R-1 Program Element (Number/Name) PE 1160431BB / Warrior Systems		Project (Number/Name) S725 / Tactical Radio Systems	

BFT Schedule



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Exhibit R-4A, RDT&E Schedule Details: FY 2018 United States Special Operations Command			Date: May 2017
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>	

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
<i>SOF Tactical Communications (STC)</i>				
STC Radio Development	1	2016	4	2022
STC Radio Testing	1	2016	4	2022
<i>Blue Force Tracking (BFT)</i>				
BFT Capability Improvement Development	1	2016	4	2019

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Exhibit R-2A, RDT&E Project Justification: FY 2018 United States Special Operations Command										Date: May 2017		
Appropriation/Budget Activity 0400 / 7					R-1 Program Element (Number/Name) PE 1160431BB / Warrior Systems				Project (Number/Name) S800 / Munitions Advanced Development			
COST (\$ in Millions)	Prior Years	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total	FY 2019	FY 2020	FY 2021	FY 2022	Cost To Complete	Total Cost
S800: Munitions Advanced Development	4.119	10.933	17.398	5.491	-	5.491	0.537	0.538	0.549	0.560	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.												
Aircraft Survivability Equipment (ASE). This program includes development of new systems, pre-planned product improvements/upgrades of fielded survivability equipment, and continue development of flare countermeasures.												
B. Accomplishments/Planned Programs (\$ in Millions)							FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total	
Title: Munitions Advanced Development							0.433	0.525	0.531	-	0.531	
FY 2016 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 2017 Plans: Conduct proof of concept and IM testing on various munitions. Conduct SDB II flight test integration for SOF. 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 2018 Base Plans:												

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Exhibit R-2A, RDT&E Project Justification: FY 2018 United States Special Operations Command				Date: May 2017
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>

B. Accomplishments/Planned Programs (\$ in Millions)	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total
Conducts 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 Munitions, 26 Sep 2006).					
Title: Stand-Off Precision Guided Munitions (SOPGM) FY 2017 Plans: Continue integration and testing of service-common precision guided munitions on SOF platforms. FY 2018 Base Plans: Continues integration and testing of service-common precision guided munitions on SOF platforms.	-	16.873	2.460	-	2.460
Title: Aircraft Survivability Equipment FY 2018 Base Plans: Begin development of flare countermeasures to increase effectiveness against evolving threats.	-	-	2.500	-	2.500
Accomplishments/Planned Programs Subtotals	0.433	17.398	5.491	-	5.491
	FY 2016	FY 2017			
Congressional Add: Stand-Off Precision Guided Munitions (SOPGM) FY 2016 Accomplishments: Begin integration and testing of the Small Glide Munition (SGM) precision guided weapon on SOF platforms.	10.500	-			
Congressional Adds Subtotals	10.500	-			

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

Line Item	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total	FY 2019	FY 2020	FY 2021	FY 2022	Cost To Complete	Total Cost
• PROC/0203ORDN: <i>Ordnance Items <\$5M</i>	195.079	166.771	112.331	62.643	174.974	124.450	146.751	156.857	158.945	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. Planned product improvements are tested at Army, Navy, and Air Force test centers.

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Exhibit R-2A, RDT&E Project Justification: FY 2018 United States Special Operations Command		Date: May 2017
Appropriation/Budget Activity 0400 / 7	R-1 Program Element (Number/Name) PE 1160431BB / Warrior Systems	Project (Number/Name) S800 / Munitions Advanced Development
<p>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.</p> <p>ASE: Development of new systems, pre-planned product improvements/upgrades of fielded survivability equipment, and continue development of flare countermeasures.</p>		
<p>E. Performance Metrics N/A</p>		