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

February 2015

United States Special Operations Command

Defense Wide Justification Book Volume 5 of 5

Research, Development, Test & Evaluation, Defense-Wide

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Department of Defense
FY 2016 President's Budget
Exhibit R-1 FY 2016 President's Budget
Total Obligational Authority
(Dollars in Thousands)

26 Jan 2015

Appropriation	FY 2014 (Base & OCO)	FY 2015 Base Enacted	FY 2015 OCO Enacted	FY 2015 Total Enacted	FY 2016 Base	FY 2016 OCO	FY 2016 Total
Research, Development, Test & Eval, DW	368,662	483,801	11,200	495,001	538,445		538,445
Total Research, Development, Test & Evaluation	368,662	483,801	11,200	495,001	538,445		538,445

R-1C1: FY 2016 President's Budget (Published Version of PB Position), as of January 26, 2015 at 09:48:05

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Summary Recap of Budget Activities	FY 2014 (Base & OCO)	FY 2015 Base Enacted	FY 2015 OCO Enacted	FY 2015 Total Enacted	FY 2016 Base	FY 2016 OCO	FY 2016 Total
Applied Research	27,560	36,750		36,750	37,517		37,517
Advanced Technology Development	44,496	51,622		51,622	57,741		57,741
Operational System Development	296,606	395,429	11,200	406,629	443,187		443,187
Total Research, Development, Test & Evaluation	368,662	483,801	11,200	495,001	538,445		538,445
Summary Recap of FYDP Programs							
Intelligence and Communications	20,986	21,080		21,080	70,362		70,362
Special Operations Forces	347,676	462,721	11,200	473,921	468,083		468,083
Total Research, Development, Test & Evaluation	368,662	483,801	11,200	495,001	538,445		538,445

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Appropriation: 0400D Research, Development, Test & Eval, DW

Line No	Program Element Number	Item	Act	FY 2014 (Base & OCO)	FY 2015 Base Enacted	FY 2015 OCO Enacted	FY 2015 Total Enacted	FY 2016 Base	FY 2016 OCO	FY 2016 Total	Sec
23	1160401BB	SOF Technology Development	02	27,560	36,750		36,750	37,517		37,517	U
		Applied Research		27,560	36,750		36,750	37,517		37,517	
70	1160402BB	SOF Advanced Technology Development	03	44,496	51,622		51,622	57,741		57,741	U
		Advanced Technology Development		44,496	51,622		51,622	57,741		57,741	
206	0304210BB	Special Applications for Contingencies	07	15,150	15,794		15,794	65,060		65,060	U
218	0305208BB	Distributed Common Ground/Surface Systems	07	5,195	5,286		5,286	5,302		5,302	U
223	0305219BB	MQ-1 Predator A UAV	07	641							U
237	1105219BB	MQ-9 UAV	07	13,272	9,702	5,200	14,902	18,151		18,151	U
238	1105232BB	RQ-11 UAV	07		259		259	758		758	U
239	1160279BB	Small Business Innovative Research/ Small Bus Tech Transfer Pilot Prog	07	10,446							U
240	1160403BB	Aviation Systems	07	131,119	158,733		158,733	173,934		173,934	U
241	1160405BB	Intelligence Systems Development	07	7,705	9,490		9,490	6,866		6,866	U
242	1160408BB	Operational Enhancements	07	42,492	75,253	6,000	81,253	63,008		63,008	U
243	1160431BB	Warrior Systems	07	15,692	20,573		20,573	25,342		25,342	U
244	1160432BB	Special Programs	07	7,185	20,908		20,908	3,401		3,401	U
245	1160480BB	SOF Tactical Vehicles	07	2,135	3,672		3,672	3,212		3,212	U
246	1160483BB	Maritime Systems	07	28,724	56,746		56,746	63,597		63,597	U
247	1160489BB	Global Video Surveillance Activities	07	3,304	3,788		3,788	3,933		3,933	U

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248	1160490BB	Operational Enhancements Intelligence	07	13,546	15,225		15,225	10,623		10,623	U
		Operational System Development		296,606	395,429	11,200	406,629	443,187		443,187	
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Program Element Table of Contents (by Budget Activity then Line Item Number)

Budget Activity 02: Applied Research
Appropriation 0400: Research, Development, Test & Evaluation, Defense-Wide

Budget Activity 03: Advanced Technology Development (ATD)
Appropriation 0400: Research, Development, Test & Evaluation, Defense-Wide

Budget Activity 07: Operational Systems Development
Appropriation 0400: Research, Development, Test & Evaluation, Defense-Wide

Budget Activity 07: Operational Systems Development
Appropriation 0400: Research, Development, Test & Evaluation, Defense-Wide

1 SOW	1st Special Operations Wing
160th SOAR	160th Special Operations Aviation Regiment
AFSOC	Air Force Special Operations Command
ARSOA	Army Special Operations Aviation
BGAD	Blue Grass Army Depot
CERDEC	Communications-Electronics Research, Development and Engineering Center
CSO	Center for Special Operations
DARPA	Defense Advanced Research Projects Agency
DTRA	Defense Threat Reduction Agency
FDA	Food and Drug Administration
JSOAC	Joint Special Operations Aviation Component
MARSOC	Marine Special Operations Command
NATO	North Atlantic Treaty Organization
NAVAIR	Naval Aviation Systems
NAVSCIATTS	Naval Small Craft Instructor and Technical Training School
NAVSPECWARCOM	Naval Special Warfare Command
NSA	National Security Agency
NSWC	Naval Special Warfare Command
PMA-275	V-22 Joint Program Office
SOFSA	Special Operations Forces Support Facility
TAPO	Technology Applications Program Office
TSOC	Theater Special Operations Command
USAF	United States Air Force
USASOC	United States Army Special Operations Command
USSOCOM	United States Special Operations Command

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Acronym	Full Naming Convention
AAR	After Action Review
ACT	Aft Cabin Trainer
ADS-B	Automatic Dependent Surveillance-Broadcast
AECV	All Environment Capable Variant
AOBPS	Aircraft Occupant Ballistic Protection System
AFSB	Afloat Forward Staging Base
AFSOC	Air Force Special Operations Command
ALGL	Advanced Lightweight Grenade Launcher
ANC	Active Noise Cancellation
AoA	Analysis of Alternatives
APAS	Active Parallet Actuator System
ARSOA	Army Special Operations Aviation
ASE	Aircraft Survivability Equipment
ASOMS	Advanced Special Operations Management System
ATD	Advanced Technology Demonstration
ATD/TB	AC-130U Gunship Aircrew Training Devices/Testbed
ATPIALS	Advanced Tactical Precision Illuminator Aiming Laser System
ATV	All Terrain Vehicle
AvFID	Aviation Foreign Internal Defense
BFT	Blue Force Tracking
BGAD	Blue Grass Army Depot
BGAN	Broadband Global Area Network
BMC	Battle Management Center
C2	Command and Control
C3	Command, Control, and Communications
C4	Command, Control, Communications, and Computer
C4I	Command, Control, Communications, Computers, and Intelligence
C4ISR	Command, Control, Communications, Computers, Intelligence, Surveillance and Reconnaissance
C4IAS	Command, Control, Communications, Computers, and Intelligence Automation System
CAAP	Common Avionics Architecture for Penetration
CAAS	Common Avionics Architecture Systems
CAPS	Counter-Proliferation Analysis and Planning System
CAR	Combat Assault Rifle
CAS	Close Air Support
CASEVAC	Casualty Evacuation
CCFLIR	Combatant Craft Forward Looking Infrared Radar
CCH	Combatant Craft - Heavy

CCM	Combatant Craft - Medium
CDAS	Cognitive Decision Aiding System
CDU	Control Display Units
CERP	Capital Equipment Replacement Plan
CESE	Civil Engineering Support Equipment
CFE	Contractor Furnished Equipment
CIMDPS	Civil Information Management Data Processing System
CMNS	Combat Mission Needs Statement
CNVD	Clip-On Night Vision Device
COTI	Clip-On Thermal Imagers
COTS	Commercial-Off-The-Shelf
CP	Counter-Proliferation
CPD	Capabilities Production Document
DAFCS	Digital Advanced Flight Control System
DCGS	Data Common Ground/Surface System
DCS	Dry Combat Submersible
DDP	Detachment Deployment Packages
DDS	Dry Deck Shelter
DF	Direction Finding
DIA	Defense Intelligence Agency
DMO/DMT/DMR	Distributed Mission Operations/Distributed Mission Training/Distributed Mission Rehearsal
DMTRS	Distributed Mission Training and Rehearsal System
DoD	Department of Defense
DT&E	Development Test and Evaluation
DVE	Degraded Visual Environment
ECOS	Enhanced Combat Optical Sights
ECP	Engineering Change Proposal
EDM	Engineering Development Model
EGLM	Enhanced Grenade Launcher Module
EMD	Engineering and Manufacturing Development
EO/IR	Electro-Optical Infrared
EOQ	Economic Order Quantity
ESA	Enhanced Situational Awareness
ETI	Evolutionary Technology Insertion
EW	Electronic Warfare
FAA	Federal Aviation Administration
FABS	Fly-Away Broadcast System
FCD	Field Computing Devices

FFT	Friendly Force Trackers
FLIR	Forward Looking Infrared Radar
FMBS	Family of Muzzle Brake Suppressors
FMV	Full Motion Video
FMV VDH-L	Full Motion Video Distribution Hub-Light
FoS	Family of Systems
FSOV	Family of SOF Vehicles
FSWS	Family of Sniper Weapon System
FUT	Fuselage Trainer
FW	Fixed Wing
FY	Fiscal Year
GATM	Global Air Traffic Management
GEO	Geological
GFE	Government Furnished Equipment
GIG	Global Information Grid
GMV	Ground Mobility Vehicles
GOTS	Government-Off-the-Shelf
GPPU	General Purpose Processing Units
GPS	Global Positioning System
GSK	Ground Signal Intelligence Kit
GWOT	Global War on Terrorism
HD	High Definition
HF	High Frequency
HFIS	Hostile Fire Indicator System
HFTTL	Hostile Forces Tagging, Tracking, and Locating
HHI	Hand Held Imager
HLM	Hand-held Laser Marker
HPRT	High Power Remote Transmitters
HSAC	High Speed Assault Craft
IED	Improvised Explosive Devices
IM	Insensitive Munitions
INOD	Improved Night/Day Observation/Fire Control Device
IOC	Initial Operational Capability
IOT&E	Initial Operational Test & Evaluation
IR	Infrared
IRCM	Infrared Countermeasures
ISP	Integrated Survey Plan
ISR	Intelligence Surveillance and Reconnaissance

ISR&T	Intelligence, Surveillance, Reconnaissance, and Targeting
IT	Information Technology
JBS	Joint Base Station
JCTD	Joint Concept Technology Demonstration
JNTC	Joint National Training Center
JOS	Joint Operational Stocks
JSOTF	Joint Special Operations Task Force
JTCITS	Joint Tactical C4I Information Transceiver System
JTF	Joint Task Force
JTWS	Joint Threat Warning System
LAM	Laser Acquisition Marker
LAW	Light Assault Weapon
LFT&E	Live Fire Test and Evaluation
LMG	Lightweight Machine Gun
LOS	Line of Sight
LPI/LPD	Low Probability of Intercept/Low Probably of Detection
LRBS	Long Range Broadcast System
LRIP	Low Rate Initial Production
LRU	Line Replaceable Unit
LTATV	Lightweight Tactical All Terrain Vehicle
MAAWS	Multi-Purpose Anti-Armor/Anti-Personnel Weapons System
MALET	Medium Altitude Long Endurance Tactical
MARSOC	U.S. Marine Special Operations Command
MCADS	Maritime Craft Air Delivery System
MDAP	Major Defense Acquisition Program
MEDVAC	Medical Evacuation
MELB	Mission Enhancement Little Bird
MFD	Multi-Function Display
MFP-11	Major Force Program-11
MICH	Modular Integrated Communications Helmet
MIP	Military Intelligence Program
MISO	Military Information Support Operations
MISOB	Military Information Support Operations Broadcast
MK V	Mark V Combatant Craft
MLE	Military Liaison Element
MPC	Media Production Center
MPK	Mission Planning Kits
MQ-1	Predator Unmanned Vehicle

MQ-9	Reaper Unmanned Vehicle
MRAP	Mine Resistant Ambush Protected
MS	Milestone
MSSEP	Mobile SOF Strategic Entry Points
MTPS	Mission Training and Preparation System
MWS	Missile Warning System
NAVAIR	Naval Aviation Systems Command
NAVSEA	Naval Systems Engineering Command
NDI	Non-Developmental Item
NGA	National Geo-Spatial Intelligence Agency
NGFLIR	Next Generation Forward Looking Infrared Radar
NGLS	Next Generation Loudspeaker Systems
NIC	National Intelligence Community
NIPR	Non-Classified Internet Protocol
NRE	Non-Recurring Engineering
NSAV	Non-Standard Aviation
NSCV	Non-Standard Commercial Vehicle
NSM	Non-Standard Materiel
NSSS	National Systems Support to SOF
NSW	Naval Special Warfare
NSWC	Naval Special Warfare Command
NVD	Night Vision Devices
OCO	Overseas Contingency Operations
OFP	Operational Flight Program
OSD	Office of the Secretary of Defense
OT&E	Operational Test and Evaluation
OUSD(I)	Office of the Undersecretary for Defense, Intelligence
P3I	Pre-Planned Product Improvement
PE	Program Element
PED	Processing, Exploitation, and Dissemination
PEO	Program Executive Office
PGL	Precision Geo Location
PGM	Precision Guided Munitions
PN	Partner Nation
PSP	Precision Strike Package
PSR	Precision Sniper Rifle
QL-CBA	Quick-Look Capabilities-Based Assessment
QoS	Quality of Service

RC-IED	Radio Counter-Improvised Explosive Device
RDT&E	Research, Development, Test, and Evaluation
REITS	Rapid Exploitation of Innovative Technologies
RF	Radio Frequency
RFCM	Radio Frequency Countermeasures
RIB	Rigid Inflatable Boat
RIS	Radio Interface System
RIS	Rail Interface Systems
RPG	Rocket Propelled Grenade
RRT	Rapid Reliable Targeting
RSTA	Reconnaissance, Surveillance, and Targeting Acquisition
RW	Rotary Wing
RWR	Radar Warning Receiver
S&T	Science & Technology
SAFC	Special Applications for Contingencies
SAFEAIR	Safe Aircraft Recovery
SAT	Simplified Acquisition Threshold
SATCOM	Satellite Communications
SAW	Small Arms and Weapons
SBIR	Small Business Innovative Research
SBUD	Simulator Block Updates
SDN	SOF Deployable Node
SDV	Sea, Air, Land (SEAL) Delivery Vehicle
SEAL	Sea, Air, Land
SEALION	Sea, Air, Land, Insertion Observation Neutralization
SFA	Security Forces Assistance
SIE	SOF Information Environment
SIGINT	Signals Intelligence
SIPR	Classified Internet Protocol
SIRFC	Suite of Integrated Radar Frequency Countermeasures
SKR	Silent Knight Radar
SO	Special Operations
SOAR(A)	Special Operations Aviation Regiment (Airborne)
SOCRATES	Special Operations Command, Research, Analysis and Threat Evaluation System
SOF	Special Operations Forces
SOFSA	SOF Forces Support Activity
SOMPE	Special Operations Mission Planning Environment
SOPGM	Standoff Precision Guided Munitions

SOTVS	Special Operations Tactical Video System
SOW	Special Operations Wing
SRTV	Secure Real-Time Video
SPCOM	Special Communications Field Segment - Enterprise
SPEAR	SOF Personal Equipment Advanced Requirements
SSE	Sensitive Site Exploitation
SSR	Sniper Support Rifle
STC	SOF Tactical Communications
STUASLO	Small Tactical Unmanned Aerial Systems
SUAS	Small Unmanned Aircraft System
SWALIS	Special Warfare Automated Logistics Information System
SWCS	Shallow Water Combat Submersible
TACLAN	Tactical Local Area Network
TAS	Threat Awareness System
TCCC	Tactical Combat Casualty Care
TF/TA	Terrain Following/Terrain Avoidance
TSOC	Theater Special Operations Command
TT	Team Transportable
TTP	Tactics, Techniques and Procedures
UAV	Unmanned Aerial Vehicle
UCI	Undersea Clandestine Insertion
USASOC	U.S. Army Special Operations Command
USG	U.S. Government
USSOCOM	U. S. Special Operations Command
STOL	Short Take-Off and Landing
VAS-BM	Visual Augmentation-Binocular-Monocular
VASWA	Visual Augmentation System-Weapons Accessories
VBL	Visible Bright Light
VTC	Video Teleconferencing
WB SOTM	Wide Band SATCOM On-The-Move
WMD	Weapons of Mass Destruction
WPNAC	Weapons Accessories
WST	Weapons System Trainer

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Exhibit R-2, RDT&E Budget Item Justification: PB 2016 United States Special Operations Command	Date: February 2015
Appropriation/Budget Activity 0400: *Research, Development, Test & Evaluation, Defense-Wide* / BA 2: *Applied Research*	**R-1 Program Element (Number/Name)** PE 1160401BB / *SOF Technology Development*

COST ($ in Millions)	Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	Cost To Complete	Total Cost
Total Program Element	374.118	27.561	36.750	37.517	-	37.517	38.104	33.766	34.329	35.016	Continuing	Continuing
S100: *SOF Technology Development*	374.118	27.561	36.750	37.517	-	37.517	38.104	33.766	34.329	35.016	Continuing	Continuing

A. Mission Description and Budget Item Justification

This program element enables USSOCOM to conduct studies and develop laboratory prototypes for applied research and advanced technology development, as well as leverage other organizations' technology projects that may not otherwise be affordable within MFP-11. Applying small incremental amounts of investments to DoD, other government agencies, and commercial organizations allows USSOCOM to influence the direction of technology development or the schedule against which it is being pursued, and to acquire emerging technologies for Special Operations Forces. This project provides an investment strategy for USSOCOM to link technology opportunities with capability deficiencies, capability objectives, technology thrust areas, human endurance and sensory performance, and technology development objectives.

B. Program Change Summary ($ in Millions)	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total
Previous President's Budget	28.307	39.750	37.789	-	37.789
Current President's Budget	27.561	36.750	37.517	-	37.517
Total Adjustments	-0.746	-3.000	-0.272	-	-0.272
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-3.000			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-0.746	-			
• SBIR/STTR Transfer	-	-			
• Other	-	-	-0.272	-	-0.272

Change Summary Explanation

Funding:

FY 2014: Decrease of $0.746 million is due to a reprogramming to higher command priorities.

FY 2015: This program element was reduced due to a Congressional Directed Reduction of $3.000 million to the Special Operations Forces Technology Development program.

Exhibit R-2, RDT&E Budget Item Justification: PB 2016 United States Special Operations Command	Date: February 2015
Appropriation/Budget Activity 0400: *Research, Development, Test & Evaluation, Defense-Wide* / BA 2: *Applied Research*	**R-1 Program Element (Number/Name)** PE 1160401BB / *SOF Technology Development*

FY 2016: Decrease of $0.272 million is due to a Departmental economic assumption decrease.

Schedule: None.

Technical: None.

Exhibit R-2A, RDT&E Project Justification: PB 2016 United States Special Operations Command			Date: February 2015
Appropriation/Budget Activity 0400 / 2	R-1 Program Element (Number/Name) PE 1160401BB / *SOF Technology Development*	Project (Number/Name) S100 / *SOF Technology Development*	

COST ($ in Millions)	Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	Cost To Complete	Total Cost
S100: *SOF Technology Development*	374.118	27.561	36.750	37.517	-	37.517	38.104	33.766	34.329	35.016	Continuing	Continuing

A. Mission Description and Budget Item Justification

This project conducts studies and develops laboratory prototypes for applied research and advanced technology developments, and leverages other organizations' technology projects that may not otherwise be affordable within MFP-11. Small incremental co-investments with DoD, other government agencies, and commercial organizations allows USSOCOM to influence the schedule and direction of technology developments, emerging technologies, and capabilities for Special Operations Forces (SOF), with significant economies of investment. This USSOCOM investment strategy is used to link technology opportunities with USSOCOM capability deficiencies, capability objectives; technology thrust areas, and technology objectives. Requirements in these areas may be advertised to industry and government research and development agencies via broad area announcements and calls for white papers. Sub-projects within the SOF Technology Demonstration effort include:

• SOF Technology Development Sub-Project: This project conducts studies and develops laboratory prototypes for applied research and advanced technology developments, and leverages other organizations' technology projects that may not otherwise be affordable within MFP-11.

• Tagging, Tracking, and Locating (TTL) Sub-Project: TTL funds Applied Research projects identified in the USSOCOM Quick Look Capabilities Based Assessments (QL-CBA). TTL applies leading edge nanotechnology, biometric and biotechnology, and chemistry S&T which is directed towards the development of revolutionary tags, taggants, sensors, communications, and data processing.

• Classified Sub-Project (provided under separate cover).

B. Accomplishments/Planned Programs ($ in Millions)	FY 2014	FY 2015	FY 2016
Title: SOF Technology Development	12.282	19.624	18.780
FY 2014 Accomplishments: Continued ongoing technology development sub-projects in areas such as, but not limited to: reduced signature technologies; advanced lightweight armor and materials; advanced energetics for improved terminal ballistics, and advanced laser technologies. Advanced technologies for combat medical equipment and tactics; sensor and processing improvements; improve interfaces and displays; and secure communications. Continued pursuit of methods to reduce operator load and provides advanced protection. Developed technologies for improved and widened window of target engagement (escalation of force); pursued enhancements to technologies that can aid in detection of enemy intentions and movement; and continued development and exploration across the electromagnetic spectrum. Based upon agreed technology maturity metrics, transferred successful projects into programs of record.			
FY 2015 Plans:			

Exhibit R-2A, RDT&E Project Justification: PB 2016 United States Special Operations Command		Date: February 2015
Appropriation/Budget Activity 0400 / 2	**R-1 Program Element (Number/Name)** PE 1160401BB / *SOF Technology Development*	**Project (Number/Name)** S100 / *SOF Technology Development*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2014	FY 2015	FY 2016
Continue ongoing technology development sub-projects in areas such as, but not limited to: reduce signature technologies; advance lightweight armor and materials; long duration small form factor power supplies; and alternative fuel power systems. Advance technologies for combat medical equipment and tactics; sensor and processing improvements; improve interfaces and displays; and secure communications. Continue pursuit of methods to reduce operator load and provide advanced protection. Develop technologies for improved and widened window of target engagement (escalation of force); pursue enhancements to technologies that can aid in detection of enemy intentions and movement; and continue development and exploration across the electromagnetic spectrum. Based upon agreed technology maturity metrics, transfer successful projects into programs of record. Continue the integration of critical technologies focused on providing the dismounted special operator leap-ahead capabilities via innovative collaborative processes. Focus is on delivering prototype system for soldier protection and augmentation and continue development of situational awareness and command/control systems. ***FY 2016 Plans:*** Continues ongoing technology development sub-projects in areas such as, but not limited to: long duration small form factor power supplies, alternative fuel power systems, reduced signature technologies, high data-rate throughput, and advanced lightweight armor and materials. Advances technologies for combat medical equipment and tactics, sensor and processing improvements, improves interfaces and displays, and secure communications. Continues pursuit of methods to reduce operator load and provides advanced protection. Develops technologies for improved and widened window of target engagement (escalation of force); pursues enhancements to technologies that can aid in detection of enemy intentions and movement, and continues development and exploration across the electromagnetic spectrum. Based upon agreed technology maturity metrics, transfers successful projects into programs of record. Continues the integration of critical technologies focused on providing the dismounted special operator leap-ahead capabilities via innovative collaborative processes. Focus is on delivering prototype system for soldier protection and augmentation and continues development of situational awareness and command/control systems.			
Title: Tagging, Tracking, and Locating Technologies (TTL) ***FY 2014 Accomplishments:*** Specific objectives, priorities, technical approaches, and potential operational applications are classified. Continued projects to exploit nanotechnology, biotechnology and chemistry for application to TTL and TTL-enabling systems. Initiated projects linked to the USSOCOM/DoD TTL Roadmap, which is updated via the JCS/J8-approved annual TTL QL-CBA. ***FY 2015 Plans:*** Specific objectives, priorities, technical approaches, and potential operational applications are classified. Continue projects to exploit nanotechnology, biotechnology and chemistry for application to TTL and TTL-enabling systems. Initiate projects linked to the USSOCOM/DoD TTL Roadmap, which is updated via the JCS/J8-approved annual TTL QL-CBA. ***FY 2016 Plans:***	14.165	14.896	14.950

Exhibit R-2A, RDT&E Project Justification: PB 2016 United States Special Operations Command		Date: February 2015
Appropriation/Budget Activity 0400 / 2	**R-1 Program Element (Number/Name)** PE 1160401BB / *SOF Technology Development*	**Project (Number/Name)** S100 / *SOF Technology Development*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2014	FY 2015	FY 2016
Specific objectives, priorities, technical approaches, and potential operational applications are classified. Continues projects to exploit nanotechnology, biotechnology and chemistry for application to TTL and TTL-enabling systems. Initiates projects linked to the USSOCOM/DoD TTL Roadmap, which is updated via the JCS/J8-approved annual TTL QL-CBA.			
Title: Classified ***FY 2014 Accomplishments:*** Details provided under separate cover. ***FY 2015 Plans:*** Details provided under separate cover. ***FY 2016 Plans:*** Details provided under separate cover.	1.114	2.230	3.787
Accomplishments/Planned Programs Subtotals	27.561	36.750	37.517

C. Other Program Funding Summary ($ in Millions)

N/A

Remarks

D. Acquisition Strategy

N/A

E. Performance Metrics

N/A

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Exhibit R-2, RDT&E Budget Item Justification: PB 2016 United States Special Operations Command	Date: February 2015
Appropriation/Budget Activity 0400: *Research, Development, Test & Evaluation, Defense-Wide* / BA 3: *Advanced Technology Development (ATD)*	**R-1 Program Element (Number/Name)** PE 1160402BB / *SOF Advanced Technology Development*

COST ($ in Millions)	Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	Cost To Complete	Total Cost
Total Program Element	1,045.274	44.496	51.622	57.741	-	57.741	61.333	71.587	73.666	76.042	Continuing	Continuing
S200: *Advanced Technology Development*	1,045.274	38.736	39.515	45.137	-	45.137	48.459	52.785	54.514	56.506	Continuing	Continuing
SF101: *Engineering Analysis*	0.000	0.847	6.978	7.457	-	7.457	7.624	13.444	13.697	13.972	Continuing	Continuing
S225: *Information and Broadcast Systems Adv Tech*	0.000	4.913	5.129	5.147	-	5.147	5.250	5.358	5.455	5.564	Continuing	Continuing

A. Mission Description and Budget Item Justification

Advanced Technology Development (project S200) conducts rapid prototyping and Advanced Technology Demonstrations (ATDs). ATDs provide a means for demonstrating and evaluating the utility of emerging/advanced technologies in as realistic an operational environment as possible by Special Operations Forces (SOF) users. Evaluation results are included in a transition package, which assists in the initiation of or insertion into an acquisition program. Advanced Technology Development also addresses projects that are a result of unique joint special mission or area-specific needs for which a few-of-a-kind prototypes must be developed on a rapid response basis, or are of sufficient time sensitivity to accelerate the prototyping effort of a normal acquisition program in any phase.

Engineering Analysis (project SF101) provides rapid response capability for the investigation, evaluation, and demonstration of technologies for SOF platform (ground, air, and maritime) and soldier system unique requirements. Timely application of SOF-unique technology is critical and necessary to meet requirements in such areas as: sensor integration; enhanced situational awareness; near-real-time intelligence to include data fusion, threat detection and avoidance; electronic support measures for threat geo-location and specific emitter identification; navigation; target detection; weapon performance integration; and future SOF platform and soldier system requirements. Provides additional engineering analysis and testing required to transition items from national forces to theater forces.

Information and Broadcast Systems Advanced Technology (project S225) conducts rapid prototyping, advanced technology demonstrations, and advanced concept technology demonstrations of information and broadcast systems technology. Includes planning, analyzing, evaluating, and production information systems capabilities and distribution/dissemination broadcast systems capabilities. It provides a means for demonstrating and evaluating the utility of emerging/advanced technologies in as realistic an operational environment as possible by SOF users. This project also integrates efforts with each other and conducts technology demonstrations in conjunction with joint experiments and other assessment events. Evaluation results are included in a transition package, which assists in the initiation of or insertion into an acquisition program. The project also addresses unique, joint special mission or area-specific needs for which prototypes must be developed on a rapid response basis, or are of sufficient time sensitivity to accelerate the prototyping effort of a normal acquisition program in any phase.

Exhibit R-2, RDT&E Budget Item Justification: PB 2016 United States Special Operations Command	Date: February 2015
Appropriation/Budget Activity 0400: *Research, Development, Test & Evaluation, Defense-Wide* / BA 3: *Advanced Technology Development (ATD)*	**R-1 Program Element (Number/Name)** PE 1160402BB / *SOF Advanced Technology Development*

B. Program Change Summary ($ in Millions)	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total
Previous President's Budget	45.306	57.622	56.177	-	56.177
Current President's Budget	44.496	51.622	57.741	-	57.741
Total Adjustments	-0.810	-6.000	1.564	-	1.564
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-6.000			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-0.810	-			
• SBIR/STTR Transfer	-	-			
• Other Adjustments	-	-	1.564	-	1.564

Change Summary Explanation

Funding:

FY 2014: Net decrease of $0.810 million is due to an increase for rotary wing low visibility flare development ($0.066 million) and a reprogramming to higher command priorities (-$0.876 million).

FY 2015: This program element was reduced due to a Congressional Directed Reduction of $-6.000 million to the Engineering Analysis project.

FY 2016: Net increase of $1.564 million supports classified rapid reaction technology gap capabilities ($2.000 million) and a decrease of $0.436 million due to a Departmental economic assumption.

Schedule: None.

Technical: None.

Exhibit R-2A, RDT&E Project Justification: PB 2016 United States Special Operations Command			Date: February 2015
Appropriation/Budget Activity 0400 / 3	R-1 Program Element (Number/Name) PE 1160402BB / *SOF Advanced Technology Development*	Project (Number/Name) S200 / *Advanced Technology Development*	

COST ($ in Millions)	Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	Cost To Complete	Total Cost
S200: *Advanced Technology Development*	1,045.274	38.736	39.515	45.137	-	45.137	48.459	52.785	54.514	56.506	Continuing	Continuing

A. Mission Description and Budget Item Justification

This project provides for rapid prototyping, Advanced Technology Demonstrations (ATDs) and Joint Capability Technology Demonstrations. It is a means for demonstrating and evaluating the utility of emerging/advanced technologies in operationally relevant environments with Special Operations Forces (SOF) users. This project integrates emerging technologies and presents them in technology demonstrations, in conjunction with joint experiments and other assessment events. Evaluation results often facilitate the initiation of new programs and the insertion of appropriate technologies to acquisition programs. The element also addresses unique, joint special mission or area-specific needs for which a few rapid prototypes must be developed on a responsive basis, or are of sufficient time sensitivity to accelerate prototyping efforts of a normal acquisition program in any phase. Sub-projects within the SOF Special Technology Development efforts include:

• Special Operations Special Technology Sub-Project. This sub-project integrates emerging technologies and presents them in technology demonstrations, in conjunction with joint experiments and other assessment events.

• Tagging, Tracking, and Locating (TTL) Technologies Sub-Project. TTL funds SOF unique ATDs identified in the USSOCOM Quick Look Capabilities Based Assessments (QL-CBA). TTL rapidly prototypes and expeditiously transitions projects from laboratory to acquisition Programs of Record/operational use to address SOF capability deficiencies.

• National to Theater Transition Sub-Project. Conduct additional testing required to transition items from national forces to theater forces.

• Classified Sub-Project (provided under separate cover).

• Signature Management Technology Demonstrator (details provided under separate cover).

B. Accomplishments/Planned Programs ($ in Millions)	FY 2014	FY 2015	FY 2016
Title: SOF Special Technology Sub-Project	13.437	20.018	23.570
FY 2014 Accomplishments: Continued to develop and insert technology into existing programs. Technologies included reduced signature profiles, improved weapons, lightweight armor and materials, conformable antenna technology, area denial applications, first-pass lethality technology, human performance optimization analysis, and technologies that reduce the load of the operator. Initiated development of technologies supporting undersea mobility; developed ground mobility solutions for improved endurance and survivability; and rotary wing low visibility flares. Evaluated and developed sensors across the electromagnetic spectrum to meet			

Exhibit R-2A, RDT&E Project Justification: PB 2016 United States Special Operations Command		Date: February 2015
Appropriation/Budget Activity 0400 / 3	**R-1 Program Element (Number/Name)** PE 1160402BB / *SOF Advanced Technology Development*	**Project (Number/Name)** S200 / *Advanced Technology Development*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2014	FY 2015	FY 2016
operational requirements. Based upon agreed technology maturity metrics, transferred successful projects into programs of record, and conducted field experimentations at various venues to facilitate technology insertion. ***FY 2015 Plans:*** Continue to develop and insert technology into existing programs. Technologies include, but are not limited to reduced signature profiles; improved weapons, communications, command, and control systems, sensors, and situational awareness tools; lightweight armor and materials; alternative power systems; eco-friendly sustainable energy devices; long duration, reduced size, high output power supplies; and technologies that reduce the load of the operator. Continue development of technologies supporting undersea and ground mobility. Evaluate and develop sensors across the electromagnetic spectrum to meet operational requirements. Based upon agreed technology maturity metrics, transfer successful projects into programs of record, and conduct field experimentations at various venues to facilitate technology insertion. Continue the integration of critical technologies focused on providing the dismounted special operator leap ahead capabilities via innovative collaborative processes. Begin initial effort for field prototype system incorporating technologies likely to transition to fielded systems. ***FY 2016 Plans:*** Continues to develop and insert technology into existing programs. Technologies include, but are not limited to reduced signature profiles; improved weapons, communications, command, and control systems, sensors, and situational awareness tools; lightweight armor and materials, alternative power systems, eco-friendly sustainable energy devices, long duration, reduced size, high output power supplies, and technologies that reduce the load of the operator. Continues development of technologies supporting undersea and ground mobility. Evaluates and develops sensors across the electromagnetic spectrum to meet operational requirements. Based upon agreed technology maturity metrics, transfers successful projects into programs of record, and conduct field experimentations at various venues to facilitate technology insertion. Continues the integration of critical technologies focused on providing the dismounted special operator leap-ahead capabilities via innovative collaborative processes. Begins initial effort for field prototype system incorporating technologies likely to transition to fielded systems.			
Title: Tagging, Tracking, and Locating Technologies (TTL) Sub-Project ***FY 2014 Accomplishments:*** Specific objectives, priorities, technical approaches, and potential operational applications are classified. Exploited and integrated recently-proven and emerging technologies for TTL and TTL-enabling systems. Continued projects toward maturity that are linked to the USSOCOM/DoD TTL Roadmap, which is updated via the JCS/J8-approved annual TTL QL-CBA. ***FY 2015 Plans:***	12.721	13.852	15.940

Exhibit R-2A, RDT&E Project Justification: PB 2016 United States Special Operations Command		Date: February 2015
Appropriation/Budget Activity 0400 / 3	**R-1 Program Element (Number/Name)** PE 1160402BB / *SOF Advanced Technology Development*	**Project (Number/Name)** S200 / *Advanced Technology Development*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2014	FY 2015	FY 2016
Specific objectives, priorities, technical approaches, and potential operational applications are classified. Exploit and integrate recently-proven and emerging technologies for TTL and TTL-enabling systems. Continue projects toward maturity that are linked to the USSOCOM/DoD TTL Roadmap, which is updated via the JCS/J8-approved annual TTL QL-CBA. ***FY 2016 Plans:*** Specific objectives, priorities, technical approaches, and potential operational applications are classified. Exploits and integrates recently-proven and emerging technologies for TTL and TTL-enabling systems. Continues projects toward maturity that are linked to the USSOCOM/DoD TTL Roadmap, which is updated via the JCS/J8-approved annual TTL QL-CBA. Increases focus on tactical sensors and enabling technologies in support of the special reconnaissance mission set.			
Title: National to Theater Transition ***FY 2014 Accomplishments:*** Conducted additional testing and evaluation required on various equipment items transitioned to the SOF Theater Forces. Several projects involving Scalable Effects Weapons, Maritime Platform Enhancements, and Operator Protection systems were successfully transitioned to Theater SOF Forces using these funds. In FY 2015 this program moved to the Engineering Analysis RDT&E project SF101.	1.613	-	-
Title: Classified Sub-Project ***FY 2014 Accomplishments:*** Details provided under separate cover. ***FY 2015 Plans:*** Details provided under separate cover. ***FY 2016 Plans:*** Details provided under separate cover.	1.043	5.645	5.627
Title: Signature Management Technology Demonstrator ***FY 2014 Accomplishments:*** Details provided under separate cover.	9.547	-	-
Title: High Speed Container Delivery System ***FY 2014 Accomplishments:*** Completed flight testing and certification of High Speed Container Delivery System for use on MC-130J aircraft.	0.375	-	-
Accomplishments/Planned Programs Subtotals	38.736	39.515	45.137

Exhibit R-2A, RDT&E Project Justification: PB 2016 United States Special Operations Command		Date: February 2015
Appropriation/Budget Activity 0400 / 3	**R-1 Program Element (Number/Name)** PE 1160402BB / *SOF Advanced Technology Development*	**Project (Number/Name)** S200 / *Advanced Technology Development*

C. Other Program Funding Summary ($ in Millions)

N/A

Remarks

D. Acquisition Strategy

N/A

E. Performance Metrics

N/A

Exhibit R-2A, RDT&E Project Justification: PB 2016 United States Special Operations Command			Date: February 2015
Appropriation/Budget Activity 0400 / 3	R-1 Program Element (Number/Name) PE 1160402BB / *SOF Advanced Technology Development*	Project (Number/Name) SF101 / *Engineering Analysis*	

COST ($ in Millions)	Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	Cost To Complete	Total Cost
SF101: *Engineering Analysis*	-	0.847	6.978	7.457	-	7.457	7.624	13.444	13.697	13.972	Continuing	Continuing

A. Mission Description and Budget Item Justification

This project provides a rapid response capability to support Special Operations Forces (SOF) platforms (ground, air and maritime) , Unmanned Aerial Vehicle (UAV) payload sensors and soldier systems. The purpose is to correct system deficiencies, improve asset life, and enhance mission capability through the means of feasibility studies, analysis of alternatives, pre-developmental risk reduction studies, and engineering analyses. This project provides the engineering required to improve the design and performance integrity of the SOF platforms, UAV payload sensors and soldier support systems, sub-systems, equipment, and embedded computer software as they relate to the maintenance, overhaul, repair, quality assurance, modifications, materiel improvements, and service life extensions. This project also conducts risk reduction studies, analyses, and demonstrations to support emerging, time-critical weapons and sensor enhancements.

Platform Engineering Analysis: Funding supports engineering assessments and evaluation of technology, manufacturing, and integration readiness in six distinct areas: 1) small Unmanned Aerial System (UAS) payloads; 2) air-to-ground interoperability; 3) mission suite architectures; 4) common sensor suites; 5) low-cost, high-load-out Special Operations Precision Guided Munitions (SOPGMs) and air-launched UAS; and 6) next generation Intelligence, Surveillance, and Reconnaissance (ISR) capabilities.

Soldier System Engineering Analysis: Funding supports engineering assessments and evaluation of technology feasibility, producibility, and integration readiness in the following areas: 1) next generation lightweight low-cost body armor and ballistic helmets 2) ballistic and laser variable light transmission protective eyewear 3) soldier worn sensors to assess ballistic and blast events as well as soldier health 4) next generation soldier worn load carriage systems 5) soldier worn head borne communications that provide greater situational awareness and hearing protection.

National to Theater Transition Engineering Analysis: Provides additional engineering analysis and testing required to transition items from national forces to theater forces.

B. Accomplishments/Planned Programs ($ in Millions)	FY 2014	FY 2015	FY 2016
Title: Platform Engineering Analysis	0.847	4.390	4.865
FY 2014 Accomplishments: Developed and adapted the government owned 3D Geographic Information Systems software to augment current full motion video (FMV) displays with geographic information and real-time intelligence overlays. Initial work showed the feasibility of its adaptation to UAVs. Developed SOF-unique fixed wing enterprise architectures of the current fleet and equipment. These Phase 1 activities culminated in the delivery of a SOF-unique fixed wing Operational View-1 architecture overview. Developed a quieter propeller for UAVs. Baselined existing propeller noise and began testing of quieter propellers.			
FY 2015 Plans:			

Exhibit R-2A, RDT&E Project Justification: PB 2016 United States Special Operations Command		Date: February 2015
Appropriation/Budget Activity 0400 / 3	**R-1 Program Element (Number/Name)** PE 1160402BB / *SOF Advanced Technology Development*	**Project (Number/Name)** SF101 / *Engineering Analysis*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2014	FY 2015	FY 2016
For small UAS payloads, identify, assess, and evaluate the risks/benefits of efforts to reduce the size, weight, and power of current capabilities to be integrated into Group I-III UAS. Air-to-ground interoperability efforts identify shortfalls and gaps in current SOF air-to-ground communications architecture and recommend and evaluate interoperability enhancements. For mission suite architectures, identify, assess, and evaluate open architecture approaches to reduce life-cycle costs, increase responsive integration of new capabilities, and increase competition. In the area of common sensor suites, assess and evaluate individual sensors and suites of sensors to optimize the commonality of sensors between our manned Intelligence, Surveillance, and Reconnaissance (ISR) fleet and our Group IV/V UAS. Identify low-cost and high load-out SOPGM and air-launched UAS commodities to reduce costs and provide force multipliers. Identify, assess, and evaluate risks/benefits/suitability of emerging ISR products and suites. This includes but not limited to: hyper-spectral imaging, moving target indication, Light Detection and Ranging (LIDAR), Signals Intelligence (SIGINT) and high definition Electro-Optical/Infrared (EO/IR) capabilities. ***FY 2016 Plans:*** For small UAS payloads, identifies, assesses, and evaluates the risks/benefits of efforts to reduce the size, weight, and power of current capabilities to be integrated into Group I-III UAS. Air-to-ground interoperability efforts identifies shortfalls and gaps in current SOF air-to-ground communications architecture and recommends and evaluates interoperability enhancements. For mission suite architectures, identifies, assesses, and evaluates open architecture approaches to reduce life-cycle costs, increase responsive integration of new capabilities, and increase competition. In the area of common sensor suites, assesses and evaluates individual sensors and suites of sensors to optimize the commonality of sensors between manned ISR fleet and Group IV/V UAS. Identifies low-cost and high load-out SOPGM and air-launched UAS commodities to reduce costs and provide force multipliers. Identifies, assesses, and evaluates risks/benefits/suitability of emerging ISR products and suites. This includes but not limited to: hyper-spectral imaging, moving target indication, LIDAR, SIGINT and high definition EO/IR capabilities.			
Title: Soldier System Engineering Analysis	-	0.500	0.496
FY 2015 Plans: Continue to assess advanced body armor and ballistic helmet materials, concepts and prototypes to reduce soldier load and provide increased ballistic protection against the latest emerging threats. For eye protection, efforts will reduce the number of eyewear lenses needed and to have one lens that provides ballistic and laser protection, as well as automatically darkens/lightens based on combat conditions. Evaluate soldier worn sensors and heads up display for operability within soldier worn components and subsystems. Assess technology feasibility and integration readiness of next generation load carriage systems such as exoskeletons and load-assist devices. Assess proof of concepts and technology for next generation head borne communications systems that provide reliable and secure wireless transmission in all combat conditions, as well as provide 360 degree situational awareness and noise attenuation while increasing hearing protection. ***FY 2016 Plans:***			

Exhibit R-2A, RDT&E Project Justification: PB 2016 United States Special Operations Command		Date: February 2015
Appropriation/Budget Activity 0400 / 3	**R-1 Program Element (Number/Name)** PE 1160402BB / *SOF Advanced Technology Development*	**Project (Number/Name)** SF101 / *Engineering Analysis*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2014	FY 2015	FY 2016
Continues to assess advanced body armor and ballistic helmet materials, concepts and prototypes to reduce soldier load and provide increased ballistic protection against the latest emerging threats. Reduces the number of eyewear lenses needed and to have one lens that provides ballistic and laser protection as well as automatically darkens/lightens based on combat conditions. Evaluate soldier worn sensors and heads up displays for operability within soldier worn components and subsystems. Assess technologies feasibility and integration readiness of next generation load carriage systems such as exoskeletons and load-assist devices. Assesses proof of concepts and technologies for next generation head borne communications systems that provide reliable and secure wireless transmission in all combat conditions, as well as provide 360 degree situational awareness and noise attenuation while increasing hearing protection.			
Title: National to Theater Engineering Analysis ***FY 2015 Plans:*** Conduct additional testing and evaluation required on various equipment items such as communications, intelligence, weapons, and operator protection planned for transition to SOF Theater Forces. ***FY 2016 Plans:*** Conducts additional testing and evaluation required on various equipment items such as communications, intelligence, weapons, and operator protection planned for transition to SOF Theater Forces.	-	2.088	2.096
Accomplishments/Planned Programs Subtotals	0.847	6.978	7.457

C. Other Program Funding Summary ($ in Millions)

N/A

Remarks

D. Acquisition Strategy

N/A

E. Performance Metrics

N/A

Exhibit R-2A, RDT&E Project Justification: PB 2016 United States Special Operations Command			Date: February 2015
Appropriation/Budget Activity 0400 / 3	R-1 Program Element (Number/Name) PE 1160402BB / *SOF Advanced Technology Development*	Project (Number/Name) S225 / *Information and Broadcast Systems Adv Tech*	

COST ($ in Millions)	Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	Cost To Complete	Total Cost
S225: *Information and Broadcast Systems Adv Tech*	-	4.913	5.129	5.147	-	5.147	5.250	5.358	5.455	5.564	Continuing	Continuing

A. Mission Description and Budget Item Justification

This project conducts rapid prototyping of information and broadcast system technology. Includes cyber capabilities that predict the best media channels to reach potential target audiences, data mining and information collections tools, propaganda and social behavior analytical tools, cultural analysis tool sets and emerging technologies that support the planning and analytical needs for the Military Information Support Operations (MISO) forces. It provides a means for demonstrating and evaluating the utility of emerging/advanced technologies in as realistic an operational environment as possible by SOF users. This project integrates efforts and conducts technology demonstrations in conjunction with joint experiments and other assessment events and performs market research on emerging technologies that support all phases of MISO. Evaluation results are included in a transition package, which assists in the initiation of or insertion into an acquisition program. The project also addresses unique, joint special mission or area-specific needs. Seeks technologies that will transform current MISO capabilities through two major objectives: 1) Exploit technologies capable of disseminating products to reach target audiences across a variety of media to include audiences in denied areas. 2) Automate and improve MISO planning and analytical capability through technologies that are integrated into SOF planning systems (Cultural Analysis, Targeting, Theme Development, Media & Product Selection, Distribution & Dissemination, and Measures of Effectiveness). Develops software applications that increases the efficiency and shortens the timeline to get MISO dissemination packages approved. Develops hardware/software tools that facilitate the collaboration and sharing of information and other critical data.

Broadcast and Dissemination Modernization. This initiative will initiate and continue development of emergent technologies available in the marketplace to transform and modernize planning, analysis, development, broadcast, distribution, dissemination, and feedback capabilities for MISO forces. This initiative will also continue development of appropriate emerging technologies initially identified by Advance Technology Demonstrations and Joint Capability Technology Demonstrations to transition to acquisition programs. Technologies include: multi-frequency broadcast systems; digital broadcast capabilities; remote controlled electronic paper; near-real-time command and control of unattended systems, especially in denied areas; focused/beam speaker sound technologies; visual projection technologies; advanced commercial broadcast technologies including amplitude modulation and frequency modulation radio transmitters and antenna; television transmitter and antenna systems; internet and telephony dissemination and broadcast systems; technologies capable of long-loiter broadcast and delivery in denied and permissive environment; and technologies that automate and improve planning and analytical capability through integrated capabilities.

B. Accomplishments/Planned Programs ($ in Millions)	FY 2014	FY 2015	FY 2016
Title: Broadcast and Dissemination Modernization	4.913	5.129	5.147
FY 2014 Accomplishments: Continued to perform engineering studies, development, and demonstrations of planning, analysis, distribution, and broadcast capabilities.			
FY 2015 Plans:			

Exhibit R-2A, RDT&E Project Justification: PB 2016 United States Special Operations Command		Date: February 2015
Appropriation/Budget Activity 0400 / 3	**R-1 Program Element (Number/Name)** PE 1160402BB / *SOF Advanced Technology Development*	**Project (Number/Name)** S225 / *Information and Broadcast Systems Adv Tech*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2014	FY 2015	FY 2016
Continue to perform engineering studies, development, and demonstrations of planning, analysis, distribution, and broadcast capabilities. ***FY 2016 Plans:*** Continues to perform engineering studies, development, and demonstrations of planning, analysis, distribution, and broadcast capabilities.			
Accomplishments/Planned Programs Subtotals	4.913	5.129	5.147

C. Other Program Funding Summary ($ in Millions)

N/A

Remarks

D. Acquisition Strategy

N/A

E. Performance Metrics

N/A

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Exhibit R-2, RDT&E Budget Item Justification: PB 2016 United States Special Operations Command	Date: February 2015
Appropriation/Budget Activity 0400: *Research, Development, Test & Evaluation, Defense-Wide* / BA 7: *Operational Systems Development*	**R-1 Program Element (Number/Name)** PE 0304210BB / *Special Applications for Contingencies*

COST ($ in Millions)	Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	Cost To Complete	Total Cost
Total Program Element	215.107	15.150	15.794	65.060	-	65.060	20.037	20.695	20.666	21.080	Continuing	Continuing
9999: *Special Applications for Contingencies*	215.107	15.150	15.794	65.060	-	65.060	20.037	20.695	20.666	21.080	Continuing	Continuing

A. Mission Description and Budget Item Justification

Beginning in FY2015, this program element is part of the Military Intelligence Program. This program element develops and deploys special capabilities to perform intelligence, surveillance, and reconnaissance for deployed Special Operations Forces (SOF) using non-traditional means. It provides a mechanism for SOF user combat evaluation of emerging sensor technologies. Special Applications for Contingencies (SAFC) applies focused Research & Development (R&D) for relatively low cost solutions to provide remotely controlled system emplacement and data exfiltration from denied areas. This program also specifically addresses short lead-time contingency planning requirements where focused R&D will allow for test and evaluation of leading edge solutions to emergent problem sets.

B. Program Change Summary ($ in Millions)	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total
Previous President's Budget	15.150	19.294	19.601	-	19.601
Current President's Budget	15.150	15.794	65.060	-	65.060
Total Adjustments	-	-3.500	45.459	-	45.459
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-3.500			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-	-			
• Other	-	-	45.459	-	45.459

Change Summary Explanation

Funding:

FY 2014: None.

FY 2015: This program element was reduced due to a Congressional Directed Reduction of $3.500 million to SAFC program.

FY 2016: Net increase of $45.459 is due to an increase to fund development of a classified project ($45.600 million) and a Departmental economic assumption decrease (-$0.141 million). Classified project details can be provided under separate cover.

Exhibit R-2, RDT&E Budget Item Justification: PB 2016 United States Special Operations Command	Date: February 2015
Appropriation/Budget Activity 0400: *Research, Development, Test & Evaluation, Defense-Wide* / BA 7: *Operational Systems Development*	**R-1 Program Element (Number/Name)** PE 0304210BB / *Special Applications for Contingencies*

Schedule: None.

Technical: None.

Exhibit R-2A, RDT&E Project Justification: PB 2016 United States Special Operations Command			Date: February 2015
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 0304210BB / *Special Applications for Contingencies*	**Project (Number/Name)** 9999 / *Special Applications for Contingencies*	

COST ($ in Millions)	Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	Cost To Complete	Total Cost
9999: *Special Applications for Contingencies*	215.107	15.150	15.794	65.060	-	65.060	20.037	20.695	20.666	21.080	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

Beginning in FY 2015, this project is part of the Military Intelligence Program. This project develops and deploys special capabilities to perform intelligence, surveillance, and reconnaissance (ISR) for deployed Special Operations Forces (SOF) using non-traditional means. It provides a mechanism for SOF user combat evaluation of emerging sensor technologies. Special Applications for Contingencies (SAFC) applies focused Research and Development (R&D) for relatively low cost solutions to provide remotely controlled system emplacement and data exfiltration. This program also specifically addresses short lead-time contingency planning requirements where focused R&D will allow for test and evaluation of leading edge solutions to emergent problem sets.

B. Accomplishments/Planned Programs ($ in Millions)	FY 2014	FY 2015	FY 2016
Title: SAFC	15.150	15.794	19.460
FY 2014 Accomplishments: Continued development and combat evaluation of selected sensor delivery platforms and mounted or deliverable ISR capabilities for global contingencies including short notice requirements. Continued to evaluate unique sensor technologies, persistent stare and quick reaction systems.			
FY 2015 Plans: Continue development and combat evaluation of selected sensor delivery platforms and mounted or deliverable ISR capabilities for global contingencies including short notice requirements. Continue to evaluate unique sensor technologies, persistent stare and quick reaction systems.			
FY 2016 Plans: Continues development and combat evaluation of selected sensor delivery platforms and mounted or deliverable ISR capabilities for global contingencies including short notice requirements. Continues to evaluate unique sensor technologies, persistent stare and quick reaction systems.			
Title: Classified Program	-	-	45.600
FY 2016 Plans: This program is an FY 2016 new start. Additional details can be provided under separate cover.			
Accomplishments/Planned Programs Subtotals	15.150	15.794	65.060

Exhibit R-2A, RDT&E Project Justification: PB 2016 United States Special Operations Command			Date: February 2015
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 0304210BB / *Special Applications for Contingencies*	**Project (Number/Name)** 9999 / *Special Applications for Contingencies*	

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	Cost To Complete	Total Cost
• PROC1: *Small Tactical Unmanned Aerial Systems*	8.166	1.500	1.514	-	1.514	1.537	1.560	1.590	1.621	Continuing	Continuing

Remarks

D. Acquisition Strategy

SAFC acquisition strategy is evolutionary and spiral-based for technology insertion and low volume procurement. As a non-standard DoD acquisition program, it allows sensor capability for maximum flexibility to respond to quickly emerging, short lead time, contingency based requirements.

E. Performance Metrics

N/A

Exhibit R-3, RDT&E Project Cost Analysis: PB 2016 United States Special Operations Command		Date: February 2015
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 0304210BB / *Special Applications for Contingencies*	**Project (Number/Name)** 9999 / *Special Applications for Contingencies*

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2014 Cost	FY 2014 Award Date	FY 2015 Cost	FY 2015 Award Date	FY 2016 Base Cost	FY 2016 Base Award Date	FY 2016 OCO Cost	FY 2016 OCO Award Date	FY 2016 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Intelligence, Surveillance, and Reconnaissance Sensor and Networking Development	MIPR	Various : Various	76.194	15.150	Aug 2014	15.794	Aug 2015	19.460	Aug 2016	-		19.460	Continuing	Continuing	-
Classified Program	SS/ Various	Various : Various	-	-		-		45.600	Feb 2016	-		45.600	-	45.600	-
Prior Year Funding	MIPR	Various : Various	138.913	-		-		-		-		-	-	138.913	-
		Subtotal	215.107	15.150		15.794		65.060		-		65.060	-	-	-

	Prior Years	FY 2014		FY 2015		FY 2016 Base		FY 2016 OCO		FY 2016 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	215.107	15.150		15.794		65.060		-		65.060	-	-	-

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2016 United States Special Operations Command		Date: February 2015
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 0304210BB / *Special Applications for Contingencies*	**Project (Number/Name)** 9999 / *Special Applications for Contingencies*

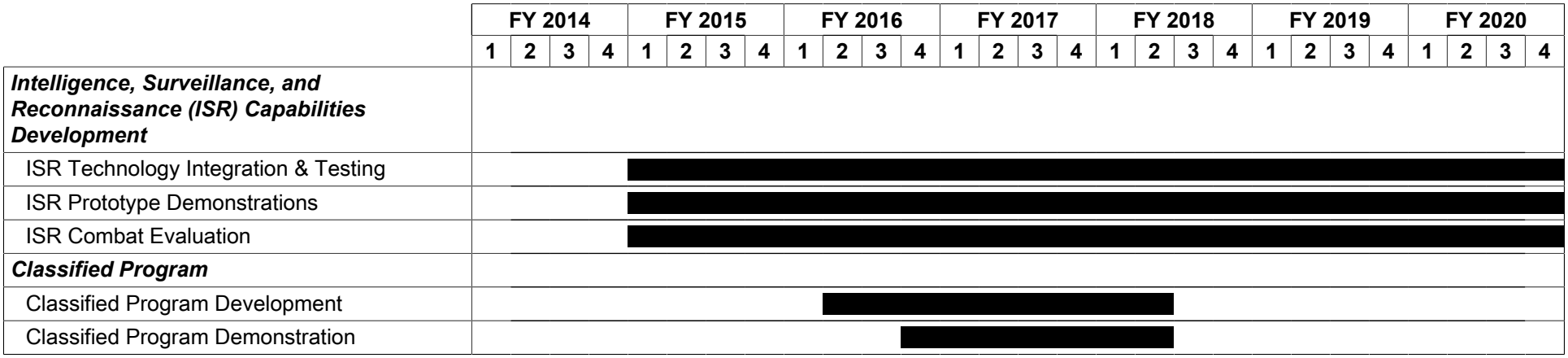

Exhibit R-4A, RDT&E Schedule Details: PB 2016 United States Special Operations Command		Date: February 2015
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 0304210BB / *Special Applications for Contingencies*	**Project (Number/Name)** 9999 / *Special Applications for Contingencies*

Schedule Details

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
Intelligence, Surveillance, and Reconnaissance (ISR) Capabilities Development				
ISR Technology Integration & Testing	1	2015	4	2020
ISR Prototype Demonstrations	1	2015	4	2020
ISR Combat Evaluation	1	2015	4	2020
Classified Program				
Classified Program Development	2	2016	2	2018
Classified Program Demonstration	4	2016	2	2018

Note

Additional details can be provided under separate cover.

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Exhibit R-2, RDT&E Budget Item Justification: PB 2016 United States Special Operations Command	Date: February 2015
Appropriation/Budget Activity 0400: *Research, Development, Test & Evaluation, Defense-Wide* / BA 7: *Operational Systems Development*	**R-1 Program Element (Number/Name)** PE 0305208BB / *Distributed Common Ground/Surface Systems*

COST ($ in Millions)	Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	Cost To Complete	Total Cost
Total Program Element	21.052	5.195	5.286	5.302	-	5.302	5.456	5.540	6.395	6.502	Continuing	Continuing
S400A: *Distributed Common Ground/Surface Systems*	21.052	5.195	5.286	5.302	-	5.302	5.456	5.540	6.395	6.502	Continuing	Continuing

A. Mission Description and Budget Item Justification

This program element is part of the Military Intelligence Program (MIP) that provides for the identification, development, and testing of the Distributed Common Ground/ Surface System Special Operations Forces (DCGS-SOF). The mission tailored infrastructure interconnects the warfighter and sensor data to find and fix enemy combatants and/or terrorists. The DCGS-SOF program is a network-enabled, interoperable construct allowing continual, unimpeded sharing of intelligence data, information and services within SOF and between the Services, other national intelligence agencies, combatant commands and Multi-National partners in support of a Joint Task Force. It connects the SOF warfighter with essential intelligence information and provides situational awareness information to SOF leadership at all echelons. The primary functions of DCGS-SOF are to conduct processing, exploitation and dissemination (PED) for all SOF Intelligence Surveillance and Reconnaissance (ISR) sensors, permit the collection of SOF data from collection sensors and intelligence databases, share across the DCGS Integration Backbone and provide timely, tailored, all-source, fused intelligence reporting to the SOF warfighter. This program will employ non-development commercial and government off-the-shelf hardware and software and will leverage from existing technology to the greatest degree possible.

B. Program Change Summary ($ in Millions)	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total
Previous President's Budget	5.195	5.286	5.340	-	5.340
Current President's Budget	5.195	5.286	5.302	-	5.302
Total Adjustments	-	-	-0.038	-	-0.038
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-	-			
• Departmental Economic Assumption	-	-	-0.038	-	-0.038

Change Summary Explanation

Funding:

FY 2014: None.

Exhibit R-2, RDT&E Budget Item Justification: PB 2016 United States Special Operations Command	Date: February 2015
Appropriation/Budget Activity 0400: *Research, Development, Test & Evaluation, Defense-Wide I* BA 7: *Operational Systems Development*	**R-1 Program Element (Number/Name)** PE 0305208BB *I Distributed Common Ground/Surface Systems*

FY 2015: None.

FY 2016: Decrease of -$0.038 million is due to Departmental economic assumption decrease.

Schedule: None.

Technical: None.

Exhibit R-2A, RDT&E Project Justification: PB 2016 United States Special Operations Command			Date: February 2015
Appropriation/Budget Activity 0400 / 7	R-1 Program Element (Number/Name) PE 0305208BB / *Distributed Common Ground/Surface Systems*	Project (Number/Name) S400A / *Distributed Common Ground/ Surface Systems*	

COST ($ in Millions)	Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	Cost To Complete	Total Cost
S400A: *Distributed Common Ground/Surface Systems*	21.052	5.195	5.286	5.302	-	5.302	5.456	5.540	6.395	6.502	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

This project is part of the Military intelligence Program (MIP) that provides for the identification, development, and testing of the Distributed Common Ground/Surface System Special Operations Forces (DCGS-SOF). The mission tailored infrastructure interconnects the warfighter and sensor data to find and fix enemy combatants and/or terrorists. The DCGS-SOF program is a network-enabled, interoperable construct allowing continual, unimpeded sharing of intelligence data, information and services within SOF and between the Services, other national intelligence agencies, combatant commands and Multi-National partners in support of a Joint Task Force. It connects the SOF warfighter with essential intelligence information and provides situational awareness information to SOF leadership at all echelons. The primary functions of DCGS-SOF are to conduct processing, exploitation and dissemination (PED) for all SOF Intelligence Surveillance and Reconnaissance (ISR) sensors, permit the collection of SOF data from collection sensors and intelligence databases, share across the DCGS Integration Backbone and provide timely, tailored, all-source, fused intelligence reporting to the SOF warfighter. This program will employ non-development commercial and government off-the-shelf hardware and software and will leverage from existing technology to the greatest degree possible.

B. Accomplishments/Planned Programs ($ in Millions)	FY 2014	FY 2015	FY 2016
Title: DCGS	5.195	5.286	5.302
FY 2014 Accomplishments: Integrated emerging technologies and capabilities for all source information fusion and initial integration of technology to enable disconnected operations into the DCGS-SOF baseline, continued test and evaluation of these technologies, established a standing user working group to assist in the design and development of a new User Interface (UI). Began initial transition of legacy capability into DCGS-SOF baseline, participated in SOCOM's Trident Spectre demonstration, NATO Unified Vision 14, OSDI's Enterprise Challenge and conducted DCG-SOF limited objective events.			
FY 2015 Plans: Continue to integrate emerging technologies and capabilities for all source information fusion, continue integration of technology to enable disconnected operations into the DCGS-SOF baseline, continue UI functionality and capability upgrades, continue test and evaluation of these technologies, continue transition effort of legacy capability, continue DCGS-SOF limited objective events, and participate in Trident Spectre and Enterprise Challenge demonstrations.			
FY 2016 Plans: Continues to integrate emerging technologies and capabilities for all source information fusion, continues integration of technology to enable disconnected operations into the DCGS-SOF baseline, continues test and evaluation of these technologies, final			

Exhibit R-2A, RDT&E Project Justification: PB 2016 United States Special Operations Command		Date: February 2015
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 0305208BB / *Distributed Common Ground/Surface Systems*	**Project (Number/Name)** S400A / *Distributed Common Ground/ Surface Systems*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2014	FY 2015	FY 2016
transition effort of legacy capability, continues DCGS-SOF limited objective events, Trident Sectre participation, Unified Vision 16, and Enterprise Challenge demonstrations.			
Accomplishments/Planned Programs Subtotals	5.195	5.286	5.302

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	Cost To Complete	Total Cost
• PROC1: *Distributed Common Ground/Surface System*	14.906	17.323	14.964	-	14.964	17.491	13.094	12.775	13.139	Continuing	Continuing

Remarks

D. Acquisition Strategy

• DCGS-SOF will partner within DOD and with other government agencies to integrate mature technologies into the SOF information enterprise and enable more agile access to and sharing of data and services to meet SOF-peculiar documented requirements. The technology will allow for seamless integration with DOD, interagency, and coalition ISR tactical PED systems. The DCGS-SOF program office employs an agile development process with capability insertions into the development baseline for assessment and future deployment into the operational baseline. All development requirements are prioritized through the DCGS Requirements Working Group (DRWG) chaired by J2. Once approved the requirements are evaluated and scheduled by engineering. Using this methodology allows capabilities to be inserted in a fast and agile manner based on user requirements and priorities. All evolutionary technology insertions (ETIs) in the R-4 schedule are based on current program office projections. If requirement priorities change based on the DRWG, the ETI and version capabilities identified may change.

E. Performance Metrics

N/A

Exhibit R-3, RDT&E Project Cost Analysis: PB 2016 United States Special Operations Command			Date: February 2015
Appropriation/Budget Activity 0400 / 7	R-1 Program Element (Number/Name) PE 0305208BB / *Distributed Common Ground/Surface Systems*	Project (Number/Name) S400A / *Distributed Common Ground/ Surface Systems*	

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2014 Cost	FY 2014 Award Date	FY 2015 Cost	FY 2015 Award Date	FY 2016 Base Cost	FY 2016 Base Award Date	FY 2016 OCO Cost	FY 2016 OCO Award Date	FY 2016 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Distributed Common Ground System (DCGS) Capabilities Modernization	Various	Various : Various	11.433	2.050	Jan 2014	0.750	Jan 2015	0.728	Jan 2016	-		0.728	Continuing	Continuing	-
Development and Integration	C/FFP	SITEC : Various	0.690	1.085	Dec 2013	1.959	Dec 2014	1.995	Mar 2016	-		1.995	Continuing	Continuing	-
Independent Verification and Validation	MIPR	MITRE : Bedford, MA	0.547	0.280	Oct 2013	0.278	Oct 2014	0.280	Oct 2015	-		0.280	Continuing	Continuing	-
Prior Year Funding - Completed Efforts	Various	Various : Various	1.788	-		-		-		-		-	-	1.788	-
		Subtotal	14.458	3.415		2.987		3.003		-		3.003	-	-	-

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2014 Cost	FY 2014 Award Date	FY 2015 Cost	FY 2015 Award Date	FY 2016 Base Cost	FY 2016 Base Award Date	FY 2016 OCO Cost	FY 2016 OCO Award Date	FY 2016 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
DCGS Support	C/FFP	SITEC : Various	0.914	0.350	Dec 2013	0.883	Dec 2014	0.900	Mar 2016	-		0.900	Continuing	Continuing	-
Prior Year Funding - Completed Efforts	Various	Various : Various	0.576	-		-		-		-		-	-	0.576	-
		Subtotal	1.490	0.350		0.883		0.900		-		0.900	-	-	-

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2014 Cost	FY 2014 Award Date	FY 2015 Cost	FY 2015 Award Date	FY 2016 Base Cost	FY 2016 Base Award Date	FY 2016 OCO Cost	FY 2016 OCO Award Date	FY 2016 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
DCGS Test and Evaluation	MIPR	SPAWAR : Charleston, SC	1.210	0.230	Oct 2013	0.234	Oct 2014	0.239	Oct 2015	-		0.239	Continuing	Continuing	-
DCGS Independent Verification and Validation	MIPR	MITRE : Bedford, MA	1.702	0.280	Oct 2013	0.278	Oct 2014	0.280	Oct 2015	-		0.280	Continuing	Continuing	-
Interoperability Support	MIPR	JITC : Ft Huachuca, AZ	0.712	0.320	Jan 2014	0.177	Jan 2015	0.180	Jan 2016	-		0.180	Continuing	Continuing	-
Interoperability Testing	C/FFP	SITEC : Various	1.480	0.600	Dec 2013	0.727	Dec 2014	0.700	Mar 2016	-		0.700	Continuing	Continuing	-

Exhibit R-3, RDT&E Project Cost Analysis: PB 2016 United States Special Operations Command		Date: February 2015
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 0305208BB / *Distributed Common Ground/Surface Systems*	**Project (Number/Name)** S400A / *Distributed Common Ground/ Surface Systems*

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2014 Cost	FY 2014 Award Date	FY 2015 Cost	FY 2015 Award Date	FY 2016 Base Cost	FY 2016 Base Award Date	FY 2016 OCO Cost	FY 2016 OCO Award Date	FY 2016 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
		Subtotal	5.104	1.430		1.416		1.399		-		1.399	-	-	-

	Prior Years	FY 2014		FY 2015		FY 2016 Base		FY 2016 OCO		FY 2016 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	21.052	5.195		5.286		5.302		-		5.302	-	-	-

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2016 United States Special Operations Command		Date: February 2015
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 0305208BB / *Distributed Common Ground/Surface Systems*	**Project (Number/Name)** S400A / *Distributed Common Ground/ Surface Systems*

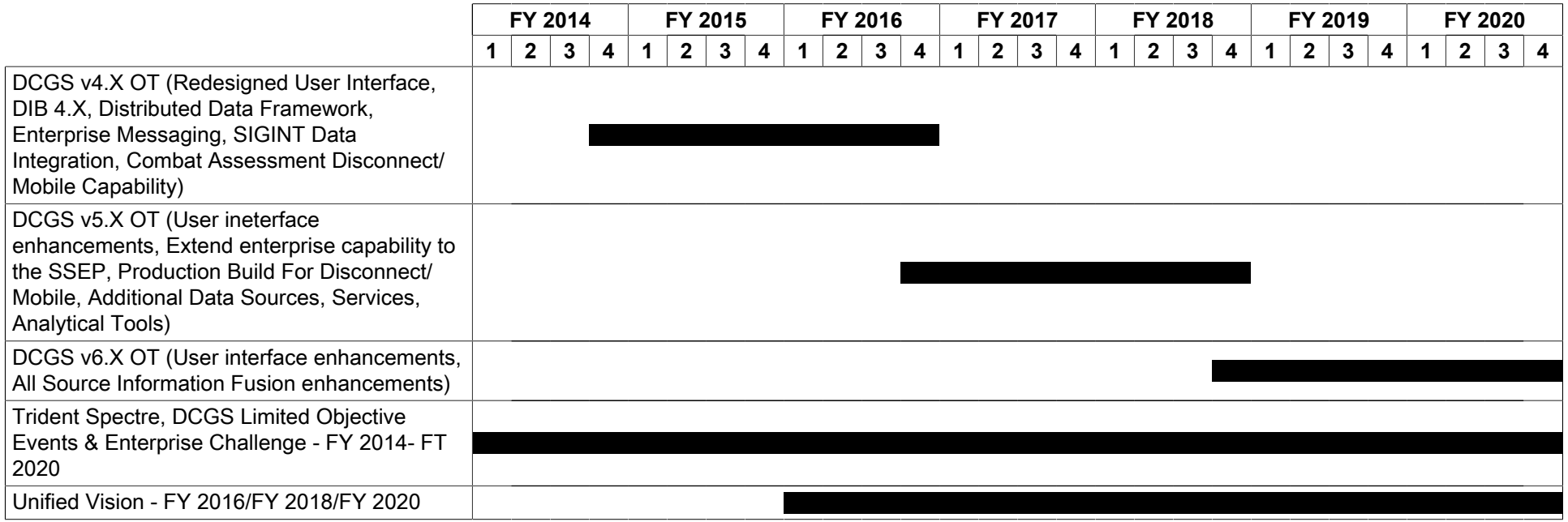

Exhibit R-4A, RDT&E Schedule Details: PB 2016 United States Special Operations Command		Date: February 2015
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 0305208BB / *Distributed Common Ground/Surface Systems*	**Project (Number/Name)** S400A / *Distributed Common Ground/ Surface Systems*

Schedule Details

	Start		End	
Events	**Quarter**	**Year**	**Quarter**	**Year**
DCGS v4.X OT (Redesigned User Interface, DIB 4.X, Distributed Data Framework, Enterprise Messaging, SIGINT Data Integration, Combat Assessment Disconnect/Mobile Capability)	4	2014	4	2016
DCGS v5.X OT (User ineterface enhancements, Extend enterprise capability to the SSEP, Production Build For Disconnect/Mobile, Additional Data Sources, Services, Analytical Tools)	4	2016	4	2018
DCGS v6.X OT (User interface enhancements, All Source Information Fusion enhancements)	4	2018	4	2020
Trident Spectre, DCGS Limited Objective Events & Enterprise Challenge - FY 2014- FT 2020	1	2014	4	2020
Unified Vision - FY 2016/FY 2018/FY 2020	1	2016	4	2020

Exhibit R-2, RDT&E Budget Item Justification: PB 2016 United States Special Operations Command	Date: February 2015
Appropriation/Budget Activity 0400: *Research, Development, Test & Evaluation, Defense-Wide* / BA 7: *Operational Systems Development*	**R-1 Program Element (Number/Name)** PE 0305219BB / *MQ-1 Unmanned Aerial Vehicle (UAV)*

COST ($ in Millions)	Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	Cost To Complete	Total Cost
Total Program Element	33.087	0.641	-	-	-	-	0.263	0.126	0.178	0.104	Continuing	Continuing
S400B: *MQ-1 Unmanned Aerial Vehicle (UAV)*	33.087	0.641	-	-	-	-	0.263	0.126	0.178	0.104	Continuing	Continuing

A. Mission Description and Budget Item Justification

This program element is part of the Military Intelligence Program. This program element identifies, develops, integrates, and tests Special Operations Forces (SOF) - unique mission kits, mission payloads, weapons, and modifications on MQ-1 Unmanned Aerial Vehicles (UAVs), ground control stations, and training systems as a component of the Medium Altitude Long Endurance Tactical Program. USSOCOM is designated as the DoD lead for planning, synchronizing, and as directed, executing Overseas Contingency Operations against terrorist networks. USSOCOM requires the capability to find, fix, finish, exploit, and analyze time-sensitive high-value targets. These targets can often only be identified with patient collection of information and require rapid, decisive action during the short periods in which they present themselves. This program element addresses the primary areas of Intelligence, Surveillance, Reconnaissance, Target (ISR&T) Acquisition, and Strike.

B. Program Change Summary ($ in Millions)	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total
Previous President's Budget	0.641	-	-	-	-
Current President's Budget	0.641	-	-	-	-
Total Adjustments	-	-	-	-	-
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-	-			

Change Summary Explanation

Funding:

FY2014: None.

FY2015: None.

FY2016: None.

Exhibit R-2, RDT&E Budget Item Justification: PB 2016 United States Special Operations Command	Date: February 2015
Appropriation/Budget Activity 0400: *Research, Development, Test & Evaluation, Defense-Wide I* BA 7: *Operational Systems Development*	**R-1 Program Element (Number/Name)** PE 0305219BB *I MQ-1 Unmanned Aerial Vehicle (UAV)*

Schedule: None.

Technical: None.

Exhibit R-2A, RDT&E Project Justification: PB 2016 United States Special Operations Command			Date: February 2015
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 0305219BB / *MQ-1 Unmanned Aerial Vehicle (UAV)*	**Project (Number/Name)** S400B / *MQ-1 Unmanned Aerial Vehicle (UAV)*	

COST ($ in Millions)	Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	Cost To Complete	Total Cost
S400B: *MQ-1 Unmanned Aerial Vehicle (UAV)*	33.087	0.641	-	-	-	-	0.263	0.126	0.178	0.104	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

This project is part of the military intelligence program. This program element identifies, develops, integrates, and tests Special Operations Forces (SOF)-unique mission kits, mission payloads, weapons, and modifications on MQ-1 Unmanned Aerial Vehicles (UAVs), ground control stations, and training systems. As the supported combatant command, USSOCOM has been designated as the DoD lead for planning, synchronizing, and as directed, executing global operations against terrorist networks. USSOCOM requires the capability to find, fix, finish, exploit, and analyze time-sensitive high-value targets. These targets can often only be identified with patient collection of information and require rapid, decisive action during the short periods in which they present themselves. This project addresses the primary areas of Intelligence, Surveillance, Reconnaissance, Target (ISR&T) Acquisition, and Strike.

B. Accomplishments/Planned Programs ($ in Millions)	FY 2014	FY 2015	FY 2016
Title: MQ-1 UAV	0.641	-	-
FY 2014 Accomplishments: Completed development, testing, and integration of SOF-unique mission kits, mission payloads, weapons, and modifications on MQ-1 UAVs and ground control stations.			
Accomplishments/Planned Programs Subtotals	0.641	-	-

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	Cost To Complete	Total Cost
• PROC/1108MQ1: *MQ-1 Unmanned Aerial Vehicle*	2.122	-	1.934	-	1.934	2.471	-	-	-	-	6.527

Remarks

D. Acquisition Strategy

MQ-1 UAV is an evolutionary acquisition program that provides improvements to SOF MQ-1 UAVs, ground control stations, and training systems including mission kits, mission payloads, aircraft weapons integration and modifications to increase the ISR&T Acquisition and Strike capabilities of SOF.

E. Performance Metrics

N/A

Exhibit R-3, RDT&E Project Cost Analysis: PB 2016 United States Special Operations Command			Date: February 2015
Appropriation/Budget Activity 0400 / 7	R-1 Program Element (Number/Name) PE 0305219BB / *MQ-1 Unmanned Aerial Vehicle (UAV)*	Project (Number/Name) S400B / *MQ-1 Unmanned Aerial Vehicle (UAV)*	

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2014 Cost	FY 2014 Award Date	FY 2015 Cost	FY 2015 Award Date	FY 2016 Base Cost	FY 2016 Base Award Date	FY 2016 OCO Cost	FY 2016 OCO Award Date	FY 2016 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
MQ-1 UAVs and Ground Control Stations	C/Various	General Atomics Aeronautical Services : San Diego, CA	26.109	0.481	Mar 2014	-		-		-		-	-	26.590	-
		Subtotal	26.109	0.481		-		-		-		-	-	26.590	-

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2014 Cost	FY 2014 Award Date	FY 2015 Cost	FY 2015 Award Date	FY 2016 Base Cost	FY 2016 Base Award Date	FY 2016 OCO Cost	FY 2016 OCO Award Date	FY 2016 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
MQ-1 UAVs and Ground Control Stations	C/Various	General Atomics Aeronautical Services : San Diego, CA	6.330	0.160	Mar 2014	-		-		-		-	-	6.490	-
		Subtotal	6.330	0.160		-		-		-		-	-	6.490	-

Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2014 Cost	FY 2014 Award Date	FY 2015 Cost	FY 2015 Award Date	FY 2016 Base Cost	FY 2016 Base Award Date	FY 2016 OCO Cost	FY 2016 OCO Award Date	FY 2016 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Prior Year	C/Various	Various : Various	0.648	-		-		-		-		-	-	0.648	-
		Subtotal	0.648	-		-		-		-		-	-	0.648	-

	Prior Years	FY 2014 Cost	FY 2014 Award Date	FY 2015 Cost	FY 2015 Award Date	FY 2016 Base Cost	FY 2016 Base Award Date	FY 2016 OCO Cost	FY 2016 OCO Award Date	FY 2016 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	33.087	0.641		-		-		-		-	-	33.728	-

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2016 United States Special Operations Command		Date: February 2015
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 0305219BB / *MQ-1 Unmanned Aerial Vehicle (UAV)*	**Project (Number/Name)** S400B / *MQ-1 Unmanned Aerial Vehicle (UAV)*

	FY 2014				FY 2015				FY 2016				FY 2017				FY 2018				FY 2019				FY 2020			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
MQ-1 UAVs, Ground Control Stations, and Training Systems																												
Development, Integration and Test																												

Exhibit R-4A, RDT&E Schedule Details: PB 2016 United States Special Operations Command		Date: February 2015
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 0305219BB / *MQ-1 Unmanned Aerial Vehicle (UAV)*	**Project (Number/Name)** S400B / *MQ-1 Unmanned Aerial Vehicle (UAV)*

Schedule Details

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
MQ-1 UAVs, Ground Control Stations, and Training Systems				
Development, Integration and Test	2	2014	4	2015

Exhibit R-2, RDT&E Budget Item Justification: PB 2016 United States Special Operations Command	Date: February 2015
Appropriation/Budget Activity 0400: *Research, Development, Test & Evaluation, Defense-Wide* / BA 7: *Operational Systems Development*	**R-1 Program Element (Number/Name)** PE 1105219BB / *MQ-9 Unmanned Aerial Vehicle (UAV)*

COST ($ in Millions)	Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	Cost To Complete	Total Cost
Total Program Element	14.220	13.272	14.902	18.151	-	18.151	17.938	18.005	14.372	14.643	Continuing	Continuing
S851: *MQ-9 Unmanned Aerial Vehicle (UAV)*	14.220	13.272	14.902	18.151	-	18.151	17.938	18.005	14.372	14.643	Continuing	Continuing

A. Mission Description and Budget Item Justification

This program element identifies, develops, integrates, and tests Special Operations Forces (SOF)-unique mission kits, mission payloads, weapons, and modifications on MQ-9 Unmanned Aerial Vehicles (UAVs), ground control stations, and training systems as a component of the Medium Altitude Long Endurance Tactical program. USSOCOM is designated as the DoD lead for planning, synchronizing, and as directed, executing Overseas Contingency Operations (OCO) against terrorist networks. USSOCOM requires the capability to find, fix, finish, exploit, and analyze time-sensitive high-value targets. These targets can often only be identified with patient collection of information and require rapid, decisive action during the short periods in which they present themselves. This program element addresses the primary areas of Intelligence, Surveillance, Reconnaissance, and Target (ISR&T) Acquisition, and Strike.

B. Program Change Summary ($ in Millions)	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total
Previous President's Budget	13.272	9.702	19.203	-	19.203
Current President's Budget	13.272	14.902	18.151	-	18.151
Total Adjustments	-	5.200	-1.052	-	-1.052
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-	-			
• Other Adjustments	-	5.200	-1.052	-	-1.052

Change Summary Explanation

Funding:

FY 2014: None.

FY 2015: Increase of $5.200 million is due to a Congressional add of OCO funding for MQ-9 capability enhancements for SOF including mission kits, mission payloads, and modifications on MQ-9 UAVs, ground control stations and training systems.

Exhibit R-2, RDT&E Budget Item Justification: PB 2016 United States Special Operations Command	Date: February 2015
Appropriation/Budget Activity 0400: *Research, Development, Test & Evaluation, Defense-Wide I* BA 7: *Operational Systems Development*	**R-1 Program Element (Number/Name)** PE 1105219BB *I MQ-9 Unmanned Aerial Vehicle (UAV)*

FY 2016: Decrease of $1.052 million is due to a Departmental economic assumption decrease.

Schedule: None.

Technical: None.

Exhibit R-2A, RDT&E Project Justification: PB 2016 United States Special Operations Command			Date: February 2015
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 1105219BB / *MQ-9 Unmanned Aerial Vehicle (UAV)*	**Project (Number/Name)** S851 / *MQ-9 Unmanned Aerial Vehicle (UAV)*	

COST ($ in Millions)	Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	Cost To Complete	Total Cost
S851: *MQ-9 Unmanned Aerial Vehicle (UAV)*	14.220	13.272	14.902	18.151	-	18.151	17.938	18.005	14.372	14.643	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

This project identifies, develops, integrates, and tests Special Operations Forces (SOF) - unique mission kits, mission payloads, weapons, and modifications on MQ-9 Unmanned Aerial Vehicles (UAVs), ground control stations, and training systems. As the supported combatant command in Overseas Contingency Operations (OCO), USSOCOM requires the capability to find, fix, finish, exploit, and analyze time-sensitive high-value targets. These targets can often only be identified with patient collection of information and require rapid, decisive action during the short periods in which they present themselves. This project addresses the primary areas of ISR&T Acquisition and Strike. This project received OCO funding in FY 2015.

B. Accomplishments/Planned Programs ($ in Millions)	FY 2014	FY 2015	FY 2016
Title: MQ-9 UAV	13.272	14.902	18.151
FY 2014 Accomplishments: Development, testing, and completed integration of SOF unique mission kits, mission payloads, weapons and modifications on MQ-9 UAVs and ground control stations.			
FY 2015 Plans: Develop, test, and integrate SOF-unique mission kits, mission payloads, weapons, and modifications on MQ-9 UAVs, ground control stations, and training systems.			
FY 2016 Plans: Develops, tests, and integrates SOF-unique mission kits, mission payloads, weapons and modifications on MQ-9 UAVs, ground control stations, and training systems.			
Accomplishments/Planned Programs Subtotals	13.272	14.902	18.151

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	Cost To Complete	Total Cost
• 1108MQ9: *MQ-9 Unmanned Aerial Vehicle*	12.893	18.593	11.726	-	11.726	10.681	11.752	5.327	5.454	Continuing	Continuing

Remarks

Exhibit R-2A, RDT&E Project Justification: PB 2016 United States Special Operations Command		Date: February 2015
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 1105219BB / *MQ-9 Unmanned Aerial Vehicle (UAV)*	**Project (Number/Name)** S851 / *MQ-9 Unmanned Aerial Vehicle (UAV)*

D. Acquisition Strategy

MQ-9 Unmanned Aerial Vehicle (UAV) is an evolutionary acquisition program that identifies, develops, tests and integrates SOF-unique mission kits, mission payloads, weapons, and modifications on MQ-9 UAVs, ground control stations, and training systems to increase the ISR&T Acquisition and Strike capabilities of SOF. Proprietary issues with operational flight program software, sensor operating software, and aircraft modification considerations dictate sole source contracts.

E. Performance Metrics

N/A

Exhibit R-3, RDT&E Project Cost Analysis: PB 2016 United States Special Operations Command			Date: February 2015
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 1105219BB / *MQ-9 Unmanned Aerial Vehicle (UAV)*	**Project (Number/Name)** S851 / *MQ-9 Unmanned Aerial Vehicle (UAV)*	

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2014 Cost	FY 2014 Award Date	FY 2015 Cost	FY 2015 Award Date	FY 2016 Base Cost	FY 2016 Base Award Date	FY 2016 OCO Cost	FY 2016 OCO Award Date	FY 2016 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
MQ-9 UAVs and Ground Control Stations	SS/ Various	General Atomics Aeronautical Services : San Diego, CA	-	9.954	Jan 2015	7.277	Jun 2015	13.613	Jun 2016	-		13.613	Continuing	Continuing	-
MQ-9 UAVs and Ground Control Stations Overseas Contingency Operations (OCO)	SS/ Various	General Atomics Aeronautical Services : San Diego, CA	-	-		3.900	Jun 2015	-		-		-	-	3.900	-
		Subtotal	-	9.954		11.177		13.613		-		13.613	-	-	-

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2014 Cost	FY 2014 Award Date	FY 2015 Cost	FY 2015 Award Date	FY 2016 Base Cost	FY 2016 Base Award Date	FY 2016 OCO Cost	FY 2016 OCO Award Date	FY 2016 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
MQ-9 UAVs and Ground Control Stations	SS/ Various	General Atomics Aeronautical Services : San Diego, CA	14.220	3.318	Jun 2014	2.425	Jun 2015	4.538	Jun 2016	-		4.538	Continuing	Continuing	-
MQ-9 UAVs and Ground Control Stations Overseas Contingency Operations (OCO)	SS/ Various	General Atomics Aeronautical Services : San Diego, CA	-	-		1.300	Jun 2015	-		-		-	-	1.300	-
		Subtotal	14.220	3.318		3.725		4.538		-		4.538	-	-	-

	Prior Years	FY 2014		FY 2015		FY 2016 Base		FY 2016 OCO		FY 2016 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	14.220	13.272		14.902		18.151		-		18.151	-	-	-

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2016 United States Special Operations Command		Date: February 2015
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 1105219BB / *MQ-9 Unmanned Aerial Vehicle (UAV)*	**Project (Number/Name)** S851 / *MQ-9 Unmanned Aerial Vehicle (UAV)*

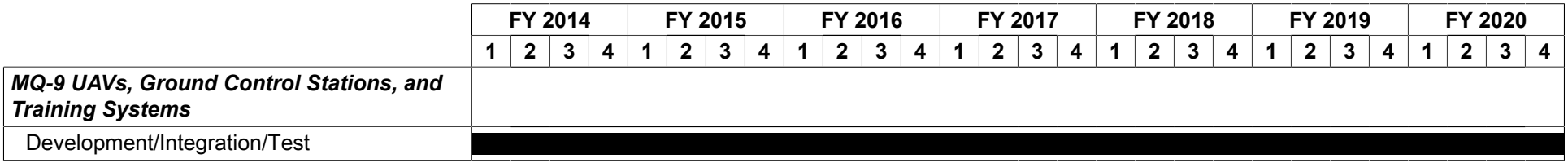

Exhibit R-4A, RDT&E Schedule Details: PB 2016 United States Special Operations Command		Date: February 2015
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 1105219BB / *MQ-9 Unmanned Aerial Vehicle (UAV)*	**Project (Number/Name)** S851 / *MQ-9 Unmanned Aerial Vehicle (UAV)*

Schedule Details

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
MQ-9 UAVs, Ground Control Stations, and Training Systems				
Development/Integration/Test	1	2014	4	2020

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Exhibit R-2, RDT&E Budget Item Justification: PB 2016 United States Special Operations Command	Date: February 2015
Appropriation/Budget Activity 0400: *Research, Development, Test & Evaluation, Defense-Wide* / BA 7: *Operational Systems Development*	**R-1 Program Element (Number/Name)** PE 1105232BB / *RQ-11 UAV*

COST ($ in Millions)	Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	Cost To Complete	Total Cost
Total Program Element	1.380	-	0.259	0.758	-	0.758	3.332	4.890	3.436	3.492	Continuing	Continuing
S853: *RQ-11 UAV*	1.380	-	0.259	0.758	-	0.758	3.332	4.890	3.436	3.492	Continuing	Continuing

A. Mission Description and Budget Item Justification

This program element is part of the Military Intelligence Program. Two programs are in this program element: Small Unmanned Aerial System (SUAS) and the Multi-mission Tactical Unmanned Aerial System (MTUAS). SUAS identifies, develops, integrates, and tests Special Operations Forces (SOF) unique mission kits, mission payloads, air vehicle enhancements, and modifications on the SUAS and related ground control stations. MTUAS identifies, develops, integrates, and tests Special Operations Forces (SOF) unique mission kits, mission payloads, air vehicle enhancements, and modifications on the MTUAS and related ground control stations.

USSOCOM has been designated as the DoD lead for planning, synchronizing, and as directed, executing global operations against terrorist networks and targets. USSOCOM requires the capability to find, fix, and finish time-sensitive high-value fixed and fleeting targets at the unit and team level without placing personnel and units in harm's way. These targets can often only be identified with patient collection of information and require rapid, decisive action during the short periods in which they present themselves. This line item addresses the primary areas of Intelligence, Surveillance, Reconnaissance, and Targeting (ISR&T) capabilities for SOF.

B. Program Change Summary ($ in Millions)	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total
Previous President's Budget	-	0.259	0.263	-	0.263
Current President's Budget	-	0.259	0.758	-	0.758
Total Adjustments	-	-	0.495	-	0.495
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-	-			
• Other Adjustments	-	-	0.495	-	0.495

Change Summary Explanation

Funding:

FY 2014: None.

FY 2015: None.

Exhibit R-2, RDT&E Budget Item Justification: PB 2016 United States Special Operations Command	Date: February 2015
Appropriation/Budget Activity 0400: *Research, Development, Test & Evaluation, Defense-Wide* / BA 7: *Operational Systems Development*	**R-1 Program Element (Number/Name)** PE 1105232BB / *RQ-11 UAV*

FY 2016: Net increase of $0.495 million is to support the development and testing of Signals Intelligence payloads for the MTUAS ($0.497 million) and a Departmental economic assumption decrease (-$0.002 million).

Schedule None.

Technical None.

Exhibit R-2A, RDT&E Project Justification: PB 2016 United States Special Operations Command			Date: February 2015
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 1105232BB / *RQ-11 UAV*	**Project (Number/Name)** S853 / *RQ-11 UAV*	

COST ($ in Millions)	Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	Cost To Complete	Total Cost
S853: *RQ-11 UAV*	1.380	-	0.259	0.758	-	0.758	3.332	4.890	3.436	3.492	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

This project is part of the Military Intelligence Program. Two programs are in this project: Small Unmanned Aerial System (SUAS) and the Multi-mission Tactical Unmanned Aerial System (MTUAS). SUAS identifies, develops, integrates, and tests Special Operations Forces (SOF)-unique mission kits, mission payloads, air vehicle enhancements, and modifications on the SUAS and related ground control stations. MTUAS identifies, develops, integrates, and tests Special Operations Forces (SOF) unique mission kits, mission payloads, air vehicle enhancements, and modifications on the MTUAS and related ground control stations. The current material solution for SUAS is the All Environment Capable Variant (AECV) of the Puma UAS. The current material solution for MTUAS is the Scan Eagle UAS.

USSOCOM has been designated as the DOD lead for planning, synchronizing, and as directed, executing global operations against terrorist networks and targets. USSOCOM requires the capability to find, fix, and finish time-sensitive high-value fixed and fleeting targets at the unit and team level without placing personnel and units in harm's way. These targets can often only be identified with patient collection of information and require rapid, decisive action during the short periods in which they present themselves. This line item addresses the primary areas of Intelligence, Surveillance, Reconnaissance, and Targeting (ISR&T) capabilities for SOF.

B. Accomplishments/Planned Programs ($ in Millions)	FY 2014	FY 2015	FY 2016
Title: SUAS ***FY 2015 Plans:*** Develop, integrate, and test SOF-unique mission kits, mission payloads, and modifications to the SUAS and ground control station, to include but not limited to; improved capabilities for geo-location, collection of push-to-talk, communications, specialized tagging, tracking, and locating, and enhanced communications relay. ***FY 2016 Plans:*** Continues to develop, integrate, and test SOF-unique mission kits, mission payloads, and modifications to the SUAS and ground control station, to include but not limited to; improved capabilities for geo-location, collection of push-to-talk, communications, specialized tagging, tracking, and locating, and enhanced communications relay and work to miniaturize previously developed payloads.	-	0.259	0.261
Title: MTUAS ***FY 2016 Plans:*** This is an FY 2016 new start. Develops, integrates, and tests SOF-unique mission kits, mission payloads, and modifications to the MTUAS and ground control station, to include but not limited to; signals intelligence gathering and geo-location.	-	-	0.497
Accomplishments/Planned Programs Subtotals	-	0.259	0.758

Exhibit R-2A, RDT&E Project Justification: PB 2016 United States Special Operations Command			Date: February 2015
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 1105232BB / *RQ-11 UAV*	**Project (Number/Name)** S853 / *RQ-11 UAV*	

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	Cost To Complete	Total Cost
• PROC/0809RQ11: *RQ-11 Unmanned Aerial Vehicle*	0.850	6.397	20.087	-	20.087	17.231	14.305	4.694	4.802	Continuing	Continuing

Remarks

D. Acquisition Strategy

The SUAS and MTUAS are evolutionary acquisition programs that deliver, integrate, and qualify SOF-unique mission kits, mission payloads, weapons, air vehicle enhancements, and ground control station upgrades. Contracting methods depend on the type of development effort. Competitive source selection will be conducted as much as possible. Proprietary considerations may direct some effort to the Original Equipment Manufacturer.

E. Performance Metrics

N/A

Exhibit R-3, RDT&E Project Cost Analysis: PB 2016 United States Special Operations Command			Date: February 2015
Appropriation/Budget Activity 0400 / 7	R-1 Program Element (Number/Name) PE 1105232BB / *RQ-11 UAV*	Project (Number/Name) S853 / *RQ-11 UAV*	

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2014 Cost	FY 2014 Award Date	FY 2015 Cost	FY 2015 Award Date	FY 2016 Base Cost	FY 2016 Base Award Date	FY 2016 OCO Cost	FY 2016 OCO Award Date	FY 2016 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Small Unmanned Aircraft System and Payloads	C/IDIQ	Various : Various	1.380	-		0.259	Mar 2015	0.261	Mar 2016	-		0.261	Continuing	Continuing	-
Multi-Mission Tactical Unmanned Aircraft System	C/TBD	Various : Various	-	-		-		0.497	Mar 2016	-		0.497	Continuing	Continuing	-
		Subtotal	1.380	-		0.259		0.758		-		0.758	-	-	-

	Prior Years	FY 2014		FY 2015		FY 2016 Base		FY 2016 OCO		FY 2016 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	1.380	-		0.259		0.758		-		0.758	-	-	-

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2016 United States Special Operations Command		Date: February 2015
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 1105232BB / *RQ-11 UAV*	**Project (Number/Name)** S853 / *RQ-11 UAV*

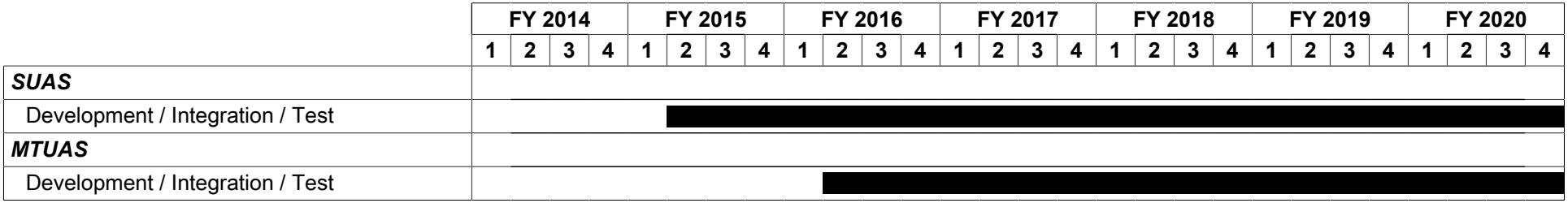

Exhibit R-4A, RDT&E Schedule Details: PB 2016 United States Special Operations Command		Date: February 2015
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 1105232BB / *RQ-11 UAV*	**Project (Number/Name)** S853 / *RQ-11 UAV*

Schedule Details

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
SUAS				
Development / Integration / Test	2	2015	4	2020
MTUAS				
Development / Integration / Test	2	2016	4	2020

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Exhibit R-2, RDT&E Budget Item Justification: PB 2016 United States Special Operations Command	Date: February 2015
Appropriation/Budget Activity 0400: *Research, Development, Test & Evaluation, Defense-Wide* / BA 7: *Operational Systems Development*	**R-1 Program Element (Number/Name)** PE 1160279BB / *Small Business Innovative Research*

COST ($ in Millions)	Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	Cost To Complete	Total Cost
Total Program Element	162.487	10.446	-	-	-	-	-	-	-	-	Continuing	Continuing
S050: *Small Business Innovative Research*	162.487	9.147	-	-	-	-	-	-	-	-	Continuing	Continuing
S051: *Small Business Technology Transfer*	0.000	1.299	-	-	-	-	-	-	-	-	Continuing	Continuing

A. Mission Description and Budget Item Justification

This program element consists of a highly competitive three-phase award system that provides qualified small business concerns with the opportunity to propose high quality innovative ideas that meet specific research and development needs of USSOCOM. Small Business Innovative Research (SBIR) is a result of the Small Business Development Act of 1992. It was enacted by Congress in Public Law 97-219, reenacted by Public Law 99-443, and reauthorized by the SBIR Program Reauthorization Act of 2012. Starting in FY 1994, the SBIR program was refocused toward dual use and defense reinvestment efforts. Phase I projects evaluate the scientific technical merit and feasibility of an idea. Phase II projects expand the results of, and further pursue, the developments of Phase I. Phase III is for commercialization of the results of Phase II and requires the use of private or non-SBIR federal funding. USSOCOM participates annually in the DoD Request for Proposal process. USSOCOM then awards its proposed SBIR projects. FY 2014 is the first year USSOCOM is participating in the Small Business Technology Transfer (STTR) program. The STTR goal is similar to the SBIR program, but the STTR program has the additional goal to expand public/private sector partnerships between small business and nonprofit U.S. research institutions.

B. Program Change Summary ($ in Millions)	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total
Previous President's Budget	10.446	-	-	-	-
Current President's Budget	10.446	-	-	-	-
Total Adjustments	-	-	-	-	-
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-	-			

Change Summary Explanation

Funding:

FY 2014: None.

Exhibit R-2, RDT&E Budget Item Justification: PB 2016 United States Special Operations Command	Date: February 2015
Appropriation/Budget Activity 0400: *Research, Development, Test & Evaluation, Defense-Wide I* BA 7: *Operational Systems Development*	**R-1 Program Element (Number/Name)** PE 1160279BB *I Small Business Innovative Research*

FY 2015: None.

FY 2016: None.

Schedule: None.

Technical: None.

Exhibit R-2A, RDT&E Project Justification: PB 2016 United States Special Operations Command			Date: February 2015
Appropriation/Budget Activity 0400 / 7	R-1 Program Element (Number/Name) PE 1160279BB / *Small Business Innovative Research*	Project (Number/Name) S050 / *Small Business Innovative Research*	

COST ($ in Millions)	Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	Cost To Complete	Total Cost
S050: *Small Business Innovative Research*	162.487	9.147	-	-	-	-	-	-	-	-	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

This project consists of a highly competitive three-phase award system that provides qualified small business concerns with the opportunity to propose high quality innovative ideas that meet specific research and development needs of USSOCOM. Small Business Innovative Research (SBIR) is a result of the Small Business Development Act of 1992. It was enacted by Congress in Public Law 97-219, reenacted by Public Law 99-443, and reauthorized by the SBIR Program Reauthorization Act of 2012. Starting in FY 1994, the SBIR program was refocused toward dual use and defense reinvestment efforts. Phase I projects evaluate the scientific technical merit and feasibility of an idea. Phase II projects expand the results of, and further pursue, the developments of Phase I. Phase III is for commercialization of the results of Phase II and requires the use of private or non-SBIR federal funding. USSOCOM participates annually in the DoD Request for Proposal process. USSOCOM then awards its proposed SBIR projects.

B. Accomplishments/Planned Programs ($ in Millions)	FY 2014	FY 2015	FY 2016
Title: Small Business Innovative Research (SBIR)	9.147	-	-
FY 2014 Accomplishments: Awarded numerous Phase I and Phase II contracts and contract options for SBIR topics: Dual Speed Read Out Integrated Circuit; Advanced Opaque Armor; Abrasion, Laceration and Puncture Protection; and High Performance Marine Diesel.			
Accomplishments/Planned Programs Subtotals	9.147	-	-

C. Other Program Funding Summary ($ in Millions)

N/A

Remarks

D. Acquisition Strategy

N/A

E. Performance Metrics

N/A

Exhibit R-3, RDT&E Project Cost Analysis: PB 2016 United States Special Operations Command			Date: February 2015
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 1160279BB / *Small Business Innovative Research*	**Project (Number/Name)** S050 / *Small Business Innovative Research*	

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2014 Cost	FY 2014 Award Date	FY 2015 Cost	FY 2015 Award Date	FY 2016 Base Cost	FY 2016 Base Award Date	FY 2016 OCO Cost	FY 2016 OCO Award Date	FY 2016 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Advanced Opaque Armor	C/FFP	Various : Various	-	0.570	Oct 2014	-		-		-		-	-	0.570	-
Dual Speed Read Out Integrated Circuit (IC) (ROIC)	C/CPFF	NU TREK : San Diego, CA	-	0.906	Jul 2014	-		-		-		-	-	0.906	-
Abrasion, Laceration and Puncture Protection	C/CPFF	Nanosonic : Pembroke, VA	-	0.250	Sep 2014	-		-		-		-	-	0.250	-
High Performance Marine Diesel	C/FFP	Various : Various	-	0.448	Nov 2014	-		-		-		-	-	0.448	-
Phase II >$750K	C/CPFF	Various : Various	-	6.973	Feb 2015	-		-		-		-	-	6.973	-
Prior Year Funding	C/Various	Various : Various	162.487	-		-		-		-		-	-	162.487	-
		Subtotal	162.487	9.147		-		-		-		-	-	171.634	-

	Prior Years	FY 2014		FY 2015		FY 2016 Base		FY 2016 OCO		FY 2016 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	162.487	9.147		-		-		-		-	-	171.634	-

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2016 United States Special Operations Command		Date: February 2015
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 1160279BB / *Small Business Innovative Research*	**Project (Number/Name)** S050 / *Small Business Innovative Research*

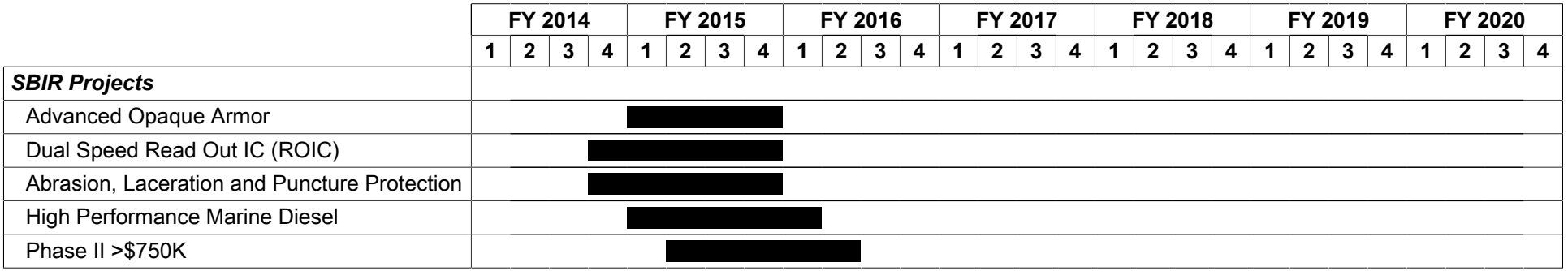

Exhibit R-4A, RDT&E Schedule Details: PB 2016 United States Special Operations Command		Date: February 2015
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 1160279BB / *Small Business Innovative Research*	**Project (Number/Name)** S050 / *Small Business Innovative Research*

Schedule Details

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
SBIR Projects				
Advanced Opaque Armor	1	2015	4	2015
Dual Speed Read Out IC (ROIC)	4	2014	4	2015
Abrasion, Laceration and Puncture Protection	4	2014	4	2015
High Performance Marine Diesel	1	2015	1	2016
Phase II >$750K	2	2015	2	2016

Exhibit R-2A, RDT&E Project Justification: PB 2016 United States Special Operations Command			Date: February 2015
Appropriation/Budget Activity 0400 / 7	R-1 Program Element (Number/Name) PE 1160279BB / *Small Business Innovative Research*	Project (Number/Name) S051 / *Small Business Technology Transfer*	

COST ($ in Millions)	Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	Cost To Complete	Total Cost
S051: *Small Business Technology Transfer*	-	1.299	-	-	-	-	-	-	-	-	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

Small Business Technology Transfer (STTR) goal is the expand public/private sector partnerships between small business and nonprofit U.S. research institutions.

B. Accomplishments/Planned Programs ($ in Millions)	FY 2014	FY 2015	FY 2016
Title: Small Business Technology Transfer (STTR)	1.299	-	-
FY 2014 Accomplishments: Awarded Tactical Assault Light Operator Suit (TALOS) Power Source-Rotary Engine Size, Weight, and Power contract and various small STTR efforts <$1M.			
Accomplishments/Planned Programs Subtotals	1.299	-	-

C. Other Program Funding Summary ($ in Millions)

N/A

Remarks

D. Acquisition Strategy

N/A

E. Performance Metrics

N/A

Exhibit R-3, RDT&E Project Cost Analysis: PB 2016 United States Special Operations Command			Date: February 2015
Appropriation/Budget Activity 0400 / 7	R-1 Program Element (Number/Name) PE 1160279BB / *Small Business Innovative Research*	Project (Number/Name) S051 / *Small Business Technology Transfer*	

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2014 Cost	FY 2014 Award Date	FY 2015 Cost	FY 2015 Award Date	FY 2016 Base Cost	FY 2016 Base Award Date	FY 2016 OCO Cost	FY 2016 OCO Award Date	FY 2016 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Tactical Assault Light Operator Arm Reaction/ Manipulation System Development	C/FFP	Materials & Electrochemical Research : Tucson, AZ	-	1.110	Sep 2014	-		-		-		-	-	-	-
STTR < $1M	C/FFP	Various : Various	-	0.189	Mar 2015	-		-		-		-	-	-	-
		Subtotal	-	1.299		-		-		-		-	-	-	-

	Prior Years	FY 2014		FY 2015		FY 2016 Base		FY 2016 OCO		FY 2016 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	-	1.299		-		-		-		-	-	-	-

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2016 United States Special Operations Command		Date: February 2015
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 1160279BB / *Small Business Innovative Research*	**Project (Number/Name)** S051 / *Small Business Technology Transfer*

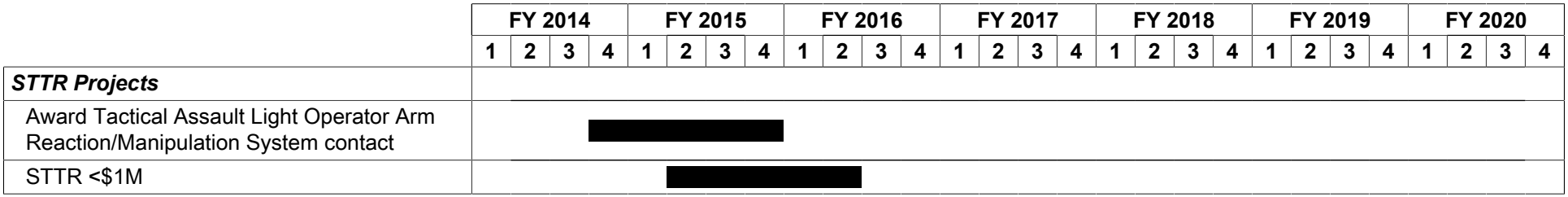

Exhibit R-4A, RDT&E Schedule Details: PB 2016 United States Special Operations Command		Date: February 2015
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 1160279BB / *Small Business Innovative Research*	**Project (Number/Name)** S051 / *Small Business Technology Transfer*

Schedule Details

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
STTR Projects				
Award Tactical Assault Light Operator Arm Reaction/Manipulation System contact	4	2014	4	2015
STTR <$1M	2	2015	2	2016

Exhibit R-2, RDT&E Budget Item Justification: PB 2016 United States Special Operations Command	Date: February 2015
Appropriation/Budget Activity 0400: *Research, Development, Test & Evaluation, Defense-Wide* / BA 7: *Operational Systems Development*	**R-1 Program Element (Number/Name)** PE 1160403BB / *Aviation Systems*

COST ($ in Millions)	Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	Cost To Complete	Total Cost
Total Program Element	448.154	131.119	158.733	173.934	-	173.934	133.619	80.310	68.533	47.190	Continuing	Continuing
SF100: *Aviation Systems Advanced Development*	448.154	86.074	78.199	92.830	-	92.830	84.939	34.988	20.554	22.926	Continuing	Continuing
SF200: *CV-22*	0.000	2.817	0.182	-	-	-	0.707	14.372	21.806	-	-	39.884
S750: *Mission Training and Preparation Systems*	0.000	4.696	7.333	7.052	-	7.052	7.051	6.874	7.035	7.086	Continuing	Continuing
S875: *AC/MC-130J*	0.000	9.915	5.629	7.398	-	7.398	8.024	6.719	2.329	-	Continuing	Continuing
D615: *Rotary Wing Aviation*	0.000	27.617	67.390	66.654	-	66.654	32.898	17.357	16.809	17.178	Continuing	Continuing

A. Mission Description and Budget Item Justification

Aviation Systems Advanced Development:
This project provides for the development, demonstration, and integration of current and maturing technologies for Special Operations Forces (SOF)-unique aviation and training requirements. Timely application of SOF-unique technology is critical and necessary to meet requirements in such areas as: SOF specific avionics; Low Probability of Intercept/Low Probability of Detection (LPI/LPD) terrain following/terrain avoidance radar; Defensive Countermeasures; Electronic Warfare (EW) - Radio Frequency Countermeasures (RFCM); Precision Strike Package (PSP) for AC-130W; AC-130H, AC-130W, and AC-130U Recapitalization, and other SOF airborne platforms; digital terrain elevation data and electronic order of battle; digital maps; enhanced situational awareness; near-real-time Intelligence Surveillance & Reconnaissance (ISR); data fusion; threat detection and avoidance; navigation, target detection, and identification technologies; weapons integration; digital broadcast capabilities; aerial refueling; and ISR payload technological improvements with size, weight, power and integration onto all SOF ISR platforms.

CV-22 Development:
The CV-22 is a SOF variant of the V-22 vertical medium lift, multi-mission aircraft. The CV-22 project provides long range, high speed, infiltration, exfiltration, and resupply to Special Forces teams in hostile, denied, and politically sensitive areas. This is a capability not currently provided by other existing aircraft. The V-22 Joint Program Office is developing improved capabilities in block increments. The funding in this project supports these block increments as well as associated flight test support. The Block 10 increment was completed in FY 2007, and the Block 20 increment started in FY 2008. Block 10: Integrated and tested Directional Infrared Countermeasures, a system that protects against infrared guided missiles; designed, integrated and validated the Troop Commander Situational Awareness Station that provides the embarked troop commander access to the CV-22's communication, navigation and mission management system; relocated the ALE-47 chaff and flare dispenser control head to allow any cockpit crew member to activate defensive countermeasures; added a second forward firing chaff and flare dispenser to provide an adequate quantity of consumable countermeasures for the extended duration of SOF infiltration, exfiltration, and resupply missions; and incorporate a dual access feature to the Digital Map System to allow both the pilot and co-pilot to independently access and control the digital map display from the mission computer.
Block 20: Design, integrate, test, and validate enhancements required to meet SOF-unique mission requirements and correct deficiencies identified in previous testing. This incremental development will provide improved capabilities to include, but not limited to, more robust performance in situational awareness, ISR, weapons, avionics, survivability, maneuverability, mission deployment and improved reliability and maintainability of the CV platform.

Exhibit R-2, RDT&E Budget Item Justification: PB 2016 United States Special Operations Command	Date: February 2015
Appropriation/Budget Activity 0400: *Research, Development, Test & Evaluation, Defense-Wide* / BA 7: *Operational Systems Development*	**R-1 Program Element (Number/Name)** PE 1160403BB / *Aviation Systems*

Mission Training and Preparation Systems:
The Special Operations Mission Planning and Execution (SOMPE) project funds the definition, design, development, prototyping, integration, and testing of SOMPE systems to support mission planning, rehearsal, and execution requirements to meet SOF-unique mission requirements and correct deficiencies in current mission planning, rehearsal, and execution capabilities. The MTPS project also includes program management, systems engineering, configuration management, architecture development, risk reduction, and trade study initiatives, as well as initiatives to assure interoperability and commonality between diverse mission planning, rehearsal, and execution systems.

AC/MC-130J:
The AC/MC-130J project funds core SOF-unique modifications to replace aging AC-130H Spectre, AC-130W Stinger II, AC-130U Spooky, MC-130E Combat Talon I, MC-130P Combat Shadow, MC-130H Combat Talon II. The 8 AC-130H Spectre, 12 AC-130W Stinger II and 17 AC-130U Spooky airframes will be replaced with MC-130J aircraft modified with the PSP to achieve the AC-130J configuration. The MC-130J Commando II aircraft perform clandestine or low visibility, single or multi-ship low-level missions intruding politically-sensitive or hostile territories; provide air refueling for special operations helicopters and CV-22 aircraft; airdrop of leaflets, small special operations teams, resupply bundles and combat rubber raiding craft; and provide close air support, air interdiction, armed reconnaissance, escort, and force protection - integrated base defense. Additional capabilities include low-level navigation and in-flight refueling. The Air Force will procure and field basic aircraft, common support equipment, and trainers for USSOCOM. An incremental upgrade approach will be used to incorporate SOF capabilities onto the aircraft and training systems.

Rotary Wing Aviation:
This project develops SOF-unique modifications and upgrades to SOF rotary wing aircraft that operate in increasingly hostile environments. Rotary wing aircraft supported by this project include: MH-60M, MH-47G, and A/MH-6M. These aircraft provide aviation support to SOF in worldwide contingency operations and low-intensity conflicts. They must be capable of rapid deployment, undetected penetration of hostile areas, and operating at extended ranges under adverse weather conditions to infiltrate, provide logistics for, reinforce, and extract SOF. The threat is characterized by an extensive and sophisticated ground based air defense system and an upgraded air-to-air capability targeted against helicopters.

Exhibit R-2, RDT&E Budget Item Justification: PB 2016 United States Special Operations Command	Date: February 2015
Appropriation/Budget Activity 0400: *Research, Development, Test & Evaluation, Defense-Wide* / BA 7: *Operational Systems Development*	**R-1 Program Element (Number/Name)** PE 1160403BB / *Aviation Systems*

B. Program Change Summary ($ in Millions)	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total
Previous President's Budget	130.811	164.233	151.349	-	151.349
Current President's Budget	131.119	158.733	173.934	-	173.934
Total Adjustments	0.308	-5.500	22.585	-	22.585
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-5.500			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	0.308	-			
• SBIR/STTR Transfer	-	-			
• Other Adjustments	-	-	22.585	-	22.585

Change Summary Explanation

Funding:

FY 2014: Increase of $0.308 million supports flight and qualification testing for MH-60M Block Upgrades.

FY 2015: Net decrease of $5.500 million is due to congressional reductions to the C-130 Terrain Following Radar System for under execution (-$4.000 million) and EC-130J Commando Solo as a new start (-$1.500 million).

FY 2016: Net increase of $22.585 million is due to an increase for Degraded Visual Environment integration and flight test ($7.688 million); to improve size, weight, power and integration of payloads for SOF ISR ($1.344 million); tactical flight management system and electronic warfare bus access for Commando II ($5.562 million); C-130 Terrain Following Radar ($10.251 million); and decreases for higher command priorities (-$1.000 million) and a Departmental economic assumption decrease (-$1.260 million).

Schedule: None.

Technical: None.

Exhibit R-2A, RDT&E Project Justification: PB 2016 United States Special Operations Command			Date: February 2015
Appropriation/Budget Activity 0400 / 7	R-1 Program Element (Number/Name) PE 1160403BB / *Aviation Systems*	Project (Number/Name) SF100 / *Aviation Systems Advanced Development*	

COST ($ in Millions)	Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	Cost To Complete	Total Cost
SF100: *Aviation Systems Advanced Development*	448.154	86.074	78.199	92.830	-	92.830	84.939	34.988	20.554	22.926	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

This project provides for the investigation, evaluation, demonstration, and integration of current and maturing technologies for Special Operations Forces (SOF)-unique aviation and training requirements. Timely application of SOF-unique technology is critical and necessary to meet requirements in such areas as: SOF specific avionics; low probability of intercept/low probability of detection (LPI/LPD), terrain following/terrain avoidance (TF/TA) radar; Defensive Countermeasures (DCM) which includes Electronic Warfare – Radio Frequency Countermeasures (EW-RFCM); Precision Strike Package (PSP) for AC-130W, AC-130H replacement aircraft, and other SOF platforms; digital terrain elevation data and electronic order of battle; digital maps; Enhanced Situational Awareness (ESA); near-real-time intelligence to include data fusion, threat detection and avoidance; navigation, target detection and identification technologies; digital broadcast capability; aerial refueling; and ISR payload technological improvements with size, weight, power and integration onto all SOF ISR platforms.

• EC-130J Upgrades: Provides for integration of SOF-unique implementation of the C-130J block cycle upgrade as installed on the EC-130J Commando Solo aircraft and development of digital broadcast capabilities.

• Enhanced Situational Awareness (ESA): Provides SOF C-130 fleet with near-real-time intelligence reporting to include data fusion, threat detection, identification, and avoidance.

• EW-RFCM: Supports development, integration and test activities to provide EW capability against RF threats for SOF AC/MC-130J aircraft. The DCM suite is an integrated package of existing aircraft defensive systems at program start, situational awareness and threat response processing, which includes the RFCM system, and future defensive systems. RFCM program provides SOF-unique aircraft defensive capabilities required for SOF missions.

• PSP for SOF: Supports systems engineering, analysis, development, and enhancement of the baseline PSP for later integration and installation onto host MC-130J aircraft provided by the U.S. Air Force for the AC-130H, AC-130W and AC-130U recapitalization, as well as current SOF C-130s other SOF platforms. Missions for the AC-130 aircraft include, but are not limited to, Close Air Support (CAS), Air Interdiction, Armed Reconnaissance, Escort, and Force Protection - Integrated Base Defense. PSP is modular, scalable, and platform neutral.

• PSP Large Caliber Gun: Supports systems engineering, analysis, development, integration, and test of a large caliber gun capability enhancement to the PSP installed on the AC-130 aircraft.

Exhibit R-2A, RDT&E Project Justification: PB 2016 United States Special Operations Command		Date: February 2015
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 1160403BB / *Aviation Systems*	**Project (Number/Name)** SF100 / *Aviation Systems Advanced Development*

• C-130 TF Radar System: Supports development, integration and test of a TF/TA radar and on-board processor to provide a multi-mode terrain following capability on MC-130J aircraft. Crew systems integration efforts include modifications to aircraft controls and displays to automate TF/TA flight and reduce pilot, copilot and Combat Systems Officer workload during missions. , previously performed by five aircrew members on legacy C-130 tankers and penetrators.

• SOF Common TF/TA (Silent Knight) Radar: Supports Engineering and Manufacturing Development, qualification, and operational flight testing of a SOF common TF/TA LPI/LPD radar to defeat advanced passive detection threats while maintaining ability to fly safe TF. This radar is targeted for use on all MH-47G heavy assault helicopters, MH-60M medium assault helicopters, MC-130J Commando II and CV-22B Osprey aircraft.

• EC-130J Commando Solo Development, integration and testing of digital broadcast capabilities on the EC-130J Commando Solo aircraft.

• Sensor Technology: Development, integration, and testing of sensor miniaturization effort to place large ISR platform capability, such as Group 4-5 unmanned aerial systems (UASs) into various smaller ISR platforms such as Group 2-3 UASs.

B. Accomplishments/Planned Programs ($ in Millions)	FY 2014	FY 2015	FY 2016
Title: EC-130J Upgrades	1.235	3.503	4.161
FY 2014 Accomplishments: Continued integration of SOF-unique implementation of the C-130J block cycle upgrade installed on the EC-130J Commando Solo aircraft.			
FY 2015 Plans: Begin development of trial kit installation of C-130J block cycle upgrade.			
FY 2016 Plans: Continues development and testing of trial kit installation of C-130J block cycle upgrade.			
Title: ESA	0.724	0.182	-
FY 2014 Accomplishments: Continued risk reduction, development and integration of an ESA system on SOF C-130 aircraft.			
FY 2015 Plans: Begin flight test ESA system on SOF C-130 aircraft.			
Title: EW – RFCM	1.936	16.181	43.691
FY 2014 Accomplishments: Initiated risk reduction activities and development efforts for an EW-RFCM system on AC/MC-130J aircraft.			
FY 2015 Plans:			

Exhibit R-2A, RDT&E Project Justification: PB 2016 United States Special Operations Command		Date: February 2015
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 1160403BB / *Aviation Systems*	**Project (Number/Name)** SF100 / *Aviation Systems Advanced Development*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2014	FY 2015	FY 2016
Conduct source selection and begin program to develop, integrate and test EW capability against RF threats for SOF AC/MC-130J aircraft. ***FY 2016 Plans:*** Continues development, integration and testing to provide EW capability against RF threats for SOF AC/MC-130J aircraft.			
Title: PSP for SOF ***FY 2014 Accomplishments:*** Continued development, integration, test, and system improvement of the PSP on SOF C-130s and other SOF aircraft. ***FY 2015 Plans:*** Continue development, integration, test, and system improvement of the PSP on SOF C-130s and other SOF aircraft. ***FY 2016 Plans:*** Continues development, integration, test, and system improvement of the PSP on SOF C-130s and other SOF aircraft.	22.092	15.136	10.169
Title: PSP Large Caliber Gun ***FY 2014 Accomplishments:*** Started development, integration and test of large caliber gun capability upgrade of the PSP on AC-130 aircraft. ***FY 2015 Plans:*** Continue development, integration and testing of large caliber gun capability upgrade of the PSP on AC-130 aircraft. ***FY 2016 Plans:*** Completes development, integration and testing of large caliber gun capability upgrade of the PSP on AC-130 aircraft.	17.414	5.931	3.926
Title: C-130 Terrain Following (TF) Radar System ***FY 2014 Accomplishments:*** Continued development, integration and test of the TF Radar System on MC-130J aircraft. Supported developmental flight testing and an Operational Utility Evaluation for the first software spiral providing initial TF Capabilities. Also supported development, integration and test efforts for LPI TF capabilities on MC-130J aircraft as part of a second software spiral. ***FY 2015 Plans:*** Continue development, integration, test and Operational Utility Evaluation of the TF radar system on two MC-130J aircraft to accelerate MC-130J TF fielding and capability. ***FY 2016 Plans:***	23.662	28.642	27.174

Exhibit R-2A, RDT&E Project Justification: PB 2016 United States Special Operations Command		Date: February 2015
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 1160403BB / *Aviation Systems*	**Project (Number/Name)** SF100 / *Aviation Systems Advanced Development*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2014	FY 2015	FY 2016
Continues development, integration and test of the TF radar system on two MC-130J development testing aircraft. Also supports development and test efforts for integrating the TF radar system with the MC-130J Increment 3 special mission processors.			
Title: SOF Common Terrain Following/Terrain Avoidance (TF/TA) (Silent Knight) Radar ***FY 2014 Accomplishments:*** Continued EMD of SOF Common TF/TA radar. Continued Developmental flight testing. ***FY 2015 Plans:*** Complete EMD of SOF Common TF/TA radar. Perform qualification flight testing.	19.011	7.212	-
Title: EC-130J Commando Solo ***FY 2015 Plans:*** Begin development, integration and testing of digital broadcast capabilities on the EC-130J Commando Solo aircraft. ***FY 2016 Plans:*** Continues integration and testing of digital broadcast capabilities on the EC-130J Commando Solo aircraft.	-	1.412	2.375
Title: Intelligence, Surveillance, and Reconnaissance Payload ***FY 2016 Plans:*** This is an FY 2016 new start. Begins development, integration, and testing of sensor miniaturization effort to place large ISR platform capability, such as Group 4-5 unmanned aerial systems (UASs) into various smaller ISR platforms such as Group 2-3 UASs.	-	-	1.334
Accomplishments/Planned Programs Subtotals	86.074	78.199	92.830

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	Cost To Complete	Total Cost
• PROC1: *C-130 Modifications*	56.032	25.414	66.861	-	66.861	73.853	36.368	32.890	33.549	Continuing	Continuing
• PROC2: *Precision Strike Package*	90.220	131.929	204.105	-	204.105	213.720	218.400	222.024	227.066	Continuing	Continuing
• PROC3: *Rotary Wing Upgrades and Sustainment*	114.156	112.226	133.445	-	133.445	193.603	175.047	151.291	147.121	Continuing	Continuing

Remarks

D. Acquisition Strategy

• EC-130J Upgrades: Operational Flight Program Block Cycle is being developed by the Air Force program office using existing development and production contracts.

Exhibit R-2A, RDT&E Project Justification: PB 2016 United States Special Operations Command		Date: February 2015
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 1160403BB / *Aviation Systems*	**Project (Number/Name)** SF100 / *Aviation Systems Advanced Development*

• ESA: Air Force integration of off-the-shelf hardware and software into into carry-on kits for enhanced situational awareness hardware to include processors and displays.

• EW – RFCM: Award a competitive Engineering and Manufacturing Development (EMD) contract for development, integration and test of an RF Countermeasure system on AC/MC-130J aircraft.

• PSP for SOF: Incremental acquisition strategy to integrate and test the PSP and capability enhancements on MC-130J aircraft provided by the U.S. Air Force and the other SOF aircraft. Multiple contract awards.

• PSP Large Caliber Gun: Combination of Government Service activity and contractor development, integration and test for large caliber gun capability enhancement for the PSP installed on AC-130 aircraft. Multiple contract awards.

• C-130 TF Radar System: Awarded competitive EMD contract for development, integration and test in FY 2012. Executing incremental acquisition strategy with contractor flight testing FY 2014; USG Development, Test, and Evaluation FY 2015; Operational Test and Evaluation FY 2016 with Initial Operating Capability Q3 FY 2016.

• SOF Common TF/TA (Silent Knight) Radar: Competitive EMD and low-rate initial production (LRIP) I contract awarded to Raytheon in FY 2007 for radar B Kit design, development, and testing. Subsequent MH-47G and MH-60M A Kit design, integration, and test efforts awarded to Lockheed Martin (SOFSA). Follow-on platform A Kit design, integration, and test efforts will be awarded in FY 2018 - FY 2019. MH-47G and MH-60M A Kit production and installation will be completed at the SOFSA. A follow-on Full Rate Production (FRP) contract using LRIP price points will be awarded.

• EC-130J Commando SOLO: Digital broadcast capabilities are being developed through an incremental acquisition strategy to incorporate and test readily available equipment into the EC-130J aircraft.

• Sensor Technology: Effort is being executed via an incremental acquisition strategy based on the state of existing sensor technology. The focus will be on miniaturization and combining of SIGINT, Electro-optical, and infra-red sensor capability onto an existing ISR platform.

E. Performance Metrics

N/A

Exhibit R-3, RDT&E Project Cost Analysis: PB 2016 United States Special Operations Command			Date: February 2015
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 1160403BB / *Aviation Systems*	**Project (Number/Name)** SF100 / *Aviation Systems Advanced Development*	

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2014 Cost	FY 2014 Award Date	FY 2015 Cost	FY 2015 Award Date	FY 2016 Base Cost	FY 2016 Base Award Date	FY 2016 OCO Cost	FY 2016 OCO Award Date	FY 2016 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
EC-130J Upgrades	C/CPIF	Lockheed Martin : Marietta, GA	4.576	1.235	Dec 2013	3.503	Dec 2014	4.161	Dec 2015	-		4.161	Continuing	Continuing	-
Enhanced Situational Awareness (ESA)	C/Various	Robins AFB : Warner-Robins, GA	1.576	0.724	Dec 2014	0.182	Jun 2015	-		-		-	-	2.482	-
Electronic Warfare - Radio Frequency Countermeasures (EW-RFCM)	C/TBD	TBD : TBD	0.000	1.936	Mar 2014	16.181	Jul 2015	43.691	Jul 2016	-		43.691	Continuing	Continuing	-
Precision Strike Package (PSP) for SOF - Prime Mission Product	SS/ Various	Various : Various	73.996	11.406	Mar 2014	5.794	Mar 2015	-		-		-	-	91.196	-
PSP Large Caliber Gun	C/TBD	Various : Various	0.000	9.083	Mar 2014	2.436	Mar 2015	2.426	Jan 2016	-		2.426	-	13.945	-
C-130 Terrain Following (TF) Radar System	C/CPIF	Scientific Research Corporation : Atlanta, GA	36.926	16.429	Jan 2014	12.889	Jan 2015	16.855	Jan 2016	-		16.855	Continuing	Continuing	-
SOF Common Terrain Following/Terrain Avoidance (TF/TA) (Silent Knight) Radar - Systems Engineering	C/Various	Various : Various	16.970	0.338	Dec 2013	1.554	Jan 2015	-		-		-	-	18.862	-
SOF Common TF/TA (Silent Knight) Radar Prime Mission Product	C/CPIF	Raytheon : Dallas, TX	79.490	0.339	Dec 2013	0.085	Jan 2015	-		-		-	-	79.914	-
EC-130J Commando Solo	C/TBD	Various : Various	0.000	-		1.412	Apr 2015	2.375	Dec 2015	-		2.375	Continuing	Continuing	-
Intelligence, Surveillance, and Reconnaissance Payload	TBD	Various : Various	-	-		-		1.334	Mar 2016	-		1.334	Continuing	Continuing	-
Prior Year Funding - Completed Efforts	Various	Various : Various	80.572	-		-		-		-		-	-	80.572	-
		Subtotal	294.106	41.490		44.036		70.842		-		70.842	-	-	-

Exhibit R-3, RDT&E Project Cost Analysis: PB 2016 United States Special Operations Command		Date: February 2015
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 1160403BB / *Aviation Systems*	**Project (Number/Name)** SF100 / *Aviation Systems Advanced Development*

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2014 Cost	FY 2014 Award Date	FY 2015 Cost	FY 2015 Award Date	FY 2016 Base Cost	FY 2016 Base Award Date	FY 2016 OCO Cost	FY 2016 OCO Award Date	FY 2016 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
PSP for SOF	C/Various	Various : Various	2.409	2.476	Jan 2014	0.581	Dec 2014	-		-		-	-	5.466	-
PSP Large Caliber Gun	C/Various	Various : Various	0.000	1.051	Mar 2014	0.145	Dec 2014	-		-		-	-	1.196	-
C-130 TF Radar System	C/CPIF	Scientific Research Corporation : Atlanta, GA	-	2.001	Mar 2014	3.339	Dec 2014	3.028	Dec 2015	-		3.028	Continuing	Continuing	-
Prior Year Funding - Completed Efforts	TBD	Various : Various	22.334	-		-		-		-		-	-	22.334	-
		Subtotal	24.743	5.528		4.065		3.028		-		3.028	-	-	-

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2014 Cost	FY 2014 Award Date	FY 2015 Cost	FY 2015 Award Date	FY 2016 Base Cost	FY 2016 Base Award Date	FY 2016 OCO Cost	FY 2016 OCO Award Date	FY 2016 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
PSP for SOF	C/Various	Various : Various	1.970	8.210	Jan 2014	8.761	Jan 2015	10.169	Jan 2016	-		10.169	Continuing	Continuing	-
PSP Large Caliber Gun	C/Various	Various : Various	0.000	7.280	Mar 2014	3.350	Jan 2015	1.500	Jan 2016	-		1.500	-	12.130	-
C-130 TF Radar System	C/CPIF	Scientific Research Corporation : Atlanta, GA	-	2.612	Mar 2014	8.950	Dec 2014	5.046	Dec 2015	-		5.046	Continuing	Continuing	-
SOF Common TF/TA (Silent Knight) Radar	C/CPIF	Various : Various	99.310	16.443	Dec 2013	4.912	Jan 2015	-		-		-	Continuing	Continuing	-
		Subtotal	101.280	34.545		25.973		16.715		-		16.715	-	-	-

Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2014 Cost	FY 2014 Award Date	FY 2015 Cost	FY 2015 Award Date	FY 2016 Base Cost	FY 2016 Base Award Date	FY 2016 OCO Cost	FY 2016 OCO Award Date	FY 2016 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
C-130 TF Radar System	C/CPIF	Scientific Research Corporation : Atlanta, GA	-	2.620	Mar 2014	3.464	Dec 2014	2.245	Dec 2015	-		2.245	Continuing	Continuing	-
SOF Common TF/TA (Silent Knight) Radar	C/CPIF	Raytheon : Dallas, TX	28.025	1.891	Dec 2013	0.661	Jan 2015	-		-		-	-	30.577	-

Exhibit R-3, RDT&E Project Cost Analysis: PB 2016 United States Special Operations Command		Date: February 2015
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 1160403BB / *Aviation Systems*	**Project (Number/Name)** SF100 / *Aviation Systems Advanced Development*

Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2014 Cost	FY 2014 Award Date	FY 2015 Cost	FY 2015 Award Date	FY 2016 Base Cost	FY 2016 Base Award Date	FY 2016 OCO Cost	FY 2016 OCO Award Date	FY 2016 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
		Subtotal	28.025	4.511		4.125		2.245		-		2.245	-	-	-

	Prior Years	FY 2014		FY 2015		FY 2016 Base		FY 2016 OCO		FY 2016 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	448.154	86.074		78.199		92.830		-		92.830	-	-	-

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2016 United States Special Operations Command		Date: February 2015
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 1160403BB / *Aviation Systems*	**Project (Number/Name)** SF100 / *Aviation Systems Advanced Development*

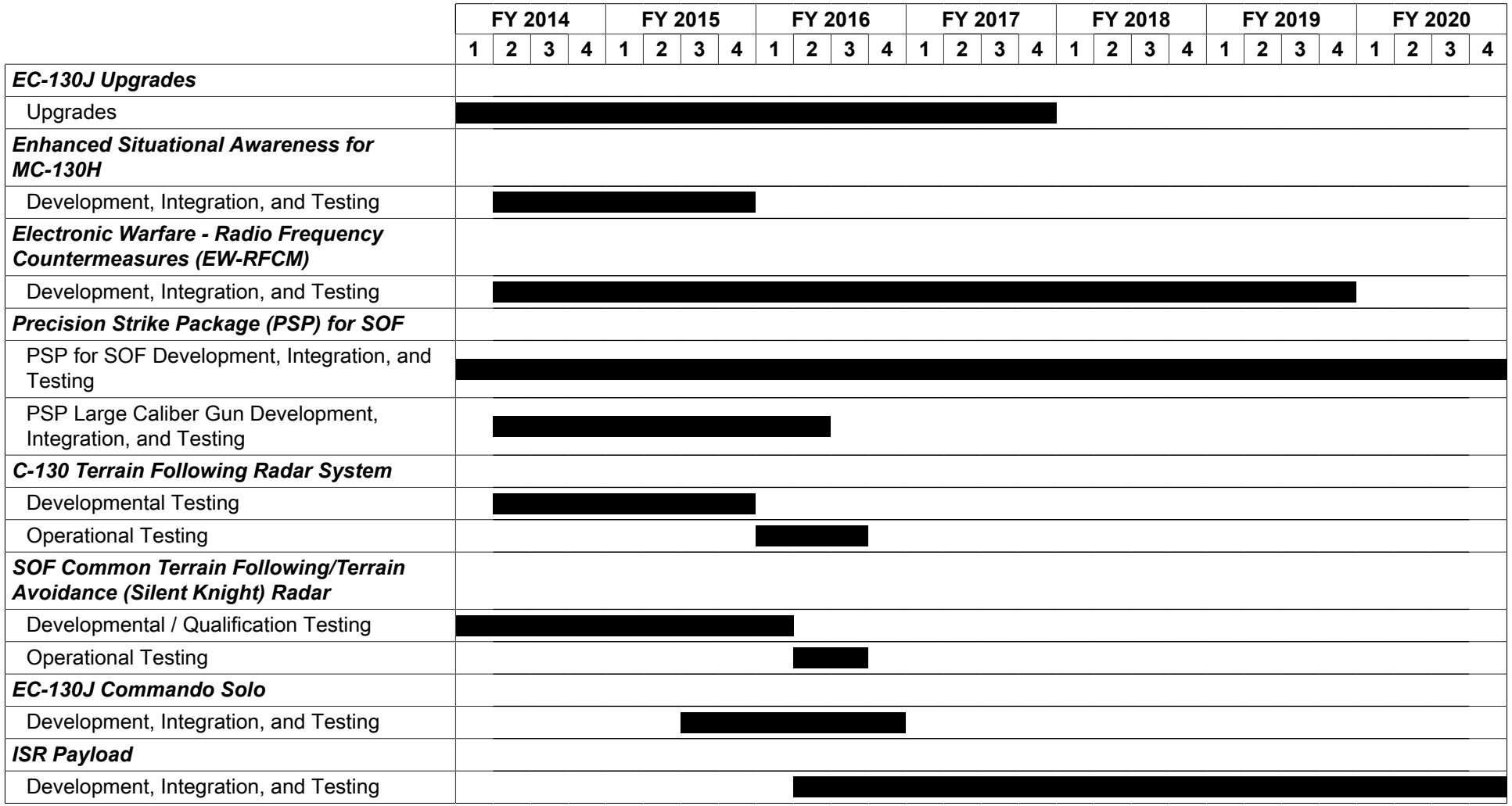

Exhibit R-4A, RDT&E Schedule Details: PB 2016 United States Special Operations Command		Date: February 2015
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 1160403BB / *Aviation Systems*	**Project (Number/Name)** SF100 / *Aviation Systems Advanced Development*

Schedule Details

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
EC-130J Upgrades				
Upgrades	1	2014	4	2017
Enhanced Situational Awareness for MC-130H				
Development, Integration, and Testing	2	2014	4	2015
Electronic Warfare - Radio Frequency Countermeasures (EW-RFCM)				
Development, Integration, and Testing	2	2014	4	2019
Precision Strike Package (PSP) for SOF				
PSP for SOF Development, Integration, and Testing	1	2014	4	2020
PSP Large Caliber Gun Development, Integration, and Testing	2	2014	2	2016
C-130 Terrain Following Radar System				
Developmental Testing	2	2014	4	2015
Operational Testing	1	2016	3	2016
SOF Common Terrain Following/Terrain Avoidance (Silent Knight) Radar				
Developmental / Qualification Testing	1	2014	1	2016
Operational Testing	2	2016	3	2016
EC-130J Commando Solo				
Development, Integration, and Testing	3	2015	4	2016
ISR Payload				
Development, Integration, and Testing	2	2016	4	2020

Exhibit R-2A, RDT&E Project Justification: PB 2016 United States Special Operations Command			Date: February 2015
Appropriation/Budget Activity 0400 / 7	R-1 Program Element (Number/Name) PE 1160403BB / *Aviation Systems*	Project (Number/Name) SF200 / *CV-22*	

COST ($ in Millions)	Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	Cost To Complete	Total Cost
SF200: *CV-22*	-	2.817	0.182	-	-	-	0.707	14.372	21.806	-	-	39.884
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

The CV-22 is a Special Operations Forces (SOF) variant of the V-22 vertical medium lift, multi-mission aircraft and associated training systems. The CV-22 provides long range, high speed infiltration, exfiltration, and resupply to Special Forces teams in hostile, denied, and politically sensitive areas. This is a capability not currently provided by existing aircraft. The V-22 Joint Program Office is developing improved capabilities in block increments supported with rapid prototyping. The funding in this project supports these block increments as well as associated flight test support. The Block 20 increment started in FY 2008.

Block 20: Design, integrate, test, and validate enhancements required to meet SOF-unique mission requirements and correct deficiencies identified in previous testing. This incremental development will provide improved capabilities to include, but not limited to, robust performance in situational awareness, weapons, avionics, survivability, maneuverability, mission deployment, improved reliability and maintainability of the CV platform.

B. Accomplishments/Planned Programs ($ in Millions)	FY 2014	FY 2015	FY 2016
Title: CV-22 Aircraft Block 20	2.817	0.182	-
FY 2014 Accomplishments: Continued ESA development providing enhanced, correlated, fusion and display, threat response, training and simulation capabilities and developmental testing for aircraft block upgrades.			
FY 2015 Plans: Complete ESA development providing enhanced, correlated, fusion and display, threat response, training and simulation capabilities and developmental testing for aircraft block upgrades.			
Accomplishments/Planned Programs Subtotals	2.817	0.182	-

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	Cost To Complete	Total Cost
• PROC1: *CV-22 SOF Modification*	104.199	21.578	18.832	-	18.832	20.158	18.522	23.307	21.505	-	228.101
• PROC/V022A0: *Aircraft Procurement CV-22 (MYP)*	230.798	-	-	-	-	-	-	-	-	-	4,272.414
• RDT&E1/0401318F: *RDT&E, USAF*	46.705	39.202	26.728	-	26.728	16.073	14.566	14.828	-	131.500	613.166
• RDT&E/0604262N: *V-22 RDT&E, N BA-05*	43.084	68.816	60.659	-	60.659	53.319	53.063	-	-	273.513	9,363.505

Exhibit R-2A, RDT&E Project Justification: PB 2016 United States Special Operations Command		Date: February 2015
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 1160403BB / *Aviation Systems*	**Project (Number/Name)** SF200 / *CV-22*

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	Cost To Complete	Total Cost

Remarks

D. Acquisition Strategy

The CV-22 program is managed by the Navy V-22 Joint Program Office (NAVAIRSYSCOM PMA-275). This ensures that the CV-22 changes are incorporated into the ongoing V-22 production line with minimum impact. Funding for the baseline CV-22 Engineering Manufacturing and Development, known as Block 0, is embedded in the Navy budget. Block 10 RDT&E funding was sent from USSOCOM to NAVAIRSYSCOM to be placed on contract with the V-22 prime contractor. Block 10 capability is required for compliance with the Joint Operational Requirements Document and associated Milestone III Capabilities Production Document. Block 20 and subsequent block upgrades are planned to follow the same acquisition strategy, with NAVAIRSYSCOM PMA-275 ensuring the integration of SOF-unique systems with the ongoing basic vehicle improvements supporting both the CV-22 and the Marine Corps MV-22.

E. Performance Metrics

N/A

Exhibit R-3, RDT&E Project Cost Analysis: PB 2016 United States Special Operations Command			Date: February 2015
Appropriation/Budget Activity 0400 / 7	R-1 Program Element (Number/Name) PE 1160403BB / *Aviation Systems*	Project (Number/Name) SF200 / *CV-22*	

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2014 Cost	FY 2014 Award Date	FY 2015 Cost	FY 2015 Award Date	FY 2016 Base Cost	FY 2016 Base Award Date	FY 2016 OCO Cost	FY 2016 OCO Award Date	FY 2016 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Enhanced Situational Awareness	SS/ Various	Bell-Boeing; 413FLTS : Amarillo, Tx; Fort Worth, TX	0.000	0.881	Mar 2014	0.182	Mar 2015	-		-		-	-	1.063	-
		Subtotal	0.000	0.881		0.182		-		-		-	-	1.063	-

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2014 Cost	FY 2014 Award Date	FY 2015 Cost	FY 2015 Award Date	FY 2016 Base Cost	FY 2016 Base Award Date	FY 2016 OCO Cost	FY 2016 OCO Award Date	FY 2016 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Systems Test and Evaluation (Block 20)	SS/ Various	Bell-Boeing; 413FLTS : Amarillo, Tx; Fort Worth, TX	0.000	0.936	Jan 2014	-		-		-		-	-	0.936	-
System Test and Evaluation (ESA)	SS/ Various	Bell-Boeing; Dyncorp : Amarillo, TX; Fort Worth, TX	0.000	1.000	Dec 2013	-		-		-		-	-	1.000	-
		Subtotal	0.000	1.936		-		-		-		-	-	1.936	-

	Prior Years	FY 2014		FY 2015		FY 2016 Base		FY 2016 OCO		FY 2016 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	0.000	2.817		0.182		-		-		-	-	2.999	-

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2016 United States Special Operations Command		Date: February 2015
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 1160403BB / *Aviation Systems*	**Project (Number/Name)** SF200 / *CV-22*

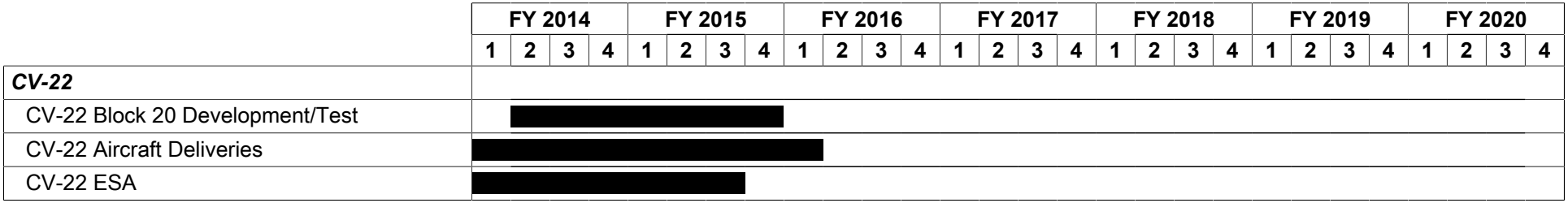

Exhibit R-4A, RDT&E Schedule Details: PB 2016 United States Special Operations Command		Date: February 2015
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 1160403BB / *Aviation Systems*	**Project (Number/Name)** SF200 / *CV-22*

Schedule Details

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
CV-22				
CV-22 Block 20 Development/Test	2	2014	4	2015
CV-22 Aircraft Deliveries	1	2014	1	2016
CV-22 ESA	1	2014	3	2015

Exhibit R-2A, RDT&E Project Justification: PB 2016 United States Special Operations Command			Date: February 2015
Appropriation/Budget Activity 0400 / 7	R-1 Program Element (Number/Name) PE 1160403BB / *Aviation Systems*	Project (Number/Name) S750 / *Mission Training and Preparation Systems*	

COST ($ in Millions)	Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	Cost To Complete	Total Cost
S750: *Mission Training and Preparation Systems*	-	4.696	7.333	7.052	-	7.052	7.051	6.874	7.035	7.086	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

This project funds the definition, design, development, prototyping, integration, and testing of Mission Training and Preparation Systems (MTPS) to support training, avoid obsolescence, and maintain simulator concurrency with weapon system configurations; support mission planning and rehearsal systems enhancements required to meet Special Operations Force (SOF)-unique mission requirements and correct deficiencies identified in previous testing; and support mission planning and rehearsal capabilities in current MTPS. The MTPS project also includes program management, systems engineering, configuration management, architecture development, risk reduction, and trade study initiatives, as well as initiatives to assure interoperability and commonality between diverse SOF training systems.

Special Operations Mission Planning and Execution (SOMPE) develops, integrates, tests, and validates software enhancements required to meet SOF-unique requirements for, and correct deficiencies to, mission planning, preview, and execution software tools to support all phases of SOF operations from deliberate to time-critical. The SOMPE project automates time-sensitive planning activities and provides enhanced situational awareness during mission execution. SOMPE provides the interoperable environment for SOF adaptive planning to integrate global operations including, but not limited to, precision strike software, digital navigation, and unmanned aerial systems command and control. This project also provides the integration of SOMPE with multi-dimensional visualization systems, providing immersive mission rehearsal in minimal timeframes from the SOMPE mission plan. SOMPE is embedded in the USSOCOM Headquarters, Theater Special Operations Commands, Joint Special Operations Task Forces, Joint Special Operations Aviation Components, SOF warfighters, and SOF warfighter platforms.

B. Accomplishments/Planned Programs ($ in Millions)	FY 2014	FY 2015	FY 2016
Title: SOMPE	4.696	7.333	7.052
FY 2014 Accomplishments: Continued required development of software applications to address SOF-unique aviation, ground and maritime mission planning requirements, data transfer software from mission planning systems to SOF helicopters, airplanes, and simulator/rehearsal systems, and automated performance models and performance prediction software. Continued testing of mission planning, data transfer and performance software.			
FY 2015 Plans: Continue required development of software applications to address SOF-unique aviation, ground and maritime mission planning requirements, (to include tablets, smart phones, etc.) data transfer software from mission planning systems to SOF helicopters,			

Exhibit R-2A, RDT&E Project Justification: PB 2016 United States Special Operations Command		Date: February 2015
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 1160403BB / *Aviation Systems*	**Project (Number/Name)** S750 / *Mission Training and Preparation Systems*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2014	FY 2015	FY 2016
airplanes, and simulator/rehearsal systems, and automated performance models and performance prediction software. Continue testing of mission planning, data transfer and performance software. ***FY 2016 Plans:*** Continues required development of software applications to address SOF-unique aviation, ground and maritime mission planning requirements, data transfer software from mission planning systems to SOF helicopters, airplanes, and simulator/rehearsal systems, and automated performance models and performance prediction software. Continues testing of mission planning, data transfer and performance software. Continues development of software applications for smaller mobile computer devices (tablets, smart phones, etc).			
Accomplishments/Planned Programs Subtotals	4.696	7.333	7.052

C. Other Program Funding Summary ($ in Millions)

N/A

Remarks

D. Acquisition Strategy

SOMPE comprises multiple mission planning software development contracts awarded annually to developers for each project effort. Acquisition strategies depend on the type of development effort. For minor software development projects, contracts may be awarded as sole source acquisitions from existing contract vehicles. For major software development projects, contracts may be awarded as limited or full and open competition acquisitions. Individual acquisition strategies are developed as the scope of software development projects are identified and defined.

E. Performance Metrics

N/A

Exhibit R-3, RDT&E Project Cost Analysis: PB 2016 United States Special Operations Command			Date: February 2015
Appropriation/Budget Activity 0400 / 7	R-1 Program Element (Number/Name) PE 1160403BB / *Aviation Systems*	Project (Number/Name) S750 / *Mission Training and Preparation Systems*	

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2014 Cost	FY 2014 Award Date	FY 2015 Cost	FY 2015 Award Date	FY 2016 Base Cost	FY 2016 Base Award Date	FY 2016 OCO Cost	FY 2016 OCO Award Date	FY 2016 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Special Operations Mission Planning and Execution (SOMPE) Software	MIPR	Various : Various	-	3.999	Jan 2014	5.942	Jan 2015	5.650	Jan 2016	-		5.650	Continuing	Continuing	-
		Subtotal	-	3.999		5.942		5.650		-		5.650	-	-	-

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2014 Cost	FY 2014 Award Date	FY 2015 Cost	FY 2015 Award Date	FY 2016 Base Cost	FY 2016 Base Award Date	FY 2016 OCO Cost	FY 2016 OCO Award Date	FY 2016 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
SOMPE Software	MIPR	Special Operations Mission Planning Office : Fort Eustis, VA	-	0.256	Feb 2014	0.332	Feb 2015	0.363	Feb 2016	-		0.363	Continuing	Continuing	-
		Subtotal	-	0.256		0.332		0.363		-		0.363	-	-	-

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2014 Cost	FY 2014 Award Date	FY 2015 Cost	FY 2015 Award Date	FY 2016 Base Cost	FY 2016 Base Award Date	FY 2016 OCO Cost	FY 2016 OCO Award Date	FY 2016 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
SOMPE Software	C/CPFF	Wyle-CAS : Huntsville, AL	-	0.441	Jan 2014	1.059	Jan 2015	1.039	Jan 2016	-		1.039	Continuing	Continuing	-
		Subtotal	-	0.441		1.059		1.039		-		1.039	-	-	-

	Prior Years	FY 2014 Cost	FY 2014 Award Date	FY 2015 Cost	FY 2015 Award Date	FY 2016 Base Cost	FY 2016 Base Award Date	FY 2016 OCO Cost	FY 2016 OCO Award Date	FY 2016 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	-	4.696		7.333		7.052		-		7.052	-	-	-

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2016 United States Special Operations Command		Date: February 2015
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 1160403BB / *Aviation Systems*	**Project (Number/Name)** S750 / *Mission Training and Preparation Systems*

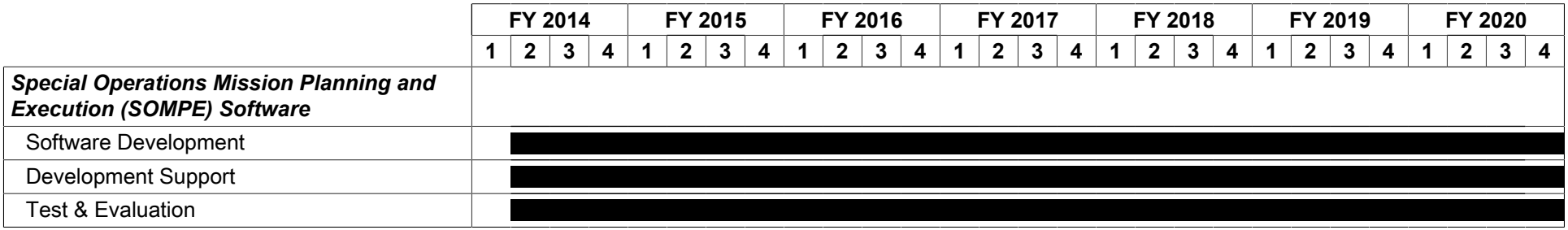

Exhibit R-4A, RDT&E Schedule Details: PB 2016 United States Special Operations Command		Date: February 2015
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 1160403BB / *Aviation Systems*	**Project (Number/Name)** S750 / *Mission Training and Preparation Systems*

Schedule Details

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
Special Operations Mission Planning and Execution (SOMPE) Software				
Software Development	2	2014	4	2020
Development Support	2	2014	4	2020
Test & Evaluation	2	2014	4	2020

Exhibit R-2A, RDT&E Project Justification: PB 2016 United States Special Operations Command			Date: February 2015
Appropriation/Budget Activity 0400 / 7	R-1 Program Element (Number/Name) PE 1160403BB / *Aviation Systems*	Project (Number/Name) S875 / *AC/MC-130J*	

COST ($ in Millions)	Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	Cost To Complete	Total Cost
S875: *AC/MC-130J*	-	9.915	5.629	7.398	-	7.398	8.024	6.719	2.329	-	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

The AC/MC-130J project funds core Special Operations Forces (SOF)-unique modifications to replace aging MC-130E Combat Talon I, MC-130P Combat Shadow, MC-130H Combat Talon II, AC-130H Spectre, AC-130W Stinger II, and AC-130U Spooky airframes. The 8 AC-130H Spectre, 12 AC-130W Stinger II and 17 AC-130U Spooky airframes will be replaced with MC-130J aircraft modified with the Precision Strike Package (PSP) to achieve the AC-130J configuration. These platforms perform clandestine or low visibility, single- or multi-ship low-level missions intruding politically-sensitive or hostile territories; provide air refueling for special operations helicopters and CV-22 aircraft; airdrop leaflets, small special operations teams, resupply bundles and combat rubber raiding craft; and close air support (CAS), air interdiction, armed reconnaissance, escort, and force protection - integrated base defense. Additional capabilities include low-level navigation and in-flight refueling. The Air Force will procure and field basic aircraft, common support equipment, and trainers for USSOCOM. USSOCOM will then employ an incremental upgrade approach to incorporate SOF capabilities onto the Air Force-provided aircraft.

Conducts development, integration, and testing of aircraft enhancements to meet SOF-unique mission requirements. Enhancements include, but are not limited to, SOF communications, mission processors, aircraft performance enhancements, enhanced situational awareness (ESA), electronic warfare and survivability systems, and other SOF mission kits. Provides PSP aircraft infrastructure development.

B. Accomplishments/Planned Programs ($ in Millions)	FY 2014	FY 2015	FY 2016
Title: MC-130J	5.412	2.848	6.118
FY 2014 Accomplishments: Continued SOF-unique mission improvements including, but not limited to, MC-130J Increment 3 development, integration, and test efforts.			
FY 2015 Plans: Continue SOF-unique mission improvements including, but not limited to, MC-130J Increment 3 development, integration, and test efforts.			
FY 2016 Plans: Continues SOF-unique mission improvements including, but not limited to, MC-130J Increment 3 development, integration, and test efforts.			
Title: ESA	0.631	1.705	0.705
FY 2014 Accomplishments:			

Exhibit R-2A, RDT&E Project Justification: PB 2016 United States Special Operations Command		Date: February 2015
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 1160403BB / *Aviation Systems*	**Project (Number/Name)** S875 / *AC/MC-130J*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2014	FY 2015	FY 2016
Initiated ESA integration and test on the MC-130J aircraft. ***FY 2015 Plans:*** Continue ESA integration and test. ***FY 2016 Plans:*** Continues ESA integration and test.			
Title: AC-130J ***FY 2014 Accomplishments:*** Developed and tested aircraft modification designs for PSP kit installation. ***FY 2015 Plans:*** Develop and tests aircraft modification designs for PSP kit installation. ***FY 2016 Plans:*** Develops and tests aircraft modification designs for PSP kit installation.	3.872	1.076	0.575
Accomplishments/Planned Programs Subtotals	9.915	5.629	7.398

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	Cost To Complete	Total Cost
• PROC1: *AC/MC-130J*	54.070	70.988	61.368	-	61.368	63.567	157.117	176.794	207.572	Continuing	Continuing
• PROC2: *Precision Strike Package*	90.220	131.929	204.105	-	204.105	213.730	218.400	222.024	227.066	Continuing	Continuing

Remarks

D. Acquisition Strategy

The basic AC/MC-130J aircraft will be acquired under the United States Air Force HC/MC-130J Recapitalization procurement program. USSOCOM will fund development, integration, test and production/retrofit of SOF-unique mission equipment under this program and the USSOCOM PSP program.

E. Performance Metrics

N/A

Exhibit R-3, RDT&E Project Cost Analysis: PB 2016 United States Special Operations Command			Date: February 2015
Appropriation/Budget Activity 0400 / 7	R-1 Program Element (Number/Name) PE 1160403BB / *Aviation Systems*	Project (Number/Name) S875 / *AC/MC-130J*	

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2014 Cost	FY 2014 Award Date	FY 2015 Cost	FY 2015 Award Date	FY 2016 Base Cost	FY 2016 Base Award Date	FY 2016 OCO Cost	FY 2016 OCO Award Date	FY 2016 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
MC-130J	C/Various	Lockheed Martin : Atlanta, GA	-	5.412	Apr 2014	2.848	Mar 2015	6.118	Mar 2016	-		6.118	Continuing	Continuing	-
Enhanced Situational Awarness	C/Various	Lockheed Martin : Atlanta, GA	-	0.631	Jul 2014	1.705	Dec 2014	0.705	Jan 2016	-		0.705	Continuing	Continuing	-
AC-130J	C/Various	Lockheed Martin : Lexington, KY	-	3.872	Jan 2014	1.076	Jan 2015	0.575	Jan 2016	-		0.575	Continuing	Continuing	-
		Subtotal	-	9.915		5.629		7.398		-		7.398	-	-	-

	Prior Years	FY 2014		FY 2015		FY 2016 Base		FY 2016 OCO		FY 2016 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	-	9.915		5.629		7.398		-		7.398	-	-	-

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2016 United States Special Operations Command		Date: February 2015
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 1160403BB / *Aviation Systems*	**Project (Number/Name)** S875 / *AC/MC-130J*

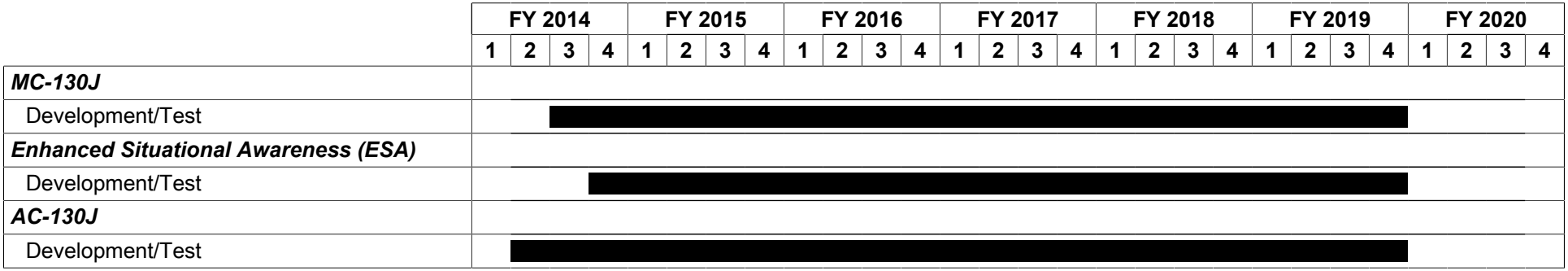

Exhibit R-4A, RDT&E Schedule Details: PB 2016 United States Special Operations Command		Date: February 2015
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 1160403BB / *Aviation Systems*	**Project (Number/Name)** S875 / *AC/MC-130J*

Schedule Details

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
MC-130J				
Development/Test	3	2014	4	2019
Enhanced Situational Awareness (ESA)				
Development/Test	4	2014	4	2019
AC-130J				
Development/Test	2	2014	4	2019

Exhibit R-2A, RDT&E Project Justification: PB 2016 United States Special Operations Command											Date: February 2015	
Appropriation/Budget Activity 0400 / 7					R-1 Program Element (Number/Name) PE 1160403BB / *Aviation Systems*				Project (Number/Name) D615 / *Rotary Wing Aviation*			
COST ($ in Millions)	**Prior Years**	**FY 2014**	**FY 2015**	**FY 2016 Base**	**FY 2016 OCO**	**FY 2016 Total**	**FY 2017**	**FY 2018**	**FY 2019**	**FY 2020**	**Cost To Complete**	**Total Cost**
D615: *Rotary Wing Aviation*	-	27.617	67.390	66.654	-	66.654	32.898	17.357	16.809	17.178	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

This project develops/upgrades Special Operation Forces (SOF) rotary wing aircraft systems that operate in increasingly hostile environments. Rotary wing aircraft supported by this project include: A/MH-6M, MH-60M, and MH-47G. These aircraft provide aviation support to SOF in world-wide contingency operations and low-intensity conflicts and they must be capable of rapid deployment, undetected penetration of hostile areas, and operating at extended ranges under adverse weather conditions to infiltrate, provide logistics for, reinforce, and extract SOF. The threat is characterized by an extensive and sophisticated ground based air defense system and an upgraded air-to-air capability targeted against helicopters. Sub-projects include:

• A/MH-6M Block 3.0 Upgrade is necessary to restore structural, performance, and safety margins for the aircrews. An airframe structural modification will address recurring structural failures due to high intensity, high gross weight operations, and a decade of battle damage. A main/tail rotor drive train and engine control improvement efforts will reduce airframe loads and restore sufficient safety and performance margins. An avionics upgrade Non-Developmental Item/Commercial Off-the-Shelf (NDI/COTS) will replace obsolescent components and provide improved battlefield situational awareness to the aircrews and customers necessary to support time sensitive mission requirements. This upgrade is critical in keeping the A/MH-6M aircraft operational through FY 2020 and beyond or until a suitable replacement aircraft is available. The non-recurring effort supports development, fabrication of test hardware, qualification of components and systems, and data items to support issuance of Government airworthiness releases for structural and software modifications.

• MH-60M SOF Modernization program provides for the recurring/non-recurring systems engineering and platform integration efforts, to include continued flight and qualification testing and test support for MH-60M Block program.

• MH-60M Block Upgrades provides the development, integration, and qualification efforts on the MH-60 helicopter to include flight test support, engineering analysis, documentation, and airworthiness substantiation.

• Degraded Visual Environment (DVE) solution will fuse information from currently fielded aircraft sensors with emerging technology to display real-time reference points, obstacles, and landing zone information to the aviator. The DVE solution will provide MH-47/60 aircrews with visual cues for obstacle avoidance and aircraft control during all phases of flight and significantly increase crew and passenger survivability in DVE such as dirt and snow. This program addresses SOF-unique requirements for rapid fielding and weight limitations, capitalizes on the unique skills of the SOF aviator while integrating with SOF-unique avionics, and leverages to the maximum extent possible, the use of existing sensors on SOF aircraft.

• Future Vertical Lift (FVL) program provides for the long-term replacement of an aging fleet of aircraft and provides a significant increase in range, speed, payload, survivability, reliability, and maintainability of vertical lift aircraft to meet emerging mission requirements. USSOCOM will participate in the service-common development of a joint future vertical lift aircraft by injecting USSOCOM requirements and equities into the initial development and design efforts to minimize SOF-peculiar modifications to the common aircraft.

Exhibit R-2A, RDT&E Project Justification: PB 2016 United States Special Operations Command		Date: February 2015
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 1160403BB / *Aviation Systems*	**Project (Number/Name)** D615 / *Rotary Wing Aviation*

• Infrared Countermeasure (IRCM) program provides a low Size, Weight, and Power (SWaP) capability suitable for the A/MH-6 Mission Enhanced Little Bird. The IRCM program will develop, integrate, qualify, and test a complete lightweight IRCM system to include a missile warning system and countermeasure capability. The A/MH-6 is the only tactical aircraft in the U.S. Army inventory without protection from infrared guided and other advanced Man Portable Air Defense missiles.

• MH-47 Modifications and Upgrades program develops technologies to improve performance and safety of the MH-47G and decrease operational costs. Efforts include the Active Parallel Actuator System (APAS), Active Noise Cancellation (ANC), and Engine Barrier Filter.

• Mission Processor Upgrade (MPU) program provides for non-recurring engineering (NRE), systems engineering/testing, and future aircraft architecture studies that support the replacement and upgrade of the current mission and video processors for all Army Special Operations Aviation (ARSOA). Upgrading all internal processors increases the processing power to support critical functionality and emerging technologies that will be integrated into the Common Avionics Architecture System (CAAS). This MPU provides the processing and memory resources required to incorporate the following functions into the General Purpose Processing Unit (GPPU): (1) Global Air Traffic Management replaces ground-based navigation aids with a capability that meets the international requirement that all aircraft be compliant with digital and space-based navigation systems; (2) Situational Awareness for Safe Aircraft Recovery provides passive survivability for flight operations in all weather conditions by providing three-dimensional displays with flight path guidance to increase battle space awareness in zero-visibility conditions; (3) Cognitive Decision Aiding System fuses information on threat, route, weather, terrain, and friendly forces instantaneously adjusting an aircraft's route to protect the flight crew in hazardous weather, low levels, and night conditions.

• Next Generation Forward Looking Infrared (NGFLIR) program is a pre-planned product improvement that incorporates a multispectral sensor (Shortwave Infrared, Image Intensifying TV, and Color Day TV) into the existing Q2 Electro-Optical Sensor System (EOSS). This will improve targeting, tracking, and aircrew situational awareness. This program also maximizes the service life of the Q2 sensor by mitigating obsolescence and increasing functionality on the light and heavy assault platforms within the ARSOA fleet.

B. Accomplishments/Planned Programs ($ in Millions)	FY 2014	FY 2015	FY 2016
Title: A/MH-6M Block 3.0 Upgrade	12.420	20.037	20.010
FY 2014 Accomplishments: Continued the development of cockpit upgrades, improved rotor systems, and upgrades to airframe.			
FY 2015 Plans: Continue development of cockpit upgrades, improved rotor systems, and upgrades to airframe. Continue component level qualification testing and Contract Data Requirements List development/submittals. Initiate system level qualification testing.			
FY 2016 Plans: Continues system level qualification of improved rotor system and initiates Airworthiness and Flight Characteristics testing.			
Title: MH-60M SOF Modernization Program	2.686	-	-
FY 2014 Accomplishments:			

Exhibit R-2A, RDT&E Project Justification: PB 2016 United States Special Operations Command		Date: February 2015
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 1160403BB / *Aviation Systems*	**Project (Number/Name)** D615 / *Rotary Wing Aviation*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2014	FY 2015	FY 2016
Began flight and qualification testing for the MH-60M upgrades.			
Title: MH-60M Block Upgrades ***FY 2015 Plans:*** Continue flight and qualification testing for the MH-60M Block Upgrades ***FY 2016 Plans:*** Continues integration and flight qualification for the MH-60M Block Upgrades.	-	13.500	12.666
Title: DVE ***FY 2014 Accomplishments:*** Completed Phase I DVE sensor development culminating in ground test of three candidate technical solutions. ***FY 2015 Plans:*** Continue Phase II DVE sensor development culminating in flight test of two candidate technical solutions. ***FY 2016 Plans:*** Continues integration and testing of the selected DVE technical solution.	11.523	16.976	13.465
Title: FVL ***FY 2014 Accomplishments:*** Began to identify classes of FVL technology development most applicable to SOF Aviation platforms and participated in the Analysis of Alternatives conducted by the Joint FVL Program Office. ***FY 2015 Plans:*** Continue participation in the Joint Integrated Product Team materiel solution analysis with a focus on injecting SOF requirements into the baseline planning and requirements documents that provides a minimum of SOF-peculiar modifications. Focus will be on current fleet operations and support cost analysis, logistics analysis, and cost estimation methodology to include front end better buying power initiatives. ***FY 2016 Plans:*** Continues science and technology effort aligned with the future SOF-peculiar requirements.	0.488	1.299	1.282
Title: IRCM ***FY 2014 Accomplishments:*** Conducted market analysis and trade studies in parallel with requirement definition completion. ***FY 2015 Plans:***	0.500	2.498	3.450

Exhibit R-2A, RDT&E Project Justification: PB 2016 United States Special Operations Command		Date: February 2015
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 1160403BB / *Aviation Systems*	**Project (Number/Name)** D615 / *Rotary Wing Aviation*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2014	FY 2015	FY 2016
Begin development, integration, and qualification testing of a missile warning and lightweight IRCM systems for A/MH-6 aircraft. ***FY 2016 Plans:*** Continues development, integration, and qualification testing of missile warning and lightweight IRCM systems for the A/MH-6 aircraft.			
Title: MH-47 Low Cost Modifications ***FY 2015 Plans:*** Begin development of APAS and the Engine Barrier Filter for the MH-47G. ***FY 2016 Plans:*** Continues development of APAS and the Engine Barrier Filter for MH-47G.	-	7.000	11.753
Title: MPU ***FY 2015 Plans:*** Begin development and testing of replacement mission and video processors for the ARSOA platforms. ***FY 2016 Plans:*** Continues development and testing of replacement mission and video processors for the ARSOA platforms.	-	3.000	3.032
Title: NGFLIR ***FY 2015 Plans:*** Begin development, integration, and testing of the multi-spectral sensor into the Q2 EOSS. ***FY 2016 Plans:*** Continues development, integration, and testing of the multi-spectral sensor into the Q2 EOSS.	-	3.080	0.996
Accomplishments/Planned Programs Subtotals	27.617	67.390	66.654

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	Cost To Complete	Total Cost
• PROC 1: *Rotary Wing Upgrades and Sustainment*	114.156	112.226	133.445	-	133.445	193.603	175.047	151.291	147.121	Continuing	Continuing

Remarks

Exhibit R-2A, RDT&E Project Justification: PB 2016 United States Special Operations Command		Date: February 2015
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 1160403BB / *Aviation Systems*	**Project (Number/Name)** D615 / *Rotary Wing Aviation*

D. Acquisition Strategy

• A/MH-6M Block 3.0 Upgrade comprises three major efforts: airframe/rotors, engine control, and cockpit. The airframe/rotors development effort will be a sole-source contract to Boeing, who owns the technical data associated with the A/MH-6 airframe. The engine control work will be performed by Rolls-Royce and Triumph Electronic Control Systems under sole-source contract to Rolls Royce. The cockpit avionics architecture will be developed by Rockwell-Collins. Any new hardware components will be NDI/COTS and will be competitively selected. Airframe modification and integration work will be conducted at the Special Operations Forces Support Activity (SOFSA) by the incumbent contractor.

• MH-60M SOF Modernization Program supports the systems integration and qualification efforts on the prototype MH-60M helicopter. This includes, but is not limited to, government and contractor flight test support, engineering analysis, documentation, and airworthiness substantiation. Contractor flight test support will be conducted by Sikorsky Aircraft while aircraft modification efforts will be performed at the SOFSA by the incumbent contractor.

• MH-60M Block Upgrades are accomplished for 72 MH-60M base aircraft with various contractors and acquisition vehicles. The SOFSA executes SOF-peculiar upgrade modifications onto the MH-60M base aircraft.

• DVE integrates and qualifies a solution to address a safety of flight issue while flying in degraded visual environments. A competitive source selection process will be conducted for the DVE solution which will procure, integrate, and install components to provide real-time “see through” imagery and heads up display of visual cues for obstacle avoidance and landing zone information during all phases of flight. DVE will increase MH-60 and MH-47 and warfighter survivability in degraded visual environments.

• FVL is the SOF aviation participation in the Joint FVL effort to develop the next generation of vertical takeoff and landing aircraft and establishes the foundation for the transformation of the DOD vertical lift aviation capabilities over the next forty years.

• IRCM will be a competitive source selection effort that develops, integrates, and qualifies a mission configurable Missile Warning System and IRCM capability which does not currently exist at a weight suitable for the A/MH-6 aircraft. Special Operations Aviation requires the addition of IRCM to protect against increasingly proliferated and sophisticated infrared-guided weapons.

• MH-47 Modifications and Upgrades - These efforts develop technologies to improve performance and safety of the MH-47G and decrease operational costs. Efforts include the APAS, ANC and Engine Barrier Filter. The upgrades and modifications mostly consist of Government executed integration, testing, and qualification efforts with some analytical engineering services to be completed.

• MPU - The GPPU NRE supports improvements to the video processing and Ethernet switch capabilities for CAAS aircraft. The engineering and testing will be sole-source to Rockwell Collins, the original equipment manufacturer (OEM) for the GPPU. The Data Concentrator Unit (DCU) Modernization NRE will be used to improve analog-to-digital signal processing and reliability, as well as reduce weight. The DCU efforts will be sole-source to Sanmina SCI Corporation, the OEM for the DCU. The Future Aircraft Architecture Studies will be competitively awarded.

Exhibit R-2A, RDT&E Project Justification: PB 2016 United States Special Operations Command		Date: February 2015
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 1160403BB / *Aviation Systems*	**Project (Number/Name)** D615 / *Rotary Wing Aviation*

• NGFLIR integration of a multi-spectral sensor into the Q2 EOSS will be sole-source procurement through Raytheon. As the OEM, Raytheon maintains overall responsibility for the Q2 System, and will develop an acquisition strategy to develop, test, and integrate the multi-spectral sensor. Raytheon is closely monitoring the joint Technology Applications Program Office/Night Vision Electronic Sensors Directorate multi-spectral work, and is currently using Independent Research and Development to further mature that technology.

E. Performance Metrics

N/A

Exhibit R-3, RDT&E Project Cost Analysis: PB 2016 United States Special Operations Command			Date: February 2015
Appropriation/Budget Activity 0400 / 7	R-1 Program Element (Number/Name) PE 1160403BB / *Aviation Systems*	Project (Number/Name) D615 / *Rotary Wing Aviation*	

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2014 Cost	FY 2014 Award Date	FY 2015 Cost	FY 2015 Award Date	FY 2016 Base Cost	FY 2016 Base Award Date	FY 2016 OCO Cost	FY 2016 OCO Award Date	FY 2016 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
A/MH-6M Block 3.0 Upgrades	C/Various	PM MELB : Ft Eustis, VA	0.000	12.420	Dec 2013	20.037	Jan 2015	20.010	Dec 2015	-		20.010	Continuing	Continuing	-
Degraded Visual Environment (DVE)	C/Various	PM TAPO : Ft Eustis, VA	0.000	11.523	Jul 2014	16.976	Jan 2015	13.465	Dec 2015	-		13.465	Continuing	Continuing	-
Future Verticle Lift (FVL)	C/Various	PEO-RW : MacDill AFB, FL	0.000	0.488	Jun 2014	1.299	Sep 2015	1.282	Feb 2016	-		1.282	Continuing	Continuing	-
Infrared Countermeasure (IRCM)	C/Various	PM TAPO : Ft Eustis, VA	0.000	0.500	Jul 2014	2.498	Apr 2015	3.450	Apr 2016	-		3.450	Continuing	Continuing	-
MH-47G Low Cost Mods	C/Various	PM TAPO : Eustis, VA	0.000	-		7.000	Jun 2015	11.753	Jun 2016	-		11.753	Continuing	Continuing	-
Mission Processor Upgrade (MPU)	C/Various	PM TAPO : Eustis, VA	0.000	-		3.000	Apr 2015	3.032	Apr 2016	-		3.032	Continuing	Continuing	-
Next Generation Foward Looking Infrared (NGFLIR)	C/Various	PM TAPO : Eustis, VA	0.000	-		3.080	Apr 2015	0.996	Apr 2016	-		0.996	Continuing	Continuing	-
		Subtotal	0.000	24.931		53.890		53.988		-		53.988	-	-	-

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2014 Cost	FY 2014 Award Date	FY 2015 Cost	FY 2015 Award Date	FY 2016 Base Cost	FY 2016 Base Award Date	FY 2016 OCO Cost	FY 2016 OCO Award Date	FY 2016 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
MH-60M SOF Modernization Program	C/Various	Various : Various	0.000	2.686	Jun 2014	-		-		-		-	-	2.686	-
MH-60 Block Upgrades	C/Various	Various : Various	0.000	-		13.500	Apr 2015	12.666	Apr 2016	-		12.666	-	26.166	-
		Subtotal	0.000	2.686		13.500		12.666		-		12.666	-	28.852	-

	Prior Years	FY 2014		FY 2015		FY 2016 Base		FY 2016 OCO		FY 2016 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	0.000	27.617		67.390		66.654		-		66.654	-	-	-

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2016 United States Special Operations Command		Date: February 2015
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 1160403BB / *Aviation Systems*	**Project (Number/Name)** D615 / *Rotary Wing Aviation*

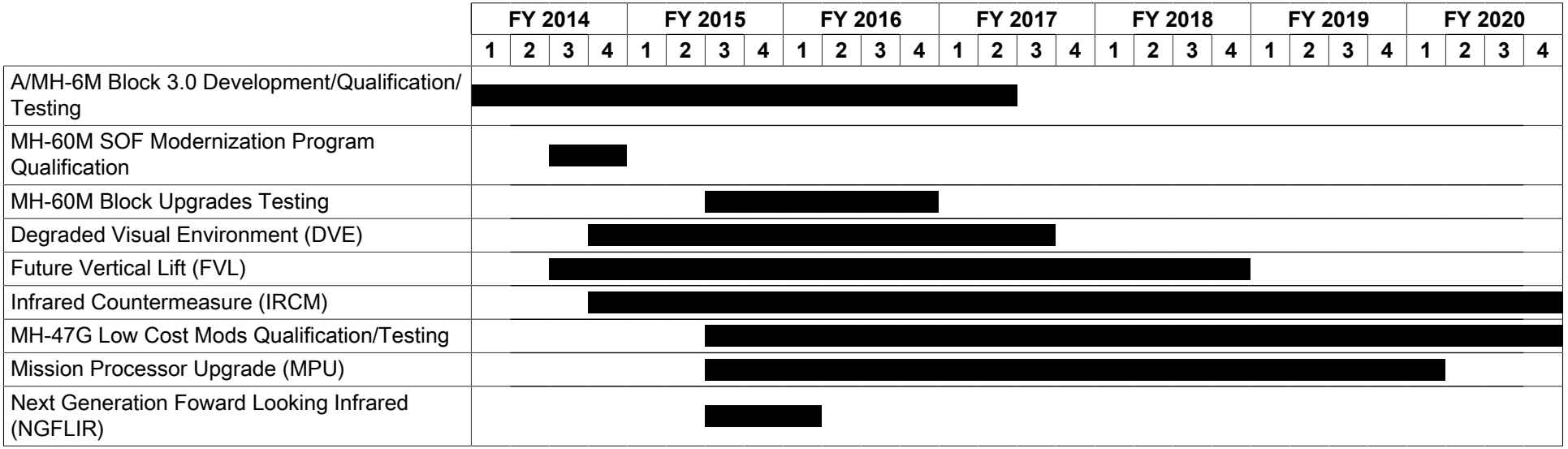

Exhibit R-4A, RDT&E Schedule Details: PB 2016 United States Special Operations Command		Date: February 2015
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 1160403BB / *Aviation Systems*	**Project (Number/Name)** D615 / *Rotary Wing Aviation*

Schedule Details

	Start		End	
Events	**Quarter**	**Year**	**Quarter**	**Year**
A/MH-6M Block 3.0 Development/Qualification/Testing	1	2014	2	2017
MH-60M SOF Modernization Program Qualification	3	2014	4	2014
MH-60M Block Upgrades Testing	3	2015	4	2016
Degraded Visual Environment (DVE)	4	2014	3	2017
Future Vertical Lift (FVL)	3	2014	4	2018
Infrared Countermeasure (IRCM)	4	2014	4	2020
MH-47G Low Cost Mods Qualification/Testing	3	2015	4	2020
Mission Processor Upgrade (MPU)	3	2015	1	2020
Next Generation Foward Looking Infrared (NGFLIR)	3	2015	1	2016

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Exhibit R-2, RDT&E Budget Item Justification: PB 2016 United States Special Operations Command	Date: February 2015
Appropriation/Budget Activity 0400: *Research, Development, Test & Evaluation, Defense-Wide* / BA 7: *Operational Systems Development*	**R-1 Program Element (Number/Name)** PE 1160405BB / *Intelligence Systems Development*

COST ($ in Millions)	Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	Cost To Complete	Total Cost
Total Program Element	546.581	7.705	9.490	6.866	-	6.866	6.969	6.946	6.268	6.391	Continuing	Continuing
S400: *SO Intelligence Systems*	546.581	7.705	9.490	6.866	-	6.866	6.969	6.946	6.268	6.391	Continuing	Continuing

A. Mission Description and Budget Item Justification

This program element is part of the Military Intelligence Program (MIP) that provides for the identification, development, and testing of Special Operations Forces (SOF) intelligence equipment to identify and eliminate deficiencies in providing timely intelligence to deployed forces. Sub-projects address the primary areas of intelligence dissemination, sensor systems, tagging, tracking, and locating devices, integrated threat warning to SOF mission platforms, and tactical exploitation of national system capabilities. USSOCOM has developed an overall strategy to ensure that Command, Control, Communications, Computers, and Intelligence (C4I) systems continue to provide SOF with the required capabilities into the 21st century. USSOCOM's C4I systems comprise an integrated network of systems providing positive command and control and timely exchange of intelligence and threat warning 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 with the Global Information Grid (GIG). The GIG allows SOF elements to operate with any force combination in multiple environments.

B. Program Change Summary ($ in Millions)	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total
Previous President's Budget	7.705	9.490	6.436	-	6.436
Current President's Budget	7.705	9.490	6.866	-	6.866
Total Adjustments	-	-	0.430	-	0.430
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-	-			
• Other Adjustments	-	-	0.430	-	0.430

Change Summary Explanation

Funding:

FY 2014: None.

FY 2015: None.

Exhibit R-2, RDT&E Budget Item Justification: PB 2016 United States Special Operations Command	Date: February 2015
Appropriation/Budget Activity 0400: *Research, Development, Test & Evaluation, Defense-Wide* / BA 7: *Operational Systems Development*	**R-1 Program Element (Number/Name)** PE 1160405BB / *Intelligence Systems Development*

FY 2016: Net increase of $0.430 million is due to a reprogramming supporting Sensitive Site Exploitation operational test ($0.155 million), Special Operations Forces Planning, Rehearsal and Execution Preparation test and evaluation ($0.325 million) and a decrease of -$0.050 million is due to a Departmental economic assumption decrease.

Schedule: None.

Technical: None.

Exhibit R-2A, RDT&E Project Justification: PB 2016 United States Special Operations Command											Date: February 2015	
Appropriation/Budget Activity 0400 / 7					R-1 Program Element (Number/Name) PE 1160405BB / *Intelligence Systems Development*				Project (Number/Name) S400 / *SO Intelligence Systems*			
COST ($ in Millions)	**Prior Years**	**FY 2014**	**FY 2015**	**FY 2016 Base**	**FY 2016 OCO**	**FY 2016 Total**	**FY 2017**	**FY 2018**	**FY 2019**	**FY 2020**	**Cost To Complete**	**Total Cost**
S400: *SO Intelligence Systems*	546.581	7.705	9.490	6.866	-	6.866	6.969	6.946	6.268	6.391	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

This project is part of the Military Intelligence Program (MIP) that provides for the identification, development, and testing of Special Operations Forces (SOF) intelligence equipment to identify and eliminate deficiencies in providing timely intelligence to deployed forces. Sub-projects address the primary areas of intelligence dissemination, sensor systems, tagging, tracking, and locating devices, integrated threat warning to SOF mission platforms, and tactical exploitation of national system capabilities. The systems developed and tested in this line item are National Systems Support to SOF (NSSS); Joint Threat Warning System (JTWS); Hostile Forces - Tagging, Tracking, and Locating (HF-TTL); Special Operations Tactical Video System (SOTVS); Special Operations Forces Planning, Rehearsal and Execution Preparation (SOFPREP); Integrated Survey Program (ISP); and Sensitive Site Exploitation (SSE).

U.S. Special Operations Command (USSOCOM) has developed an overall strategy to ensure that Command, Control, Communications, Computers, and Intelligence (C4I) systems continue to provide SOF with the required capabilities throughout the 21st century. USSOCOM's C4I systems comprise an integrated network of systems providing positive command and control and timely exchange of intelligence and threat warning 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 with the Global Information Grid (GIG). The GIG allows SOF elements to operate with any force combination in multiple environments. The intelligence programs funded in this project will meet annual emergent requirements and are grouped by the level of organizational element they support: Operational Element (Team) and Above Operational Element (Garrison).

OPERATIONAL ELEMENT (TEAM)

• NSSS. This program provides a research and development rapid prototyping capability which functions as HQ SOCOM's Tactical Exploitation of National Capabilities program. NSSS improves the combat effectiveness of USSOCOM, its components, and the Theater Special Operations Commands by leveraging National Agency and Service development efforts to provide innovative space-based intelligence systems technologies and enhancements, products and special communications capabilities to tactical SOF units. Focus items include: small, tactical Unmanned Aerial System (UAS) Multi-Intelligence geo-location and targeting capabilities with Rapid Reliable Targeting (RRT) system, enhanced Geospatial Intelligence (GEOINT) processing capabilities by Fusing Light Detection and Ranging (LiDAR) with National Technical Means (NTM) and the Enhanced Image Rendering Tool, which allows sharing of NTM Imagery with coalition forces. NSSS will also improve Signal Intelligence (SIGINT) capabilities by adding unclassified sensors into theater net-centric geo-location architecture, improve detection of Low-Probability of Intercept and Low Probability of Detection signals, and automated radar characterizations which enhances tactical SOF capabilities to find, fix, monitor, and target assets using NTM.

• JTWS. This program is an evolutionary acquisition (EA) program effort. JTWS System of Systems (SoS) is principally a Signals Intelligence (SIGINT) system; however, it can be used under Electronic Warfare and/or Cyber authorities if required. The JTWS SoS enables the SOF Cryptologic Operator (SCO) to collect, process, locate and exploit threat communications signals of interest in order to provide timely, relevant, and responsive intelligence, cross-cueing, and threat avoidance information directly to the SOF Commanders. The JTWS SoS is assembled in four variants (level 1): Ground SIGINT Kit (GSK) variant, Maritime variant, Air

variant (AVS) and Unmanned Air System (UAS) variant. Each variant is further subdivided into a functional layer: (level 2): Communications Intelligence, Electronic Intelligence, and Precision Geo-location (PGL) kits and an implementation layer (level 3) designed around the SCO mission environment and SOF platform specific requirements.

• HF-TTL. This program utilizes a commodity procurement strategy to provide SOF warfighters with the necessary tools to find, fix, and finish terrorist networks through the emplacement of sophisticated tags and devices that feed into an integrated architecture. HF-TTL provides Global Combatant Commanders and SOF operators with an immediate capability to tag, track, and locate people, things and activities. The HF-TTL program provides actionable intelligence for SOF planners. The Mission Sets are comprised of a mix of different classes of tags and their associated detection, interrogation, viewing, tracking, and communications systems that are fielded annually to SOF Components and Theater Special Operations Commands (TSOC) based upon dynamic and emergent SOF operational requirements.

• SOTVS. This program provides SOF with critical Special Reconnaissance (SR) equipment that directly supports the planning and execution of SOF missions. This capability allows the SOF warfighter to meet SOF SR mission requirements to find, fix, finish, exploit, analyze, and disseminate information of adversary's movement, construct, identification, location; and associated things and activities. SOTVS provides Global Combatant Commanders and SOF operators with an immediate capability to visually and electronically acquire people, things, and activities and provides actionable intelligence for SOF planners and Commanders. The SOTVS program consists of a Family of Systems (FoS) that employs an evolutionary acquisition strategy for evolving technology insertion, supplemented with commodity procurement. The program FoS consists of interoperable equipment to capture and transfer near-real-time ground-based, tactical day/night/reduced visibility, imagery, video, and electronic proximity and movement sensing, all capable of dissemination through SOF organic, global C4I, and commercial communications infrastructures.

ABOVE OPERATIONAL ELEMENT (GARRISON)

NOTE: Beginning in FY 2016 SOFPREP has been re-aligned from Mission Training and Preparation System program element 1160427BB into Special Operations Intelligence Systems Development program element 1160405BB.

• SOFPREP. This program serves as the intelligence focal point for production of SOF enhanced Geospatial Intelligence (GEOINT) (maps, imagery, and terrain data) and 3D scene visualization database. SOFPREP gathers, processes, exploits and disseminates classified high resolution 3D databases and GEOINT data in support of SOF training, mission rehearsal and execution preparation systems. The program builds the common environment for SOF Modeling and Simulation (M&S) applications and facilitates the integration of authoritative source data to enable the rapid discovery, retrieval, and reuse of GEOINT data across SOF planning, operations, intelligence and M&S. SOFPREP is a NGA-certified co-producer in support of time-sensitive SOF specific requirements.

• ISP. This program collects and produces current, detailed, tactical planning data to support military operations to counter threats against US citizens, interests, and property located both domestic and overseas. ISP products are specifically tailored packages that provide operational information, as well as intelligence data for use by DOD and the U.S. Department of State to support operational planners for counter-terrorism operations, evacuations, and other rescue missions.

Exhibit R-2A, RDT&E Project Justification: PB 2016 United States Special Operations Command		Date: February 2015
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 1160405BB / *Intelligence Systems Development*	**Project (Number/Name)** S400 / *SO Intelligence Systems*

• SSE. This program provides the capability to exploit personnel, documents, electronic data, material, and forensic evidence on sensitive sites/objectives. It allows collection and transmission of unique, measurable biometric signatures, including live/latent fingerprints, iris patterns, and facial features. It also provides a means to verify against and enroll subjects into the DOD authoritative database, and to query that database to support hold or release decisions.

B. Accomplishments/Planned Programs ($ in Millions)	FY 2014	FY 2015	FY 2016
Title: NSSS	0.795	0.807	0.802
FY 2014 Accomplishments: Developed SOF-required prototype capabilities, primarily through leveraging current or developing technologies and assets in the Intelligence Community (IC), while coordinating with other SOCOM and IC Programs of Record for production and operational fielding of the successful capabilities. Emphasis areas included ISR support for Tagging, Tracking, and higher-accuracy geo-locating hostile forces, as well as Friendly Force Tracking (FFT), especially in system-challenged environments.			
FY 2015 Plans: Develop SOF-required prototype capabilities, primarily through leveraging current or developing technologies and assets in the IC, while coordinating with other SOCOM and IC Programs of Record for production and operational fielding of the successful capabilities. Emphasis areas include ISR support for Tagging, Tracking, and higher-accuracy geo-locating hostile forces, as well as FFT, especially in system-challenged environments.			
FY 2016 Plans: Develops SOF-required prototype capabilities, primarily through leveraging current or developing technologies and assets in the IC, while coordinating with other SOCOM and IC Programs of Record for production and operational fielding of the successful capabilities. Emphasis areas will include ISR support for Tagging, Tracking, and higher-accuracy geo-locating hostile forces, as well as FFT, especially in system-challenged environments.			
Title: JTWS	6.543	7.301	4.317
FY 2014 Accomplishments: Continued networking and testing within the JTWS SoS and continued spiral development for all variants. Began JTWS Maritime prototype development.			
FY 2015 Plans: Continue networking and testing within the JTWS SoS and continue spiral development for all variants. Continue JTWS Maritime prototype development.			
FY 2016 Plans: Continues networking and testing within the JTWS SoS and continues spiral development for all variants. Continues JTWS Maritime prototype development.			
Title: HF-TTL	-	0.731	0.765

Exhibit R-2A, RDT&E Project Justification: PB 2016 United States Special Operations Command		Date: February 2015
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 1160405BB / *Intelligence Systems Development*	**Project (Number/Name)** S400 / *SO Intelligence Systems*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2014	FY 2015	FY 2016
FY 2015 Plans: Begin specialized device modifications,integration and operational testing and evaluation. ***FY 2016 Plans:*** Continues specialized device modifications, integration and operational testing and evaluation.			
Title: SOTVS ***FY 2014 Accomplishments:*** Began integration/operational testing within the SOTVS FoS for technology insertions of improved/downsized hardware/software configuration on all systems. ***FY 2015 Plans:*** Continue integration/operational testing within the SOTVS FoS for technology insertions of improved/downsized hardware/ software configuration on all systems. ***FY 2016 Plans:*** Continues integration/operational testing within the SOTVS FoS for technology insertions of improved/downsized hardware/ software configuration on all systems.	0.367	0.373	0.377
Title: SOFPREP ***FY 2016 Plans:*** This is an FY 2016 new start. Begins testing and evaluation of operational prototype systems to speed production of correlated high resolution 3D terrain databases in a Graphics Processing Unit accelerated high performance computing architecture.	-	-	0.325
Title: ISP ***FY 2015 Plans:*** Begin development for the modernization of the ISP system to integrate with enterprise architecture and support the latest standards and technology. ***FY 2016 Plans:*** Continues development for the modernization of the ISP system to integrate with enterprise architecture and support the latest standards and technology.	-	0.278	0.125
Title: SSE ***FY 2016 Plans:***	-	-	0.155

Exhibit R-2A, RDT&E Project Justification: PB 2016 United States Special Operations Command		Date: February 2015
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 1160405BB / *Intelligence Systems Development*	**Project (Number/Name)** S400 / *SO Intelligence Systems*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2014	FY 2015	FY 2016
This is an FY 2016 new start. Begins specialized devise integration and operational testing and evaluation.			
Accomplishments/Planned Programs Subtotals	7.705	9.490	6.866

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	Cost To Complete	Total Cost
• PROC1: *Intelligence Systems*	93.567	91.050	93.009	-	93.009	91.679	90.019	89.416	93.275	Continuing	Continuing

Remarks

D. Acquisition Strategy

• NSSS introduces and integrates national systems capabilities into the SOF force structure and operations. This is accomplished by partnering with existing IC programs of record to incorporate SOF mission requirements into current and developing technologies and assets. This leveraging of funding increases national and commercial systems awareness, demonstrates the tactical utility of national systems and commercial data, tests technologies and evaluates operational concepts in biennial Joint Staff Special Projects, and allows for the transition of promising concepts and technologies to other SOF program office for execution.

• JTWS employs an evolutionary strategy to provide upgraded next generation technology insertions and to address the changing threat environment for all air, ground, maritime and precision geo-location variants. Commercial and government agency sources will be leveraged for required certifications, functional and operational test and acceptance support.

• HF-TTL utilizes a commodity procurement acquisition strategy to provide highly sophisticated TTL and close target audio/video devices capable of operating in various environments as needed to meet SOF operational requirements. Commercial and government agency sources will be leveraged for required certifications, device level modifications, integration, functional, and operational testing and evaluations.

• SOTVS employs an evolutionary strategy to incorporate the latest state of technology within its product line to provide upgraded next-generation technology insertion of commercial-off-the-shelf systems and address the changing threat environment to meet SOF reconnaissance and surveillance mission requirements. Commercial and government agency sources will be leveraged for required certifications, system level integration, functional, and operational testing and evaluations.

• SOFPREP employs an evolutionary strategy to insert emerging technologies for processing, exploitation and dissemination capabilities tailored to SOF user-defined mission requirements. Commercial and government agency sources are leveraged for required certifications, system level integration, functional, and operational testing and evaluations.

Exhibit R-2A, RDT&E Project Justification: PB 2016 United States Special Operations Command		Date: February 2015
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 1160405BB / *Intelligence Systems Development*	**Project (Number/Name)** S400 / *SO Intelligence Systems*

• ISP employs an evolutionary strategy to insert emerging technologies for collection, processing, exploitation and dissemination capabilities tailored to SOF user-defined mission requirements. Commercial and government agency sources are leveraged for required certifications, system level integration, functional, and operational testing and evaluations.

• SSE uses a commodity procurement acquisition strategy to provide next-generation technologies for collection, processing, exploitation and dissemination capabilities supporting SOF exploitation mission requirements. Commercial and government agency sources are leveraged for required certifications, system level integration, functional, and operational testing and evaluations.

E. Performance Metrics

N/A

Exhibit R-3, RDT&E Project Cost Analysis: PB 2016 United States Special Operations Command		Date: February 2015
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 1160405BB / *Intelligence Systems Development*	**Project (Number/Name)** S400 / *SO Intelligence Systems*

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2014 Cost	FY 2014 Award Date	FY 2015 Cost	FY 2015 Award Date	FY 2016 Base Cost	FY 2016 Base Award Date	FY 2016 OCO Cost	FY 2016 OCO Award Date	FY 2016 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
National Systems Support to SOF (NSSS)	MIPR	Various : Various	14.338	0.535	Dec 2013	0.542	Dec 2014	0.532	Dec 2015	-		0.532	Continuing	Continuing	-
Joint Threat Warning System (JTWS)-Air Increment 2	MIPR	SPAWAR : Charleston, SC	4.568	0.600	Nov 2013	0.935	Nov 2014	0.945	Nov 2015	-		0.945	Continuing	Continuing	-
JTWS-Ground Sigint Kit (GSK), Inc 2	C/CPFF	Various : Various	18.282	0.775	Nov 2013	0.791	Nov 2014	0.795	Nov 2015	-		0.795	Continuing	Continuing	-
JTWS-Maritime	C/CPFF	Various : Various	1.102	3.320	Nov 2013	3.387	Nov 2014	0.315	Nov 2015	-		0.315	Continuing	Continuing	-
JTWS-All Variants	MIPR	Various : Various	-	0.818	Nov 2013	0.836	Oct 2014	0.829	Oct 2015	-		0.829	Continuing	Continuing	-
Integrated Survey Program	C/FFP	Various : Various	-	-		0.278	Jan 2015	0.125	Jan 2016	-		0.125	Continuing	Continuing	-
Hostile Forces-Tagging Tracking, and Locating (HF-TTL)	MIPR	Various : Various	-	-		0.381	Jan 2015	0.230	Nov 2015	-		0.230	Continuing	Continuing	-
Prior Year Funding - Completed Efforts	Various	Various : Various	461.047	-		-		-		-		-	-	461.047	-
		Subtotal	499.337	6.048		7.150		3.771		-		3.771	-	-	-

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2014 Cost	FY 2014 Award Date	FY 2015 Cost	FY 2015 Award Date	FY 2016 Base Cost	FY 2016 Base Award Date	FY 2016 OCO Cost	FY 2016 OCO Award Date	FY 2016 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
JTWS Variant Analysis - Naval Post-Graduate School (NPS	MIPR	NPS : Monterey, CA	0.385	0.130	Jan 2014	0.135	Jan 2015	0.137	Jan 2016	-		0.137	Continuing	Continuing	-
JTWS-NSA Intern Support	MIPR	NSA : Ft Meade, MD	0.300	0.100	Apr 2014	0.103	Apr 2015	0.105	Apr 2016	-		0.105	Continuing	Continuing	-
Prior Year Funding - Completed Efforts	Various	Various : Various	6.493	-		-		-		-		-	-	6.493	-
		Subtotal	7.178	0.230		0.238		0.242		-		0.242	-	-	-

Exhibit R-3, RDT&E Project Cost Analysis: PB 2016 United States Special Operations Command			Date: February 2015
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 1160405BB / *Intelligence Systems Development*	**Project (Number/Name)** S400 / *SO Intelligence Systems*	

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2014 Cost	FY 2014 Award Date	FY 2015 Cost	FY 2015 Award Date	FY 2016 Base Cost	FY 2016 Base Award Date	FY 2016 OCO Cost	FY 2016 OCO Award Date	FY 2016 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
JTWS	MIPR	JITC : FT Huachuca, AZ	3.880	0.800	Nov 2013	1.114	Nov 2014	1.191	Nov 2015	-		1.191	Continuing	Continuing	-
Special Operations Tactical Video Systems (SOTVS)	MIPR	ATEC : FT Huachuca, AZ	-	0.367	Mar 2014	0.373	Jun 2015	0.377	Nov 2015	-		0.377	Continuing	Continuing	-
HF-TTL	MIPR	ATEC : FT Huachuca, AZ	-	-		0.350	Mar 2015	0.535	Nov 2015	-		0.535	Continuing	Continuing	-
Sensitive Site Exploitation (SSE)	MIPR	JTIC : FT Huachuca, AZ	-	-		-		0.155	Dec 2015	-		0.155	Continuing	Continuing	-
Special Operations Forces Planning, Rehearsal & Execution Preparation (SOFPREP)	C/FFP	Various : Various	-	-		-		0.325	Jan 2016	-		0.325	Continuing	Continuing	-
Prior Year Funding - Completed Efforts	Various	Various : Various	0.549	-		-		-		-		-	-	0.549	-
		Subtotal	4.429	1.167		1.837		2.583		-		2.583	-	-	-

Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2014 Cost	FY 2014 Award Date	FY 2015 Cost	FY 2015 Award Date	FY 2016 Base Cost	FY 2016 Base Award Date	FY 2016 OCO Cost	FY 2016 OCO Award Date	FY 2016 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
NSSS Program Support	C/CPAF	Jacobs : Tampa, FL	4.958	0.260	Mar 2014	0.265	May 2015	0.270	May 2016	-		0.270	Continuing	Continuing	-
Prior Year Funding - Completed Efforts	Various	Various : Various	30.679	-		-		-		-		-	-	30.679	-
		Subtotal	35.637	0.260		0.265		0.270		-		0.270	-	-	-

	Prior Years	FY 2014		FY 2015		FY 2016 Base		FY 2016 OCO		FY 2016 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	546.581	7.705		9.490		6.866		-		6.866	-	-	-

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2016 United States Special Operations Command		Date: February 2015
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 1160405BB / *Intelligence Systems Development*	**Project (Number/Name)** S400 / *SO Intelligence Systems*

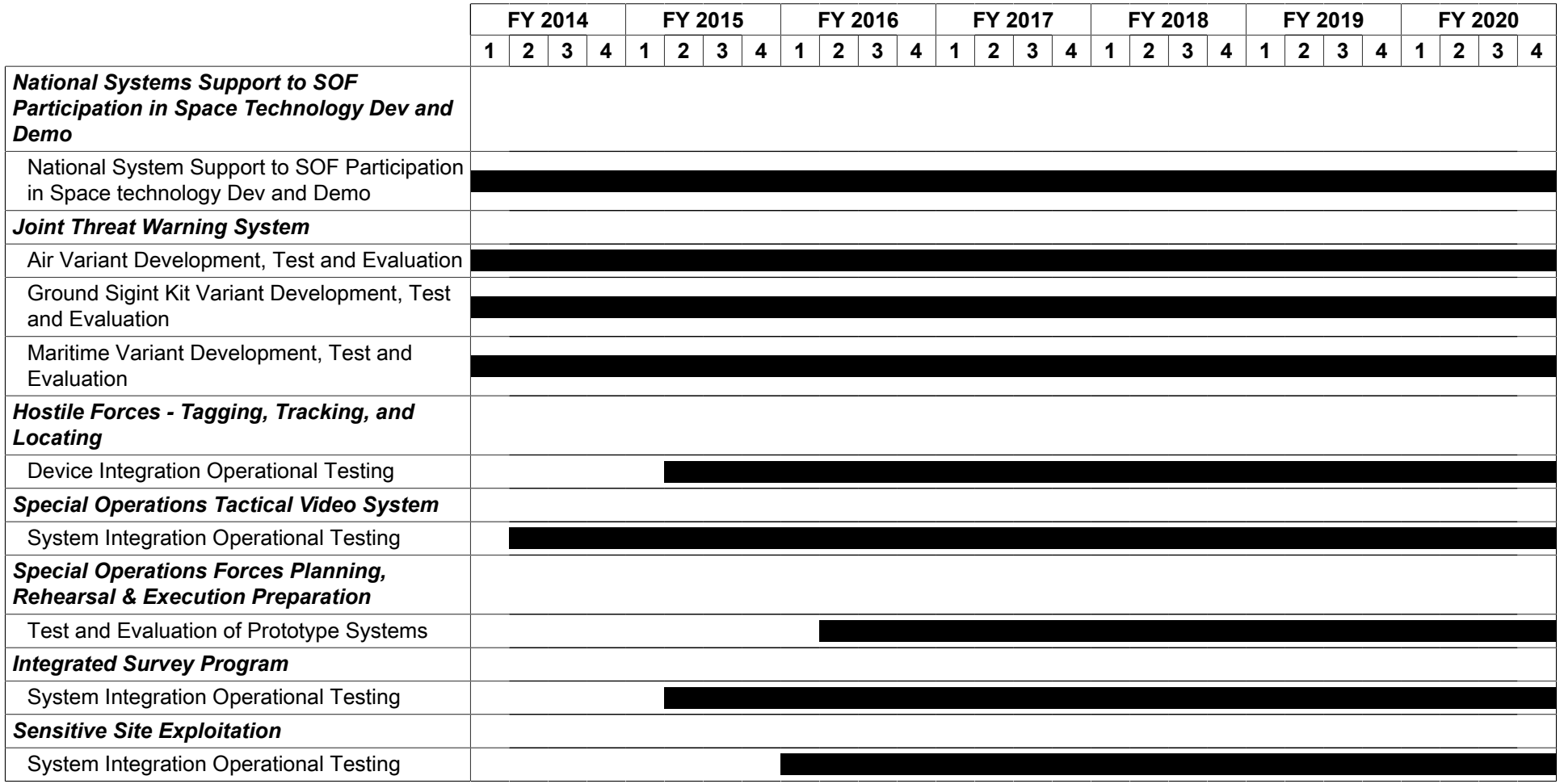

Exhibit R-4A, RDT&E Schedule Details: PB 2016 United States Special Operations Command		Date: February 2015
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 1160405BB / *Intelligence Systems Development*	**Project (Number/Name)** S400 / *SO Intelligence Systems*

Schedule Details

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
National Systems Support to SOF Participation in Space Technology Dev and Demo				
National System Support to SOF Participation in Space technology Dev and Demo	1	2014	4	2020
Joint Threat Warning System				
Air Variant Development, Test and Evaluation	1	2014	4	2020
Ground Sigint Kit Variant Development, Test and Evaluation	1	2014	4	2020
Maritime Variant Development, Test and Evaluation	1	2014	4	2020
Hostile Forces - Tagging, Tracking, and Locating				
Device Integration Operational Testing	2	2015	4	2020
Special Operations Tactical Video System				
System Integration Operational Testing	2	2014	4	2020
Special Operations Forces Planning, Rehearsal & Execution Preparation				
Test and Evaluation of Prototype Systems	2	2016	4	2020
Integrated Survey Program				
System Integration Operational Testing	2	2015	4	2020
Sensitive Site Exploitation				
System Integration Operational Testing	1	2016	4	2020

Exhibit R-2, RDT&E Budget Item Justification: PB 2016 United States Special Operations Command	Date: February 2015
Appropriation/Budget Activity 0400: *Research, Development, Test & Evaluation, Defense-Wide* / BA 7: *Operational Systems Development*	**R-1 Program Element (Number/Name)** PE 1160408BB / *Operational Enhancements*

COST ($ in Millions)	Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	Cost To Complete	Total Cost
Total Program Element	667.189	42.492	81.253	63.008	-	63.008	61.153	67.037	68.514	69.704	Continuing	Continuing
S500A: *Operational Enhancements*	667.189	42.492	81.253	63.008	-	63.008	61.153	67.037	68.514	69.704	Continuing	Continuing

A. Mission Description and Budget Item Justification

Details are provided under separate cover.

B. Program Change Summary ($ in Millions)	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total
Previous President's Budget	42.492	75.253	63.128	-	63.128
Current President's Budget	42.492	81.253	63.008	-	63.008
Total Adjustments	-	6.000	-0.120	-	-0.120
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-	-			
• Other Adjustments	-	-	-0.120	-	-0.120
• Overseas Contingency Operations	-	6.000	-	-	-

Change Summary Explanation

Funding:

FY2014: None.

FY2015: Details of $6.000 million increase of Overseas Contingency Operations funding available under separate cover.

FY2016: Details of $0.120 million decrease is available under separate cover.

Schedule: None.

Technical: None.

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Exhibit R-2, RDT&E Budget Item Justification: PB 2016 United States Special Operations Command											Date: February 2015	
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*							
COST ($ in Millions)	**Prior Years**	**FY 2014**	**FY 2015**	**FY 2016 Base**	**FY 2016 OCO**	**FY 2016 Total**	**FY 2017**	**FY 2018**	**FY 2019**	**FY 2020**	**Cost To Complete**	**Total Cost**
Total Program Element	0.000	15.691	20.573	25.342	-	25.342	20.243	17.875	16.182	20.520	Continuing	Continuing
S710: *Tactical Systems Development*	0.000	0.243	1.023	0.968	-	0.968	1.330	1.095	1.183	1.080	Continuing	Continuing
S700: *Communications Equipment and Electronics Systems*	0.000	3.264	4.230	6.352	-	6.352	6.266	6.379	6.495	7.579	Continuing	Continuing
S725: *Tactical Radio Systems*	0.000	1.811	3.670	2.618	-	2.618	1.692	1.687	1.710	4.717	Continuing	Continuing
S385: *Soldier Protection and Survival Systems*	0.000	2.441	2.554	2.898	-	2.898	2.096	1.871	2.372	2.348	Continuing	Continuing
S385A: *Body Armor and Associated Equipment*	0.000	1.504	1.973	1.547	-	1.547	1.349	1.299	1.299	1.649	Continuing	Continuing
S395: *Visual Augmentation, Lasers and Sensor Systems*	0.000	-	1.709	2.333	-	2.333	0.743	-	-	-	Continuing	Continuing
S800: *Munitions Advanced Development*	0.000	3.386	0.519	0.522	-	0.522	0.529	0.535	0.541	0.542	Continuing	Continuing
D476: *Military Information Support Operations*	0.000	2.477	4.895	6.610	-	6.610	4.746	3.517	1.096	1.118	Continuing	Continuing
S375: *Weapons Systems*	-	0.565	-	1.494	-	1.494	1.492	1.492	1.486	1.487	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. 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 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,

Exhibit R-2, RDT&E Budget Item Justification: PB 2016 United States Special Operations Command	Date: February 2015
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*

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.

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.

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.

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.

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 overseas contingency operations (OCO) 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.

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:

Exhibit R-2, RDT&E Budget Item Justification: PB 2016 United States Special Operations Command	Date: February 2015
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*

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 improvements and testing to meet continually changing technology on the battlefield.

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 (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 to meet current ballistic threats that exists 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.

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.

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.

Exhibit R-2, RDT&E Budget Item Justification: PB 2016 United States Special Operations Command	Date: February 2015
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*

B. Program Change Summary ($ in Millions)	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total
Previous President's Budget	14.973	24.661	25.963	-	25.963
Current President's Budget	15.691	20.573	25.342	-	25.342
Total Adjustments	0.718	-4.088	-0.621	-	-0.621
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-4.088			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	0.718	-			
• SBIR/STTR Transfer	-	-			
• Other Adjustments	-	-	-0.621	-	-0.621

Change Summary Explanation

Funding:

FY2014: Net increase of $0.718 million is for a reprogramming of $0.566 million to support development and testing of the SPEAR program, $0.182 million to support testing for signature reduction efforts in a Weapons Accessories program; and a reprogramming (-$0.030 million) to support higher command priorities.

FY2015: Decrease of -$4.088 million is due to a Congressional Directed Reduction to the Long range MISO program.

FY2016: Decrease of -$0.621 million is due to a realignment of -$0.437 million to higher command priorities and a decrease of -$0.184 million due to Departmental economic assumption decrease.

Schedule: None.

Technical: None.

Exhibit R-2A, RDT&E Project Justification: PB 2016 United States Special Operations Command			Date: February 2015
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 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	Cost To Complete	Total Cost
S710: *Tactical Systems Development*	-	0.243	1.023	0.968	-	0.968	1.330	1.095	1.183	1.080	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 project 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 2014	FY 2015	FY 2016
Title: TACLAN Suites	0.243	1.023	0.968
FY 2014 Accomplishments: Begin development, integration, and testing of Evolutionary Technology Insertions (ETI) such as advanced hardware equipment and new software applications.			
FY 2015 Plans: Begin development, integration, and testing of ETI for Secure Data At Rest, secure wireless and cross domain solutions.			
FY 2016 Plans: Continues development, integration, and testing of ETI for Secure Data At Rest, secure wireless and cross domain solutions.			
Accomplishments/Planned Programs Subtotals	0.243	1.023	0.968

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	Cost To Complete	Total Cost
• PROC: *OTHER ITEMS <$5M*	73.141	106.675	79.149	-	79.149	70.287	71.149	84.526	80.958	Continuing	Continuing

Exhibit R-2A, RDT&E Project Justification: PB 2016 United States Special Operations Command		Date: February 2015
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 1160431BB / *Warrior Systems*	**Project (Number/Name)** S710 / *Tactical Systems Development*

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	Cost To Complete	Total Cost

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

Exhibit R-3, RDT&E Project Cost Analysis: PB 2016 United States Special Operations Command			Date: February 2015
Appropriation/Budget Activity 0400 / 7	R-1 Program Element (Number/Name) PE 1160431BB / *Warrior Systems*	Project (Number/Name) S710 / *Tactical Systems Development*	

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2014 Cost	FY 2014 Award Date	FY 2015 Cost	FY 2015 Award Date	FY 2016 Base Cost	FY 2016 Base Award Date	FY 2016 OCO Cost	FY 2016 OCO Award Date	FY 2016 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Secure Data / Wireless Capability	Reqn	iGov : Tampa, FL	-	0.243	Feb 2014	1.023	May 2015	0.968	Jan 2016	-		0.968	Continuing	Continuing	-
		Subtotal	-	0.243		1.023		0.968		-		0.968	-	-	-

	Prior Years	FY 2014		FY 2015		FY 2016 Base		FY 2016 OCO		FY 2016 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	-	0.243		1.023		0.968		-		0.968	-	-	-

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2016 United States Special Operations Command		Date: February 2015
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 1160431BB / *Warrior Systems*	**Project (Number/Name)** S710 / *Tactical Systems Development*

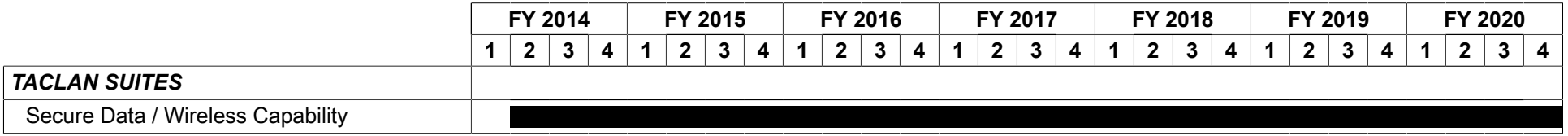

Exhibit R-4A, RDT&E Schedule Details: PB 2016 United States Special Operations Command		Date: February 2015
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 1160431BB / *Warrior Systems*	**Project (Number/Name)** S710 / *Tactical Systems Development*

Schedule Details

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
TACLAN SUITES				
Secure Data / Wireless Capability	2	2014	4	2020

Exhibit R-2A, RDT&E Project Justification: PB 2016 United States Special Operations Command			Date: February 2015
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 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	Cost To Complete	Total Cost
S700: *Communications Equipment and Electronics Systems*	-	3.264	4.230	6.352	-	6.352	6.266	6.379	6.495	7.579	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.

• The Special Communications Enterprise (SCE) program 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. This program transitioned from Program Element 1160402BB, Special Operations Advanced Technology Development.

B. Accomplishments/Planned Programs ($ in Millions)	FY 2014	FY 2015	FY 2016
Title: SDN	1.092	2.394	2.806
FY 2014 Accomplishments: Continued to develop, test and evaluate next generation systems and components to enhance the SDN family of systems and integrate Evolutionary Technology Insertions (ETI), such as a wide-band SATCOM-on-the-Move ground capability, extension of SOF Information Enterprise services, and acceleration hardware and software.			
FY 2015 Plans:			

Exhibit R-2A, RDT&E Project Justification: PB 2016 United States Special Operations Command		Date: February 2015
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 2014	FY 2015	FY 2016
Assess, test and evaluate advanced antenna design and performance. Conduct market research on multi-level security solutions for SDN application. Conduct testing using wideband global SATCOM and Global Express. Assess Advanced Extremely High Frequency band. ***FY 2016 Plans:*** Assesses, tests and evaluates advanced antenna design and performance. Continues to integrate ETIs.			
Title: SCE ***FY 2014 Accomplishments:*** Began segment development for the SCE enterprise; developed means and methods to provide near-term impact to operators. ***FY 2015 Plans:*** Continue segment development for the SCE enterprise; develop means and methods to provide near-term impact to operators. ***FY 2016 Plans:*** Continues segment development for the SCE enterprise; develops means and methods to provide near-term impact to operators. Increases emphasis on developing anti-intrusion/anti-tamper capabilities.	2.172	1.836	3.546
Accomplishments/Planned Programs Subtotals	3.264	4.230	6.352

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	Cost To Complete	Total Cost
• PROC/0204Warrior: *Warrior Systems<$5M*	216.732	270.805	186.009	-	186.009	215.839	196.301	202.374	201.373	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.

• SCE 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.

Exhibit R-2A, RDT&E Project Justification: PB 2016 United States Special Operations Command		Date: February 2015
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 1160431BB / *Warrior Systems*	**Project (Number/Name)** S700 / *Communications Equipment and Electronics Systems*

E. Performance Metrics

N/A

Exhibit R-3, RDT&E Project Cost Analysis: PB 2016 United States Special Operations Command		Date: February 2015
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)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2014 Cost	FY 2014 Award Date	FY 2015 Cost	FY 2015 Award Date	FY 2016 Base Cost	FY 2016 Base Award Date	FY 2016 OCO Cost	FY 2016 OCO Award Date	FY 2016 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
SOF Deployable Node (SDN) Development	MIPR	Various : Various	0.000	1.092	Mar 2014	1.194	Mar 2015	1.496	Mar 2016	-		1.496	Continuing	Continuing	-
SDN Market Research & Evaluation	MIPR	CERDEC : Aberdeen, MD	0.000	-		1.200	Jan 2015	1.310	Dec 2015	-		1.310	Continuing	Continuing	-
Special Communications Enterprise (SCE) Enterprise and Field Segment Capability Development	TBD	Various : Various	0.000	1.612	Jan 2014	1.272	Jan 2015	2.978	Feb 2016	-		2.978	Continuing	Continuing	-
SCE Base End Segment Capability Development	MIPR	MITRE : Bedford, MA	0.000	0.280	Dec 2013	0.282	Dec 2014	0.284	Dec 2015	-		0.284	Continuing	Continuing	-
		Subtotal	0.000	2.984		3.948		6.068		-		6.068	-	-	-

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2014 Cost	FY 2014 Award Date	FY 2015 Cost	FY 2015 Award Date	FY 2016 Base Cost	FY 2016 Base Award Date	FY 2016 OCO Cost	FY 2016 OCO Award Date	FY 2016 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
SCE Independent Verification and Validation	MIPR	MITRE : Bedford, MA	0.000	0.280	Mar 2014	0.282	Mar 2015	0.284	Mar 2016	-		0.284	Continuing	Continuing	-
		Subtotal	0.000	0.280		0.282		0.284		-		0.284	-	-	-

	Prior Years	FY 2014		FY 2015		FY 2016 Base		FY 2016 OCO		FY 2016 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	0.000	3.264		4.230		6.352		-		6.352	-	-	-

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2016 United States Special Operations Command		Date: February 2015
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 1160431BB / *Warrior Systems*	**Project (Number/Name)** S700 / *Communications Equipment and Electronics Systems*

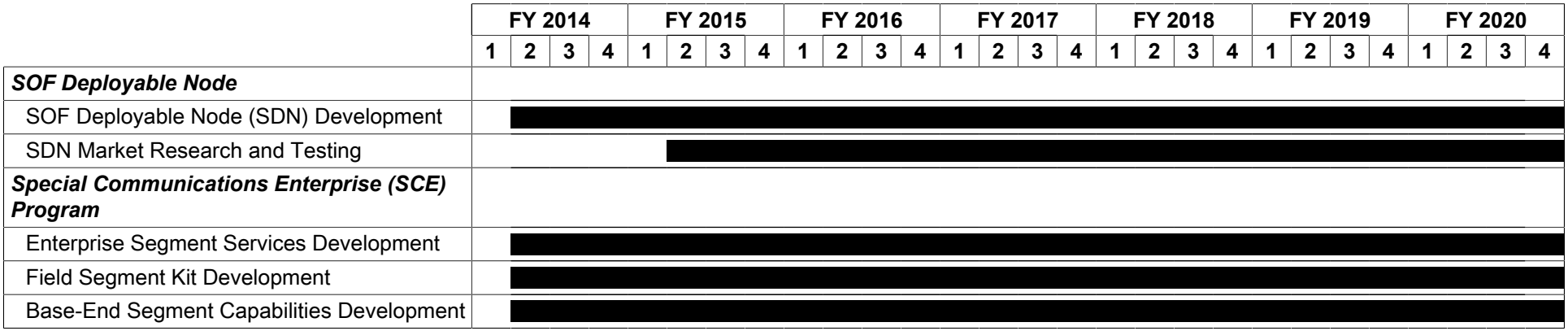

Exhibit R-4A, RDT&E Schedule Details: PB 2016 United States Special Operations Command		Date: February 2015
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 1160431BB / *Warrior Systems*	**Project (Number/Name)** S700 / *Communications Equipment and Electronics Systems*

Schedule Details

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
SOF Deployable Node				
SOF Deployable Node (SDN) Development	2	2014	4	2020
SDN Market Research and Testing	2	2015	4	2020
Special Communications Enterprise (SCE) Program				
Enterprise Segment Services Development	2	2014	4	2020
Field Segment Kit Development	2	2014	4	2020
Base-End Segment Capabilities Development	2	2014	4	2020

Exhibit R-2A, RDT&E Project Justification: PB 2016 United States Special Operations Command			Date: February 2015
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 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	Cost To Complete	Total Cost
S725: *Tactical Radio Systems*	-	1.811	3.670	2.618	-	2.618	1.692	1.687	1.710	4.717	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

This project is for 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 overseas contingency operations (OCO) 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, 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 2014	FY 2015	FY 2016
Title: SOF Tactical Communications (STC)	1.811	1.672	1.653
FY 2014 Accomplishments: Continued developing and testing DoD on-orbit capacity in order to enhance C2 capabilities.			
FY 2015 Plans: Develop and test new capability in tactical radio equipment.			
FY 2016 Plans: Develops and tests new capability in tactical radio equipment.			
Title: Blue Force Tracking (BFT)	-	1.998	0.965
FY 2015 Plans: Develop and test new capability in BFT equipment.			
FY 2016 Plans: Continues to develop and test new capability in BFT equipment.			
Accomplishments/Planned Programs Subtotals	1.811	3.670	2.618

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	Cost To Complete	Total Cost
• 0204Warrior: *Warrior Systems<$5M*	216.732	270.805	186.009	-	186.009	215.839	196.301	202.374	201.373	Continuing	Continuing

Exhibit R-2A, RDT&E Project Justification: PB 2016 United States Special Operations Command		Date: February 2015
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 1160431BB / *Warrior Systems*	**Project (Number/Name)** S725 / *Tactical Radio Systems*

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	Cost To Complete	Total Cost

Remarks

D. Acquisition Strategy

• STC is a Commercial-Off-The-Shelf/Now-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.

Exhibit R-3, RDT&E Project Cost Analysis: PB 2016 United States Special Operations Command			Date: February 2015
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)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2014 Cost	FY 2014 Award Date	FY 2015 Cost	FY 2015 Award Date	FY 2016 Base Cost	FY 2016 Base Award Date	FY 2016 OCO Cost	FY 2016 OCO Award Date	FY 2016 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
SOF Tactical Communications Radio Development	MIPR	Various : Various	0.000	1.811	Mar 2014	1.672	Jan 2015	1.653	Jan 2016	-		1.653	Continuing	Continuing	-
Blue Force Tracking Development	MIPR	Various : Various	0.000	-		1.998	Apr 2015	0.965	Jan 2016	-		0.965	2.970	5.933	5.933
		Subtotal	0.000	1.811		3.670		2.618		-		2.618	-	-	-

	Prior Years	FY 2014		FY 2015		FY 2016 Base		FY 2016 OCO		FY 2016 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	0.000	1.811		3.670		2.618		-		2.618	-	-	-

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2016 United States Special Operations Command		Date: February 2015
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 1160431BB / *Warrior Systems*	**Project (Number/Name)** S725 / *Tactical Radio Systems*

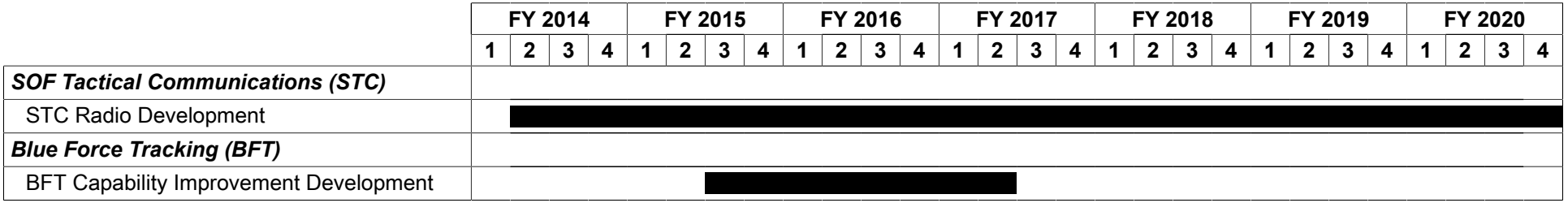

Exhibit R-4A, RDT&E Schedule Details: PB 2016 United States Special Operations Command		Date: February 2015
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 1160431BB / *Warrior Systems*	**Project (Number/Name)** S725 / *Tactical Radio Systems*

Schedule Details

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
SOF Tactical Communications (STC)				
STC Radio Development	2	2014	4	2020
Blue Force Tracking (BFT)				
BFT Capability Improvement Development	3	2015	2	2017

Exhibit R-2A, RDT&E Project Justification: PB 2016 United States Special Operations Command			Date: February 2015
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 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	Cost To Complete	Total Cost
S385: *Soldier Protection and Survival Systems*	-	2.441	2.554	2.898	-	2.898	2.096	1.871	2.372	2.348	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

This project provides specialized equipment to meet the unique soldier 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 Forces Special Operations Command. 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 radio controlled improvised explosive devices threats used by terrorist networks.

B. Accomplishments/Planned Programs ($ in Millions)	FY 2014	FY 2015	FY 2016
Title: SPEAR	1.080	0.917	1.384
FY 2014 Accomplishments: Continued profile refinement to support signature management, reactive fiber testing and material research for uniforms. Continued research and development solicitation for an advanced maritime communications system material solution. Continued			

Exhibit R-2A, RDT&E Project Justification: PB 2016 United States Special Operations Command		Date: February 2015
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 1160431BB / *Warrior Systems*	**Project (Number/Name)** S385 / *Soldier Protection and Survival Systems*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2014	FY 2015	FY 2016
testing and development of lightweight, high performance textiles for enhanced material solutions that support SPEAR requirements. ***FY 2015 Plans:*** Continue profile refinement to support signature management and material research for uniforms. Continue testing and development of lightweight, high performance textiles for enhanced material solutions that support SPEAR requirements. Continue on-going prototype testing. Address emerging SOF-unique requirements as SOF transitions from heavy deployments in Iraq and Afghanistan to a global focus. Continue maritime communication headset solicitation. ***FY 2016 Plans:*** Initiates research and development of a land communications material solution, safety belt and lanyard solicitations, Arctic capability gap solutions, and subsurface operations equipment. Continues materials testing.			
Title: TCCC ***FY 2014 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. Evaluated lightweight enhanced patient packaging litter systems for inclusion in the CASEVAC. 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. ***FY 2015 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. Continue evaluation, airworthiness certification and miniaturization of TCCC CASEVAC components. Support 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. ***FY 2016 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. Supports the evaluation of enhanced medical monitoring systems for incorporation into the CASEVAC. Develops and tests water resistant solutions for maritime operations of components within the CASEVAC.	0.333	0.560	0.444
Title: RC-IED ***FY 2014 Accomplishments:***	1.028	1.077	1.070

Exhibit R-2A, RDT&E Project Justification: PB 2016 United States Special Operations Command		Date: February 2015
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 1160431BB / *Warrior Systems*	**Project (Number/Name)** S385 / *Soldier Protection and Survival Systems*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2014	FY 2015	FY 2016
Provided for National Assessment Group 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 range effectiveness and currency, ensuring the ability to accurately test against current and emerging threat systems. ***FY 2015 Plans:*** Provide for National Assessment Group 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. ***FY 2016 Plans:*** Provide for National Assessment Group 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. Initiates development and testing of ECM systems capability and advanced software technique counter measures.			
Accomplishments/Planned Programs Subtotals	2.441	2.554	2.898

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	Cost To Complete	Total Cost
• PROC1: *Warrior Systems<$5M*	216.732	270.805	186.009	-	186.009	215.839	196.301	202.374	201.373	Continuing	Continuing

Remarks

D. Acquisition Strategy

N/A

E. Performance Metrics

N/A

Exhibit R-3, RDT&E Project Cost Analysis: PB 2016 United States Special Operations Command		Date: February 2015
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 1160431BB / *Warrior Systems*	**Project (Number/Name)** S385 / *Soldier Protection and Survival Systems*

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2014 Cost	FY 2014 Award Date	FY 2015 Cost	FY 2015 Award Date	FY 2016 Base Cost	FY 2016 Base Award Date	FY 2016 OCO Cost	FY 2016 OCO Award Date	FY 2016 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
SOF Personal Equipment Advanced Requirements (SPEAR) - MICH/Land Maritime Communication System	Various	PM-SSES : Natick, MA	0.000	0.218	Jun 2014	0.240	Mar 2015	0.415	Jan 2016	-		0.415	Continuing	Continuing	-
SPEAR - Protective Combat Uniform (PCU)	Various	PM-SSES : Natick, MA	0.000	0.100	Apr 2014	0.095	Feb 2015	0.139	Jan 2016	-		0.139	Continuing	Continuing	-
SPEAR - Load Carriage System (LCS) and Backpacks	Various	PM-SSES : Natick, MA	0.000	0.035	Feb 2014	-		-		-		-	-	0.035	-
SPEAR - Modular Glove System (MGS)	Various	PM-SSES : Natick, MA	0.000	0.040	Apr 2014	-		-		-		-	-	0.040	-
		Subtotal	0.000	0.393		0.335		0.554		-		0.554	-	-	-

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2014 Cost	FY 2014 Award Date	FY 2015 Cost	FY 2015 Award Date	FY 2016 Base Cost	FY 2016 Base Award Date	FY 2016 OCO Cost	FY 2016 OCO Award Date	FY 2016 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
SPEAR - PCU testing/P3I	Various	PM/SSES : Natick, MA	0.000	0.135	Jun 2014	0.050	Jan 2015	0.070	Mar 2016	-		0.070	Continuing	Continuing	-
SPEAR - Signature Management Profile Characteristics	Various	PM-SSES : Natick, MA	0.000	0.065	Jun 2014	0.065	Jan 2015	0.097	Feb 2016	-		0.097	Continuing	Continuing	-
SPEAR - LCS/Body Armor Vest/Backpack Material and Prototype Testing	Various	PM-SSES : Natick, MA	0.000	0.020	Apr 2014	0.018	Jan 2015	0.028	Feb 2016	-		0.028	Continuing	Continuing	-
SPEAR - MGS Testing	Various	PM-SSES : Natick, MA	0.000	0.025	May 2014	0.025	Feb 2015	0.043	Feb 2016	-		0.043	Continuing	Continuing	-
SPEAR - Maritime Comms Testing	Various	PM-SSES : Natick, MA	0.000	0.442	May 2014	0.424	Feb 2015	0.592	Jan 2016	-		0.592	Continuing	Continuing	-
TCCC CASEVAC Sets	Various	PM-SSES : Natick, Ma	0.000	0.333	Mar 2014	0.560	Feb 2015	0.444	Mar 2016	-		0.444	Continuing	Continuing	-

Exhibit R-3, RDT&E Project Cost Analysis: PB 2016 United States Special Operations Command			Date: February 2015
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 1160431BB / *Warrior Systems*	**Project (Number/Name)** S385 / *Soldier Protection and Survival Systems*	

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2014 Cost	FY 2014 Award Date	FY 2015 Cost	FY 2015 Award Date	FY 2016 Base Cost	FY 2016 Base Award Date	FY 2016 OCO Cost	FY 2016 OCO Award Date	FY 2016 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Counter RC-IED Test Support	Various	National Assessment Group : Kirtland AFB, NM	0.000	1.028	Jan 2014	1.077	Dec 2014	1.070	Jan 2016	-		1.070	Continuing	Continuing	-
		Subtotal	0.000	2.048		2.219		2.344		-		2.344	-	-	-

	Prior Years	FY 2014		FY 2015		FY 2016 Base		FY 2016 OCO		FY 2016 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	0.000	2.441		2.554		2.898		-		2.898	-	-	-

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2016 United States Special Operations Command		Date: February 2015
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 1160431BB / *Warrior Systems*	**Project (Number/Name)** S385 / *Soldier Protection and Survival Systems*

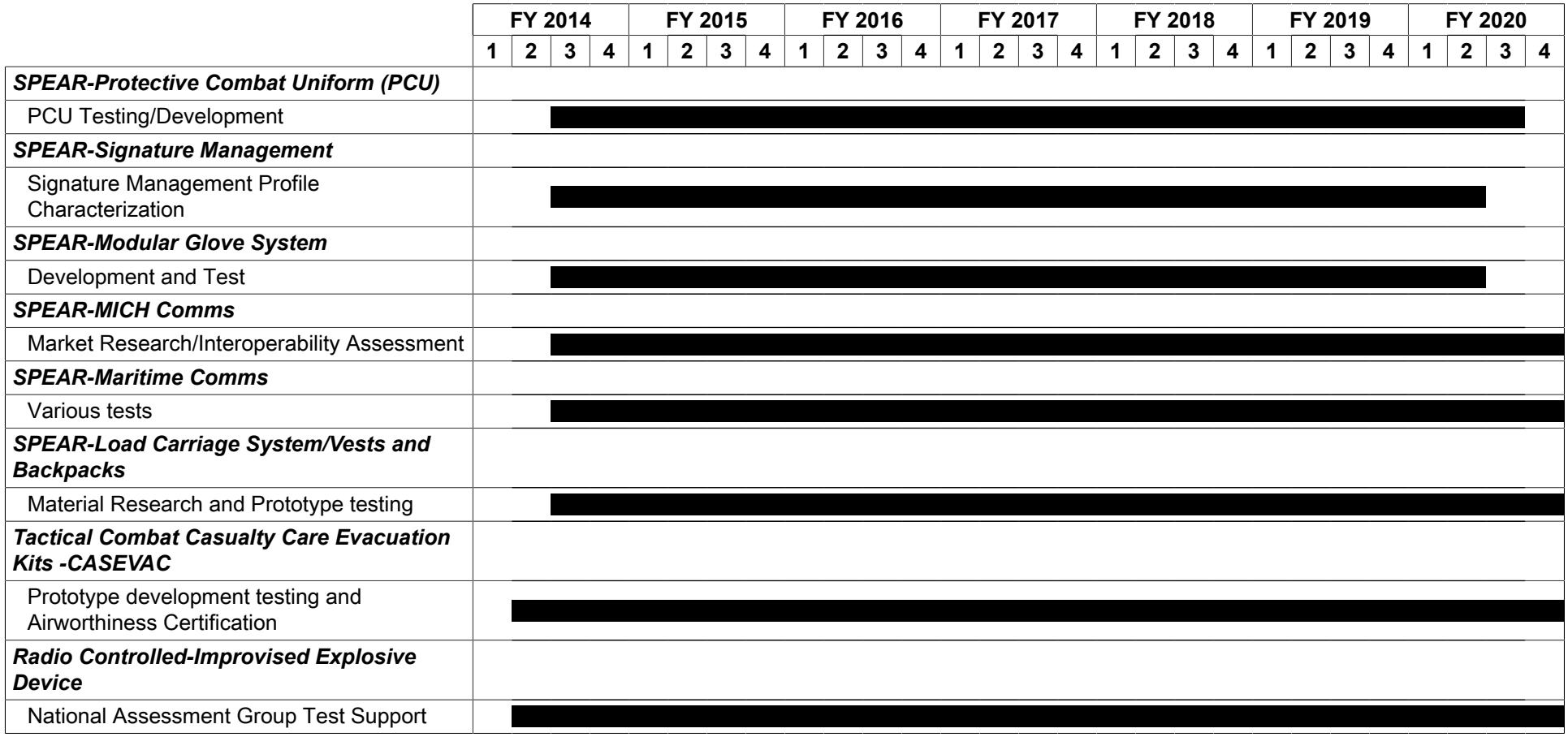

Exhibit R-4A, RDT&E Schedule Details: PB 2016 United States Special Operations Command		Date: February 2015
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 1160431BB / *Warrior Systems*	**Project (Number/Name)** S385 / *Soldier Protection and Survival Systems*

Schedule Details

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
SPEAR-Protective Combat Uniform (PCU)				
PCU Testing/Development	3	2014	3	2020
SPEAR-Signature Management				
Signature Management Profile Characterization	3	2014	2	2020
SPEAR-Modular Glove System				
Development and Test	3	2014	2	2020
SPEAR-MICH Comms				
Market Research/Interoperability Assessment	3	2014	4	2020
SPEAR-Maritime Comms				
Various tests	3	2014	4	2020
SPEAR-Load Carriage System/Vests and Backpacks				
Material Research and Prototype testing	3	2014	4	2020
Tactical Combat Casualty Care Evacuation Kits -CASEVAC				
Prototype development testing and Airworthiness Certification	2	2014	4	2020
Radio Controlled-Improvised Explosive Device				
National Assessment Group Test Support	2	2014	4	2020

Exhibit R-2A, RDT&E Project Justification: PB 2016 United States Special Operations Command			Date: February 2015
Appropriation/Budget Activity 0400 / 7	R-1 Program Element (Number/Name) PE 1160431BB / *Warrior Systems*	Project (Number/Name) S385A / *Body Armor and Associated Equipment*	

COST ($ in Millions)	Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	Cost To Complete	Total Cost
S385A: *Body Armor and Associated Equipment*	-	1.504	1.973	1.547	-	1.547	1.349	1.299	1.299	1.649	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

This project provides specialized equipment to meet the unique soldier 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 Forces Special Operations Command. Specialized ballistic equipment improves survivability and load bearing equipment 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 2014	FY 2015	FY 2016
Title: SPEAR-Ballistic Protection	1.504	1.973	1.547
FY 2014 Accomplishments: Continued foreign ammunition testing and threat validation to assess armor effectiveness. Continued the helmet behind armor effects studies to develop a helmet test methodology and corresponding performance metrics. Continued lightweight body armor material research and testing to include clandestine. 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. Tested mature soldier worn sensors and non-destructive inspection technologies.			
FY 2015 Plans: Continue foreign ammunition testing and threat validation to assess armor effectiveness. Research and test soldier worn sensors. Continue lightweight body armor material research and improved performance ballistic plates. Continue evaluation of transparent armor products which include ballistic and optical testing of photochromic, electrochromic and laser lenses. Continue work on anti-fogging technologies and testing. Address emerging SOF-unique requirements as SOF transitions from heavy deployments in Iraq and Afghanistan to a global focus.			
FY 2016 Plans: 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, anti-fogging, ballistic, and			

Exhibit R-2A, RDT&E Project Justification: PB 2016 United States Special Operations Command		Date: February 2015
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 1160431BB / *Warrior Systems*	**Project (Number/Name)** S385A / *Body Armor and Associated Equipment*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2014	FY 2015	FY 2016
laser lenses to upgrade systems that have been fielded. Develops and tests soldier worn sensors to upgrade armor systems that have been fielded and to refine SOF peculiar requirements. Addresses emerging SOF unique requirements as SOF transitions from deployments in Iraq and Afghanistan to a global focus.			
Accomplishments/Planned Programs Subtotals	1.504	1.973	1.547

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	Cost To Complete	Total Cost
• PROC1: *Warrior Systems<$5M*	216.732	270.805	186.009	-	186.009	215.839	196.301	202.374	201.373	Continuing	Continuing

Remarks

D. Acquisition Strategy

N/A

E. Performance Metrics

N/A

Exhibit R-3, RDT&E Project Cost Analysis: PB 2016 United States Special Operations Command		Date: February 2015
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 1160431BB / *Warrior Systems*	**Project (Number/Name)** S385A / *Body Armor and Associated Equipment*

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2014 Cost	FY 2014 Award Date	FY 2015 Cost	FY 2015 Award Date	FY 2016 Base Cost	FY 2016 Base Award Date	FY 2016 OCO Cost	FY 2016 OCO Award Date	FY 2016 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
SOF Personal Equipment Advanced Requirement (SPEAR) - Body Armor	Various	PM-SSES : Natick, MA	0.000	0.350	Apr 2014	0.300	Feb 2015	0.421	Jan 2016	-		0.421	-	-	-
SPEAR - Lightweight Ballistic Helmets	Various	PM-SSES : Natick, MA	0.000	0.300	May 2014	0.600	Jan 2015	0.365	Jan 2016	-		0.365	-	-	-
SPEAR - Eye Protection	Various	PM-SSES : Natick, MA	0.000	0.030	May 2014	0.040	Feb 2015	0.150	Mar 2016	-		0.150	-	-	-
		Subtotal	0.000	0.680		0.940		0.936		-		0.936	-	-	-

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2014 Cost	FY 2014 Award Date	FY 2015 Cost	FY 2015 Award Date	FY 2016 Base Cost	FY 2016 Base Award Date	FY 2016 OCO Cost	FY 2016 OCO Award Date	FY 2016 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
SPEAR - Body Armor Test	Various	PM-SSES : Natick, MA	0.000	0.489	Mar 2014	0.250	Jan 2015	0.211	Feb 2016	-		0.211	-	-	-
SPEAR - Lightweight Helmet Testing	Various	PM-SSES : Natick, MA	0.000	0.300	Mar 2014	0.725	Jan 2015	0.350	Feb 2016	-		0.350	-	-	-
SPEAR - Transparent Armor Testing	Various	PM-SSES : Natick, MA	0.000	0.035	Mar 2014	0.058	Mar 2015	0.050	Jan 2016	-		0.050	-	-	-
		Subtotal	0.000	0.824		1.033		0.611		-		0.611	-	-	-

	Prior Years	FY 2014		FY 2015		FY 2016 Base		FY 2016 OCO		FY 2016 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	0.000	1.504		1.973		1.547		-		1.547	-	-	-

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2016 United States Special Operations Command		Date: February 2015
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 1160431BB / *Warrior Systems*	**Project (Number/Name)** S385A / *Body Armor and Associated Equipment*

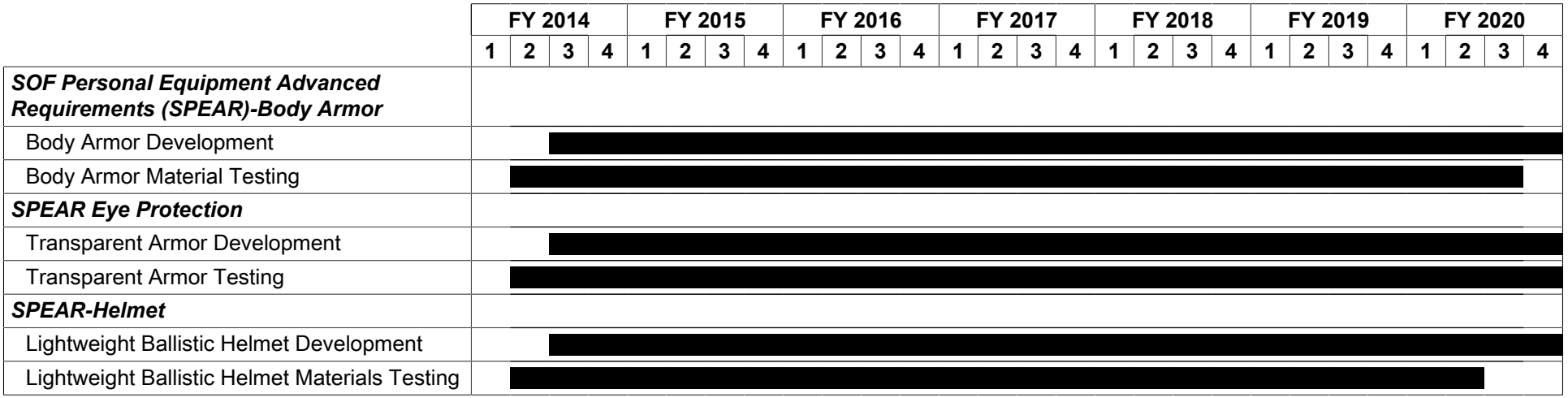

Exhibit R-4A, RDT&E Schedule Details: PB 2016 United States Special Operations Command		Date: February 2015
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 1160431BB / *Warrior Systems*	**Project (Number/Name)** S385A / *Body Armor and Associated Equipment*

Schedule Details

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
SOF Personal Equipment Advanced Requirements (SPEAR)-Body Armor				
Body Armor Development	3	2014	4	2020
Body Armor Material Testing	2	2014	3	2020
SPEAR Eye Protection				
Transparent Armor Development	3	2014	4	2020
Transparent Armor Testing	2	2014	4	2020
SPEAR-Helmet				
Lightweight Ballistic Helmet Development	3	2014	4	2020
Lightweight Ballistic Helmet Materials Testing	2	2014	2	2020

Exhibit R-2A, RDT&E Project Justification: PB 2016 United States Special Operations Command			Date: February 2015
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 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	Cost To Complete	Total Cost
S395: *Visual Augmentation, Lasers and Sensor Systems*	-	-	1.709	2.333	-	2.333	0.743	-	-	-	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 2014	FY 2015	FY 2016
Title: Visual Augmentation Systems	-	1.709	2.333
FY 2015 Plans: Continue the development of visual augmentation and laser devices to improve situational awareness, sharing of data/images and target acquisition.			
FY 2016 Plans: Continues to develop visual augmentation and laser devices to improve situational awareness, sharing of data/images and target acquisition.			
Accomplishments/Planned Programs Subtotals	-	1.709	2.333

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	Cost To Complete	Total Cost
• PROC/1: *Warrior Systems<$5M*	216.732	270.805	186.009	-	186.009	215.839	196.301	202.374	201.373	Continuing	Continuing

Remarks

D. Acquisition Strategy

To 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 and an Indefinite Delivery Indefinite Quantity production contract.

Exhibit R-2A, RDT&E Project Justification: PB 2016 United States Special Operations Command		Date: February 2015
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*

E. Performance Metrics

N/A

Exhibit R-3, RDT&E Project Cost Analysis: PB 2016 United States Special Operations Command		Date: February 2015
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*

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2014 Cost	FY 2014 Award Date	FY 2015 Cost	FY 2015 Award Date	FY 2016 Base Cost	FY 2016 Base Award Date	FY 2016 OCO Cost	FY 2016 OCO Award Date	FY 2016 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Visual Augmentation Systems (VAS) Development	C/CPFF	USSOCOM : Tampa, FL	0.000	-		1.709	Jan 2015	1.000	Nov 2015	-		1.000	-	2.709	-
		Subtotal	0.000	-		1.709		1.000		-		1.000	-	2.709	-

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2014 Cost	FY 2014 Award Date	FY 2015 Cost	FY 2015 Award Date	FY 2016 Base Cost	FY 2016 Base Award Date	FY 2016 OCO Cost	FY 2016 OCO Award Date	FY 2016 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
VAS Testing	C/CPFF	USSOCOM : Tampa, FL	0.000	-		-		1.333	May 2016	-		1.333	Continuing	Continuing	-
		Subtotal	0.000	-		-		1.333		-		1.333	-	-	-

	Prior Years	FY 2014		FY 2015		FY 2016 Base		FY 2016 OCO		FY 2016 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	0.000	-		1.709		2.333		-		2.333	-	-	-

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2016 United States Special Operations Command		Date: February 2015
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*

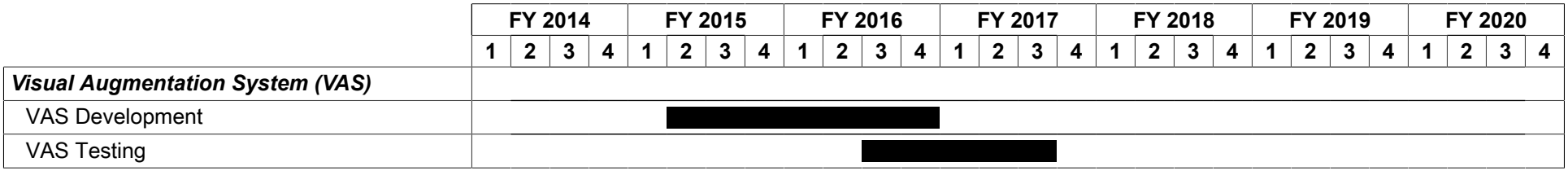

Exhibit R-4A, RDT&E Schedule Details: PB 2016 United States Special Operations Command		Date: February 2015
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 1160431BB / *Warrior Systems*	**Project (Number/Name)** S395 / *Visual Augmentation, Lasers and Sensor Systems*

Schedule Details

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
Visual Augmentation System (VAS)				
VAS Development	2	2015	4	2016
VAS Testing	3	2016	3	2017

Exhibit R-2A, RDT&E Project Justification: PB 2016 United States Special Operations Command			Date: February 2015
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 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	Cost To Complete	Total Cost
S800: *Munitions Advanced Development*	-	3.386	0.519	0.522	-	0.522	0.529	0.535	0.541	0.542	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 allows 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 development and improvement of SOF-unique SOPGMs.

B. Accomplishments/Planned Programs ($ in Millions)	FY 2014	FY 2015	FY 2016
Title: Munitions Advanced Development	0.453	0.519	0.522
FY 2014 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 2015 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 2016 Plans: Conducts proof of concept and IM testing on various munitions. 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: SOPGM	2.933	-	-
FY 2014 Accomplishments:			

Exhibit R-2A, RDT&E Project Justification: PB 2016 United States Special Operations Command		Date: February 2015
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 1160431BB / *Warrior Systems*	**Project (Number/Name)** S800 / *Munitions Advanced Development*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2014	FY 2015	FY 2016
Completed efforts to integrate target seeker, warhead and guidance system technology upgrades for precision guided munitions, and evaluates first pass lethality performance improvements in laboratory and test range inert round, captive carry and live-fire flight tests.			
Accomplishments/Planned Programs Subtotals	3.386	0.519	0.522

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	Cost To Complete	Total Cost
• PROC1: *Ordnance Items*	168.037	173.209	142.724	-	142.724	133.977	125.920	148.245	151.383	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.

SOPGM: Using incremental approach to increase munitions performance, leverage industry's Internal Research and Development innovative efforts and existing and new contracts to improve warhead, seeker, guidance navigation and control system, and missile delivery packaging. Solutions will be tested at comparative demonstrations and/or flight test events.

E. Performance Metrics

N/A

Exhibit R-3, RDT&E Project Cost Analysis: PB 2016 United States Special Operations Command		Date: February 2015
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 1160431BB / *Warrior Systems*	**Project (Number/Name)** S800 / *Munitions Advanced Development*

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2014 Cost	FY 2014 Award Date	FY 2015 Cost	FY 2015 Award Date	FY 2016 Base Cost	FY 2016 Base Award Date	FY 2016 OCO Cost	FY 2016 OCO Award Date	FY 2016 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Munitions Advanced Development - Obtain Munitions Test Articles	C/FFP	General Dynamics: : Canada	0.000	0.125	Jan 2014	0.139	Jan 2015	0.141	Oct 2015	-		0.141	-	-	-
Munitions Advanced Development - Insensitive Munitions (IM) Evaluation	C/FFP	US Air Force Air Armaments Center : Eglin, AFB, FL	0.000	0.050	Jan 2014	0.055	Jan 2015	0.057	Oct 2015	-		0.057	-	-	-
Munitions Advanced Development - IM Testing	Allot	ARDEC: : Picatinny Arsenal, NJ	0.000	0.278	Jan 2014	0.325	Jan 2015	0.324	Oct 2015	-		0.324	-	-	-
Stand-Off Precision Guided Munitions	Allot	Various : Various	0.000	2.933	Aug 2014	-		-		-		-	-	-	-
		Subtotal	0.000	3.386		0.519		0.522		-		0.522	-	-	-

	Prior Years	FY 2014		FY 2015		FY 2016 Base		FY 2016 OCO		FY 2016 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	0.000	3.386		0.519		0.522		-		0.522	-	-	-

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2016 United States Special Operations Command		Date: February 2015
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 1160431BB / *Warrior Systems*	**Project (Number/Name)** S800 / *Munitions Advanced Development*

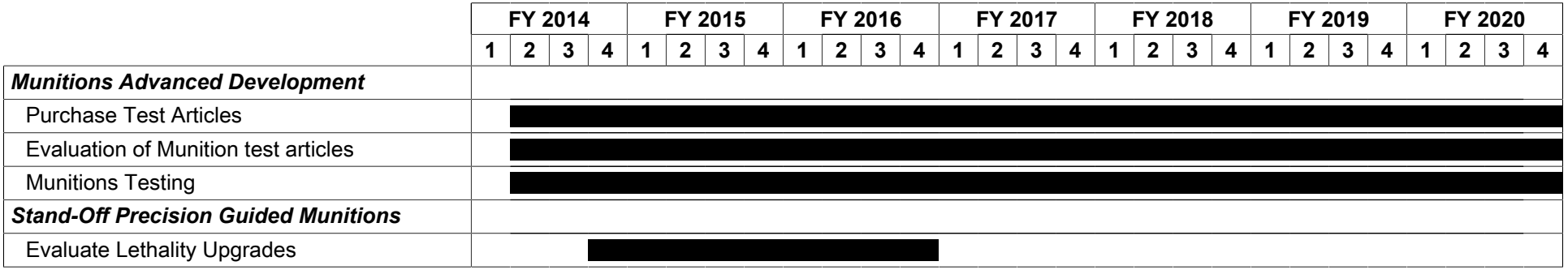

Exhibit R-4A, RDT&E Schedule Details: PB 2016 United States Special Operations Command		Date: February 2015
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 1160431BB / *Warrior Systems*	**Project (Number/Name)** S800 / *Munitions Advanced Development*

Schedule Details

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
Munitions Advanced Development				
Purchase Test Articles	2	2014	4	2020
Evaluation of Munition test articles	2	2014	4	2020
Munitions Testing	2	2014	4	2020
Stand-Off Precision Guided Munitions				
Evaluate Lethality Upgrades	4	2014	4	2016

Exhibit R-2A, RDT&E Project Justification: PB 2016 United States Special Operations Command			Date: February 2015
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 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	Cost To Complete	Total Cost
D476: *Military Information Support Operations*	-	2.477	4.895	6.610	-	6.610	4.746	3.517	1.096	1.118	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), and television (TV) transmitters, and radio/TV production systems.

• LRBS is a family of broadcast systems intended to be integrated to multiple 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 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.

B. Accomplishments/Planned Programs ($ in Millions)	FY 2014	FY 2015	FY 2016
Title: Media Production and Broadcast System	2.477	2.280	2.074
FY 2014 Accomplishments:			

Exhibit R-2A, RDT&E Project Justification: PB 2016 United States Special Operations Command		Date: February 2015
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 2014	FY 2015	FY 2016
Continued primary hardware development, systems engineering, and test and evaluation on product distribution technology. 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. ***FY 2015 Plans:*** Continue primary hardware development, systems engineering, and test and evaluation on product distribution technology. 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. ***FY 2016 Plans:*** Tests and evaluates new systems and components to enhance MISO product. Integrates and disseminates new analytical software tools to enhance production supporting MISO target audience assessment and measures of effectiveness requirements.			
Title: LRBS ***FY 2015 Plans:*** Begin primary hardware development, system engineering, and test and evaluation of pod-based FM and cellular broadcast, power, and antenna technologies. ***FY 2016 Plans:*** Continues with primary hardware development, systems engineering, and test and evaluation of pod-based FM and cellular broadcast, power, and antenna technologies.	-	1.416	4.536
Title: PDS ***FY 2015 Plans:*** Continue to evaluate advance technology, and test and evaluate new PDS / SOF Deployable Node (SDN-P) components integrating audio/visual capabilities for enhanced distribution and delivery of MISO products.	-	1.199	-
Accomplishments/Planned Programs Subtotals	2.477	4.895	6.610

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	Cost To Complete	Total Cost
• PROC1/0204OTHER: *OTHER ITEMS <$5M*	73.141	106.675	79.149	-	79.149	70.287	71.149	84.526	80.958	Continuing	Continuing

Remarks

Exhibit R-2A, RDT&E Project Justification: PB 2016 United States Special Operations Command		Date: February 2015
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 1160431BB / *Warrior Systems*	**Project (Number/Name)** D476 / *Military Information Support Operations*

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 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.

E. Performance Metrics

N/A.

Exhibit R-3, RDT&E Project Cost Analysis: PB 2016 United States Special Operations Command		Date: February 2015
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 1160431BB / *Warrior Systems*	**Project (Number/Name)** D476 / *Military Information Support Operations*

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2014 Cost	FY 2014 Award Date	FY 2015 Cost	FY 2015 Award Date	FY 2016 Base Cost	FY 2016 Base Award Date	FY 2016 OCO Cost	FY 2016 OCO Award Date	FY 2016 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Media Production and Broadcast Systems	TBD	TBD : TBD	-	2.477	Mar 2014	2.280	Jan 2015	2.074	Apr 2016	-		2.074	Continuing	Continuing	-
Product Distribution System	TBD	Various : Various	-	-		1.199	Apr 2015	-		-		-	-	1.199	-
Long Range Broadcast System	TBD	TBD : TBD	-	-		1.416	Apr 2015	4.536	Jan 2016	-		4.536	Continuing	Continuing	-
		Subtotal	-	2.477		4.895		6.610		-		6.610	-	-	-

	Prior Years	FY 2014		FY 2015		FY 2016 Base		FY 2016 OCO		FY 2016 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	-	2.477		4.895		6.610		-		6.610	-	-	-

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2016 United States Special Operations Command		Date: February 2015
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 1160431BB / *Warrior Systems*	**Project (Number/Name)** D476 / *Military Information Support Operations*

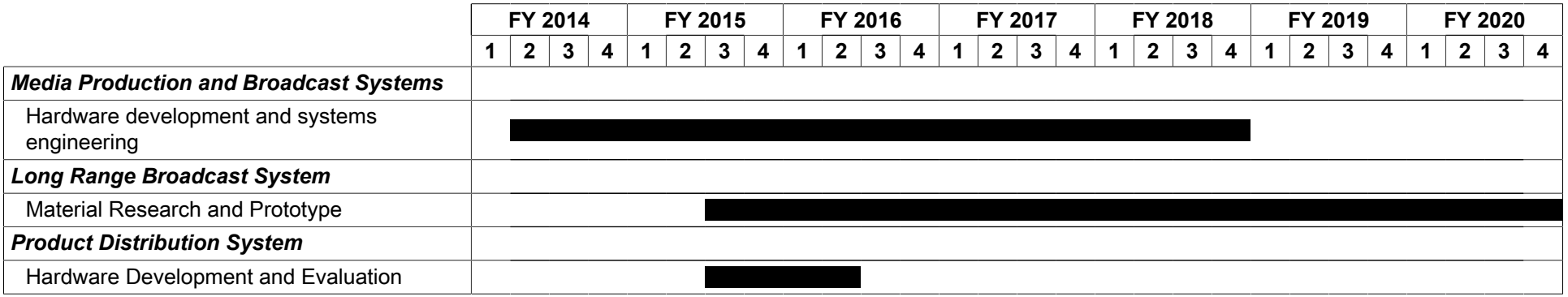

Exhibit R-4A, RDT&E Schedule Details: PB 2016 United States Special Operations Command		Date: February 2015
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 1160431BB / *Warrior Systems*	**Project (Number/Name)** D476 / *Military Information Support Operations*

Schedule Details

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
Media Production and Broadcast Systems				
Hardware development and systems engineering	2	2014	4	2018
Long Range Broadcast System				
Material Research and Prototype	3	2015	4	2020
Product Distribution System				
Hardware Development and Evaluation	3	2015	2	2016

Exhibit R-2A, RDT&E Project Justification: PB 2016 United States Special Operations Command			Date: February 2015
Appropriation/Budget Activity 0400 / 7	R-1 Program Element (Number/Name) PE 1160431BB / *Warrior Systems*	Project (Number/Name) S375 / *Weapons Systems*	

COST ($ in Millions)	Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	Cost To Complete	Total Cost
S375: *Weapons Systems*	-	0.565	-	1.494	-	1.494	1.492	1.492	1.486	1.487	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

This project provides for development and testing of specialized, individual, assault, crew-served weapons, and fire control/surveillance devices to meet the unique requirements of Special Operations Forces (SOF). SOF often deploys as small, independent, quick reaction, foot-mobile teams independent of primary logistics support. Existing weapons and combat equipment are frequently unsuited to these conditions. This project enhances all SOF weapons, both individual and crew served, by leveraging the latest technological advances in optional accessories (up to 30 different functions/capabilities) such as day scopes, clip-on night scopes, active aiming laser module, visible lights, grenade launchers, suppressors, hand grips, and close quarters battle sights. Miniature Day-Night Sight for Crew-served Weapons enhances all SOF weapons, by leveraging existing image intensification and thermal technology to improve combat effectiveness for all crew served weapon systems. Development efforts include test and evaluation of the Advanced Target Pointer Illuminator Aiming Laser hardening to withstand the live-fire shock profiles for the Combat Assault Rifle along with other improvements, Visual Augmentation Systems, and Family of Muzzle Breaks and Suppressors. Leveraging extensive modeling and simulation efforts executed by National Labs, competitively award RDT&E contracts to select vendors to develop suppressors and flashhiders for select SOF weapon systems. These accessories greatly improve the combat effectiveness of the weapon systems and the survivability of the SOF operator.

B. Accomplishments/Planned Programs ($ in Millions)	FY 2014	FY 2015	FY 2016
Title: Weapons Accessary (WPNAC)	0.565	-	1.494
FY 2014 Accomplishments: Continued small arms signature reduction development and testing.			
FY 2016 Plans: Develops enhanced capabilities to improve performance of individual and crew serve SOF weapons.			
Accomplishments/Planned Programs Subtotals	0.565	-	1.494

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	Cost To Complete	Total Cost
• PROC1: *Warrior Systems <$5M*	216.732	270.805	186.009	-	186.009	215.839	196.301	202.374	201.373	Continuing	Continuing

Remarks

D. Acquisition Strategy

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

Exhibit R-2A, RDT&E Project Justification: PB 2016 United States Special Operations Command		Date: February 2015
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 1160431BB / *Warrior Systems*	**Project (Number/Name)** S375 / *Weapons Systems*

E. Performance Metrics

N/A

Exhibit R-3, RDT&E Project Cost Analysis: PB 2016 United States Special Operations Command			Date: February 2015
Appropriation/Budget Activity 0400 / 7	R-1 Program Element (Number/Name) PE 1160431BB / *Warrior Systems*	Project (Number/Name) S375 / *Weapons Systems*	

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2014 Cost	FY 2014 Award Date	FY 2015 Cost	FY 2015 Award Date	FY 2016 Base Cost	FY 2016 Base Award Date	FY 2016 OCO Cost	FY 2016 OCO Award Date	FY 2016 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Small Arms Signature Reduction	MIPR	Various : Various	-	0.565	May 2014	-		1.494	Jan 2016	-		1.494	Continuing	Continuing	-
		Subtotal	-	0.565		-		1.494		-		1.494	-	-	-

	Prior Years	FY 2014		FY 2015		FY 2016 Base		FY 2016 OCO		FY 2016 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	-	0.565		-		1.494		-		1.494	-	-	-

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2016 United States Special Operations Command		Date: February 2015
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 1160431BB / *Warrior Systems*	**Project (Number/Name)** S375 / *Weapons Systems*

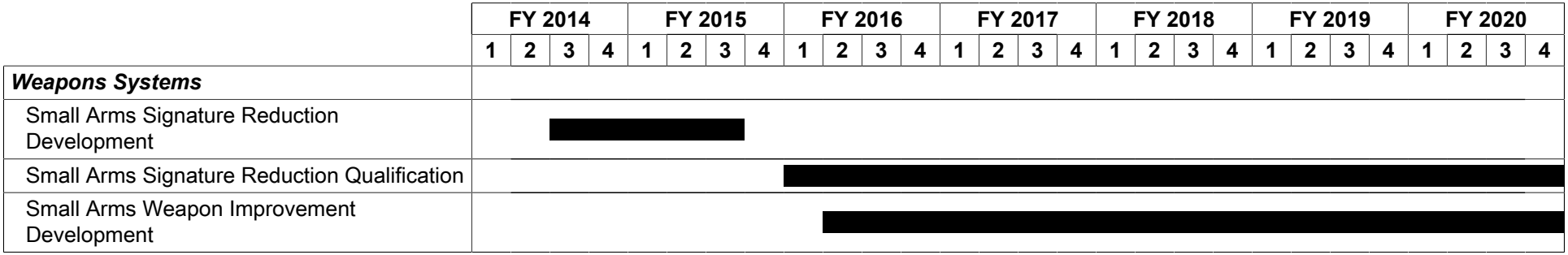

Exhibit R-4A, RDT&E Schedule Details: PB 2016 United States Special Operations Command		Date: February 2015
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 1160431BB / *Warrior Systems*	**Project (Number/Name)** S375 / *Weapons Systems*

Schedule Details

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
Weapons Systems				
Small Arms Signature Reduction Development	3	2014	3	2015
Small Arms Signature Reduction Qualification	1	2016	4	2020
Small Arms Weapon Improvement Development	2	2016	4	2020

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Exhibit R-2, RDT&E Budget Item Justification: PB 2016 United States Special Operations Command	Date: February 2015
Appropriation/Budget Activity 0400: *Research, Development, Test & Evaluation, Defense-Wide* / BA 7: *Operational Systems Development*	**R-1 Program Element (Number/Name)** PE 1160432BB / *Special Programs*

COST ($ in Millions)	Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	Cost To Complete	Total Cost
Total Program Element	0.000	7.185	20.908	3.401	-	3.401	1.964	1.994	1.691	1.725	Continuing	Continuing
S500E: *Special Programs*	0.000	7.185	20.908	3.401	-	3.401	1.964	1.994	1.691	1.725	Continuing	Continuing

A. Mission Description and Budget Item Justification

This program is reported in accordance with Title 10, United States Code, Section 119 (a)(1) in the Special Access Program Annual Report to Congress.

B. Program Change Summary ($ in Millions)	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total
Previous President's Budget	7.185	20.908	3.124	-	3.124
Current President's Budget	7.185	20.908	3.401	-	3.401
Total Adjustments	-	-	0.277	-	0.277
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-	-			
• Other Adjustments	-	-	0.277	-	0.277

Change Summary Explanation

Funding:

FY2014: None.

FY2015: None.

FY2016: Net increase of $0.277 million is due to a decrease of $0.025 million for a Departmental economic assumption decrease and a realignment of $0.302 million increase available under separate cover document.

Schedule: None.

Technical: None.

Exhibit R-2A, RDT&E Project Justification: PB 2016 United States Special Operations Command											Date: February 2015	
Appropriation/Budget Activity 0400 / 7					R-1 Program Element (Number/Name) PE 1160432BB / *Special Programs*				Project (Number/Name) S500E / *Special Programs*			
COST ($ in Millions)	**Prior Years**	**FY 2014**	**FY 2015**	**FY 2016 Base**	**FY 2016 OCO**	**FY 2016 Total**	**FY 2017**	**FY 2018**	**FY 2019**	**FY 2020**	**Cost To Complete**	**Total Cost**
S500E: *Special Programs*	-	7.185	20.908	3.401	-	3.401	1.964	1.994	1.691	1.725	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

This project is reported in accordance with Title 10, United States Code, Section 119(a)(1) in the Special Access Program Annual Report to Congress.

B. Accomplishments/Planned Programs ($ in Millions)	FY 2014	FY 2015	FY 2016
Title: Other Classified Programs	7.185	20.908	3.401
Description: Program details available under separate cover document. ***FY 2014 Accomplishments:*** Program details available under separate cover document. ***FY 2015 Plans:*** Program details available under separate cover document. ***FY 2016 Plans:*** Program details available under separate cover document.			
Accomplishments/Planned Programs Subtotals	7.185	20.908	3.401

C. Other Program Funding Summary ($ in Millions)

N/A

Remarks

D. Acquisition Strategy

N/A

E. Performance Metrics

N/A

Exhibit R-3, RDT&E Project Cost Analysis: PB 2016 United States Special Operations Command			Date: February 2015
Appropriation/Budget Activity 0400 / 7	R-1 Program Element (Number/Name) PE 1160432BB / *Special Programs*	Project (Number/Name) S500E / *Special Programs*	

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2014 Cost	FY 2014 Award Date	FY 2015 Cost	FY 2015 Award Date	FY 2016 Base Cost	FY 2016 Base Award Date	FY 2016 OCO Cost	FY 2016 OCO Award Date	FY 2016 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Other Classified Programs	TBD	Various : Various	-	7.185		20.908		3.401		-		3.401	Continuing	Continuing	-
		Subtotal	-	7.185		20.908		3.401		-		3.401	-	-	-

	Prior Years	FY 2014		FY 2015		FY 2016 Base		FY 2016 OCO		FY 2016 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	-	7.185		20.908		3.401		-		3.401	-	-	-

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2016 United States Special Operations Command		Date: February 2015
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 1160432BB / *Special Programs*	**Project (Number/Name)** S500E / *Special Programs*

	FY 2014				FY 2015				FY 2016				FY 2017				FY 2018				FY 2019				FY 2020			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Other Classified Programs																												
Other Classified Programs																												

Exhibit R-4A, RDT&E Schedule Details: PB 2016 United States Special Operations Command		Date: February 2015
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 1160432BB / *Special Programs*	**Project (Number/Name)** S500E / *Special Programs*

Schedule Details

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
Other Classified Programs				
Other Classified Programs	1	2014	4	2020

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Exhibit R-2, RDT&E Budget Item Justification: PB 2016 United States Special Operations Command	Date: February 2015
Appropriation/Budget Activity 0400: *Research, Development, Test & Evaluation, Defense-Wide* / BA 7: *Operational Systems Development*	**R-1 Program Element (Number/Name)** PE 1160480BB / *SOF Tactical Vehicles*

COST ($ in Millions)	Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	Cost To Complete	Total Cost
Total Program Element	26.359	2.135	3.672	3.212	-	3.212	3.341	2.598	2.645	2.698	Continuing	Continuing
S910: *SOF Tactical Vehicles*	26.359	2.135	3.672	3.212	-	3.212	3.341	2.598	2.645	2.698	Continuing	Continuing

A. Mission Description and Budget Item Justification

This program element provides for the development and testing of a variety of incremental upgrades to Special Operations Forces (SOF) Vehicles and ancillary equipment. Current SOF tactical vehicles include: Lightweight Tactical All Terrain Vehicles (Light), Ground Mobility Vehicles (Medium), Non-Standard Commercial Vehicles (Commercial) for use in tactical missions, and Mine Resistant Ambush Protected Vehicles (Heavy). The SOF mission mandates that SOF vehicles remain technologically superior, operate in multiple environments and be able to meet any threat to provide a maximum degree of survivability.

B. Program Change Summary ($ in Millions)	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total
Previous President's Budget	2.135	3.672	3.235	-	3.235
Current President's Budget	2.135	3.672	3.212	-	3.212
Total Adjustments	-	-	-0.023	-	-0.023
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-	-			
• Other Adjustments	-	-	-0.023	-	-0.023

Change Summary Explanation

Funding:

FY 2014: None.

FY 2015: None.

FY 2016: Decrease of -$0.023 million is due to a Departmental economic assumption decrease.

Schedule: None.

Exhibit R-2, RDT&E Budget Item Justification: PB 2016 United States Special Operations Command	Date: February 2015
Appropriation/Budget Activity 0400: *Research, Development, Test & Evaluation, Defense-Wide* / BA 7: *Operational Systems Development*	**R-1 Program Element (Number/Name)** PE 1160480BB / *SOF Tactical Vehicles*

Technical: None.

Exhibit R-2A, RDT&E Project Justification: PB 2016 United States Special Operations Command			Date: February 2015
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 1160480BB / *SOF Tactical Vehicles*	**Project (Number/Name)** S910 / *SOF Tactical Vehicles*	

COST ($ in Millions)	Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	Cost To Complete	Total Cost
S910: *SOF Tactical Vehicles*	26.359	2.135	3.672	3.212	-	3.212	3.341	2.598	2.645	2.698	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

This project develops, tests, and evaluates Special Operations vehicles and modifications. The Special Operations Forces (SOF) mission mandates that SOF vehicles remain technologically superior, operate in multiple environments and be able to meet any threat to provide a maximum degree of survivability. The current family of SOF tactical vehicles include: individual mobility vehicles, light mobility vehicles, medium mobility vehicles, non-standard commercial vehicles, and heavy mobility vehicles.

Family of Special Operations Vehicles (FSOV). This initiative provides for product improvements in the areas of suspension, power management, armor protection and unique vehicle design for all SOF tactical vehicle configurations. Designs must be standardized across all SOF Components that utilize a tactical vehicle. Improvements include, but are not limited to, new engineering change proposals (ECPs), field safety issues and theater endorsed requirements that make it essential to keep up with the increased weight and minimize the impact to mobility on the basic vehicle. FSOV develops, integrates and tests Command, Control, Communications, Computers, Intelligence, Surveillance and Reconnaissance (C4ISR) systems in order to reduce space and power claim on vehicles and develop safety and engineering improvements that specifically address the enemy's changing tactics on the battlefield which typically focuses on survivability, force protection, or mobility. Specific efforts include but are not limited to: Ground Mobility Vehicles (Medium) effort which provides for a medium vehicle variant capable of meeting specific requirements of internal aircraft transport on the C/MH47 and CV-22. The effort also provides for engineering costs related to performance, endurance, safety testing, integration and logistical analysis of product samples. Additionally, efforts include ECPs associated with the Non-Standard Commercial Vehicle (NSCV), the Lightweight Tactical All Terrain Vehicle (LTATV). These ECPs will address any identified safety, reliability, and performance concerns. Finally, funding will be used to support vehicle signature reduction efforts. The Mine Resistant Ambush Protected (MRAP) Vehicle Kit. Effort provides design, prototyping, testing and installation manual development of SOF peculiar integration kits for multiple models of Service-common MRAPs employed by SOF. Kits will enable SOF unique C4ISR installation and Common Remotely Operated Weapon Station integration to service-common MRAPs.

B. Accomplishments/Planned Programs ($ in Millions)	FY 2014	FY 2015	FY 2016
Title: Family of Special Operations Vehicle	2.135	3.672	3.212
FY 2014 Accomplishments: Continued development of ECPs that implement incremental upgrades and improve the design of FSOV GMV medium. The ECPs include adding heating, ventilation, air condition systems, installed electrical receptacles, infrared flood lamps, combat overrides, rear-mounted swivel pintles, safety chains to make vehicle towing capable, gunner restraints, cargo tie-downs, and weapon stowage provisions to the GMV medium vehicles. Completed development, prototyping and testing of FSOV GMV medium.			
FY 2015 Plans:			

Exhibit R-2A, RDT&E Project Justification: PB 2016 United States Special Operations Command		Date: February 2015
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 1160480BB / *SOF Tactical Vehicles*	**Project (Number/Name)** S910 / *SOF Tactical Vehicles*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2014	FY 2015	FY 2016
Continue integration of ECPs that implement incremental upgrades and improve the design of the light and medium mobility vehicles. Efforts include Initial Operational Test and Evaluation (IOT&E) of FSOV GMV medium. Continue enhancements/ modifications on the NSCV to improve reliability and survivability. ***FY 2016 Plans:*** Continues integration of ECPs that implement incremental upgrades and improve the design of the light and ground mobility vehicles (medium). Continues enhancements/modifications on the NSCV to improve reliability and survivability and engineering design changes.			
Accomplishments/Planned Programs Subtotals	2.135	3.672	3.212

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	Cost To Complete	Total Cost
• PROC: *Tactical Vehicles*	37.353	63.134	73.520	-	73.520	70.432	65.489	67.843	67.851	Continuing	Continuing

Remarks

D. Acquisition Strategy

Vehicle improvements integrate emerging technology or commercial-off-the-shelf/non-developmental items. Materiel solutions will be procured via existing contracts or through a competitive procurement.

E. Performance Metrics

N/A

Exhibit R-3, RDT&E Project Cost Analysis: PB 2016 United States Special Operations Command		Date: February 2015
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 1160480BB / *SOF Tactical Vehicles*	**Project (Number/Name)** S910 / *SOF Tactical Vehicles*

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2014 Cost	FY 2014 Award Date	FY 2015 Cost	FY 2015 Award Date	FY 2016 Base Cost	FY 2016 Base Award Date	FY 2016 OCO Cost	FY 2016 OCO Award Date	FY 2016 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
FSOV Ground Mobility Vehicles (GMV) Medium Engineering Change Proposal (ECP) Development	MIPR	Naval Air Systems Command : Patuxent River, MD	2.246	0.231	Nov 2013	-		-		-		-	-	2.477	-
FSOV GMV Medium Enviro	WR	TARDEC : Warren, Michigan	0.036	0.054	Nov 2013	-		-		-		-	-	0.090	-
FSOV GMV Medium ECP Development & C4 Integration	C/FFP	General Dynamics - OTS : St. Petersburg, FL	4.900	1.658	Sep 2013	-		2.297	Jun 2016	-		2.297	Continuing	Continuing	-
FSOV Lightweight Tactical All Terrain Vehicles (LTATV) ECP Development	MIPR	TBD : TBD	0.381	-		-		0.312	Oct 2015	-		0.312	Continuing	Continuing	-
FSOV Non-Standard Commercial Vehicles (NSCV) ECP Development/Signature Reduction	MIPR	USSOCOM : Tampa, FL	0.807	-		-		0.603	Jun 2016	-		0.603	Continuing	Continuing	-
Prior Year Funding	Various	Various : Various	0.383	-		-		-		-		-	-	0.383	-
		Subtotal	8.753	1.943		-		3.212		-		3.212	-	-	-

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2014 Cost	FY 2014 Award Date	FY 2015 Cost	FY 2015 Award Date	FY 2016 Base Cost	FY 2016 Base Award Date	FY 2016 OCO Cost	FY 2016 OCO Award Date	FY 2016 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
FSOV GMV Medium ECP Development & C4 Integration	C/FFP	General Dynamics - OTS : St. Petersburg, FL	-	-		1.500	Jun 2015	-		-		-	-	1.500	-
FSOV LTATV ECP Development	MIPR	TBD : TBD	-	-		0.372	Oct 2014	-		-		-	-	0.372	-
FSOV NSCV ECP	MIPR	HQ USSOCOM : Tampa, FL	-	-		0.700	Jun 2015	-		-		-	-	0.700	-
Prior Year Funding	Various	Various : Various	3.910	-		-		-		-		-	-	3.910	-

Exhibit R-3, RDT&E Project Cost Analysis: PB 2016 United States Special Operations Command			Date: February 2015
Appropriation/Budget Activity 0400 / 7	R-1 Program Element (Number/Name) PE 1160480BB / *SOF Tactical Vehicles*	Project (Number/Name) S910 / *SOF Tactical Vehicles*	

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2014 Cost	FY 2014 Award Date	FY 2015 Cost	FY 2015 Award Date	FY 2016 Base Cost	FY 2016 Base Award Date	FY 2016 OCO Cost	FY 2016 OCO Award Date	FY 2016 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
		Subtotal	3.910	-		2.572		-		-		-	-	6.482	-

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2014 Cost	FY 2014 Award Date	FY 2015 Cost	FY 2015 Award Date	FY 2016 Base Cost	FY 2016 Base Award Date	FY 2016 OCO Cost	FY 2016 OCO Award Date	FY 2016 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
FSOV GMV medium Test Support	MIPR	AEC : Aberdeen Proving Ground, MD	0.000	0.192	Nov 2013	0.100	Jul 2015	-		-		-	-	0.292	-
FSOV GMV medium Initial Operational Test and Evaluation (IOT&E)	MIPR	TBD : TBD	0.000	-		1.000	Jul 2015	-		-		-	-	1.000	-
Prior Year Funding	Various	Various : Various	13.696	-		-		-		-		-	-	13.696	-
		Subtotal	13.696	0.192		1.100		-		-		-	-	14.988	-

	Prior Years	FY 2014		FY 2015		FY 2016 Base		FY 2016 OCO		FY 2016 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	26.359	2.135		3.672		3.212		-		3.212	-	-	-

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2016 United States Special Operations Command		Date: February 2015
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 1160480BB / *SOF Tactical Vehicles*	**Project (Number/Name)** S910 / *SOF Tactical Vehicles*

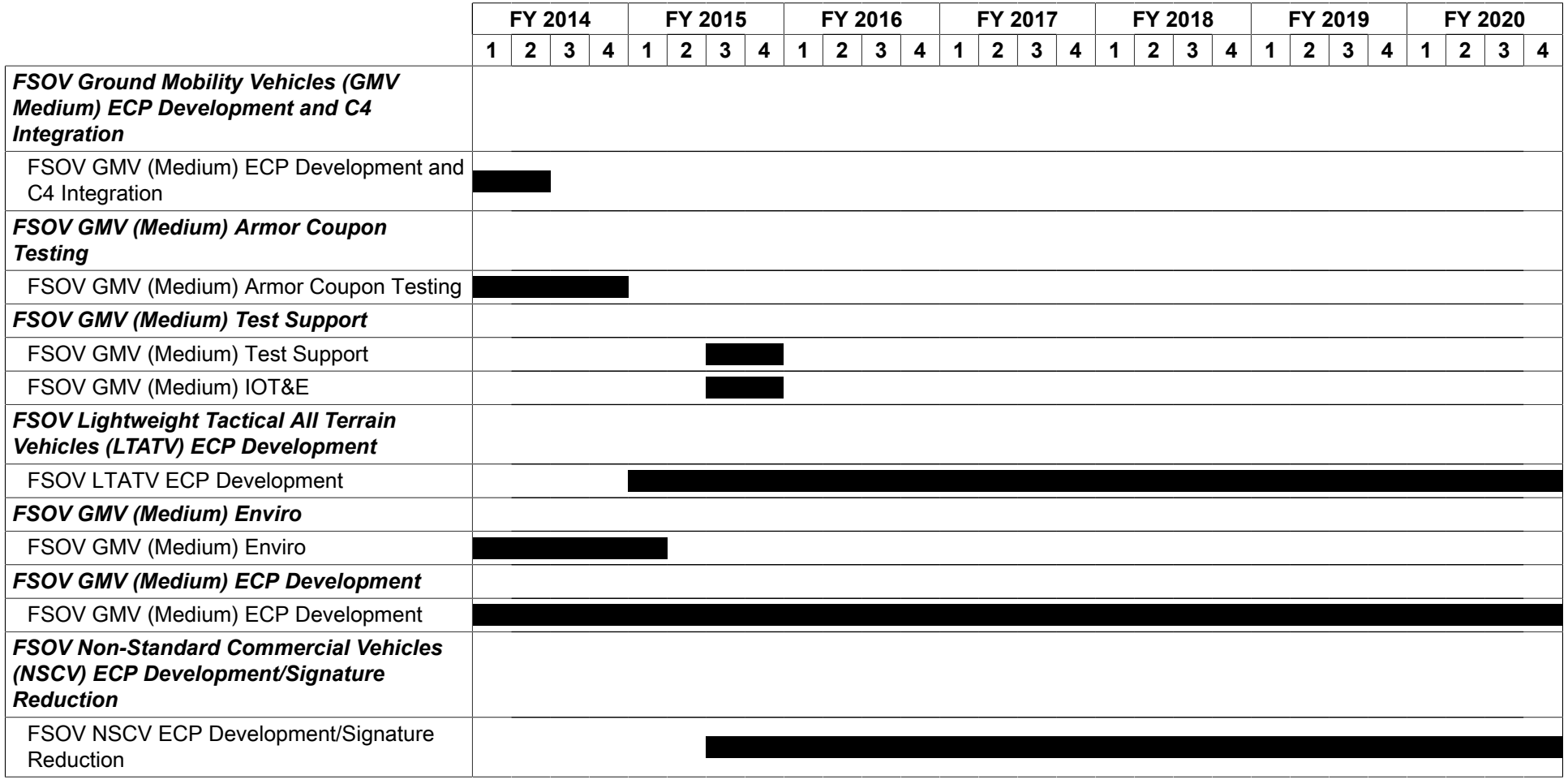

Exhibit R-4A, RDT&E Schedule Details: PB 2016 United States Special Operations Command		Date: February 2015
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 1160480BB / *SOF Tactical Vehicles*	**Project (Number/Name)** S910 / *SOF Tactical Vehicles*

Schedule Details

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
FSOV Ground Mobility Vehicles (GMV Medium) ECP Development and C4 Integration				
FSOV GMV (Medium) ECP Development and C4 Integration	1	2014	2	2014
FSOV GMV (Medium) Armor Coupon Testing				
FSOV GMV (Medium) Armor Coupon Testing	1	2014	4	2014
FSOV GMV (Medium) Test Support				
FSOV GMV (Medium) Test Support	3	2015	4	2015
FSOV GMV (Medium) IOT&E	3	2015	4	2015
FSOV Lightweight Tactical All Terrain Vehicles (LTATV) ECP Development				
FSOV LTATV ECP Development	1	2015	4	2020
FSOV GMV (Medium) Enviro				
FSOV GMV (Medium) Enviro	1	2014	1	2015
FSOV GMV (Medium) ECP Development				
FSOV GMV (Medium) ECP Development	1	2014	4	2020
FSOV Non-Standard Commercial Vehicles (NSCV) ECP Development/Signature Reduction				
FSOV NSCV ECP Development/Signature Reduction	3	2015	4	2020

Exhibit R-2, RDT&E Budget Item Justification: PB 2016 United States Special Operations Command	Date: February 2015
Appropriation/Budget Activity 0400: *Research, Development, Test & Evaluation, Defense-Wide* / BA 7: *Operational Systems Development*	**R-1 Program Element (Number/Name)** PE 1160483BB / *Maritime Systems*

COST ($ in Millions)	Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	Cost To Complete	Total Cost
Total Program Element	202.398	28.724	56.746	63.597	-	63.597	52.590	12.864	5.529	12.328	Continuing	Continuing
S0417: *Underwater Systems*	202.398	21.652	45.823	56.328	-	56.328	49.037	9.505	1.345	4.530	Continuing	Continuing
S1684: *Surface Craft*	0.000	7.072	10.923	7.269	-	7.269	3.553	3.359	4.184	7.798	Continuing	Continuing

A. Mission Description and Budget Item Justification

This program element provides for engineering & manufacturing development and operational development of Special Operations Forces (SOF) Surface and Undersea Mobility platforms. This program element also provides for pre-acquisition activities to quickly respond to new requirements for SOF surface and undersea mobility, looking at multiple alternatives to include cross-platform technical solutions, service common solutions, Commercial-Off-The-Shelf (COTS) technologies and new development efforts.

The Underwater Systems project provides for engineering and manufacturing development and operational systems development of combat underwater submersibles and underwater support systems and equipment. This project also provides for pre-acquisition activities (materiel solutions analysis, advanced component development and prototypes) to respond to emergent requirements. These submersibles, systems, and equipment are used by SOF in the conduct of infiltration/extraction, hydrographic/inland reconnaissance, beach obstacle clearance, underwater ship attack, and other missions. The capabilities of the submersible systems and unique equipment provides small, highly trained forces the ability to successfully engage the enemy and conduct clandestine operations associated with SOF maritime missions.

The Surface Craft project provides for engineering & manufacturing development and operational systems development of light, medium, and heavy surface combatant craft and selected items of specialized equipment to meet the unique requirements of SOF. This project element also provides for pre-acquisition activities (materiel solutions analysis, advanced component development & prototypes) to quickly respond to new requirements for maritime craft and subsystems. The craft capabilities and unique equipment provide small, highly trained forces the ability to successfully engage the enemy and conduct operations associated with SOF maritime missions.

Exhibit R-2, RDT&E Budget Item Justification: PB 2016 United States Special Operations Command	Date: February 2015
Appropriation/Budget Activity 0400: *Research, Development, Test & Evaluation, Defense-Wide* / BA 7: *Operational Systems Development*	**R-1 Program Element (Number/Name)** PE 1160483BB / *Maritime Systems*

B. Program Change Summary ($ in Millions)	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total
Previous President's Budget	28.724	57.905	19.624	-	19.624
Current President's Budget	28.724	56.746	63.597	-	63.597
Total Adjustments	-	-1.159	43.973	-	43.973
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-1.159			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-	-			
• Other Adjustments	-	-	43.973	-	43.973

Change Summary Explanation

Funding:

FY 2014: None.

FY 2015: This program element was reduced due to a Congressional Directed Reduction of $1.159 million to the Next Generation Surface System program.

FY 2016: Net increase of $43.973 million. Revised program strategy for the Dry Combat Submersible, increase of $27.277 million to support the development of technology maturation of the DCS, increase of $10.000 million for the modernization effort for the Dry Deck Shelter in order to transition from SSGN to Virginia Class host platform and increase capacity to carry larger payloads, increase of $7.596 million to support engineering and testing for Shallow Water Combat Submersible (SWCS), decrease of ($0.900) million to support higher command priorities, and a decrease of ($0.461) million is due to a Departmental economic assumption decrease.

Schedule: Revisions to the Dry Combat Submersible schedule from a combined MS B/C to MS B and MS C decisions.

Technical: Added Dry Deck Shelter Modernization effort and SOF Combat Diving.

Exhibit R-2A, RDT&E Project Justification: PB 2016 United States Special Operations Command											Date: February 2015	
Appropriation/Budget Activity 0400 / 7					R-1 Program Element (Number/Name) PE 1160483BB / *Maritime Systems*				Project (Number/Name) S0417 / *Underwater Systems*			
COST ($ in Millions)	**Prior Years**	**FY 2014**	**FY 2015**	**FY 2016 Base**	**FY 2016 OCO**	**FY 2016 Total**	**FY 2017**	**FY 2018**	**FY 2019**	**FY 2020**	**Cost To Complete**	**Total Cost**
S0417: *Underwater Systems*	202.398	21.652	45.823	56.328	-	56.328	49.037	9.505	1.345	4.530	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

This project provides for engineering and manufacturing development and operational systems development of small combat underwater submersibles and underwater support systems and equipment. This project also provides for pre-acquisition activities (materiel solutions analysis, advanced component development and prototypes) to respond to emergent requirements. These submersibles, systems, and equipment are used by Special Operations Forces (SOF) in the conduct of infiltration/ extraction, hydrographic/inland reconnaissance, beach obstacle clearance, underwater ship attack, and other missions. The capabilities of the submersible systems and unique equipment provides small, highly trained forces the ability to successfully engage the enemy and conduct clandestine operations associated with SOF maritime missions. Sub-projects include:

• Shallow Water Combat Submersible (SWCS) (previously Block 1): This project provides for the engineering, manufacturing, testing, and development of one Engineering Development Model (EDM) to replace the SEAL Delivery System (SDV). The EDM is being developed due to obsolescence of the SDV system. This project will utilize mature technologies, which include electric propulsion along with upgraded navigation, communication, and sensor suites. It also provides for integration efforts with the current Dry Deck Shelter and other diving technologies to meet SOF requirements.

• Dry Combat Submersible (DCS): This project provides for the advanced engineering, manufacturing, testing, and development efforts for a SOF DCS System. Current efforts are using commercial dry submersible prototypes to assess submersible capabilities and reduce risk in the DCS program. The DCS is planned to operate from surface ships. Two commercially built dry submersible prototypes are being manufactured and tested, as well as evaluation of a third leased vehicle. Significant risk reduction initiatives were added in FY 2013 which allowed for validation of test processes, commercial classification processes, and the development of the SOCOM safety certification process which permits SEALs to operate the submersibles. In addition, the prototypes will be used to evaluate the capability enhancing technologies in a relevant environment. Technologies include, but are not limited to Safe Li-Ion batteries, silver zinc batteries, improved sonar systems, advanced battery management system, and a three-dimensional Electro Optical Infrared (EO/IR) Periscope.

• Dry Deck Shelter (DDS) Modernization: This is an FY 2016 new start. This project provides for the pre-planned product improvements, testing, and integration of specialized underwater systems to meet the unique requirements of SOF, and compatibility with the submarine fleet. The current DDS is a certified diving system which attaches to modified host submarines that provides for insertion of SOF forces and platforms. Funding supports product improvements to the current DDS, as well as associated diver equipment for in-service submarine support systems, unmanned underwater vehicles, and follow on development efforts for future SOF payloads.

• SOF Combat Diving: This is an FY 2016 new start. This project provides for the advanced engineering, manufacturing, testing, development and transition of SOF peculiar diving technologies for the SOF combat diver. Technologies include, but are not limited to commercial and developmental Underwater Breathing Apparatus (UBAs), diver thermal regulation systems, diver communication, tracking and monitoring systems, diver propulsion devices, diver auxiliary equipment and advance concept breathing mixture and procedure development.

Exhibit R-2A, RDT&E Project Justification: PB 2016 United States Special Operations Command		Date: February 2015
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 1160483BB / *Maritime Systems*	**Project (Number/Name)** S0417 / *Underwater Systems*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2014	FY 2015	FY 2016
Title: SWCS ***FY 2014 Accomplishments:*** Completed design and initiated manufacturing of the EDM. ***FY 2015 Plans:*** Begin EDM system-level development testing program phases. ***FY 2016 Plans:*** Completes EDM development testing, certification and government acceptance. Incorporates any necessary engineering design changes and modifications to meet key performance parameters.	12.844	11.801	7.596
Title: Dry Combat Submersibles (DCS) ***FY 2014 Accomplishments:*** Completed design and build of one commercial prototype submersible, Button 5.60 prototype, and continued build of the S351 prototype. Initiated developmental test planning on Button 5.60 prototype. ***FY 2015 Plans:*** Begin developmental testing of the two submersible prototypes. ***FY 2016 Plans:*** Completes developmental testing on the prototypes. Initiates refit of one prototype submersible to be used as a training vessel and award an EMD contract for a production representative article.	8.808	34.022	38.232
Title: Dry Deck Shelter (DDS) Modernization ***FY 2016 Plans:*** This is an FY 2016 new start. Begins development of the modernization necessary to extend useful life, transition from SSGN to Virginia Class host platform, and increase capacity to carry other larger payloads.	-	-	10.000
Title: SOF Combat Diving ***FY 2016 Plans:*** This is an FY 2016 new start. Begins development of SOF peculiar diving technologies for transition to the SOF combat diver to include communication needs, underwater breathing apparatus modernization and thermal protection.	-	-	0.500
Accomplishments/Planned Programs Subtotals	21.652	45.823	56.328

Exhibit R-2A, RDT&E Project Justification: PB 2016 United States Special Operations Command		Date: February 2015
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 1160483BB / *Maritime Systems*	**Project (Number/Name)** S0417 / *Underwater Systems*

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	Cost To Complete	Total Cost
• PROC 1: *Underwater Systems*	15.439	25.459	32.521	-	32.521	40.756	89.131	55.145	7.394	Continuing	Continuing

Remarks

D. Acquisition Strategy

• SWCS used full and open competition, with a down select to a single contractor. The full spectrum of contracting activities is being utilized for any integration and subsystem requirements, using existing contracts where appropriate, government agencies and new contracts as necessary.

• DCS used Broad Agency Announcements for Research and Development contracts leveraging commercial technologies, practices and safety classification standards to design, build, test and deliver prototypes to refine and validate potential key performance parameters and attributes for the DCS requirements baseline. The commercial classification of the prototypes will validate the technical maturity to support a milestone B decision. A competitive contract is planned in FY 2016 for an EMD contract for a production representative vessel. The full spectrum of contracting activities is being utilized for risk reduction efforts, using existing contracts where appropriate, government agencies and new contracts as necessary.

• DDS Modernization will use existing Dry Deck Shelter contracts to develop modernization efforts and execute configuration changes required to achieve performance requirements specified by the government.

• SOF Combat Diving: The full spectrum of contracting activities is planned to be utilized, using existing contracts where appropriate, government agencies, and leverage from the services. Equipment items are expected to be less than $250 thousand and are anticipated to be purchased using Operations and Maintenance funding.

E. Performance Metrics

N/A

Exhibit R-3, RDT&E Project Cost Analysis: PB 2016 United States Special Operations Command			Date: February 2015
Appropriation/Budget Activity 0400 / 7	R-1 Program Element (Number/Name) PE 1160483BB / *Maritime Systems*	Project (Number/Name) S0417 / *Underwater Systems*	

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2014 Cost	FY 2014 Award Date	FY 2015 Cost	FY 2015 Award Date	FY 2016 Base Cost	FY 2016 Base Award Date	FY 2016 OCO Cost	FY 2016 OCO Award Date	FY 2016 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Shallow Water Combat Submersible (SWCS) (previously Block 1)	C/CPIF	Teledyne Brown Engineering : Huntsville, AL	-	2.604	May 2014	10.300	Dec 2014	7.000	Jan 2016	-		7.000	3.432	23.336	-
SWCS (Block 1)	C/Various	Various : Various	-	10.000	Jul 2014	-		-		-		-	-	10.000	-
SWCS Prior Year	C/Various	Various : Various	53.670	-		-		-		-		-	-	53.670	-
Dry Combat Submersibles (DCS) (Button 5.60 prototype)	C/Various	General Dynamic-Electric Boat : Groton, CT	22.857	2.546	Jun 2014	7.045	Jun 2015	-		-		-	-	32.448	-
DCS (S351 prototype)	C/FFP	Submergence Group : Chester, CT	22.700	0.375	Aug 2014	8.281	Feb 2015	-		-		-	-	31.356	-
DCS Technologies	C/Various	Various : Various	17.148	2.404	Jan 2014	6.436	Apr 2015	8.753	Jun 2016	-		8.753	12.006	46.747	-
DCS (EMD)	C/TBD	MacDill AFB : Tampa, FL	-	-		-		27.277	Jun 2016	-		27.277	31.063	58.340	-
DCS Prior Year Funding	Various	Multiple : Multiple	55.737	-		-		-		-		-	-	55.737	-
Dry Deck Shelter (DDS) Modernization	SS/CPFF	Oceaneering International Inc. Marine Services Division : Chesapeake, VA	-	-		-		9.650	Jan 2016	-		9.650	12.800	22.450	-
SOF Combat Diving	TBD	Various : Various	-	-		-		0.500	Mar 2016	-		0.500	2.149	2.649	-
		Subtotal	172.112	17.929		32.062		53.180		-		53.180	61.450	336.733	-

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2014 Cost	FY 2014 Award Date	FY 2015 Cost	FY 2015 Award Date	FY 2016 Base Cost	FY 2016 Base Award Date	FY 2016 OCO Cost	FY 2016 OCO Award Date	FY 2016 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
SWCS Prior Year Funding	Various	NSWC and NAVSEA : Panama City, FL and Washington, DC	4.165	-		-		-		-		-	-	4.165	-
DCS Prior Year Funding	Various	Various : Various	1.321	-		-		-		-		-	-	1.321	-
DDS Prior Year Funding	Various	Various / RAND : Various	3.608	-		-		-		-		-	-	3.608	-

Exhibit R-3, RDT&E Project Cost Analysis: PB 2016 United States Special Operations Command			Date: February 2015
Appropriation/Budget Activity 0400 / 7	R-1 Program Element (Number/Name) PE 1160483BB / *Maritime Systems*	Project (Number/Name) S0417 / *Underwater Systems*	

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2014 Cost	FY 2014 Award Date	FY 2015 Cost	FY 2015 Award Date	FY 2016 Base Cost	FY 2016 Base Award Date	FY 2016 OCO Cost	FY 2016 OCO Award Date	FY 2016 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
		Subtotal	9.094	-		-		-		-		-	-	9.094	-

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2014 Cost	FY 2014 Award Date	FY 2015 Cost	FY 2015 Award Date	FY 2016 Base Cost	FY 2016 Base Award Date	FY 2016 OCO Cost	FY 2016 OCO Award Date	FY 2016 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
SWCS	Various	NSWC, NAVSEA : Panama City, FL/ Washington, DC	-	0.240	Jan 2014	1.125	Jan 2015	0.596	Jan 2016	-		0.596	-	1.961	-
DCS	C/Various	NAVSEA / CRANE : Panama City, FL	-	1.700	May 2014	10.460	Nov 2014	-		-		-	-	12.160	-
DCS Prior Year Funding	C/Various	Various : Various	9.320	-		-		-		-		-	-	9.320	-
		Subtotal	9.320	1.940		11.585		0.596		-		0.596	-	23.441	-

Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2014 Cost	FY 2014 Award Date	FY 2015 Cost	FY 2015 Award Date	FY 2016 Base Cost	FY 2016 Base Award Date	FY 2016 OCO Cost	FY 2016 OCO Award Date	FY 2016 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
SWCS	Various	John Hopkins University : Columbia, MD	-	-		0.376	Oct 2014	-		-		-	-	0.376	-
SWCS Prior Year Funding	Various	John Hopkins University : Columbia, MD	6.200	-		-		-		-		-	-	6.200	-
DCS	Various	SRA : Tampa, FL	4.915	1.783	May 2014	1.800	May 2015	2.202	Jun 2016	-		2.202	2.195	12.895	-
DDS	MIPR	NAVSEA : Washington, DC	0.757	-		-		0.350	Jan 2016	-		0.350	0.700	1.807	-
		Subtotal	11.872	1.783		2.176		2.552		-		2.552	2.895	21.278	-

	Prior Years	FY 2014 Cost	FY 2014 Award Date	FY 2015 Cost	FY 2015 Award Date	FY 2016 Base Cost	FY 2016 Base Award Date	FY 2016 OCO Cost	FY 2016 OCO Award Date	FY 2016 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	202.398	21.652		45.823		56.328		-		56.328	64.345	390.546	-

Exhibit R-3, RDT&E Project Cost Analysis: PB 2016 United States Special Operations Command			Date: February 2015
Appropriation/Budget Activity 0400 / 7	R-1 Program Element (Number/Name) PE 1160483BB / *Maritime Systems*	Project (Number/Name) S0417 / *Underwater Systems*	

	Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	Cost To Complete	Total Cost	Target Value of Contract

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2016 United States Special Operations Command		Date: February 2015
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 1160483BB / *Maritime Systems*	**Project (Number/Name)** S0417 / *Underwater Systems*

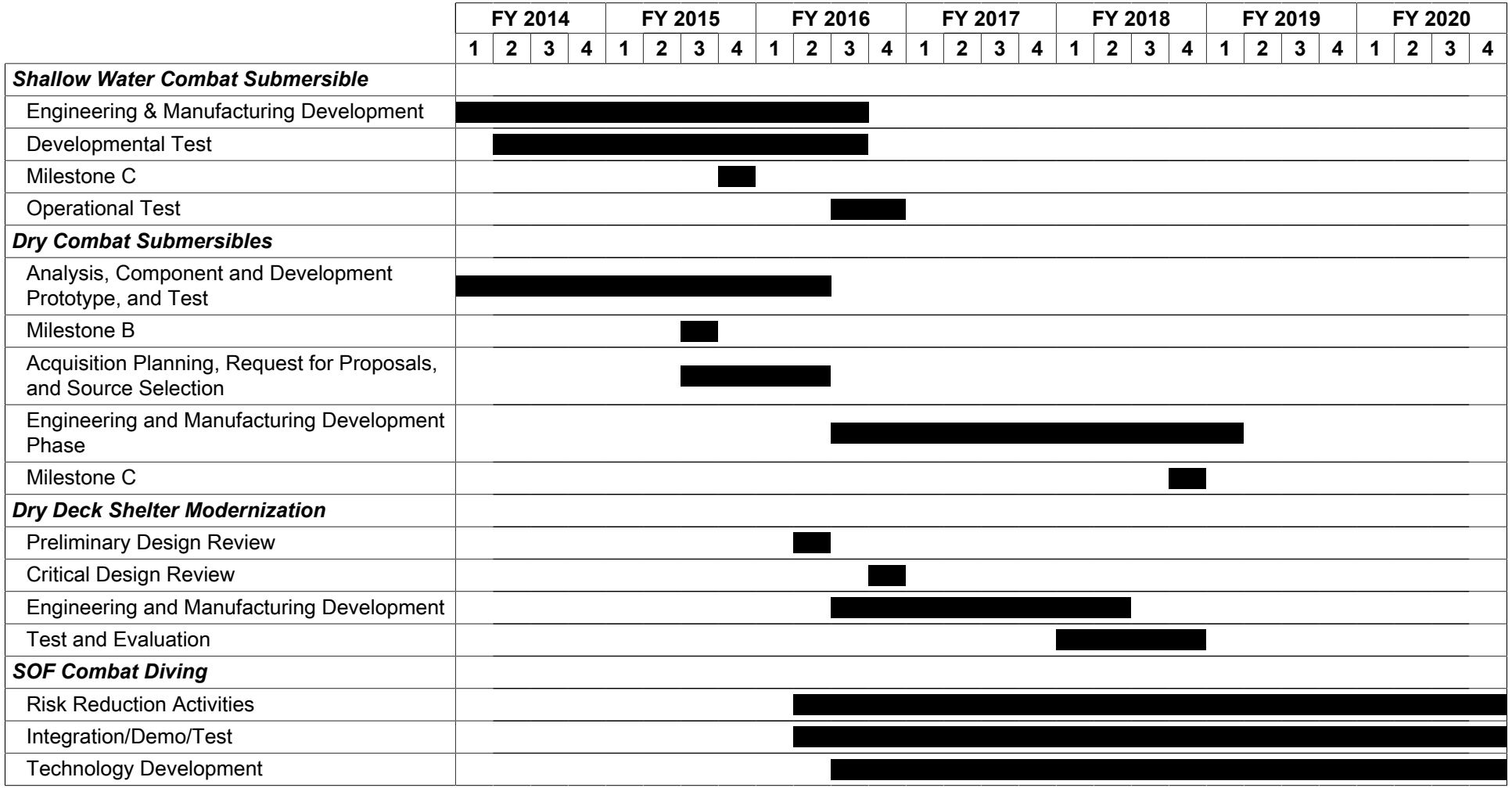

Exhibit R-4A, RDT&E Schedule Details: PB 2016 United States Special Operations Command		Date: February 2015
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 1160483BB / *Maritime Systems*	**Project (Number/Name)** S0417 / *Underwater Systems*

Schedule Details

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
Shallow Water Combat Submersible				
Engineering & Manufacturing Development	1	2014	3	2016
Developmental Test	2	2014	3	2016
Milestone C	4	2015	4	2015
Operational Test	3	2016	4	2016
Dry Combat Submersibles				
Analysis, Component and Development Prototype, and Test	1	2014	2	2016
Milestone B	3	2015	3	2015
Acquisition Planning, Request for Proposals, and Source Selection	3	2015	2	2016
Engineering and Manufacturing Development Phase	3	2016	1	2019
Milestone C	4	2018	4	2018
Dry Deck Shelter Modernization				
Preliminary Design Review	2	2016	2	2016
Critical Design Review	4	2016	4	2016
Engineering and Manufacturing Development	3	2016	2	2018
Test and Evaluation	1	2018	4	2018
SOF Combat Diving				
Risk Reduction Activities	2	2016	4	2020
Integration/Demo/Test	2	2016	4	2020
Technology Development	3	2016	4	2020

Exhibit R-2A, RDT&E Project Justification: PB 2016 United States Special Operations Command			Date: February 2015
Appropriation/Budget Activity 0400 / 7	R-1 Program Element (Number/Name) PE 1160483BB / *Maritime Systems*	Project (Number/Name) S1684 / *Surface Craft*	

COST ($ in Millions)	Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	Cost To Complete	Total Cost
S1684: *Surface Craft*	-	7.072	10.923	7.269	-	7.269	3.553	3.359	4.184	7.798	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

This project provides for engineering and manufacturing development, and operational systems development of light, medium, and heavy surface combatant craft and selected items of specialized equipment to meet the unique requirements of Special Operations Forces (SOF). This project also provides for pre-acquisition activities (materiel solutions analysis, advanced component development and prototypes) to quickly respond to new requirements for surface craft and equipment. The craft capabilities and unique equipment provide small, highly trained forces the ability to successfully engage the enemy and conduct clandestine operations associated with SOF maritime missions. Sub-projects include:

The Combatant Craft Medium (CCM) provides SOF with a versatile, multi-mission surface maritime platform supporting the clandestine tactical movement of four crew and 19 combat equipped SOF in low to medium threat environments. It will incorporate additional performance capabilities above current platform capabilities such as shock mitigation, improved maneuverability and survivability characteristics.

The Combatant Craft Heavy (CCH) sub-project represents a family of solutions that will provide engineering support for design and specification of a development combatant craft for movement and maneuver of SOF personnel. Requirements include maneuverability, reduced detectability with enhanced shock mitigation, and human systems integration. The current solution for Combatant Craft Heavy is the Sea, Air, and Land Insertion, Observation and Neutralization (SEALION) that was developed as an advanced technology demonstrator by the United States Navy and has been modified and tested for transition to SOF operations. The CCH will provide medium range insertion capability for SOF personnel in a low to high threat environment.

The Next Generation Combatant Craft Forward Looking Infrared Radar (CCFLIR) Program provides SOF with day/night, high resolution, and additional spectrum imaging capabilities to augment existing optical and radar sensors. Technology insertion is needed to reduce the signature properties of the system and to enhance the detection, recognition, identification, and tracking of small and near surface targets and ships.

The Next Generation Surface Systems (NGSRF) sub-project provides a rapid response capability to support SOF Combatant Craft Systems and subsystems. The NGSRF will explore solutions to support emerging requirements in support of SOF missions. It provides technology refresh efforts to correct system deficiencies, improve asset life, and enhance mission capability through the means of feasibility studies, analyses of alternatives, pre-developmental risk reduction, and engineering analyses. Demonstrations and modifications may be made to support emerging capability enhancements such as but not limited to conformal antennas, Identification Friend-or-Foe capabilities, enhanced communications and navigation subsystems, and other minor modifications to craft in support of future missions. Solutions may be Commercial-Off-The-Shelf (COTS) solutions, leveraged from other agency solutions, or new solutions.

B. Accomplishments/Planned Programs ($ in Millions)	FY 2014	FY 2015	FY 2016
Title: Combatant Craft Medium (CCM)	5.255	4.898	1.308

Exhibit R-2A, RDT&E Project Justification: PB 2016 United States Special Operations Command		Date: February 2015
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 1160483BB / *Maritime Systems*	**Project (Number/Name)** S1684 / *Surface Craft*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2014	FY 2015	FY 2016
FY 2014 Accomplishments: Integrated sensor technologies into the CCM craft. Refurbished test article and began integration of sensor technology onto the craft. ***FY 2015 Plans:*** Complete Operational Testing and continue development and integration of sub-systems including weapons and situational awareness systems. ***FY 2016 Plans:*** Continues development and integration of advanced technologies including situational awareness, survivability, weapons, navigation and communication.			
Title: Combatant Craft Heavy (CCH) ***FY 2014 Accomplishments:*** Continued studies with craft design, development, and testing. Continued to test SEALION and perform modifications necessary to field an operational craft, received fielding and deployment release. ***FY 2015 Plans:*** Continue development and integration of advanced technologies including situational awareness, survivability, weapons, navigation, and communication. ***FY 2016 Plans:*** Continues development and integration of advanced technologies including situational awareness, survivability, weapons, navigation, and communication. Initiates studies and analysis for upgraded CCH craft.	0.250	2.215	2.245
Title: Next Generation Combatant Craft Forward Looking Infrared Radar (CCFLIR) ***FY 2014 Accomplishments:*** Completed market research and initiated plans to develop, test, and evaluate solutions for Next Generation CCFLIR systems. Developed acquisition strategy, initiated risk reduction activities, and prepared solicitation. ***FY 2015 Plans:*** Complete source selection for prototype units for development testing. Develop and test Next Generation CCFLIR. ***FY 2016 Plans:*** Completes testing and integrating with combatant craft systems.	1.256	1.799	1.500
Title: Next Generation Surface System (NGSRF) ***FY 2014 Accomplishments:***	0.311	2.011	2.216

Exhibit R-2A, RDT&E Project Justification: PB 2016 United States Special Operations Command		Date: February 2015
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 1160483BB / *Maritime Systems*	**Project (Number/Name)** S1684 / *Surface Craft*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2014	FY 2015	FY 2016
Developed and started testing of a 360-degree persistent surveillance capability for Combatant Craft. ***FY 2015 Plans:*** Identify and evaluate candidate solutions for capability enhancements and insertion across Combatant Craft Systems. Conduct technology demonstration and development for integration across SOF Combatant Craft Systems, subsystems, and technologies such as, weapons integration, survivability, shock and vibration systems, situational awareness, and conduct technology demonstrations on other emerging SOF technologies. ***FY 2016 Plans:*** Identifies and evaluates candidate solutions for capability enhancements and insertion across Combatant Craft Systems. Technology development includes, but not limited to conformal antennas, communications, weapons integration, survivability, shock and vibration systems, and situational awareness.			
Accomplishments/Planned Programs Subtotals	7.072	10.923	7.269

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	Cost To Complete	Total Cost
• PROC 1: *Combatant Craft Systems*	26.253	50.337	33.362	-	33.362	52.783	9.593	15.238	35.335	Continuing	Continuing

Remarks

N/A

D. Acquisition Strategy

• CCM acquisition strategy is a competition using a two-phase source selection process. Phase I involved a Small Business Set-Aside competition for two vendors to design, build and deliver test articles. Phase II selected a single vendor to provide a fully integrated baseline craft system for test and evaluation with options for production, engineering support and contractor logistic support.

• CCH acquisition strategy was to transition the two advanced technology craft from Navy to SOF operations. Feasibility studies will continue in-house with support from other government agencies or existing contract services to pursue SOF-peculiar requirements for CCH. Sole source contract was awarded with original equipment manufacturer for developmental modification to SEALION. Developing long term strategy to procure additional craft in future years.

• Next Generation CCFLIR acquisition strategy will conduct full and open competition for next generation systems to support the Combatant Craft Assault, CCM and CCH systems.

Exhibit R-2A, RDT&E Project Justification: PB 2016 United States Special Operations Command		Date: February 2015
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 1160483BB / *Maritime Systems*	**Project (Number/Name)** S1684 / *Surface Craft*

• NGSRF will evaluate COTS solutions to provide technologies for insertion across craft systems, subsystems, and future craft acquisition planning. This effort will consider all acquisition strategies available while applying Better Buying Power practices.

E. Performance Metrics

N/A

Exhibit R-3, RDT&E Project Cost Analysis: PB 2016 United States Special Operations Command			Date: February 2015
Appropriation/Budget Activity 0400 / 7	R-1 Program Element (Number/Name) PE 1160483BB / *Maritime Systems*	Project (Number/Name) S1684 / *Surface Craft*	

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2014 Cost	FY 2014 Award Date	FY 2015 Cost	FY 2015 Award Date	FY 2016 Base Cost	FY 2016 Base Award Date	FY 2016 OCO Cost	FY 2016 OCO Award Date	FY 2016 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Combatant Craft Medium (CCM)	C/Various	Oregon Iron Works : Clackamas, OR	-	4.374	Feb 2014	2.298	Jan 2015	1.308	Jan 2016	-		1.308	Continuing	Continuing	-
Combatant Craft Heavy (CCH)	C/Various	Various : Various	-	0.250	Dec 2013	2.032	Nov 2014	2.245	Apr 2016	-		2.245	Continuing	Continuing	-
Next Generation Combatant Craft Forward Looking Infrared (CCFLIR)	C/Various	Various : Various	-	1.256	Apr 2014	1.369	Apr 2015	0.600	Nov 2016	-		0.600	-	3.225	-
Next Generation Surface Systems (NGSRF)	C/Various	Various : Various	-	0.311	Apr 2014	1.399	Apr 2015	1.891	Jan 2016	-		1.891	Continuing	Continuing	-
		Subtotal	-	6.191		7.098		6.044		-		6.044	-	-	-

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2014 Cost	FY 2014 Award Date	FY 2015 Cost	FY 2015 Award Date	FY 2016 Base Cost	FY 2016 Base Award Date	FY 2016 OCO Cost	FY 2016 OCO Award Date	FY 2016 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
CCM	MIPR	NSWC : Norfolk, VA	-	0.281	Aug 2014	1.100	Dec 2014	-		-		-	-	1.381	-
CCH	C/Various	Various : Various	-	-		0.183	Nov 2014	-		-		-	-	0.183	-
Next Generation CCFLIR	C/Various	NSWC : Crane, IN	-	-		0.430	Dec 2014	0.900	Apr 2016	-		0.900	-	1.330	-
NGSRF	C/Various	Various : Various	-	-		0.296	Jan 2015	0.325	Apr 2016	-		0.325	-	0.621	-
		Subtotal	-	0.281		2.009		1.225		-		1.225	-	3.515	-

Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2014 Cost	FY 2014 Award Date	FY 2015 Cost	FY 2015 Award Date	FY 2016 Base Cost	FY 2016 Base Award Date	FY 2016 OCO Cost	FY 2016 OCO Award Date	FY 2016 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
CCM	C/Various	NSWC : Norfolk, VA	-	-		0.375	Mar 2015	-		-		-	-	0.375	-
CCM	C/Various	NSWC : Crane, IN	-	-		0.225	Mar 2015	-		-		-	-	0.225	-
CCM	C/Various	SRA : Tampa, FL	-	0.600	May 2014	0.900	May 2015	-		-		-	-	1.500	-
NGSRF	C/Various	Various : Various	-	-		0.316	Mar 2015	-		-		-	-	0.316	-
		Subtotal	-	0.600		1.816		-		-		-	-	2.416	-

Exhibit R-3, RDT&E Project Cost Analysis: PB 2016 United States Special Operations Command			Date: February 2015
Appropriation/Budget Activity 0400 / 7	R-1 Program Element (Number/Name) PE 1160483BB / *Maritime Systems*	Project (Number/Name) S1684 / *Surface Craft*	

	Prior Years	FY 2014		FY 2015		FY 2016 Base		FY 2016 OCO		FY 2016 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	-	7.072		10.923		7.269		-		7.269	-	-	-

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2016 United States Special Operations Command		Date: February 2015
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 1160483BB / *Maritime Systems*	**Project (Number/Name)** S1684 / *Surface Craft*

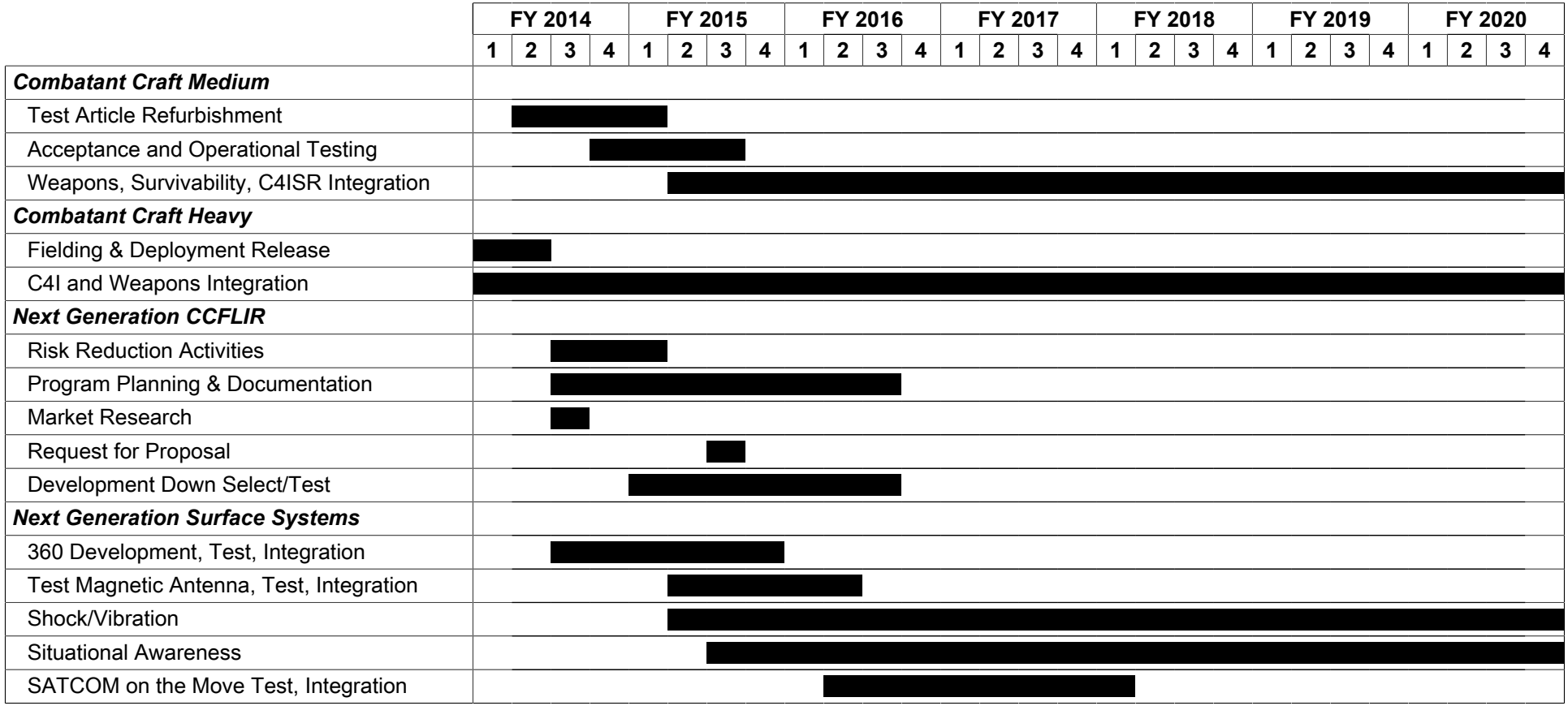

Exhibit R-4A, RDT&E Schedule Details: PB 2016 United States Special Operations Command		Date: February 2015
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 1160483BB / *Maritime Systems*	**Project (Number/Name)** S1684 / *Surface Craft*

Schedule Details

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
Combatant Craft Medium				
Test Article Refurbishment	2	2014	1	2015
Acceptance and Operational Testing	4	2014	3	2015
Weapons, Survivability, C4ISR Integration	2	2015	4	2020
Combatant Craft Heavy				
Fielding & Deployment Release	1	2014	2	2014
C4I and Weapons Integration	1	2014	4	2020
Next Generation CCFLIR				
Risk Reduction Activities	3	2014	1	2015
Program Planning & Documentation	3	2014	3	2016
Market Research	3	2014	3	2014
Request for Proposal	3	2015	3	2015
Development Down Select/Test	1	2015	3	2016
Next Generation Surface Systems				
360 Development, Test, Integration	3	2014	4	2015
Test Magnetic Antenna, Test, Integration	2	2015	2	2016
Shock/Vibration	2	2015	4	2020
Situational Awareness	3	2015	4	2020
SATCOM on the Move Test, Integration	2	2016	1	2018

Exhibit R-2, RDT&E Budget Item Justification: PB 2016 United States Special Operations Command	Date: February 2015
Appropriation/Budget Activity 0400: *Research, Development, Test & Evaluation, Defense-Wide* / BA 7: *Operational Systems Development*	**R-1 Program Element (Number/Name)** PE 1160489BB / *Global Video Surveillance Activities*

COST ($ in Millions)	Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	Cost To Complete	Total Cost
Total Program Element	38.958	3.304	3.788	3.933	-	3.933	3.870	4.698	4.858	5.431	Continuing	Continuing
S500C: *Global Video Surveillance Activities*	38.958	3.304	3.788	3.933	-	3.933	3.870	4.698	4.858	5.431	Continuing	Continuing

A. Mission Description and Budget Item Justification

This program element is part of the Military Intelligence Program. Details are provided under separate cover.

B. Program Change Summary ($ in Millions)	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total
Previous President's Budget	3.304	3.788	3.186	-	3.186
Current President's Budget	3.304	3.788	3.933	-	3.933
Total Adjustments	-	-	0.747	-	0.747
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-	-			
• Other Adjustments	-	-	0.747	-	0.747

Change Summary Explanation

Funding:

FY2014: None.

FY2015: None.

FY2016: Net Increase of $0.747 million is due to a decrease of -$0.028 million for a Departmental economic assumption decrease and the details of a $0.775 million increase available under separate cover.

Schedule: None.

Technical: None.

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Exhibit R-2, RDT&E Budget Item Justification: PB 2016 United States Special Operations Command	Date: February 2015
Appropriation/Budget Activity 0400: *Research, Development, Test & Evaluation, Defense-Wide* / BA 7: *Operational Systems Development*	**R-1 Program Element (Number/Name)** PE 1160490BB / *Operational Enhancements Intelligence*

COST ($ in Millions)	Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	Cost To Complete	Total Cost
Total Program Element	45.699	13.546	15.225	10.623	-	10.623	11.923	12.144	12.376	13.801	Continuing	Continuing
S500D: *Operational Enhancements Intelligence*	45.699	13.546	15.225	10.623	-	10.623	11.923	12.144	12.376	13.801	Continuing	Continuing

A. Mission Description and Budget Item Justification

This program element is part of the Military Intelligence Program. This program is reported in accordance with Title 10, United States Code, Section 119(a)(1) in the Special Access Program Annual Report to Congress.

B. Program Change Summary ($ in Millions)	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total
Previous President's Budget	13.546	16.225	15.225	-	15.225
Current President's Budget	13.546	15.225	10.623	-	10.623
Total Adjustments	-	-1.000	-4.602	-	-4.602
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-1.000			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-	-			
• Other Adjustments	-	-	-4.602	-	-4.602

Change Summary Explanation

Funding:

FY2014: None.

FY2015: This program element was reduced due to a classified Congressional Directed Reduction of $1.000 million.

FY2016: Decrease of -$4.603 million was due to a Departmental economic assumption decrease of -$0.077 million and a $4.525 million decrease due to the realignment of funds for higher command priorities.

Schedule: None.

Exhibit R-2, RDT&E Budget Item Justification: PB 2016 United States Special Operations Command	Date: February 2015
Appropriation/Budget Activity 0400: *Research, Development, Test & Evaluation, Defense-Wide* / BA 7: *Operational Systems Development*	**R-1 Program Element (Number/Name)** PE 1160490BB / *Operational Enhancements Intelligence*

Technical: None.

Exhibit R-2A, RDT&E Project Justification: PB 2016 United States Special Operations Command			Date: February 2015
Appropriation/Budget Activity 0400 / 7	R-1 Program Element (Number/Name) PE 1160490BB / *Operational Enhancements Intelligence*	Project (Number/Name) S500D / *Operational Enhancements Intelligence*	

COST ($ in Millions)	Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	Cost To Complete	Total Cost
S500D: *Operational Enhancements Intelligence*	45.699	13.546	15.225	10.623	-	10.623	11.923	12.144	12.376	13.801	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

This project is part of the Military Intelligence Program. This project is reported in accordance with Title 10, United States Code, Section 119(a)(1) in the Special Access Program Annual Report to Congress.

B. Accomplishments/Planned Programs ($ in Millions)	FY 2014	FY 2015	FY 2016
Title: Details provided under separate cover.	13.546	15.225	10.623
Description: Details provided under separate cover. ***FY 2014 Accomplishments:*** Details provided under separate cover. ***FY 2015 Plans:*** Details provided under separate cover. ***FY 2016 Plans:*** Details provided under separate cover.			
Accomplishments/Planned Programs Subtotals	13.546	15.225	10.623

C. Other Program Funding Summary ($ in Millions)

N/A

Remarks

D. Acquisition Strategy

N/A

E. Performance Metrics

N/A

Exhibit R-3, RDT&E Project Cost Analysis: PB 2016 United States Special Operations Command			Date: February 2015
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 1160490BB / *Operational Enhancements Intelligence*	**Project (Number/Name)** S500D / *Operational Enhancements Intelligence*	

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2014 Cost	FY 2014 Award Date	FY 2015 Cost	FY 2015 Award Date	FY 2016 Base Cost	FY 2016 Base Award Date	FY 2016 OCO Cost	FY 2016 OCO Award Date	FY 2016 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Other Classified program	TBD	Various : Various	45.699	13.546		15.225		10.623		-		10.623	Continuing	Continuing	-
		Subtotal	45.699	13.546		15.225		10.623		-		10.623	-	-	-

	Prior Years	FY 2014		FY 2015		FY 2016 Base		FY 2016 OCO		FY 2016 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	45.699	13.546		15.225		10.623		-		10.623	-	-	-

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2016 United States Special Operations Command		Date: February 2015
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 1160490BB / *Operational Enhancements Intelligence*	**Project (Number/Name)** S500D / *Operational Enhancements Intelligence*

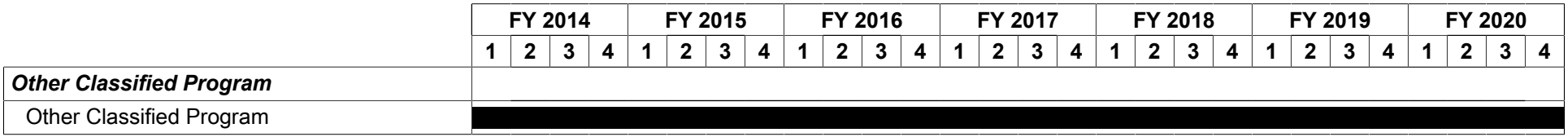

Exhibit R-4A, RDT&E Schedule Details: PB 2016 United States Special Operations Command		Date: February 2015
Appropriation/Budget Activity 0400 / 7	**R-1 Program Element (Number/Name)** PE 1160490BB / *Operational Enhancements Intelligence*	**Project (Number/Name)** S500D / *Operational Enhancements Intelligence*

Schedule Details

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
Other Classified Program				
Other Classified Program	1	2014	4	2020