UNITED STATES SPECIAL OPERATIONS COMMAND

FISCAL YEAR (FY) 2008/FY 2009
BUDGET ESTIMATES

RDT&E, DEFENSE-WIDE

FEBRUARY 2007

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UNITED STATES SPECIAL OPERATIONS COMMAND
RESEARCH, DEVELOPMENT, TEST AND EVALUATION, DEFENSE-WIDE

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ORGANIZATIONS

160th SOAR	160th Special Operations Aviation Regiment
AFSOC	Air Force Special Operations Command
ARSOA	Army Special Operations Aviation
CERDEC	Communications-Electronics Research, Development and Engineering Center
DARPA	Defense Advanced Research Projects Agency
DTRA	Defense Threat Reduction Agency
FDA	Federal Drug Administration
MARSOC	Marine Special Operations Command
NAVSPECWARCOM	Naval Special Warfare Command
PMA-275	V-22 Joint Program Office
SOFSA	Special Operations Forces Support Facility
TSOC	Theater Special Operations Command
USASOC	United States Army Special Operations Command
USSOCOM	United States Special Operations Command

ACRONYMS

A2C2S	Army Aviation Command & Control System
AA	Anti-Armor
ACTD	Advanced Concepts Technology Demonstration
ADP	Automated Data Processing
ADM-NVG	Advanced Digital Multi-Spectral Night Vision Goggle
ADRAC	Altitude Decompression Sickness Risk Assessment Computer
ADSS	Adaptive Deployable Sensor Suite
AFCS	Auto Flight Control System
AGE	Arterial Gas Embolism
AHRS	Attitude Heading Reference System
ALE	Automatic Link Establishment
ALGS	Autonomous Landing Guidance System
ALGL	Advanced Lightweight Grenade Launcher
ALLTV	All Light Level Television
AMP	Avionics Modernization Program
AMR	Anti-Materiel Rifle
AOPBS	Aircraft Occupant Ballistic Protection System
ARAP	ASDS Reliability Action Panel
AS&C	Advanced Systems Concept
ASD	Assistant Secretary of Defense
ASDS	Advanced Sea, Air, Land Delivery System
ASE	Aircraft Survivability Equipment
ASM	Anti Structural Munitions
ATACMS	Army Tactical Missile System
ATD	Advanced Technology Demonstration
ATD/TB	AC-130U Gunship Aircrew Training Devices/Testbed
ATL	Advanced Tactical Laser
ATM	Asynchronous Transfer Mode
ATPIAL	Advanced Tactical Precision Illuminator Aiming Laser
ATPS	Advanced Tactical Parachute System
ATV	All Terrain Vehicle
AWE	Aircraft, Weapons, Electronics

ACRONYMS

BALCS	Body Armor Load Carriage System
BFT	Blue Force Tracking
BLOS	Beyond Line-of-Site
BLOSeM	Below Line-of-Site Electronic Support Measures
BMATT	Brief Multimission Advanced Tactical Terminal
BOIP	Basis of Issue Plan
BUD/S	Basic Underwater Demolition School
C2	Command and Control
C3I	Command, Control, Communications, and Intelligence
C4	Command, Control, Communications, and Computers
C4I	Command, Control, Communications, Computers, and Intelligence
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
CBN	Chemical, Biological and Nuclear
CCD	Coherent Change Detection
CCCEKIT	Combat Casualty Care Equipment Kit
CCD	Charged Coupled Device (Forward Looking Infrared Radar Only)
CDR	Critical Design Review
CERP	Capital Equipment Replacement Plan
CESE	Civil Engineering Support Equipment
CINC	Commander in Chief
CLR	Combat Loss Replacement
CMNS	Combat Mission Needs Statement
CMS	Combat Mission Simulator
CNVD	Clip-On Night Vision Device
COIL	Chemical Oxygen Iodine Laser
COMSEC	Communications Security
CONOPS	Concept of Operations
COTS	Commercial-Off-The-Shelf

COW	Cost of War
CP	Counter-Proliferation
CPAF	Cost Plus Award Fee
CS	Confined Space (LAW)
CS	Combat Swimmer
CSAR	Combat Survivor Evader Locator
CSEL	Combat Search and Rescue
CSOLO	Commando Solo
CW	Center Wing
DAMA	Demand Assured Multiple Access
DARPA	Defense Advanced Research Projects Agency
DAS	Distributed Aperture System
DCS	Decompression Sickness
DDR&E	Director, Defense Research & Engineering
DDS	Dry Deck Shelter
DERF	Defense Emergency Response Fund
DIAM	Data Interface Acquisition Module
DIRCM	Directional Infrared Countermeasures
DMCS	Deployable Multi-Channel SATCOM
DMS	Diminished Manufacturing Sources (ASDS)
DMS	Defense Message System
DMT/DMR	Distributed Mission Training/Distributed Mission Rehearsal
DPPC	Deployable Print Production Center
DTT	Desk Top Trainer
DUSD	Deputy Under Secretary of Defense
EA	Evolutionary Acquisition
ECM	Electronic Countermeasures
ECO	Engineering Change Order
ECOS	Enhanced Combat Optical Sights
ECP	Engineering Change Proposal
EDM	Engineering Development Model
EFP	Explosively Forced Penetrator

EGLM	Enhanced Grenade Launcher Module
EIR	Embedded Integrated Broadcast System Receiver
EIRS	Enhanced Infrared Suppression
EMD	Engineering and Manufacturing Development
ENTR	Embedded National Tactical Receiver
EOIR	Electro-Optical Infrared
ESA	Enhanced Situational Awareness
ETI	Evolutionary Technology Insertion
EW	Electronic Warfare
EWAISF	Electronic Warfare Avionics Integrated Systems Facility
EWO	Electronic Warfare Officer
FAA	Federal Aviation Administration
FABS	Fly-Away Broadcast System
FCD	Field Computing Devices
FCT	Foreign Comparative Testing
F&DR	Fielding & Deployment Release
FFE	Fire From Enclosure
FLIR	Forward Looking Infrared Radar
FNM	Foreign & Nonstandard Materiel
FOL	Family of Loud Speakers
FPM	Flight Performance Model
FSOV	Family of SOF Vehicles
FW	Fixed Wing
FSDS	Family of Sniper Detection Systems
GBS	Global Broadcasting System
GDS	Gunfire Detection System
GEO	Geological
GFE	Government Furnishment Equipment
GMV	Ground Mobility Vehicles
GM-VAS	Ground Mobility Visual Augmentation Systems
GOTS	Government-Off-the-Shelf

GPS	Global Positioning System
GSK	Ground Signal Intelligence Kit
H-SUV	Hardened-Sport Utility Vehicle
HE	High Explosive
HF	High Frequency
HFTTL	Hostile Forces Tagging, Tracking, and Locating
HLA	High Level Architecture
HMMWV	High Mobility Multi-purpose Wheeled Vehicle
HPFOTD	High Power Fiber Optic Towed Decoys
HPMMR	High Performance Multi-Mission Radio (PRC-117F)
HPS	Human Patient Simulator
HRLMD	Hydrographic Reconnaissance Littoral Mapping Device
HSB	High Speed Boat
HSR	Heavy Sniper Rifle
IAS/CMS	Integration Avionics System/Cockpit Management System
IBR	Intelligence Broadcast Receiver
IBS	Integrated Broadcast Service
ICAD	Integrated Control and Display
IDAP	Integrated Defensive Armed Penetrator
IDAS	Interactive Defensive Avionics Subsystem
IDS	Infrared Detection System
IED	Improvised Explosive Devices
IFF	Identify Friend or Foe
ILM	Improved Limpet Mine
IM	Insensitive Munitions
IMFP	Integrated Multi-Function Probe
INFOSEC	Information Security
INOD	Improved Night/Day Observation/Fire Control Device
INS	Inertial Navigation System
IPT	Integrated Product Team
IR	Infrared
IRCM	Infrared Countermeasures

ISR	Intelligence Surveillance and Reconnaissance
ISSMS	Improved SOF Manpack System
ISOCA	Improved Special Operations Communications Assemblage
ITMP	Integrated Technical Management Plan
IWIS	Integrated Warfare Info System
JBS	Joint Base Station
JCIDS	Joint Capabilities Integration and Development System
JCS	Joint Chiefs of Staff
JDISS	Joint Deployable Intelligence Support System
JEM	Joint Enhanced Multi-Purpose Inter/Intra Team Radio
JMPS	Joint Mission Planning System
JOS	Joint Operational Stocks
JSOAC	Joint Special Operations Aviation Components
JSOTFS	Joint Special Operations Task Force
JSTAR	Joint Surveillance and Target Attack Radar System
JTRS	Joint Tactical Radio System
JTWS	Joint Threat Warning System
LASIK	Laser-Assisted IN-Situ Keratomileusis
LAN/WAN	Local Area Network/Wide Area Network
LASAR	Light Assault Attack Reconfigurable Simulator
LAW	Light Anti-Armored Weapons
LBJ	Low Band Jammer
LCMP	Life Cycle Management Plan
LCMR	Lightweight Counter Mortar Radar
LDS	Leaflet Delivery System
LEP	Lightweight Environmental Protection
LMG	Lightweight Machine Gun
LOS	Line of Sight
LPD	Low Probability of Detection
LPI	Low Probability of Intercept
LPI/D	Low Probability of Intercept/Detection
LPI/LPD	Low Probability of Intercept/Low Probably of Detection

LRBS	Long Range Broadcast System
LRV	Light Reconnaissance Vehicle
LSV	Logistics Support Vehicle
LTAV	Lightweight Tactical All Terrain Vehicle
LTD	Laser Target Designator
LTDR	Laser Target Designator/Rangefinder
LTI	Lightweight Thermal Imager
LWC	Littoral Warfare Craft
LWCM	Lightweight Counter-Mortar
M4MOD	M4A1 SOF Carbine Accessory Kit
MAAWS	Multi-Purpose Anti-Armor/Anti-Personnel Weapons System
MANPAD	Man Portable Air Defense System
MATT	Multi-mission Advanced Tactical Terminal
MBITR	Multi-Band Inter/Intra Team Radio
MBLT	Machine Based Language Translator
MBMMR	Multi-Band/Multi-Mission Radio
MBSS	Maritime Ballistic Survival System
MCAR	MC-130 Air Refueling
MCADS	Maritime Craft Air Drop System
MCU	Multipoint Conferencing Unit
MDNA	Mini Day/Night Sight
MELB	Mission Enhancement Little Bird
MET	Meteorological
MICH	Modular Integrated Communications Helmet
MK V	Mark V
MMB	Miniature Multiband Beacon
MOA	
MONO-HUD	Monocular Head Up Display
MPARE	Mission Planning, Analysis, Rehearsal and Execution
MPC	Media Production Center
MPK	Mission Planning Kits

MRD	Mission Rehearsal Device
NAVSCIATTS	Naval Small Craft Instructor and Technical Training School
NBC	Nuclear, Biological, and Chemical
NBOE	Non-Gasoline Burning Outboard Engine
NDI	Non-Developmental Item
NM	Nautical Miles
NOSC	Network Operations Systems Center
NRE	Non-Recurring Engineering
NSCV	Non Standard Commercial Vehicle
NSSS	National Systems Support to SOF
NSW	Naval Special Warfare
NVD	Night Vision Devices
NVEO	Night Vision Electro-Optic
OA/CW	Obstacle Avoidance/Cable Warning
OBESA	On-Board Enhanced Situational Awareness
OEF	Operation Enduring Freedom
OGA	Other Government Agencies
OIF	Operation Iraqi Freedom
OMB	Office of Management and Budget
OMMS	Organizational Maintenance Manual Sets
OPEVAL	Operational Evaluation
ORD	Operational Requirements Document
OT&E	Operational Test and Evaluation
QOT&E	Qualification Test and Evaluation/Qualification Operational Test and Evaluation
P3I	Pre-Planned Product Improvement
PAM	Penetration Augmented Munition
PARD	Passive Acoustic Reflection Device
PC	Personal Computer
PC	Patrol Coastal
PDR	Preliminary Design Review
PDS	Psychological Operations Distribution System

PDM	Program Decision Memorandum
PFPS	Portable Flight Planning System
PGCB	Precision Guided Canister Bomb
PGSE	Peculiar Ground Support Equipment
PLTD	Precision Laser Targeting Device
PM	Program Manager
PM-MCD	Project Manager for Mines, Countermeasures and Demolitions
ROAR	Rover Over the Horizon Augmented Reconnaissance
POBS	Psychological Operations Broadcasting System
POMD	Psychological Operations Media Display
POPS	Psychological Operations Print System
PPHE	Pre-Fragmented Programmable High Explosive
PRK	Photo Refractive Keratectomy
PRTV	Production Representative Test Vehicle
RPUAS	Rucksack Portable Unmanned Aircraft System
PSR	Precision Sniper Rifle
PSYOP	Psychological Operations
PTLD	Precision Target Locator Designator
PTT	Part Task Trainer
RAA	Required Assets Available
RAMS	Remote Activated Munitions System
RF	Radio Frequency
RGB	Red, Green, Blue
RIB	Rigid Inflatable Boat
RIS	Radio Integration System
RMWS	Remote Miniature Weather System
ROSES	Reduced Optical Signature Emissions System
RSTA	Reconnaissance Surveillance Target Acquisition
RW	Rotary Wing
RWR	Radar Warning Receivers
SAFC	Special Applications for Contingencies

SAHRV	Semi-Autonomous Hydrographic Reconnaissance Vehicle
SATCOM	Satellite Communication
SBIR	Small Business Innovative Research
SBR	System Baseline Review
SBUD	Simulator Block Update
SCAR	SOF Combat Assault Rifle
SCI	Sensitive Compartmented Information
SDD	System Design and Development
SDS	Sniper Detection System
SDN-M	SOF Deployable Node-Medium
SDV	Sea, Air, Land (SEAL) Delivery Vehicle
SEAL	Sea, Air, Land
SEALion	Sea, Air, Land, Insertion Observation Neutralization
SIGINT	Signals Intelligence
SIL	Systems Integration Lab
SIPE	Swimming Induced Pulmonary Edema
SIRFC	Suite of Integrated Radar Frequency Countermeasures
SIRCM	Suite of Infrared Countermeasures
SKOS	Sets, Kits and Outfits
SLAM	Selectable Lightweight Attack Munition
SLEP	Service Life Extension Program
SMAX	Special Operations Command Multipurpose Antenna, X-Band
SMG	SOF Machine Gun
SMRS	Special Mission Radio System
SO	Special Operations
SOC	Special Operations Craft
SOC	Special Operations Command
SOC-R	Special Operations Craft-Riverine
SOCRATES	Special Operations Command, Research, Analysis and Threat Evaluation System
SOF	Special Operations Forces
SOFDK	SOF Demolition Kit

SOFIV	SOF Intelligence Vehicle
SOFLAM	SOF Laser Marker
SOFLRD	SOF Laser Range Finder and Designator
SOFPARS	SOF Planning and Rehearsal System
SOFTAPS	SOF Tactical Advanced Parachute System
SOFTACS	SOF Tactical Assured Connectivity System
SOIS	Special Operations Intelligence System
SOJICC	Special Operations Joint Interagency Collaboration Center
SOLL	Special Operations Low Level
SOMPE	Special Operations Mission Planning Environment
SOMROV	Special Operations Miniature Robotic Vehicle
SOMS-B	Special Operations Media Systems B
SOPMOD	SOF Peculiar Modification
SOPMODM-4	SOF Peculiar Modification-M4 Carbine
SOST	Special Operations Special Technology
SOTD	Special Operations Technology Development
SOTVS	Special Operations Tactical Video System
SOVAS HHI	Special Operations Visual Aumentation System Hand Held Imagers
SPEAR	SOF Personal Equipment Advanced Requirements
SPIKE	Shoulder Fired Smart Round
SPR	Special Purpose Rifle
SRC	Systems Readiness Center
SRC	Special Reconnaissance Capabilities
SRTC	Short Infrared Sensor
SSR	Sniper Support Rifle
SSGN	Nuclear Guided Missile Submarine
SSSAR	Solid State Synthetic Aperture Radar
S&T	Science & Technology
START	Special Threat Awareness receiver/Transmitter
STD	Swimmer Transport Device
SW	Short-Wave
SWALIS	Special Warfare Automated Logistic Information System
SWIR	Short-Wave Infrared Sensor

SWORDS	Special Weapons Observation and Remote Direct-Action System
SYDET	Sympathetic Detonator
TACLAN	Tactical Local Area Network
TCCC	Tactical Combat Casualty Care
TACTICOMP	Tactical Computer
TCV	Transit Case Variant
TDFD	Time Delay Firing Device
TDE	Technology Development Exploitation
TEI	Technology Exploitation Initiative
TRS	Tactical Radio System
TRR	Test Readiness Review
TT&L	Tagging, Tracking & Locating
TTHM	Titanium Tilting Helmet Mount
UARRSI	Universal Aerial Refueling Receptacle Slipaway
UAS	Unmanned Aerial System
UAV	Unmanned Aerial Vehicle
UBA	Underwater Breathing Apparatus
UHF	Ultra High Frequency
UK	United Kingdom
US	United States
UTC	Unit Type Code
UV	Unmanned Vehicles
UVT	Unmanned Vehicle Targeting
VESTA	Vibro-Electronic Signature Target Analysis
VHF	Very High Frequency
VBL	Visible Bright Lights
VSAT	Very Small Aperture Terminal
VSWMCM	Very Shallow Water Mine Countermeasures
VTC	Video Teleconferencing
WIFI	Wireless Fidelity
WIRED	Wind Tunnel Intigrated Real Time In the Cockpit/Real Time Out of the Cockpit Experiments and Demonstrations
WMD	Weapons of Mass Destruction
WSADS	Wind Supported Air Delivery System

FEBRUARY 2007

SPECIAL OPERATIONS COMMAND RDT&E PROGRAM

Appropriation: 0400 Research Development Test & Evaluation Defense-Wide

TOA, $ in Millions

R-1	Program Element #	Item	Budget Activity	FY 2006	FY 2007	FY 2008	FY 2009
23	1160401BB	Special Operations Technology Development	2	26.502	17.730	21.282	23.135
24	1160407BB	SOF Medical Technology Development	2	2.133	2.234	2.388	2.464
65	1160402BB	Special Operations Advanced Technology Development	3	148.964	133.815	29.935	29.544
180	0301318BB	Humint [2]	7				
182	0301555BB	Classified Programs [2]	7				
183	0301556BB	Special Programs [2]	7				
200	0304210BB	Special Applications for Contingencies	7	15.870	20.074	15.687	16.247
213	0305208BB	Distributed Common Ground/Surface Systems (MIP)	7				3.170
217	0305219BB	MQ-1 Predator A UAV (MIP)	7			13.100	13.699
230	1130435BB	STORM (MIP)[1]	7			27.107	28.062
231	1160279BB	Small Business Innovative Research	7	14.133	12.213		
232	1160403BB	Special Operations Aviation Systems Advanced Development	7	87.267	76.679	60.750	51.529
233	1160404BB	Special Operations Tactical Systems Development	7	95.636	82.143	42.262	48.986
234	1160405BB	Special Operations Intelligence Systems Development (MIP)	7	62.810	63.357	35.783	37.736
235	1160408BB	SOF Operational Enhancements [1]	7	66.061	104.696	53.418	49.168
236	1160421BB	Special Operations CV-22 Development	7	28.860		23.473	26.375
237	1160425BB	Special Operations Defensive Systems	7	20.765	4.726	5.195	5.272
238	1160426BB	Advanced SEAL Delivery System (ASDS) Development	7	22.110	31.616	20.292	7.100
239	1160427BB	USSOCOM Mission Training and Preparation Systems	7		1.736	6.405	4.058
240	1160428BB	USSOCOM Unmanned Vehicles	7		3.040	1.500	1.530
241	1160429BB	MC-130J SOF Tanker Recapitalization	7			12.701	4.666

[1] - Details are classified and will be provided under separate cover.

[2] - Funding levels and details are classified and will be provided under separate cover.

Total Special Operations Command:	**593.173**	**556.442**	**374.163**	**354.699**

RDT&E BUDGET ITEM JUSTIFICATION SHEET (R-2 Exhibit)	DATE FEBRUARY 2007
APPROPRIATION / BUDGET ACTIVITY RDT&E, DEFENSE-WIDE / 2	R-1 ITEM NOMENCLATURE / PROJECT NO. PE 1160401BB Special Operations Technology Development/S100

COST (Dollars in Millions)	FY06	FY07	FY08	FY09	FY10	FY11	FY12	FY13	Cost to Complete	Total Cost
PE1160401BB	26.502	17.730	21.282	23.135	24.895	25.169	28.577	30.903	Cont.	Cont.
S100, SO TECHNOLOGY BASE DEV	26.502	17.730	21.282	23.135	24.895	25.169	28.577	30.903	Cont.	Cont.

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 the Commander, USSOCOM to influence the direction of technology development or the schedule against which it is being pursued, and to acquire emerging technology for Special Operations Forces. This project provides an investment strategy for USSOCOM to link technology opportunities with USSOCOM capability deficiencies, capability objectives, technology thrust areas, and technology development objectives.

B. Program Change Summary:

	FY06	FY07	FY08	FY09
Previous President's Budget	29.960	12.698	11.382	11.635
Current President's Budget	26.502	17.730	21.282	23.135
Total Adjustments	-3.458	5.032	9.900	11.500
Congressional Program Reductions		-0.069		
Congressional Increases		5.500		
Reprogrammings	-2.782			
Other Program Adjustments			9.900	11.500
SBIR Transfer	-0.676	-0.399		

RDT&E BUDGET ITEM JUSTIFICATION SHEET (R-2 Exhibit)	DATE FEBRUARY 2007
APPROPRIATION / BUDGET ACTIVITY RDT&E, DEFENSE-WIDE / 2	R-1 ITEM NOMENCLATURE / PROJECT NO. PE 1160401BB Special Operations Technology Development/S100

Funding:

FY06: Decrease is the result of a 1415-1 Prior Approval Reprogramming (No. FY 06-17 PA) submitted to Congress to support a critical O&M GWOT shortfall (-$2.782 million) and transfer to the Small Business Innovative Research (SBIR) account (-$0.676 million).

FY07: Net increase of $5.032 million is the result of Section 8106 reduction (-$0.069 million), SBIR transfer (-$0.399 million), and the following Congressional adds:

- Helios/Global Observer ($2.250 million)
- Wearable Hyperspectral Imaging System ($1.000 million)
- Close-In Layered Shield ($2.250 million)

FY08: Increase of $9.900 million supports the MK V Special Operations Craft replacement effort ($1.200 million) and the Tagging, Tracking, and Locating effort ($8.700 million).

FY09: Increase of $11.500 million supports the Tagging, Tracking, and Locating effort.

Schedule: None.

Technical: None.

Exhibit R-2a, RDT&E Project Justification	Date: FEBRUARY 2007
Appropriation/Budget Activity RDT&E BA # 2	Special Operations Technology Development/Project S100

Cost ($ in millions)	FY06	FY07	FY08	FY09	FY10	FY11	FY12	FY13
SOF Technology Base Development	26.502	17.730	21.282	21.135	24.895	25.169	28.577	38.903
RDT&E Articles Quantity								

A. Mission Description and Budget Item Justification: This project conducts studies and develops laboratory prototypes for applied research and advanced technology development, as well as leverages 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 the Commander USSOCOM to influence the direction of technology development or the schedule against which it is being pursued, and to acquire emerging technology for Special Operations Forces (SOF). This project provides an investment strategy for USSOCOM to link technology opportunities with USSOCOM capability deficiencies, capability objectives; technology thrust areas, and technology objectives. Efforts include:

- SOF Command, Control, Communications, Computers, and Intelligence (C4I) Technologies. Exploit technologies that provide SOF with improved situational awareness and communications in all environments. Develop technologies to provide significant improvements to SOF's capability to accurately detect and track threats or targets. Exploit and demonstrate technologies that provide enhanced sensors and command and control. Develop technologies to provide new and improved capabilities in information operations and psychological operations.

- SOF Mobility Technologies. Exploit technologies to improve the performance and survivability, and reduce the detectability of SOF mobility assets. Exploit and develop technologies to provide SOF the capability to conduct ground, air, and sea mobility operations in denied areas. Exploit and develop technologies to enhance logistics support, reduce cost and improve the performance of SOF mobility platforms.

- SOF Weapons Technologies. Exploit technologies to provide SOF with standoff capabilities for targeting and locating personnel and equipment. Exploit technologies to discriminate targets and provide real-time active decision-making capabilities. Exploit technologies that enhance logistics, reduce cost and enhance performance of SOF weapons and munitions. Exploit technologies to provide multipurpose, adaptable weapons applicable to SOF platform and missions.

- SOF Sustainment/Warrior Technologies. Exploit technologies to increase SOF's survivability and performance. Exploit technologies to improve the human endurance and sensory performance without interfering with normal sensory functions. Exploit and develop

technologies to counter the threat of electro-optical devices--devices that detect human presence and enhance individual operator capabilities.

- Concept Exploration Studies. Explore and validate concepts for projects being continued or initiated in support of USSOCOM strategic capability guidance.

- Technology Development Exploitation. Exploit technologies to meet critical SOF capability 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.

- Tagging, Tracking, and Locating (TTL) Technologies is a key element in the ability of the forces to find, fix, and finish targets in the global War on Terrorism (GWOT). In order to be fully effective, TTL technologies need to be able to work against non-cooperative, unwitting targets and in a manner that does not compromise either the operational personnel or the TTL devices. This effort provides investment in critical science and technology to improve operational capabilities for TTL high value individuals and objects in support of the GWOT. This is a new project created to implement the USSOCOM/Director, Defense Research & Engineering (DDR&E) TTL Science & Technology (S&T) Roadmap and the TTL Quick Look Capabilities Based Assessment. Project conducts applied research into applications of relevant technologies that provide significant reduction in form factor and packaging; detection and identification of objects of interest at long distances, including development of new TTL modalities; Novel techniques for data transmission, sharing and processing; and supporting capabilities required for TTL system integration, reliability, usability and employment.

Additionally, these efforts were added by Congress:

- Angel Fire for Full Spectrum, Close-in Active Protection System (FCLAS). Investigate, develop and demonstrate prototype system for FCLAS that will protect SOF assets from Rocket Propelled Grenades (RPGs) using counter munitions.

- Close In Layered Shield. Follow on to FY06 Angel Fire for FCLAS project. Analyze and prototype active protection for rotary wing aircraft and vehicles from RPGs and other Man Portable Air Defensive System (MANPAD) type weapon systems.

- Helios/Global Observer. Research persistent surveillance in denied areas.

- Navigational Technique Enhancements. Research complementary navigational methods to perform in environments where existing navigation systems are denied.

- Technology Infusion Cell for SOF. Research, develop, evaluate, validate and harness the latest emerging technological developments in support of SOF.

- Wearable Hyperspectral Imaging System. Integrate technologies currently under development into low-cost, wearable hyperspectral imaging sensor/display system.

B. Accomplishments/Planned Program

	FY06	FY07	FY08	FY09
SOF Command, Control, Communications, Computers, and Intelligence (C4I) Technologies.	1.172	2.413	2.399	2.654
RDT&E Articles Quantity				

FY06 Continued development of FY05 efforts. Continued Antenna Enhancements project to demonstrate a low cost, conformal, full-duplex, antenna using polyimide Micro-Electro Mechanical Systems (MEMS) technology. Continued Color Night Vision Fusion (Polarimetry) project to use the polarized characteristics of light to enhance SOF reconnaissance and surveillance. Initiated Network Experimentation program to demonstrate capabilities for long range cooperative use of unmanned systems & networks with emphasis on targeting capabilities. Initiated Tactical Language Trainer to develop a pc-based scenario-oriented product to provide the special operations forces operator a usable grasp of culture, gestures & situational language.
FY07 Continue development of FY06 efforts. Complete Antenna Enhancements project and transition to SOST. Complete Color Night Vision Fusion (Polarimetry) project. Continue Network Experimentation program and Tactical Language Trainer. Initiate TTL project to explore nanotechnology applications initiatives to TTL for SOF applications. Initiate C4 technology projects to address identified C4 science and technology capability gaps.
FY08 Continues development of FY07 efforts. Continues Network Experimentation and nanotechnology application programs. Completes Tactical Language Trainer. Initiates C4 technology projects to address identified C4 S&T capability gaps.
FY09 Continues development of FY08 efforts. Completes Network Experimentation program. Initiates C4 technology projects to address identified C4 science and technology capability gaps. Continues to exploit, develop and demonstrate technologies that provide SOF with

improved situational awareness and communications in all environments, the capability to accurately detect and track threats or targets, provides enhanced sensors and command and control, and continues investigations of science and technology focus areas.

	FY06	FY07	FY08	FY09
SOF Mobility Technologies	4.477	3.866	4.026	2.789
RDT&E Articles Quantity				

FY06 Continued development of FY05 efforts. Initiated studies and analyses of existing technologies needed to replace the Mark V Special Operations Craft (MK V SOC). Continued development of Night Vision Windshield/Distributed Aperture System to provide a full time omni-directional night viewing capability that significantly increases situational awareness. Continued Enhanced Hostile Detection Capability to exploit promising technologies which can integrate with current systems to enhance the capability to detect and/or discriminate hostile forces in vegetation and riverine environments. Continued Shock Mitigation for High Speed Boats focusing on shock mitigating technologies pertaining to the seat/human interface. Completed Enhanced Situational Awareness for SOF and transitioned to Program Executive Office. Continued Small Versatile Maritime Mobility Craft project.

FY07 Continue development of FY06 efforts. Initiates follow-on studies and analyses and the investigation of new and existing technologies needed to replace the MK V SOC. Continue Enhanced Hostile Detection Capability and Night Vision Windshield/Distributed Aperture System. Continue Shock Mitigation for High Speed Boats. Initiate mobility technology projects to address mobility science and technology capability gaps. Completed Small Versatile Maritime Mobility Craft project and transition to user community.

FY08 Continues development of FY07 efforts. Initiates follow-on studies and Joint Capabilities Integration and Development System (JCIDS) support analyses needed to support a MK V SOC replacement requirements validation. Completes Enhanced Hostile Detection Capability and Night Vision Windshield/Distributed Aperture System. Completes Shock Mitigation for High Speed Boats. Initiates mobility technology projects to address mobility S&T capability gaps.

FY09 Continues development of FY08 efforts. Continues to exploit technologies to improve the performance and survivability, and reduce the detection of SOF mobility assets. Continues to exploit and develops technologies to provide SOF the capability to conduct ground, air, and sea mobility operations in denied areas and continues investigations of science and technology focus areas. Continues to exploit and develop technologies to enhance logistics support, reduce cost and improve the performance of SOF mobility platforms.

	Exhibit R-2a, RDT&E Project Justification			Date: FEBRUARY 2007
Appropriation/Budget Activity RDT&E BA # 2				Special Operations Technology Development/Project S100

	FY06	FY07	FY08	FY09
SOF Weapons Technologies	0.600	0.900	0.900	0.950
RDT&E Articles Quantity				

FY06 Continued development of FY05 efforts. Terminated Hostile Fire Detection and Defeating System. Continued to exploit technologies to provide SOF with standoff capabilities for targeting and locating personnel and equipment. Exploited technologies to discriminate targets and provide real-time active decision-making capabilities. Exploited technologies that enhance logistics, reduce cost and enhance performance of SOF weapons and munitions. Exploited technologies to provide multipurpose, adaptable weapons applicable to SOF platforms and missions. Continued investigations of science and technology focus areas.
FY07 Continue development of FY06 efforts. Initiate weapons technology projects to address weapons science and technology capability gaps.
FY08 Continues development of FY07 efforts. Continues investigations of science and technology focus areas. Initiates weapons technology projects to address weapons science and technology capability gaps.
FY09 Continues development of FY08 efforts. Continues to exploit technologies to provide SOF with standoff capabilities for targeting and locating personnel and equipment. Exploits technologies that enhance logistics, reduce cost and enhance performance of SOF weapons and munitions. Exploits technologies to provide multipurpose, adaptable weapons applicable to SOF platforms and missions. Continues investigations of science and technology focus areas. Initiates weapons technology projects to address weapons science and technology capability gaps.

	FY06	FY07	FY08	FY09
SOF Sustainment/Warrior Technologies	1.000	1.565	1.493	1.629
RDT&E Articles Quantity				

FY06 Continued development of FY05 efforts. Continued Advanced Digital Multi-Spectral Night Vision Goggle (ADM-NVG) program to develop a multi-spectral goggle. Continued Special Reconnaissance Simulator to investigate near eye-limiting resolution display systems.
FY07 Continues development of FY06 efforts. Continue ADM-NVG project. Complete Special Reconnaissance Simulator. Initiate and complete Portable Laser Communications system (COMCAN).
FY08 Continues development of FY07 efforts. Completes ADM-NVG project. Initiates sustainment/warrior technology projects to address sustainment/warrior science and technology capability gaps.
FY09 Continues development of FY08 efforts. Continue to exploit technologies to increase SOF's survivability and performance. Continue to exploit technologies to improve the human endurance and sensory performance. Continue investigations of science and technology focus areas. Continue sustainment/warrior technology projects to address sustainment/warrior science and technology capability gaps.

	Exhibit R-2a, RDT&E Project Justification			Date: FEBRUARY 2007
Appropriation/Budget Activity RDT&E BA # 2				Special Operations Technology Development/Project S100

	FY06	FY07	FY08	FY09
Concept Exploration Studies	.500	.839	0.743	0.931
RDT&E Articles Quantity				

FY06 Completed the SSGN Seal Delivery Vertical Launch Feasibility Study. Initiated Special Operations Language Training Software Measurement and Effectiveness Study. Initiated Wind Deflector Feasibility Study for A/MH-6M. Initiated studies and analyses of existing technologies needed to replace the MK V SOC.
FY07 Initiate Ballistic Protection Required Capabilities Study for MH-47 Aircraft. Initiate follow-on studies and analyses and the investigation of new and existing technologies needed to replace the MK V SOC.
FY08 Initiates follow-on studies and JCIDS support analyses needed to support a MK V SOC replacement requirements validation. Continues to conduct concept studies to explore/validate projects that support SOF strategic capability gaps.
FY09 Continues to conduct concept studies to explore/validate projects that support SOF strategic capability gaps.

	FY06	FY07	FY08	FY09
Technology Development Exploitation	.940	.787	0.971	0.582
RDT&E Articles Quantity				

FY06 Continued Technology Roadmaps for focus areas.
FY07 Continue Technology Roadmaps for focus areas. Initiate "Athena" TDE project to develop SOF mounted/dismounted direction finding/jamming capabilities.
FY08 Continues Technology Roadmaps for focus areas.
FY09 Continues Technology Roadmaps for focus areas.

	FY06	FY07	FY08	FY09
Classified	1.627	2.000	2.050	2.100
RDT&E Articles Quantity				

FY06 Details provided under separate cover.
FY07 Details provided under separate cover.
FY08 Details provided under separate cover.
FY09 Details provided under separate cover.

	Exhibit R-2a, RDT&E Project Justification			Date: FEBRUARY 2007
Appropriation/Budget Activity RDT&E BA # 2				Special Operations Technology Development/Project S100

	FY06	FY07	FY08	FY09
TTL			8.700	11.500
RDT&E Articles Quantity				

FY08 Specific objectives, priorities, and technical approaches are classified. Initiates projects from the USSOCOM/DDR&E TTL project database that exploit TTL relevant technologies (nanotechnology, biotechnology, and chemistry) to provide and demonstrate the maturity for the capabilities enhancements; enable very small packaging, functional elements, and increased endurance; enable very small sensor packages for object detection and identification, enhancement of biometric observables, and increased processing in small devices; and initiates new forms of communications, forward based and embedded processing; enhance long distant TTL; and increase communication range and network agility. Projects will include leveraging and cooperative efforts with DOD, other government agencies, and industry.
FY09 Specific objectives, priorities, and technical approaches are classified. Continues projects to exploit nanotechnology, biotechnology, and chemistry for application to TTL systems. Initiates projects identified from the updated USSOCOM/DDR&E Roadmap and supports the Joint Chiefs of Staff TTL Quick Look Capability Assessment.

	FY06	FY07	FY08	FY09
Angel Fire for FCLAS	7.707			
RDT&E Articles Quantity				

FY06 This initiative was a Congressional add. Investigated and began development of prototype system for FCLAS that will protect SOF assets from RPGs using counter munitions.

	FY06	FY07	FY08	FY09
Close-In Layered Shield		2.193		
RDT&E Articles Quantity				

FY07 This initiative was a Congressional add. Follow-on to FY06 Angel Fire FCLAS project. Analyze and prototype active protection for rotary wing aircraft and vehicles from RPGs and other MANPAD type weapon systems.

	Exhibit R-2a, RDT&E Project Justification			Date: FEBRUARY 2007
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	FY06	FY07	FY08	FY09
Helios/Global Observer	6.551	2.193		
RDT&E Articles Quantity				

FY06 This initiative was a Congressional add. Investigated and evaluated alternative fuel propulsion systems for high altitude long endurance unmanned aerial systems.
FY07 This initiative is a Congressional add. Follow on to FY06 to continue investigation and evaluation of alternative fuel propulsion systems for high altitude unmanned aerial systems.

	FY06	FY07	FY08	FY09
Navigational Technique Enhancements	.964			
RDT&E Articles Quantity				

FY06 This initiative was a Congressional add. Researched complementary navigational methods to perform in environments where existing navigation systems are denied.

	FY06	FY07	FY08	FY09
Technology Infusion Cell for SOF	.964			
RDT&E Articles Quantity				

FY06 This initiative was a Congressional add. Researched, developed, evaluated, validated and harnessed the latest emerging technological developments in support of SOF.

	FY06	FY07	FY08	FY09
Wearable Hyperspectral Imaging System		.974		
RDT&E Articles Quantity				

FY07 This initiative was a Congressional add. Minaturize hyperspectral imaging technologies into advanced micro-display for operator-borne applications providing the operator a significant advantage at night or in smoke.

RDT&E BUDGET ITEM JUSTIFICATION SHEET (R-2 Exhibit)	DATE FEBRUARY 2007
APPROPRIATION / BUDGET ACTIVITY RDT&E, DEFENSE-WIDE / 2	R-1 ITEM NOMENCLATURE / PROJECT NO. PE 1160407BB Special Operations Forces (SOF) Medical Technology Development/S275

COST (Dollars in Millions)	FY06	FY07	FY08	FY09	FY10	FY11	FY12	FY13	Cost to Complete	Total Cost
PE1160407BB	2.133	2.234	2.388	2.464	2.541	2.623	3.148	3.777	Cont.	Cont.
S275, SOF MEDICAL TECHNOLOGY	2.133	2.234	2.388	2.464	2.541	2.623	3.148	3.777	Cont.	Cont.

A. Mission Description and Budget Item Justification:

This program element provides studies, non-system exploratory advanced technology development, and evaluations. The focus is on medical technologies, centering on physiologic, psychologic, and ergonomic factors affecting the ability of Special Operations Forces (SOF) to perform their missions. Special operations requires unique approaches to combat casualty care, medical equipment, and other life support capabilities including life support for high altitude parachuting, combat swimming, and other SOF unique missions. This program provides guidelines for the development of selection and conditioning criteria, thermal protection, decompression procedures, combat casualty procedures, and life support systems. The program supports the development and evaluation of biomedical enhancements for the unique requirements of all SOF in the conduct of their diverse missions.

B. Program Change Summary:

	FY06	FY07	FY08	FY09
Previous President's Budget	2.183	2.293	2.388	2.464
Current President's Budget	2.133	2.234	2.388	2.464
Total Adjustments	-0.050	-0.059		
Congressional Program Reductions		-0.009		
Congressional Increases				
Reprogrammings				
Other Program Adjustments				
SBIR Transfer	-0.050	-0.050		

RDT&E BUDGET ITEM JUSTIFICATION SHEET (R-2 Exhibit)	DATE FEBRUARY 2007
APPROPRIATION / BUDGET ACTIVITY RDT&E, DEFENSE-WIDE / 2	R-1 ITEM NOMENCLATURE / PROJECT NO. PE 1160407BB Special Operations Forces (SOF) Medical Technology Development/S275

Funding:

FY06: Decrease is due to transfer to the Small Business Innovative Research (SBIR) account (-$0.050 million).

FY07: Decrease is due to SBIR transfer (-$0.050 million) and Section 8106 reduction (-$0.009 million).

FY08: No change.

FY09: No change.

Schedule: None.

Technical: None.

Exhibit R-2a, RDT&E Project Justification	Date: FEBRUARY 2007
Appropriation/Budget Activity RDT&E BA # 2	SOF Medical Technology/Project S275

Cost ($ in millions)	FY06	FY07	FY08	FY09	FY10	FY11	FY12	FY13
SOF Medical Technology	2.133	2.234	2.388	2.464	2.541	2.623	3.148	3.777
RDT&E Articles Quantity								

A. Mission Description and Budget Item Justification: This project provides studies, non-system exploratory advanced technology development and evaluations. The focus is on medical technologies, centering on physiologic, psychologic, and ergonomic factors affecting the ability of Special Operations Forces (SOF) to perform their missions. Special operations requires unique approaches to combat casualty care, medical equipment, and other life support capabilities including life support for high altitude parachuting, combat swimming, and other SOF unique missions. This project provides guidelines for the development of selection and conditioning criteria, thermal protection, decompression procedures, combat casualty procedures, and life support systems. The project supports the development and evaluation of biomedical enhancements for the unique requirements of all SOF in the conduct of their diverse missions. This effort is defined by the following seven areas of investigation:

- Combat casualty management will: (1) review the emergency medical equipment currently used in the SOF community and compare it to currently available civilian technology, and provide field testing of emergency medical equipment in the adverse environmental conditions encountered by SOF; (2) evaluate current tactical combat casualty care doctrine to ensure consideration of the wide variety of tactical scenarios encountered, and apply the latest concepts in casualty care to these circumstances; (3) apply lessons learned from recent combat operations to enhance medical capabilities; and (4) develop CD-ROM and internet compatible automated programs to provide the capability to perform medical interviews in multiple foreign languages and support SOF medical personnel information needs while operating in austere locations.

- Decompression procedures for SOF diving operations will: (1) decrease the decompression obligation in SOF diving operations through the use of surface-interval oxygen breathing; (2) provide the basis for extended mission profiles; and (3) investigate pre-oxygenation requirements for high-altitude SOF parachute operations, as well as ground operations at extreme altitudes.

- Exercise-related injuries will evaluate the effectiveness of applying sports medicine diagnostic, therapeutic and rehabilitative techniques in management of the traumatic and overuse injuries commonly encountered among SOF.

- Inhaled gas toxicology will evaluate the feasibility of using pharmacologic intervention to reduce or eliminate the possibility of central nervous system toxicity.

- Medical sustainment training techniques will: (1) examine novel ways of providing and documenting medical sustainment training for SOF corpsmen and physicians; (2) provide capabilities to rapidly develop new protocol and equipment instructions; and (3) develop a system for

constantly upgrading the expertise of SOF medical personnel by incorporating new research reports and clinical information into a CD-ROM based computer system that can be used by medical personnel in isolated duty circumstances.

- Thermal protection research into various ensemble clothing and devices that may potentially enhance SOF operator performance.

- Mission-related physiology will: (1) develop accurate measures to evaluate SOF mission-related performance; (2) delineate nutritional strategies designed to help personnel apply known nutritional concepts to optimize performance in mission and training scenarios; (3) evaluate potential ergogenic agents as they apply to enhancing mission-related performance; (4) study the safety and efficacy of various substances to increase performance in sustained operations; (5) study interfaces of new vision devices with refractive vision enhancements; and (6) study pharmacologic measures to prevent acute mountain sickness in high altitude SOF air and ground operations.

B. Accomplishments/Planned Program

	FY06	FY07	FY08	FY09
Ongoing Studies	1.019	.610	1.113	1.214
RDT&E Articles Quantity				

FY06 Completed ongoing studies as follows: Cold Sterilization, Toxicity of Compounds Released during SOF Breaching Evolutions, SOF Performance Enhancing Drug Protocols, Development of Algorithms for Remote Triage, Protocols and Techniques for New Equipment and Technologies Within SOF, and Evaluation of Surfactant® in the Treatment of Eustachian Tube Dysfunction and Middle Ear Squeezes. Continue ongoing studies as follows: TCCC Technology Transition Initiative, Prevention of Motion Sickness in SOF Operations, SOF Medical Training Presentations, and Visual Aberration in Post-Corneal Refractive Surgery Patients Using Panoramic Night Vision Goggles.
FY07 Complete ongoing studies as follows: TCCC Technology Transition Initiative, Prevention of Motion Sickness in SOF Operations, Visual Aberration in Post-Corneal Refractive Surgery Patients Using Panoramic Night Vision Goggles, SOF Medical Training Presentations, and SOF Nutrition Training Material for USSOCOM. Continue ongoing studies as follows: Advanced Distant Learning for 18D Course of Instruction, and Efficacy of DHEA Administration to Protect Soldiers Against Stress Induced Defects in Memory and Cognition.
FY08 Completes ongoing studies as follows: Recombinant Hemostatic Agents for Penetrating Brain Injury, SOF Medical Lessons Learned, Intravenous Perfluorocarbon and Recompression Therapy After the Onset of Severe Decompression Sickness, Comparison of Flight Proficiency and Risk Taking Behavior in Aviators Given Dextroamphetamine or Modafinil During Extended Operations, Efficacy of DHEA Administration to Protect Soldiers Against Stress Induced Defects in Memory and Cognition, and Advanced Distant Learning for 18D Course of Instruction.
FY09 Continues ongoing studies as follows: Ergogenics and Ergonomics, Develop Mission Essential Elements for Enroute Care, Operational/ Performance in Adverse Environment Studies, and Update SOF/Joint Medical Doctrine and Procedures.

Exhibit R-2a, RDT&E Project Justification	Date: FEBRUARY 2007
Appropriation/Budget Activity RDT&E BA # 2	SOF Medical Technology/Project S275

	FY06	FY07	FY08	FY09
New Studies	1.114	1.624	1.275	1.250
RDT&E Articles Quantity				

FY06 Initiated new studies as follows: Efficacy of DHEA Administration to Protect Soldiers Against Stress Induced Defects in Memory and Cognition, Advanced Distance Learning for 18D Course of Instruction, SOF Nutrition Training Material for USSOCOM.
FY07 Initiate new studies as follows: Intravenous Perfluorocarbon and Recompression Therapy After the Onset of Severe Decompression Sickness, Recombinant Hemostatic Agents for Penetrating Brain Injury, SOF Medical Lessons Learned, and Comparison of Flight Proficiency and Risk Taking Behavior in Aviators Given Dextroamphetamine or Modafinil During Extended Operations. Complete new studies as follows: Trauma Injury and Mortality During Operations Enduring Freedom and Iraqi Freedom, Studies to Evaluate Commercially Available Warming Devices for the Development of Guidelines for the Use of Hypothermia Prevention Equipment on the Battlefield, Air Sickness Prevention in Medical Evacuation Personnel and Airborne Troops, Efficacy of Tactile Cues from a Limited Belt-Area System in Orienting Well-Rested and Fatigued Pilots in a Complex Flight Environment, Testing and Field Evaluations of the Welch Allyn (WA) Propaq LT for Use by SOF, and Altitude Decompression Sickness Risk Assessment Computer Risk Prediction Upgrade - Staged In-Flight Decompression.
FY08 Initiates new studies as follows: Ergogenics and Ergonomics, Develop Mission Essential Elements for Enroute Care, Operational/ Performance in Adverse Environment Studies, and Update SOF/Joint Medical Doctrine and Procedures.
FY09 Initiates new studies as follows: Mission/Load Performance Factors, Identification of Preventable Injuries and Diseases, Barrier Cream and Topical Protectants, Medical Regulating and Evacuation, and Alternative Field Medications.

C. Other Program Funding Summary. None.

D. Acquisition Strategy. N/A.

RDT&E BUDGET ITEM JUSTIFICATION SHEET (R-2 Exhibit)	DATE FEBRUARY 2007
APPROPRIATION / BUDGET ACTIVITY RDT&E, DEFENSE-WIDE / 2	R-1 ITEM NOMENCLATURE / PROJECT NO. PE 1160402BB Special Operations (SO) Advanced Technology Development/S200

COST (Dollars in Millions)	FY06	FY07	FY08	FY09	FY10	FY11	FY12	FY13	Cost to Complete	Total Cost
PE 1160402BB	148.964	133.815	29.935	29.544	27.419	27.663	30.150	35.200	Cont.	Cont.
S200, SO SPECIAL TECHNOLOGY	148.964	133.815	29.935	29.544	27.419	27.663	30.150	35.200	Cont.	Cont.

A. Mission Description and Budget Item Justification:

This program element conducts rapid prototyping and Advanced Technology Demonstrations. It provides a means for demonstrating and evaluating 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. The program element 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.

B. Program Change Summary:

	FY06	FY07	FY08	FY09
Previous President's Budget	143.111	80.402	19.735	16.251
Current President's Budget	148.964	133.815	29.935	29.544
Total Adjustments	5.853	53.413	10.200	13.293
Congressional Reductions		-6.500		
Congressional Increases	12.252	62.930		
Reprogrammings	-3.172			
Other Program Adjustments			10.200	13.293
SBIR Transfer	-3.227	-3.017		

Funding:

FY06: Net increase of $5.853 million is due to a DD 1415-1 Prior Approval Reprogramming (No. FY 06-17 PA) submitted to Congress to support a critical O&M GWOT shortfall (-$3.172 million), transfer to the Small Business Innovative Research (SBIR) account (-$3.227 million), and the internal reprogramming of Congressional adds into this Program Element for proper execution ($12.252 million).

FY07: Net increase of $53.413 million includes SBIR transfer (-$3.017 million), Section 8106 reduction (-$0.519 million), Congressional mark to the Psychological Operations Modernization program ($-5.981 million), and $62.930 million for the following Congressional adds:

- Portable Power Source ($3.250 million)
- Advanced Multi Purpose Micro Display System ($1.000 million)
- Fuel Cell Power System ($2.400 million)
- Field Experimentation ($1.000 million)
- Satellite Synthetic Aperture Radar ($3.600 million)
- Transliteration and Genealogical Search ($1.000 million)
- Language Teletraining System ($1.100 million)
- Partnership for Def Innovations WIFI ($1.080 million)
- Field Deployable Digital Holograph ($2.000 million)
- Improved Materials Fireproof Clothing ($1.500 million)
- Airborne PSYOP Modernization ($1.500 million)
- Waterfront Intrusion Detection ($1.500 million)
- Shortwave Infrared Technologies ($1.100 million)
- Autonomous Navigation Sensor Suite ($1.500 million)
- Countersniper & Surveillance Detection ($2.000 million)
- Improved Info Transfer for SOF ($7.000 million)
- Multimode Radar LPI/LPD ($2.400 million)

- A-160 UAV Program ($6.400 million)

- Aircraft EW Mounting System ($4.800 million)
- UAV Situational Awareness ($1.000 million)
- Shock Mitigating Seats ($1.300 million)
- Mobile Electrical Power-Energy Harvest ($1.000 million)
- Improved SOFT Fast Rope Kit ($1.500 million)
- High Altitude Airship ($1.000 million)
- Remote Video Weapon Sight ($1.800 million)
- Life Cycle Support for UAV ($2.200 million)
- Army DRAMA/Composer Integration ($1.500 million)
- Target Location, Identification and Engagement ($1.600 million)
- TTL System for High Value Targets ($1.000 million)
- Snapshot Synthetic Aperture Radar ($2.900 million)

FY08: Increase of $10.200 million is due to the Department adding funds to pursue advanced development and prototyping of Tagging, Tracking and Locating (TTL) capabilities that have proven to be feasible and operationally useful in technical demonstrations performed under Program Element 1160401BB ($8.900 million) and an increased effort in a classified program ($1.300 million).

FY09: Increase of $13.293 million continues the TTL advanced development and prototyping ($12.800 million) and the classified effort ($0.493 million).

Schedule: None.

Technical: None.

Exhibit R-2a, RDT&E Project Justification	Date: FEBRUARY 2007
Appropriation/Budget Activity RDT&E BA # 3	Special Operations Special Technology Project S200

Cost ($ in millions)	FY06	FY07	FY08	FY09	FY10	FY11	FY12	FY13
Special Operations Special Technology	148.964	133.815	21.035	16.744	11.919	11.662	12.150	12.200
RDT&E Articles Quantity								

A. Mission Description and Budget Item Justification: This project conducts rapid prototyping, Advanced Technology Demonstrations (ATDs), and Advanced Concept Technology Demonstrations (ACTDs). 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 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 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. Efforts include:

- SOF Command, Control, Communications, Computers, and Intelligence (C4I) ATDs. Exploit emerging technologies to conduct ATDs that provide SOF with a robust C4I capability to ensure uninterrupted information exchange, influence situations to support mission accomplishment, and reduce an adversary's ability to use information. Exploit emerging technologies to conduct ATDs that provide SOF with increased sensory performance. Exploit emerging technologies to locate and track targets or items of interest. Exploit emerging technologies to produce new and improved capabilities in information operations and psychological operations.

- SOF Mobility ATDs. Exploit emerging technologies to conduct ATDs that provide SOF with survivable mobility capabilities in high threat areas and with enhanced situational awareness. Exploit emerging technologies to conduct ATDs that provide SOF mobility assets with a reduction in logistic support requirements. Exploit emerging technologies to rapidly deploy and extract SOF personnel and craft. Exploit technologies to allow reconnaissance and conduct direct action in high threat areas using unmanned systems. Exploit technologies to reduce cost or enhance the performance of existing SOF platforms.

- SOF Weapons ATDs. Exploit emerging technologies to conduct ATDs that provide SOF with multi-role/multi-purpose weapons and demolitions with a broader range of potential effects and increased accuracy. Demonstrate capabilities of smart munitions and fire-and-forget capability. Exploit technologies to increase standoff from threat weapons systems. Decrease cost and logistic support requirements for SOF weapons systems.

- SOF Sustainment/Warrior ATDs. Exploit emerging technologies to conduct ATDs that provide SOF with increased survivability and performance. Exploit emerging technologies to counter the threat of electro-optical devices and devices that detect human presence, and to enhance individual operator capabilities.

- Technology Exploitation Initiative. Exploit emerging technologies to meet critical SOF requirements and encourage industry and government lab participation in identifying enhancements to SOF in critical areas.

- Advanced Tactical Laser (ATL) ACTD. The ATL ACTD was started in FY 02 through funding provided by Deputy Under Secretary of Defense Adanced Systems Concept and the Joint Non-Lethal Weapons Directorate. The intent of the ATL ACTD is to evaluate the military utility of a tactical directed energy weapon on the battlefield to provide direct support to the warfighter. A directed energy weapon has an inherent performance capability (i.e., extremely precise covert strike, selectable effects and lethality, and multi-axis engagement) that has the potential to enhance the effectiveness of SOF operators. The ATL ACTD will develop and employ a modular, high-energy laser weapon system on a C-130 platform, capable of conducting ultra-precision strike engagements to enhance mission accomplishment of the warfighter and conduct a military utility assessment of this weapon system.

The steps toward assessing the military utility of a high-energy laser weapon are:

a. Demonstrate weaponization of the sealed-exhaust Chemical Oxygen Iodine Laser in a modular system, capable of employment on a C-130.
b. Demonstrate the ability to acquire and engage tactical targets in an air-to-ground system test.
c. Utilize joint/service exercises to the fullest extent possible, focusing on matching the objectives of the ACTD with those of the desired exercises and demonstrations.

At the completion of the ACTD, leave behind one fully-operational laser system consisting of the laser and beam director, surveillance and acquisition sensors to support employment of the laser system, software, an operator workstation, and portable ground support equipment. The system will include documentation required to operate and maintain the ATL system.

- Psychological Operations (PSYOP) "Global Reach" ACTD. Seeks technologies that will transform current PSYOP capabilities through two major objectives: 1) Exploit technologies capable of disseminating PSYOP product to reach target audiences across a variety of media into denied areas to include ranges up to 800 Nautical Miles (NM), and 2) Automate and improve PSYOP planning and analytical capability through technologies that are integrated into SOF planning systems (Cultural Analysis, Targeting, Theme Development, Media & Product Selection, Distribution & Dissemination, Measures of Effectiveness).

- PSYOP Modernization. This initiative will explore emergent technologies available in the marketplace to modernize the PSYOP Broadcast System (POBS), the PSYOP Print System (POPS), and Next Generation Loudspeaker System.

• Standoff Precision Guided Munition (SOPGM) ACTD. The objective of the SOPGM ACTD is to evaluate the military utility of adding a precision guided munitions capability to the AC-130 Gunship. The SOPGM is based on a modified Army Viper Strike munition. The assessment will be based on ground and flight demonstrations and extended user evaluations of a SOPGM weapon system employed from an AC-130 against representative gunship targets. The ACTD will provide an Initial Proof-of-Concept (IPOC) of the SOPGM weapon system and an interim Military Utility Assessment (MUA).

• Tagging, Tracking, and Locating Technologies (TTL). This is a new project created to implement the USSOCOM Director, Defense Research & Engineering (DDR&E) TTL Science & Technology (S&T) Roadmap and the TTL Quick Look Capabilities Assessment. Pursue advanced development and prototyping of TTL capabilities that have been proven to be feasible and operationally useful in Special Operations Special Technology Development.

Additionally, the project executes the following efforts added by Congress:

• Surveillance Augmentation Vehicle. Integrate ultra-wide band intrusion detection sensors that can be deployed to provide an ad-hoc network for image/data/voice communications and the ability to cordon an area to protect and monitor any intrusions or device tampering.

• Advanced Multi-Purpose Micro-Display System. Integrate highly efficient display component technology into several SOF applications.

• Mark V Patrol Boat Replacement Craft Prototype. Develop composite combatant craft design/fabrication techniques.

• Rotary Wing Unmanned Aerial Vehicle (UAV). Enhance intelligence gathering and dissemination capabilities for urban and complex terrain environments.

• Dual Band Universal Night Sight (DUNS). Demonstrate integrated image and long-wave infrared fused system within the same aperture.

• Dominant Vision. Explore advanced situational awareness and fusion technologies to enhance various platforms' ability to navigate and identify targets through adverse weather and obscured visual situations.

• Synthetic Aperture Radar Millimeter Forward Looking Infrared Radar (FLIR). Provide a ground map plan position indicator view that can be changed to a high resolution image using synthetic aperture radar techniques.

- Long Range Biometric Target Identification System. Provide a deployable system to positively identify personnel, in all light conditions, at objective ranges to 500 meters.

- Army DRAMA/COMPOSER Integration & Development. Evaluate advanced protocols to make more efficient use of network bandwidth and prioritization schemes.

- TTL. Pursue advanced development and prototyping of TTL capabilities that have been proven to be feasible and operationally useful in Special Operations Technology Development.

- Autonomous Navigation Sensor Suite. Reduce the size, weight, power and cost of sensors associated with unmanned systems through novel materiels and manufacturing techniques.

- C-130 Advanced Tactical Airborne C4ISR System (ATACS). Demonstrate the ability to rapidly equip any C-130 aircraft with sophisticated sensors, processing, communications and self-defense capabilities through standardized hardware, software, and resource interfaces.

- Airborne PSYOP Modernization. Develop paper like electronic PSYOP leaflet with embedded electronics.

- Counter-Sniper & Surveillance Detection System. Research and develop tactical, mobile, and unmanned sniper detection systems that utilize optical detection and location techniques.

- Digital Camera Rifle Scope. Enhance unmanned ground system sensor optics for improved situational awareness.

- Field Experimentation Program for SOF (FEPSO). Prototype and evaluate manned-unmanned platform and sensor networks to articulate new concepts of operation and employment for SOF.

- Integrated Cyber Command & Control. Develop network security for SOF tactical networks using modified Commercial Off-the-Shelf (COTS) products.

- Improved Materials for Fireproof Clothing. Develop new and revolutionary flameproof textile materials for SOF applications.

- Improved SOF Fast Rope Kit. Improve the safety of CV-22 fast rope operations using high performance materials and structures.

- Mobile Electric Power Utilizing Energy Harvesting. Rapidly prototype and field small, lightweight generators and other power concepts to power multiple voltages required by Special Operations electronics with little logistical support.

- Magnum Universal Night Sight (MUNS). Enhance the MUNS performance by reducing weight and power requirements.

- SOF Personnel and Equipment Survivability Activity. Design and evaluate approaches to minimize the detectability and maximize survivability and recoverability of SOF personnel and equipment.

- Special Operations Airborne Intelligence and Reconnaissance Program. Develop roll-on/off and plug-and-play system for C-130's that provide real-time command and control, micro-target detection, intelligence gathering and improvised explosive device detection.

- Special Operations Portable Power Source. Research and develop Solid Oxide Fuel Cell (SOFC) technology for SOF power needs.

- Satellite Synthetic Aperture Radar. Design, develop, assemble, and test components for a synthetic aperture radar satellite in space applications for SOF.

- Smart Sight Remote Video Weapon. Develop an advanced video-based sighting system that interfaces with standard small arms to provide remote sighting capabilities for low-visibility/obstructed view targeting environments. Integrate video images and weapons sighting systems in head mounted display.

- SOF Unmanned Vehicle Targeting. Develop concepts and architectures for rapid unmanned vehicle SOF targeting.

- Three Dimensional Imaging Technology Development. Provides significantly enhanced level of detail to determine specific target discrimination data via 3-D imaging.

- UAV Certification and Support. Characterize the capability and develop operational employment concepts for a rotary-wing UAV.

- UAV Synthetic Aperture Radar. Develop on-board processing so that only a low data rate bit map is transmitted via either low data

rate satellite link or UHF digital radio to the war fighter.

- Urban Tactical Warfare Planning Tool. Design and develop a simulator tool that aids in the development of urban warfare training, tactics, and doctrine, and is compatible with the SOF Special Reconnaissance Simulator.

- Waterway Threat Detection Sensor System. Research and develop a lightweight sonar system for the detection of swimmers, unmanned underwater vehicles, mines and ships.

- Advanced MK V Craft Prototype Development. Demonstrate rapid construction and assembly techniques for high speed vessels.

- Modular Computing Technology. Develop rugged hand-held computers with a form-factor between personal digital assistants and laptops.

- Nanotech Integration Team. Use nanotechnologies to prototype low-power micro/nano-sensors.

- Target Location, ID and Engagement. Targeting and timely intelligence collection for UAVs and other unmanned systems.

- Fuel Cell Power Systems. Develop lightweight nickel-metal hydride fuel cell.

- Transliteration and Genealogical Search. Allow continued test and evaluation of Foxhound software.

- Language Teletraining System. Develop internet-based training technologies.

- Partnership of Def Innovations WIFI. Establish a wireless battlefield network research and testing facility.

- Field Deployable Digital Holograph. Develop full color high speed technology to include RGB laser evolution.

- Shortwave Infrared Technologies. Improve electro-optic shortwave infrared sensor sensitivity and integrate multi-spectral data.

- Life Cycle Support for Unmanned Systems. Explore concepts and technologies for the automated life-cycle support of unmanned ground systems.

- Improved Info Transfer for SOF. Apply real-time knowledge management tools using information technologies and cognitive science to meet urgent Special Operations intelligence requirements.

- Multimode Radar LPI/LPD. Develop millimeter wave LPI/LPD radar.

- Aircraft Electronic Warfare (EW) Mounting System. Demonstrate advanced countermeasure technologies to provide contingency aircraft self-protection capability.

- UAV Situational Awareness System. Integrates UAV autonomous flight control system to fly in controlled airspace.

- Shock Mitigating Seat for NSW RIB. Develop a shock mitigating seat for the RIB.

- TTL for High Value Targets. Investigate the microencapsulation, dispersal, and remote detection of quantum dot technology for SOF specific high-value target applications.

- High Altitude Long Endurance Airships. Develop a fully-automated synthesis device for producing electronically and optically active nanostructures for high altitude electronics and sensors.

B. Accomplishments/Planned Program

	FY06	FY07	FY08	FY09
SOF C4I ATDs	2.315	3.313	2.796	2.867
RDT&E Article Quantity				

FY06 Continued development and evaluation FY05 efforts. Continued to exploit emerging technologies to conduct ATD that provide SOF with a robust C4I capability to ensure uninterrupted information exchange, influence situations to support mission accomplishment, and reduce an adversary's ability to use information. Continued to exploit emerging technologies to conduct ATDs that provide SOF with increased sensory performance. Continued to exploit emerging technologies to locate and track targets or items of interest. Transitioned SEAL Delivery Vehicle Advanced Reconnaissance System ATD into acquisition program management.
Initiated Network Security Technologies project.
FY07 Continue development and evaluation of FY06 efforts. Continue to exploit emerging technologies to conduct ATD that provide SOF

with a robust C4I capability to ensure uninterrupted information exchange, influence situations to support mission accomplishment, and reduce an adversary's ability to use information. Continue to exploit emerging technologies to conduct ATDs that provide SOF with increased sensory performance. Continue to exploit emerging technologies to locate and track targets or items of interest. Transition Network Security Technologies demonstration project into the Classification Stateless Trusted Environment. Initiate C4 technology projects to address identified C4 capability gaps.

FY08 Continues development and evaluation of FY07 efforts. Continues to exploit emerging technologies to conduct ATDs that provide SOF with a robust C4I capability to ensure uninterrupted information exchange, influence situations to support mission accomplishment, and reduce an adversary's ability to use information. Continues to exploit emerging technologies to conduct ATDs that provide SOF with increased sensory performance. Continues to exploit emerging technologies to locate and track targets or items of interest. Continues C4 technology projects to address identified C4 capability gaps.

FY09 Continues development and evaluation of FY08 efforts. Continues to exploit emerging technologies to conduct ATDs that provide SOF with a robust C4I capability to ensure uninterrupted information exchange, influence situations to support mission accomplishment, and reduce an adversary's ability to use information. Continues to exploit emerging technologies to conduct ATDs that provide SOF with increased sensory performance. Continues to exploit emerging technologies to locate and track targets or items of interest. Continues C4 technology projects to address identified C4 capability gaps.

	FY06	FY07	FY08	FY09
SOF Mobility ATDs	2.326	2.528	2.259	2.219
RDT&E Article Quantity				

FY06 Continued development and evaluation of FY05 efforts. Exploited emerging technologies to conduct ATDs that provide SOF mobility assets with a reduction in logistic support requirements. Exploited emerging technologies to rapidly deploy and extract SOF personnel and equipment. Exploited technologies to allow reconnaissance and conduct direct action in high threat areas using unmanned systems. Exploited technologies to reduce cost or enhance the performance of existing SOF platforms.

FY07 Continue development and evaluation of FY06 efforts. Exploit emerging technologies to conduct ATDs that provide SOF mobility assets with a reduction in logistic support requirements. Exploit emerging technologies to rapidly deploy and extract SOF personnel and equipment. Exploit technologies to allow reconnaissance and conduct direct action in high threat areas using unmanned systems. Exploit technologies to reduce cost or enhance the performance of existing SOF platforms. Complete SEALION ATD. Transition Stiletto ATD to acquisition program management. Initiate mobility technology projects to address identified mobility capability gaps.

FY08 Continues development and evaluation of FY07 efforts. Exploits emerging technologies to conduct ATDs that provide SOF mobility assets with a reduction in logistic support requirements. Exploits emerging technologies to rapidly deploy and extract SOF personnel and equipment. Exploits technologies to allow reconnaissance and conduct direct action in high threat areas using unmanned systems. Exploits

technologies to reduce cost or enhance the performance of existing SOF platforms. Continues mobility technology projects to address identified mobility capability gaps.

FY09 Continues development and evaluation of FY08 efforts. Exploits emerging technologies to conduct ATDs that provide SOF mobility assets with a reduction in logistic support requirements. Exploits emerging technologies to rapidly deploy and extract SOF personnel and equipment. Exploits technologies to allow reconnaissance and conduct direct action in high threat areas using unmanned systems. Exploits technologies to reduce cost or enhance the performance of existing SOF platforms. Continues mobility technology projects to address identified mobility capability gaps.

	FY06	FY07	FY08	FY09
SOF Weapons ATDs	1.939	1.924	1.688	1.527
RDT&E Article Quantity				

FY06 Continued development and evaluation of FY05 efforts. Continued to exploit emerging technologies to conduct ATDs that provide SOF with multi-role/multi-purpose weapons and demolitions with a broader range of potential effects and increased accuracy. Exploited technologies to increase standoff from threat weapons systems. Decreased cost and logistic support requirements for SOF weapons systems.

FY07 Continue development and evaluation of FY06 efforts. Continue to exploit emerging technologies to conduct ATDs that provide SOF with multi-role/multi-purpose weapons and demolitions with a broader range of potential effects and increased accuracy. Initiate Enhanced Signature Suppression for Light Weight Machine Guns. Initiate weapons/munitions technology projects to address identified weapons/munitions capability gaps.

FY08 Continues development and evaluation of FY07 efforts. Continues to exploit emerging technologies to conduct ATDs that provide SOF with multi-role/multi-purpose weapons and demolitions with a broader range of potential effects and increased accuracy. Continues weapons/munitions technology projects to address identified weapons/munitions capability gaps. Completes Enhanced Performance Long Range Ammunition.

FY09 Continues development and evaluation of FY08 efforts. Continues to exploit emerging technologies to conduct ATDs that provide SOF with multi-role/multi-purpose weapons and demolitions with a broader range of potential effects and increased accuracy. Continues weapons/munitions technology projects to address identified weapons/munitions capability gaps. Completes Enhanced Signature Suppression for Light Weight Machine Guns.

	FY06	FY07	FY08	FY09
SOF Sustainment/Warrior ATDs	1.578	2.285	2.071	2.034
RDT&E Article Quantity				

FY06 Continued development and evaluation of FY05 efforts. Continued to exploit emerging technologies to conduct ATD's that provide

SOF with increased survivability, performance and countermeasures technologies. Continued Advanced Technology Underwater Breathing Apparatus (AT-UBA) project to develop a tactical diving system specifically designed to meet the needs of SOF operations from the seal delivery vehicle, advanced seal delivery system and dry deck shelter mobility platforms. Continued evaluation of alternative power sources. Completed Underwater Adhesives Project. Transitioned Battery Recharging initiatives.

FY07 Continue development and evaluation of FY06 efforts. Continue to exploit emerging technologies to conduct ATDs that address identified capability gaps associated with increased survivability, performance and countermeasures technologies. Continue evaluation of alternative power sources. Complete evaluation of Night Vision Electro-Optics Enhancement Project and Wide Field of View Goggles. Complete AT-UBA ATD. Complete Military Free Fall Navigation ATD.

FY08 Continues development and evaluation of FY07 efforts. Continues to exploit emerging technologies to conduct ATDs that address identified capability gaps associated with increased survivability, performance and countermeasures technologies. Continues evaluation of alternative power sources.

FY09 Continues development and evaluation of FY08 efforts. Continues to exploit emerging technologies to conduct ATDs that address identified capability gaps associated with increased survivability, performance and countermeasures technologies. Continues evaluation of alternative power sources.

	FY06	FY07	FY08	FY09
Technology Exploitation Initiative (TEI)	.382	.482	0.600	0.600
RDT&E Article Quantity				

FY06 Continued to exploit emerging technology to meet critical SOF requirements and encourage industry and government lab participation in identifying enhancements to SOF in critical areas. Continued development of Night Vision Compatible Head Mounted Display technologies to increase the capabilities of SOF watercraft crewmen by displaying situation awareness information in night vision goggles.

FY07 Continue to exploit emerging technology to meet critical SOF requirements and encourage industry and government lab participation in identifying enhancements to SOF in critical areas. Complete development of Night Vision Compatible Head Mounted Display technologies to increase the capabilities of SOF watercraft crewmen by displaying situation awareness information in night vision goggles

FY08 Continues to exploit emerging technology to meet critical SOF requirements and encourage industry and government lab participation in identifying enhancements to SOF in critical areas.

FY09 Continues to exploit emerging technology to meet critical SOF requirements and encourage industry and government lab participation in identifying enhancements to SOF in critical areas.

Exhibit R-2a, RDT&E Project Justification	Date: FEBRUARY 2007
Appropriation/Budget Activity RDT&E BA # 3	Special Operations Special Technology Project S200

	FY06	FY07	FY08	FY09
ATL/ACTD	45.909	43.839		
RDT&E Article Quantity				

FY06 Continued the Military Utility Assessment. Completed the low-power flight test configuration build-up, integration and ground test and integrated the low-power system on the C-130 test aircraft. Conducted low-power flight tests. Continued high-power laser assembly, integration and subsystem tests. Demonstrated high-power laser "first light." Completed integration and test facilities modifications.
FY07 Complete high-power flight test laser module build-up, integration and ground test and integrate the entire ATL ACTD system on the C-130 host aircraft. Complete integrated ATL system ground verification tests. Conduct high-power flight tests and demonstrate system performance in the Design Reference Missions. Complete the Military Utility Assessment and deliver the system residuals required for operational forces to operate and maintain the ATL system in a potential extended user evaluation.

	FY06	FY07	FY08	FY09
PSYOP "Global Reach" ACTD	5.766	5.827	5.991	5.004
RDT&E Article Quantity				

FY06 Continued program management of the incremental design, engineering and technical integration of multiple technologies culminating with two Military Utility Assessments, one for a Spiral 2 FM broadcast payload and the second for a Spiral 3 FM broadcast payload. The Wind Supported Aerial Delivery System (WSADS) was utilized as the first UAV platform in a succession of other planned UAV platforms to include the Predator class vehicle and a High Altitude UAS (Global Observer or HALE). In addition, developed and demonstrated an airborne magnet-less loudspeaker system, along with air droppable loudspeakers on the WSADS UAV. Developed and demonstrated a tethered balloon broadcast system. Developed, demonstrated, and fielded a Short Messaging System dissemination tool. Continued development and spiral release of the PSYOP Planning and Analysis System (POPAS), which ultimately will be integrated into the SOF mission planning environment.
FY07 Continue management of the incremental design, engineering and technical integration of multiple technologies as the variants become more robust. Planned events include demonstrating advanced broadcast/rebroadcast payloads on Predator type UAV platforms, demonstration of TV payload; conducting an Extended User Evaluation (EUE) on WSADS UAV FM and loudspeaker broadcast payloads; transition WSADS FM broadcast payload; demonstration of electronic leaflets and media display systems; performing an EUE for Short Message Service for formal transition; and incremental fielding and software certification of advanced software for PSYOP Target Audience Analysis and PSYOP Worksheets, under the POPAS umbrella. These efforts will culminate in further military utility assessments for UAV payloads, scatterable media, and the PSYOP Planning and Analysis System.
FY08 Continue the development and demonstration of advanced broadcast/rebroadcast payloads on Predator and other UAS's, to include AM broadcast systems. Perform EUE on Predator B, UAV for FM, TV and loudspeaker broadcast payloads. Transition Predator B FM payload and WSADS UAV loudspeaker broadcast payloads. Continues POPAS development and incremental fielding and transition software/hardware.
FY09 Demonstrate and perform an EUE for the broadcast payloads on Predator type UAV platforms. Demonstrate and perform EUE for the

broadcast payload for High Altitude UAS (Global Observer or HALE). Both these EUEs will be in preparation for transition. In addition, transitions software/hardware for POPAS.

	FY06	FY07	FY08	FY09
PSYOP Modernization	8.996			
RDT&E Article Quantity				

FY06 Continued exploration of emergent technologies to modernize and extend USSOCOM PSYOP product reach.

	FY06	FY07	FY08	FY09
Classified	1.886	6.695	5.630	2.493
RDT&E Article Quantity				

FY06 Details provided under separate cover.
FY07 Details provided under separate cover.
FY08 Details provided under separate cover.
FY09 Details provided under separate cover.

	FY06	FY07	FY08	FY09
SOPGM	17.485	5.614		
RDT&E Article Quantity				

Phase 1 of the ACTD:
FY06 Completed SOPGM Initial Proof-of-Concept (IPOC) weapon system development, ground integration and test. (The SOPGM IPOC weapon system includes the Viper Strike munition, its launch canister, a Battle Management System (BMS), munition carriage assembly, aircraft, and integration components to support employment from the AC-130U.) Verified physical, functional, and communication interfaces between the SOPGM IPOC system and the aircraft. Successfully validated SOPGM launcher assembly and demonstrated the Viper Strike munition safely separates from the aircraft. Obtained Non-nuclear Munition Safety Board approval of the system design and received flight certification for conducting the SOPGM IPOC weapon system end-to-end demonstrations. Built mass-simulate munitions and instrumented SOPGM rounds and SOPGM all up rounds to support the IPOC demonstration flights. Initiated engineering and ordered long lead parts for an extended user evaluation (EUE) of the SOPGM IPOC weapon system. The EUE will be conducted after successful completion of the end-to-end system demonstrations to provide the warfighter an opportunity to refine SOPGM employment tactics in support of the Military Utility Assessment (MUA) and subsequent decisions on combat deployment in the Global War on Terror (GWOT).

FY07 Conduct the SOPGM IPOC flight demonstrations to validate end-to-end system performance and support an Initial MUA. Flight demonstrations will include joint operations with ground and 3rd party airborne platforms providing target designation. Following successful validation of the IPOC system in various test scenarios, the system will be turned over to the Air Force Special Operations Command (AFSOC) for an EUE. AFSOC will employ the SOPGM IPOC system in conjunction with training and other flight operations to refine tactics and collect data and operational experience to support an Interim MUA. The SOPGM ACTD Prime Contractor will provide system support throughout the EUE. AFSOC will use the results of the flight demonstrations and EUE operations to complete an Interim MUA to support decisions on proceeding into Phase 2 and strategies for transitioning to a combat-capable SOPGM system.

	FY06	FY07	FY08	FY09
TTL			8.900	12.800
RDT&E Article Quantity				

FY08 Initiates projects from the USSOCOM/DDR&E TTL project database that exploit and integrate TTL proven relevant technologies (nanotechnology, biotechnology, and chemistry) to provide and demonstrate military utility for capability enhancements such as significant reduction in form factor and packaging of TTL devices and systems; detection and identification of objects of interest at long distances, including development of new TTL modalities; novel techniques for data transmissions, sharing and processing, and supporting capabilities required for TTL system integration, reliability, usability, and employment. Projects will include leveraging and cooperative efforts with DOD, other government agencies, and industry.
FY09 Continue projects to exploit TTL technologies. Initiates projects identified from the updated USSOCOM/DDR&E Roadmap and support the Joint Chief of Staff TTL Quick Look Capability Assessment.

	FY06	FY07	FY08	FY09
Long Range Biometric Target Identification System	1.446			
RDT&E Article Quantity				

FY06 This initiative was a Congressional add. Continued FY05 efforts. Provided a deployable system to positively identify personnel, in all light conditions, at ranges beyond 500 meters.

	FY06	FY07	FY08	FY09
Snapshot Synthetic Aperture Radar	.964	2.825		
RDT&E Article Quantity				

FY06 This initiative was a Congressional add. Continued FY05 efforts. Demonstrated a radar array processor fabricated from COTS micro-processors.
FY07 This initiative is a Congressional add. Follow on to FY06, evaluate an 80 node processor array to perform real-time processing of

complex radar data in a cost efficient, supportable manner.

	FY06	FY07	FY08	FY09
Surveillance Augmentation Vehicle	1.735			
RDT&E Article Quantity				

FY06 This initiative was a Congressional add. Continued FY05 efforts. Integrated ultra-wide band intrusion detection sensors that can be deployed to provide an ad-hoc network for image/data/voice communications and the ability to cordon an area to protect and monitor any intrusions or device tampering.

	FY06	FY07	FY08	FY09
Remote Video Weapon Site	1.446	1.753		
RDT&E Article Quantity				

FY06 This initiative was a Congressional add. Continued FY05 efforts. Developed an advanced video-based sighting system that interfaces with standard small arms to provide remote sighting capabilities for low-visibility/obstructed view targeting environments.
FY07 This initiative is a Congressional add. Follow on to FY06, Transition video-based weapon sighting system developed under a USSOCOM SBIR.

	FY06	FY07	FY08	FY09
Advanced Multi-Purpose Micro-Display System	4.916	.974		
RDT&E Article Quantity				

FY06 This initiative was a Congressional add. Integrated highly efficient display component technology into several SOF applications.
FY07 This initiative is a Congressional add. Follow on to FY06 to integrate micro-display and miniature electronics into heads-up displays.

	FY06	FY07	FY08	FY09
Mark V Patrol Boat Replacement Craft	1.446			
RDT&E Article Quantity				

FY06 This initiative was a Congressional add. Continued FY05 efforts. Developed composite combatant craft design/fabrication techniques.

Exhibit R-2a, RDT&E Project Justification	Date: FEBRUARY 2007
Appropriation/Budget Activity RDT&E BA # 3	Special Operations Special Technology Project S200

	FY06	FY07	FY08	FY09
Autonomous Navigation Sensor Suite	2.294	1.461		
RDT&E Article Quantity				

FY06 This initiative was a Congressional add. Effort to reduce the size, weight, power and cost of sensors associated with unmanned systems through novel materiels and manufacturing techniques.
FY07 This initiative is a Congressional add. Follow on to FY06, integrate stereo multi-spectral sensors for autonomous navigation and obstacle avoidance.

	FY06	FY07	FY08	FY09
Army DRAMA/COMPOSER Integration & Development	1.639	1.461		
RDT&E Article Quantity				

FY06 This initiative was a Congressional add. Evaluated advanced protocols to make more efficient use of network bandwidth and prioritization schemes.
FY07 This initiative is a Congressional add. Follow on to FY06, automate diagnostics and repair capability for Warfighter Information Network – Tactical (WIN-T) troubleshooting and performance management.

	FY06	FY07	FY08	FY09
C-130 Advanced Tactical Airborne C4ISR System (ATACS)	1.206			
RDT&E Article Quantity				

FY06 This initiative was a Congressional add. Demonstrated the ability to rapidly equip any C-130 aircraft with sophisticated sensors, processors, communications and self-defense capabilities through standardized hardware, software, and resource interfaces.

	FY06	FY07	FY08	FY09
Counter-Sniper & Surveillance Detection System	2.049	1.948		
RDT&E Article Quantity				

FY06 This initiative was a Congressional add. Researched and developed tactical, mobile, and unmanned sniper detection systems that utilize optical detection and location techniques.
FY07 This initiative is a Congressional add. Follow on to FY06, develop modular, retroreflective-based sniper detection device for handheld or mounted automated search/detection.

	FY06	FY07	FY08	FY09
Digital Camera Rifle Scope	.482			
RDT&E Article Quantity				

FY06 This initiative was a Congressional add. Enhanced unmanned ground system sensor optics for improved situation awareness.

	FY06	FY07	FY08.	FY09
Dual Band Universal Night Sight (DUNS)	.965			
RDT&E Article Quantity				

FY06 This initiative was a Congressional add. Demonstrated integrated image and long-wave infrared fused system within the same aperture.

	FY06	FY07	FY08	FY09
Field Experimentation Program For SOF (FEPSO)	.964	.974		
RDT&E Article Quantity				

FY06 This initiative was a Congressional add. Prototyped and evaluated manned/unmanned platform and sensor networks to articulate new concepts of operation and employment for SOF.
FY07 This initiative is a Congressional add. Follow on to FY06, demonstrate the Zephyr High Altitude Long Endurance Airship for SOF persistent Intelligence Surveillance Reconasaince (ISR) applications.

	FY06	FY07	FY08	FY09
Advanced MK V Craft Prototype Development	1.737			
RDT&E Article Quantity				

FY06 This initiative was a Congressional add. Demonstrated rapid construction and assembly techniques for high speed vessels.

	FY06	FY07	FY08	FY09
Integrated Cyber Command & Control.	.964			
RDT&E Article Quantity				

FY06 This initiative was a Congressional add. Developed network security for SOF tactical networks using modified COTS products.

	FY06	FY07	FY08	FY09
Improved Materials for Fireproof Clothing	1.228	1.461		
RDT&E Article Quantity				

FY06 This initiative was a Congressional add. Developed new and revolutionary flameproof textile materials for SOF applications.
FY07 This initiative is a Congressional add. Follow on to FY06, develop improved textile materials for thermal protection and fire retardency.

	FY06	FY07	FY08	FY09
Improved Special Operations Fast Rope Kit	1.639	1.462		
RDT&E Article Quantity				

FY06 This initiative was a Congressional add. Improved the safety of CV-22 fast rope operations using high performance materials and structures.
FY07 This initiative is a Congressional add. Follow on to FY06, improve the safety of fast-rope operations using advanced design and materials.

	FY06	FY07	FY08	FY09
Dominant Vision	.965			
RDT&E Article Quantity				

FY06 This initiative was a Congressional add. Explored advanced situational awareness and fusion technologies to enhance various platforms' ability to navigate and identify targets through adverse weather and obscured visual situations.

	FY06	FY07	FY08	
Mobile Electric Power Utilizing Energy Harvesting.	1.253	.974		
RDT&E Article Quantity				

FY06 This initiative was a Congressional add. Rapidly prototyped and fielded small, lightweight generators and other power concepts to power multiple voltages required by Special Operations electronics with little logistical support.
FY07 This initiative is a Congressional add. Follow on to FY06, rapidly field miniature electrical generation devices to power the mobile devices and voltages required by SOF.

	FY06	FY07	FY08	FY09
Magnum Universal Night Sight	.964			
RDT&E Article Quantity				

FY06 This initiative was a Congressional add. Enhanced the Magnum Universal Night Sight performance by reducing weight and power

requirements.

	FY06	FY07	FY08	FY09
Special Forces Personnel and Equipment Survivability Activity.	1.215			
RDT&E Article Quantity				

FY06 This initiative was a Congressional add. Designed and evaluated approaches to minimize the detectability and maximize survivability and recoverability of SOF personnel and equipment.

	FY06	FY07	FY08	FY09
Special Operations Airborne Intelligence and Reconnaissance Program	1.639			
RDT&E Article Quantity				

FY06 This initiative was a Congressional add. Developed roll-on/off and plug-and-play system for C-130's that provide real-time command and control, micro-target detection, intelligence gathering and improvised explosive device detection.

	FY06	FY07	FY08	FY09
SOF Portable Power Source	3.374	3.167		
RDT&E Article Quantity				

FY06 This initiative was a Congressional add. Researched and developed Solid Oxide Fuel Cell technology for SOF power needs.
FY07 This initiative is a Congressional add. Follow on to FY06, Develop a 50 Watt solid-oxide fuel cell.

	FY06	FY07	FY08	FY09
Satellite Synthetic Aperture Radar	2.459	3.507		
RDT&E Article Quantity				

FY06 This initiative was a Congressional add. Designed, developed, assembled, and tested components for a synthetic aperture radar satellite in space applications for SOF.
FY07 This initiative is a Congressional add. Follow on to FY06, demonstrate a radar array processor fabricated from commercial-off-the-shelf micro processors for space applications.

	FY06	FY07	FY08	FY09
SOF Unmanned Vehicle Targeting	1.639			
RDT&E Article Quantity				

FY06 This initiative was a Congressional add. Developed concepts and architectures for rapid unmanned vehicle SOF targeting.

	FY06	FY07	FY08	FY09
Three Dimensional Imaging Technology Development	3.114			
RDT&E Article Quantity				

FY06 This initiative was a Congressional add. Researched and developed 3-D imaging technologies for insertion into visual augmentation systems for improved situational awareness, target detection and discrimination.

	FY06	FY07	FY08	FY09
UAV Certification and Support.	1.639			
RDT&E Article Quantity				

FY06 This initiative was a Congressional add. This project proposed to leverage the ongoing USSOCOM SOF SLED ACTD as the incubator for UAV flight certification.

	FY06	FY07	FY08	FY09
UAV Synthetic Aperture Radar	2.459			
RDT&E Article Quantity				

FY06 This initiative was a Congressional add. Evaluated on-board processing so that only a low data rate bit map is transmitted via either low data rate satellite link or UHF digital radio to the war fighter.

	FY06	FY07	FY08	FY09
Urban Tactical Warfare Planning Tool	.964			
RDT&E Article Quantity				

FY06 This initiative was a Congressional add. Designed and developed a simulator tool that aids in the development of urban warfare training, tactics, and doctrine, and is compatible with the SOF Special Reconnaissance Simulator.

	FY06	FY07	FY08	FY09
Rotary Wing UAV	6.755	6.235		
RDT&E Article Quantity				

FY06 This initiative was a Congressional add. Continued the ongoing ACTD and operationalized current systems.
FY07 This initiative is a Congressional add.

	FY06	FY07	FY08	FY09
Waterway Threat Detection Sensor System.	1.639	1.461		
RDT&E Article Quantity				

FY06 This initiative was a Congressional add. Researched and developed a lightweight sonar system for the detection of swimmers, unmanned underwater vehicles, mines and ships.
FY07 This initiative is a Congressional add. Follow on to FY06, develop a lightweight sonar system for swimmer, unmanned underwater vehicle, and ship detection.

	FY06	FY07	FY08	FY09
Modular Computing Technology	.965			
RDT&E Article Quantity				

FY06 This initiative was a Congressional add. Developed rugged hand-held computers with a form-factor between personal digital assistants and laptops.

	FY06	FY07	FY08	FY09
Nanotech Integration Team	2.219			
RDT&E Article Quantity				

FY06 This initiative was a Congressional add. Used nanotechnologies to prototype low-power micro/nano-sensors.

	FY06	FY07	FY08	FY09
Airborne PSYOP Modernization		1.461		
RDT&E Article Quantity				

FY07 This initiative is a Congressional add. Develop and test (1) paper like programmable electronic PSYOP leaflet with embedded electronics, and (2) electronic leaflet target area analysis prediction tools.

	FY06	FY07	FY08	FY09
Aircraft EW Mounting System		4.678		
RDT&E Article Quantity				

FY07 This initiative is a Congressional add. Demonstrate advanced countermeasure technologies to provide contingency aircraft self-

protection capability.

	FY06	FY07	FY08	FY09
Field Deployable Digital Holograph		1.948		
RDT&E Article Quantity				

FY07 This initiative is a Congressional add. Develop full color high speed technology to include RGB laser evolution, film construction development, automated film handling and processing hardware design and development of 1 full color high speed holographic topography system.

	FY06	FY07	FY08	FY09
Fuel Cell Power Systems		2.338		
RDT&E Article Quantity				

FY07 This initiative is a Congressional add. Develop a lightweight nickel-metal hydride fuel cell.

	FY06	FY07	FY08	FY09
High Altitude Long Endurance Airships		.974		
RDT&E Article Quantity				

FY07 This initiative is a Congressional add. Develop a fully automated synthesis device for producing electronically and optically active nanostructures for high altitude airship electronics and sensors.

	FY06	FY07	FY08	FY09
USSOCOM Improved Information Transfer		6.820		
RDT&E Article Quantity				

FY07 This initiative is a Congressional add. Apply real time knowledge management tools using information technologies and cognitive science to meet urgent Special Operations intelligence requirements.

	FY06	FY07	FY08	FY09
Language Teletraining System		1.072		
RDT&E Article Quantity				

FY07 This initiative is a Congressional add. Develop internet-based training technologies.

	FY06	FY07	FY08	FY09
Life Cycle Support for Unmanned Systems		2.144		
RDT&E Article Quantity				

FY07 This initiative is a Congressional add. Explore concepts and technologies for the automated life-cycle support of unmanned ground systems.

	FY06	FY07	FY08	FY09
Multimode Radar LPI/LPD		2.338		
RDT&E Article Quantity				

FY07 This initiative is a Congressional add. Develop millimeter wave LPI/LPD radar.

	FY06	FY07	FY08	FY09
Partnership for Def Innovations WIFI		1.053		
RDT&E Article Quantity				

FY07 This initiative is a Congressional add. Establish a wireless battlefield network research and testing facility.

	FY06	FY07	FY08	FY09
Shock Mitigating Seat for NSW Rib		1.266		
RDT&E Article Quantity				

FY07 This initiative is a Congressional add. Transition a Phase II USSOCOM SBIR to develop a shock mitigating seat for the RHIB.

	FY06	FY07	FY08	FY09
Shortwave Infrared Technologies		1.072		
RDT&E Article Quantity				

FY07 This initiative is a Congressional add. Improve electro-optic shortwave infrared sensor sensitivity and integrate multi-spectral data.

	FY06	FY07	FY08	FY09
Transliteration & Genealogical Search		.974		
RDT&E Article Quantity				

FY07 This initiative is a Congressional add. Continue teat and evaluation of Foxhound software.

	FY06	FY07	FY08	FY09
Target, Location, ID and Engagement		1.559		
RDT&E Article Quantity				

FY07 This initiative is a Congressional add. Develop persistent targeting and timely intelligence collection for UAVs and other unmanned systems.

	FY06	FY07	FY08	FY09
TTL System for High Value Targets		.974		
RDT&E Article Quantity				

FY07 This initiative is a Congressional add. Investigate the micorencapsulation, dispersal, and remote detection of quantum dot technology for SOF specific high-value target applications.

	FY06	FY07	FY08	FY09
UAV Situational Awareness System		.974		
RDT&E Article Quantity				

FY07 This initiative is a Congressional add. Integrates UAV autonomous flight control system to fly in controlled airspace.

C. Other Program Funding Summary: None.

D. Acquisition Strategy. N/A.

RDT&E BUDGET ITEM JUSTIFICATION SHEET (R-2 Exhibit)	DATE FEBRUARY 2007
APPROPRIATION / BUDGET ACTIVITY RDT&E, DEFENSE-WIDE / 7	R-1 ITEM NOMENCLATURE / PROJECT NO. PE 0304210BB Special Applications for Contingencies (SAFC)/9999

COST (Dollars in Millions)	FY06	FY07	FY08	FY09	FY10	FY11	FY12	FY13	Cost to Complete	Total Cost
PE0304210BB	15.870	20.074	15.687	16.247	16.747	16.794	17.167	17.545	Cont.	Cont.
9999.PR SAFC	15.870	20.074	15.687	16.247	16.747	16.794	17.167	17.545	Cont.	Cont.

A. Mission Description and Budget Item Justification: The SAFC Program 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 technologies capable of detecting and locating fleeting targets. SAFC applies focused 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 an emergent problem set based on requirements validated through a specific Joint Staff/OSD chartered approval process.

B. Program Change Summary:

	FY06	FY07	FY08	FY09
Previous President's Budget	20.815	11.302	15.687	16.247
Current President's Budget	15.870	20.074	15.687	16.247
Total Adjustments	-4.945	8.772		
Congressional Program Reductions		-0.077		
Congressional Rescissions				
Congressional Increases		9.302		
Reprogrammings	-4.476			
Other Program Adjustments				
SBIR Transfer	-0.469	-0.453		

Funding:

FY06: Decrease is a result of a 1415-1 Prior Approval Reprogramming (No. FY06-17 PA) submitted to Congress in support of a critical O&M Global War on Terrorism shortfall (-$4.476 million) and transfer to the Small Business Innovative Research (SBIR) account (-$0.469 million).

FY07: Net increase is a result of a Congressional add ($9.302 million), SBIR transfer (-$0.453 million) and Section 8106 reduction (-$0.077 million).

FY08: N/A.

FY09: N/A.

Schedule: None.

Technical: None.

Exhibit R-2a, RDT&E Project Justification	Date: FEBRUARY 2007
Appropriation/Budget Activity RDT&E BA # 7	Special Applications for Contingencies/Project 9999

Cost ($ in millions)	FY06	FY07	FY08	FY09	FY10	FY11	FY12	FY13
Special Applications for Contingencies	15.870	20.074	15.687	16.247	16.747	16.794	17.167	17.545
RDT&E Articles Quantity								

A. Mission Description and Budget Item Justification: The Special Applications for Contingencies (SAFC) Program 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 technologies capable of detecting and locating fleeting targets. SAFC applies focused 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 an emergent problem set based on requirements validated through a specific Joint Staff/OSD chartered approval process.

B. Accomplishments/Planned Program. Made significant improvements to expendable Unmanned Aerial Vehicle (UAV) capabilities to include maritime launch and recovery. Developed improvements to long range ground surveillance capabilities and continued integration research for a networked ISR sensor system. TIGERSHARK UAV now supports U.S. and Coalition SOF in the U.S. Central Command theater.

	FY06	FY07	FY08	FY09
SAFC	15.870	20.074	15.687	16.247
RDT&E Articles Quantity				

FY06 Continued development and combat evaluation of selected unmanned delivery platforms and mounted or deliverable ISR sensor systems. Continued to develop, deploy and evaluate advanced auto-pilot technologies. Continued research and development of advanced mobile secure networking and detection technologies to create or enhance deployed, remotely emplaced surveillance architectures. Continued to enhance and evaluate a common ground station. Continued research and assessment of emerging ISR technologies. Continued to research, evaluate and integrate red force tagging, tracking and locating capabilities to enable remote and stand-off emplacement. Additional details are classified.
FY07 Continue development and combat evaluation of selected unmanned delivery platforms and mounted or deliverable ISR sensor systems. Continue to develop, deploy and evaluate advanced auto-pilot technologies. Continue research and development of advanced mobile secure networking and detection technologies to create or enhance deployed, remotely emplaced surveillance architectures. Continue to enhance and evaluate a common ground station. Continue research and assessment of emerging ISR technologies. Additional details are classified.
FY08 Continues development and combat evaluation of selected unmanned delivery platforms and mounted or deliverable ISR sensor systems.

Continues to develop, deploy and evaluate advanced auto-pilot technologies. Continues research and development of advanced mobile secure networking and detection technologies to create or enhance deployed, remotely emplaced surveillance architectures. Continues to enhance and evaluate a common ground station. Continues research and assessment of emerging ISR technologies.
FY09 Continues development and combat evaluation of selected unmanned delivery platforms and mounted or deliverable ISR sensor systems. Continues to develop, deploy and evaluate advanced auto-pilot technologies. Continues research and development of advanced mobile secure networking and detection technologies to create or enhance deployed, remotely emplaced surveillance architectures. Continues to enhance and evaluate a common ground station. Continues research and assessment of emerging ISR technologies.

C. Other Program Funding Summary:

	FY06	FY07	FY08	FY09	FY10	FY11	FY12	FY13	To Complete	Total Cost
Proc, SAFC	16.289	9.569	12.047	12.505	12.527	12.555	12.932	13.320	Cont.	Cont.

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 for maximum flexibility to respond to quickly emerging, short lead time, contingency based requirements that have been approved through an Executive Integrated Product Team chaired by the Joint Staff at national level.

Exhibit R-3 RDT&E Project Cost Analysis						DATE: FEBRUARY 2007					
APPROPRIATION / BUDGET ACTIVITY RDT&E DEFENSE-WIDE / 7			SPECIAL APPLICATIONS FOR CONTINGENCIES PE0304210BB								
Actual or Budget Value ($ in millions)											
Cost Categories	Contract		Total	Budget	Award	Budget	Award	Budget	Award		
(Tailor to WBS, or System/Item Requirements)	Method & Type	Performing Activity & Location	PYs Cost	Cost FY07	Date FY07	Cost FY08	Date FY08	Cost FY09	Date FY09	To Complete	Total Program
UAV Capability Development	MIPR	NAVAIR	32.716	11.174	Dec-06	7.500	Dec-07	7.500	Dec-08	Cont.	Cont.
Com Port & Maritime Domain Awareness	TBD	TBD		7.300	Jan-07						7.300
ISR Sensor and Networking Development	MIPR	Various	37.187			4.500	Dec-07	4.500	Dec-08	Cont.	Cont.
TT&L R&D	MIPR	Various	4.491								4.491
Portable Radar	MIPR	DOE	2.500								2.500
FFRDC Support to SOJICC	MIPR	MITRE CECOM	1.001								1.001
FFRDC Support to SOJICC	MIPR	MITRE ESC	0.330								0.330
Technical Collection R&D	MIPR	ASD C3I	3.252								3.252
Special Comms Devices	MIPR	SAF FMB	1.000								1.000
Biometrics	MIPR	SAF FMB	0.500								0.500
NRT Contingency	TBD	Various	6.779	1.325	Various	3.687	Dec-07	4.247	Dec-08	Cont.	Cont.
CP - Tactical Imagery Comm	MIPR	NAVSEA, Arlington VA	1.632								1.632
Subtotal Product Dev			91.388	19.799		15.687		16.247		Cont.	Cont.
Remarks:											
Subtotal Spt											
Remarks:											
Subtotal T&E											
Remarks:											
Program Support	C-CPAF	Jacobs-Sverdrup, Tampa FL		0.275	Dec-06						0.275
Subtotal Management				0.275							0.275
Remarks:											
Total Cost			91.388	20.074		15.687		16.247		Cont.	Cont.
Remarks:											

Exhibit R-4, RDT&E Program Schedule Profile	Date: FEBRUARY 2007
Appropriation/Budget Activity RDT&E/7	Project Number and Name 9999.PR SAFC

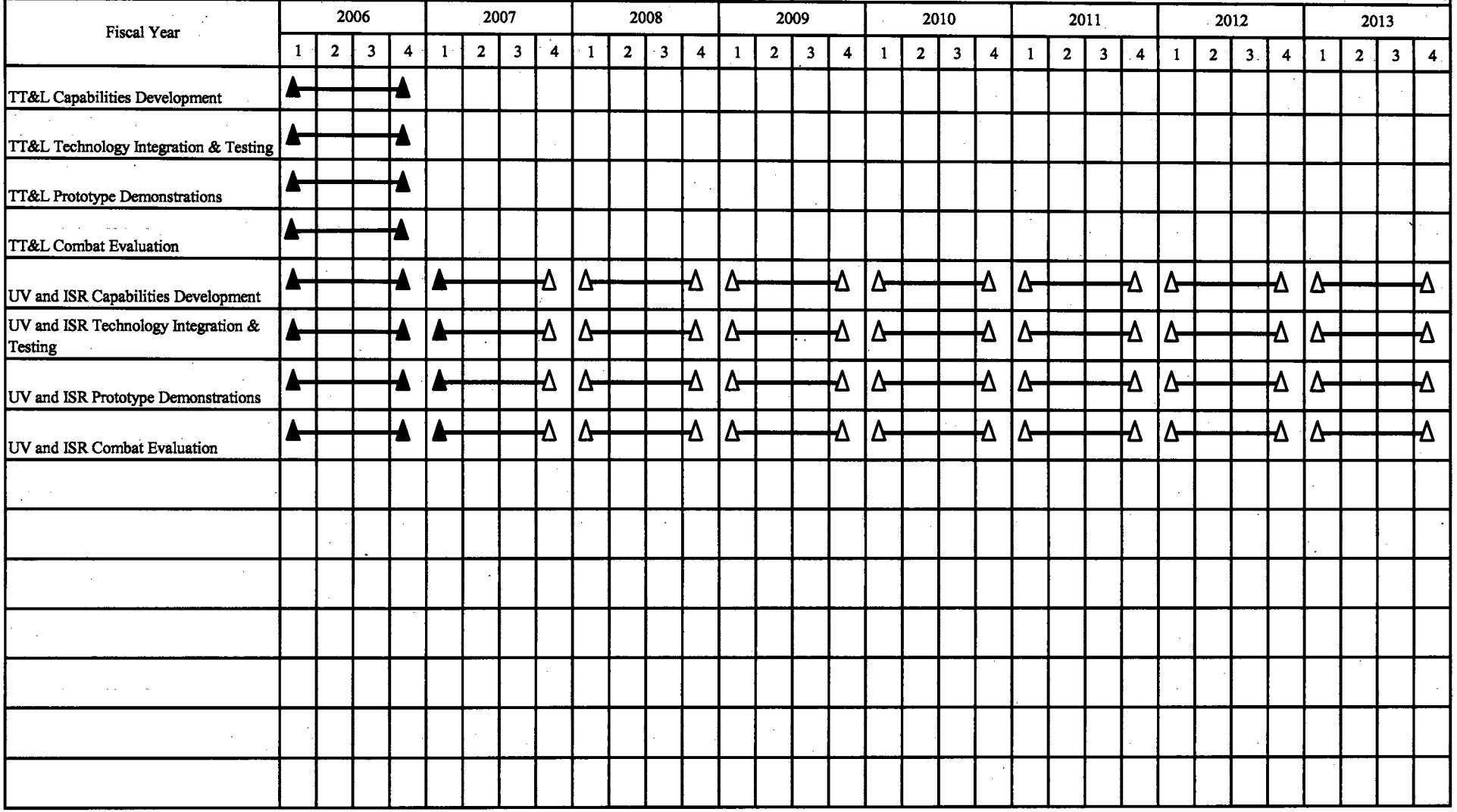

Exhibit R-4a, RDT&E Program Schedule Detail				Date: FEBRUARY 2007				
Appropriation/Budget Activity	Program Element Number and Name			Project Number and Name				
RDT&E/7	PE0304210BB/C3I-SAFC			Project 9999/SAFC				
Schedule Profile	FY2006	FY2007	FY2008	FY2009	FY2010	FY2011	FY2012	FY2013
TT&L Capabilities Development	1-4Q							
TT&L Technology Integration & Testing	1-4Q							
TT&L Prototype Demonstrations	1-4Q							
TT&L Combat Evaluation	1-4Q							
UV and ISR Capabilities Development	1-4Q	1-4Q	1-4Q	1-4Q	1-4Q	1-4Q	1-4Q	1-4Q
UV and ISR Technology Integration & Testing	1-4Q	1-4Q	1-4Q	1-4Q	1-4Q	1-4Q	1-4Q	1-4Q
UV and ISR Prototype Demonstrations	1-4Q	1-4Q	1-4Q	1-4Q	1-4Q	1-4Q	1-4Q	1-4Q
UV and ISR Combat Evaluation	1-4Q	1-4Q	1-4Q	1-4Q	1-4Q	1-4Q	1-4Q	1-4Q

RDT&E BUDGET ITEM JUSTIFICATION SHEET (R-2 Exhibit)	DATE FEBRUARY 2007
APPROPRIATION / BUDGET ACTIVITY RDT&E, DEFENSE-WIDE / 7	R-1 ITEM NOMENCLATURE / PROJECT NO. PE 0305208BB Distributed Common Ground/Surface System (DCGS)/S400A

COST (Dollars in Millions)	FY06	FY07	FY08	FY09	FY10	FY11	FY12	FY13	Cost to Complete	Total Cost
PE 0305208BB				3.170	3.657	4.304	1.500	1.545	Cont.	Cont.
S400A, DCGS				3.170	3.657	4.304	1.500	1.545	Cont.	Cont.

Note: The Department moved the DCGS resources from PE 1160405BB, Special Operations Intelligence Systems Development, to a new Military Intelligence Program (MIP) PE (0305208BB) in order to better capture DCGS resources.

A. Mission Description and Budget Item Justification:

This program element provides for the identification, development, and testing of the DCGS. The DCGS Special Operations Forces (SOF) architecture interconnects the warfighter and sensors to "find and fix" terrorist and/or individuals. DCGS-SOF provides SOF leadership with situational awareness for planning and executing SOF missions. DCGS-SOF integrates tactical processing, exploitation, and dissemination data into the SOF Information Enterprise (SIE). DCGS-SOF develops and integrates SOF networks providing USSOCOM with unique decision capabilities to include: measurement and signature data, sensor exploitation, data compressions and man-portable workstations. DCGS-SOF provides the supporting architecture to link the Global Sensor Network (GSN) to those who will interpret the data for rapid transmission to collaborative partners via the SIE. DCGS-SOF will initially provide SOF exploitation of unmanned aerial vehicle (UAV) assets assigned to SOF. In coming years, DCGS-SOF will expand to incorporate connectivity to attended and unattended sensors via the GSN.

B. Program Change Summary:

	FY06	FY07	FY08	FY09
Previous President's Budget				
Current President's Budget				3.170
Total Adjustments				3.170
Congressional Program Reductions				
Congressional Rescissions				
Congressional Increases				
Reprogrammings				
Other Program Adjustments				3.170
SBIR Transfer				

Funding:

FY06: N/A

FY07: N/A

FY08: N/A

FY09: Increase of $3.170 million is the result of internal realignments by the Department from PE 1160405BB, SOF Operations Intelligence Systems Development, to PE 0305208BB, DCGS, which is a designated MIP Program Element for DCGS.

Schedule: None.

Technical: None.

Exhibit R-2a, RDT&E Project Justification	Date: FEBRUARY 2007
Appropriation/Budget Activity RDT&E BA # 7	Distributed Common Ground/Surface System (DCGS)/Project S400A

Cost ($ in millions)	FY06	FY07	FY08	FY09	FY10	FY11	FY12	FY13
DCGS				3.170	3.657	4.304	1.500	1.545
RDT&E Articles Quantity								

Note: The Department moved the DCGS resources from PE1160405BB, Special Operations Intelligence Systems Development, to a new Military Intelligence Program (MIP) PE (0305208BB) in order to better capture DCGS resources.

A. Mission Description and Budget Item Justification: This project provides for the identification, development, and testing of the DCGS. The DCGS Special Operations Forces (SOF) architecture interconnects the warfighter and sensors to "find and fix" terrorist and/or individuals. DCGS-SOF provides SOF leadership with situational awareness for planning and executing SOF missions. DCGS-SOF integrates tactical processing, exploitation, and dissemination (TPED) data into the SOF Information Enterprise (SIE). DCGS-SOF develops and integrates SOF networks providing USSOCOM with unique decision capabilities to include: measurement and signature data, sensor exploitation, data compressions and man-portable workstations. DCGS-SOF provides the supporting architecture to link the Global Sensor Network (GSN) to those who will interpret the data for rapid transmission to collaborative partners via the SIE. DCGS-SOF will initially provide SOF exploitation of unmanned aerial vehicle (UAV) assets assigned to SOF. In coming years, DCGS-SOF will expand to incorporate connectivity to attended and unattended sensors via the GSN.

B. Accomplishments/Planned Program

	FY06	FY07	FY08	FY09
DCGS-SOF				3.170
RDT&E Articles Quantity				

FY09 Begins the development of resource connectors for the integration of the SOF unique systems and sensors into the Service-Common Mobile DCGS.

C. Other Program Funding Summary:

	FY06	FY07	FY08	FY09	FY10	FY11	FY12	FY13	To Complete	Total Cost
PROC, SOF Intelligence Systems			12.442	2.308					14.750	14.750

D. Acquisition Strategy:

- DCGS-SOF will leverage available funds against ongoing efforts by other government agencies to meet SOF-peculiar documented requirements. DCGS-SOF technology will allow for seamless integration with DOD, interagency, or coalition Intelligence Surveillance and Reconnaissance TPED systems.

Exhibit R-3 RDT&E Project Cost Analysis											DATE: FEBRUARY 2007	
APPROPRIATION / BUDGET ACTIVITY RDT&E DEFENSE-WIDE / 7			Distributed Common Ground/Surface System (DCGS)/PE0305208BB Distributed Common Ground/Surface System (DCGS)/S400A									
Actual or Budget Value ($ in millions)												
Cost Categories (Tailor to WBS, or System/Item Requirements)	Contract Method & Type	Performing Activity & Location	Total PYs Cost	Budget Cost FY07	Award Date FY07	Budget Cost FY08	Award Date FY08	Budget Cost FY09	Award Date FY09	To Complete	Total Program
Product Development DCGS-SOF	TBD	TBD						3.170	Dec-08	Cont.	Cont.
Subtotal Product Dev			0.000	0.000		0.000		3.170		Cont.	Cont.
Remarks:											
Support Costs											
Subtotal Support Costs			0.000	0.000		0.000		0.000		Cont.	Cont.
Remarks:											
Test & Evaluation											
Subtotal T&E			0.000	0.000		0.000		0.000			0.000
Remarks:											
Management Services											
Subtotal Management			0.000	0.000		0.000		0.000		Cont.	0.000
Remarks:											
Total Cost			0.000	0.000		0.000		3.170		Cont.	Cont.
Remarks											

Exhibit R-4, RDT&E Program Schedule Profile																																
Appropriation/Budget Activity RDT&E/7																	Date: FEBRUARY 2007 Project Number and Name Project S400A/DCGS															
Fiscal Year	2006				2007				2008				2009				2010				2011				2012				2013			
	1	2		4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
DCGS-SOF													Δ			Δ	Δ			Δ	Δ			Δ	Δ			Δ	Δ			Δ

Exhibit R-4a, RDT&E Program Schedule Detail				Date: FEBRUARY 2007				
Appropriation/Budget Activity RDT&E/7	Program Element Number and Name PE0305208BB/Distributed Common Ground/Surface System (DCGS)			Project Number and Name Project S400A/DCGS				
Schedule Profile	FY2006	FY2007	FY2008	FY2009	FY2010	FY2011	FY2012	FY2013
DCGS-SOF				1-4Q	1-4Q	1-4Q	1-4Q	1-4Q

RDT&E BUDGET ITEM JUSTIFICATION SHEET (R-2 Exhibit)	DATE FEBRUARY 2007
APPROPRIATION / BUDGET ACTIVITY RDT&E, DEFENSE-WIDE / 7	R-1 ITEM NOMENCLATURE / PROJECT NO. PE 0305219BB Predator Medium Altitude Long Endurance Tactical (MALET)/S400B

COST (Dollars in Millions)	FY06	FY07	FY08	FY09	FY10	FY11	FY12	FY13	Cost to Complete	Total Cost
PE 0305219BB			13.100	13.699	3.845	3.922	4.571	4.675	Cont.	Cont.
S400A, Predator MALET			13.100	13.699	3.845	3.922	4.571	4.675	Cont.	Cont.

Note: The Department moved the MALET resources from PE1160428BB, USSOCOM Unmanned Vehicles, to a new Military Intelligence Program (MIP) PE (0305219BB) in order to better capture MALET resources.

A. Mission Description and Budget Item Justification: This program element identifies, develops, and tests Special Operations Forces (SOF) organic MALET Unmanned Aerial Vehicle (UAV) platforms, intelligence payloads, and control systems. As the supported combatant command in the Global War on Terror, USSOCOM requires the capability to find, fix, and finish 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 acquisition.

B. Program Change Summary:

	FY06	FY07	FY08	FY09
Previous President's Budget				
Current President's Budget			13.100	13.699
Total Adjustments			13.100	13.699
Congressional Program Reductions				
Congressional Rescissions				
Congressional Increases				
Reprogrammings				
Other Program Adjustments			13.100	13.699
SBIR Transfer				

Funding:

FY06: N/A.

FY07: N/A.

FY08: The Department realigned $13.100 million of Predator MALET resources from PE 1160428BB, Unmanned Vehicles, to PE 0305219BB Predator MALET (a designated MIP PE) in order to properly capture MIP resources.

FY09: The Department realigned $13.699 million of Predator MALET resources from PE 1160428BB, Unmanned Vehicles, to PE 0305219BB Predator MALET.

Schedule: None.

Technical: None.

Exhibit R-2a, RDT&E Project Justification	Date: FEBRUARY 2007
Appropriation/Budget Activity RDT&E BA # 7	Predator Medium Altitude Long Endurance Tactical (MALET)/Project S400B

Cost ($ in millions)	FY06	FY07	FY08	FY09	FY10	FY11	FY12	FY13
Predator MALET			13.100	13.699	3.845	3.922	4.571	4.675
RDT&E Articles Quantity								

Note: The Department moved the MALET resources from PE1160428BB, USSOCOM Unmanned Vehicles, to a new Military Intelligence Program (MIP) PE (0305219) in order to better capture MALET resources.

A. Mission Description and Budget Item Justification: This project provides for the identification, development, and testing of Special Operations Forces (SOF) organic MALET Unmanned Aerial Vehicle (UAV) platforms, payloads, and control systems. As the supported combatant command in the Global War on Terrorism, USSOCOM requires the capability to find, fix, and finish time-sensitive high-value targets. These targets can often only be developed 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, and target (ISR&T) acquisition.

B. Accomplishments/Planned Program

	FY06	FY07	FY08	FY09
MALET			13.100	13.699
RDT&E Articles Quantity				

FY08 Begins the development, test, and integration of MALET UAV payload and ground control station improvements.
FY09 Continues development, test, and integration of MALET UAV payload and ground control station improvements.

C. Other Program Funding Summary:

	FY06	FY07	FY08	FY09	FY10	FY11	FY12	FY13	To Complete	Total Cost
PROC, Unmanned Vehicles			18.185	22.593	13.320	8.671	9.354	9.583	Cont.	Cont.

D. Acquisition Strategy:

- MALET is an evolutionary acquisition program that provides improvements to SOF MALET aircraft, payloads, and ground control stations to increase the ISR&T acquisition capabilities of SOF.

Exhibit R-3 RDT&E Project Cost Analysis											DATE: FEBRUARY 2007
APPROPRIATION / BUDGET ACTIVITY RDT&E DEFENSE-WIDE / 7			Predator Medium Altitude Long Endurance Tactical (MALET)/PE0305219BB Predator MALET/S400B								
Actual or Budget Value ($ in millions)											
Cost Categories (Tailor to WBS, or System/Item Requirements)	Contract Method & Type	Performing Activity & Location	Total PYs Cost	Budget Cost FY07	Award Date FY07	Budget Cost FY08	Award Date FY08	Budget Cost FY09	Award Date FY09	To Complete	Total Program
Product Development											
MALET	TBD	TBD				13.100	Apr-08	13.699	Apr-09	Cont.	Cont.
Subtotal Product Dev			0.000	0.000		13.100		13.699		Cont.	Cont.
Remarks:											
Support Costs											
Subtotal Support Costs			0.000	0.000		0.000		0.000		Cont.	Cont.
Remarks:											
Test & Evaluation											
Subtotal T&E			0.000	0.000		0.000		0.000		Cont.	Cont.
Remarks:											
Management Services											
Subtotal Management			0.000	0.000		0.000		0.000		Cont.	Cont.
Remarks:											
Total Cost			0.000	0.000		13.100		13.699		Cont.	Cont.
Remarks											

Exhibit R-4, RDT&E Program Schedule Profile																																
Date: FEBRUARY 2007																																
Appropriation/Budget Activity RDT&E/7																	Project Number and Name Project S400B/Predator MALET														
Fiscal Year	2006				2007				2008				2009				2010				2011				2012				2013			
	1	2		4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
MALET									△			△	△			△	△			△	△			△	△			△	△			△

Exhibit R-4a, RDT&E Program Schedule Detail				Date: FEBRUARY 2007				
Appropriation/Budget Activity RDT&E/7	Program Element Number and Name PE0305219BB/Predator Medium Altitude Long Endurance Tactical (MALET)			Project Number and Name Project S400B/Predator MALET				
Schedule Profile	FY2006	FY2007	FY2008	FY2009	FY2010	FY2011	FY2012	FY2013
MALET			1-4Q	1-4Q	1-4Q	1-4Q	1-4Q	1-4Q

RDT&E BUDGET ITEM JUSTIFICATION SHEET (R-2 Exhibit)	DATE FEBRUARY 2007
APPROPRIATION / BUDGET ACTIVITY RDT&E, DEFENSE-WIDE / 7	R-1 ITEM NOMENCLATURE / PROJECT NO. PE 1160403BB Special Operations Aviation Systems Advanced Development/Project SF100

COST (Dollars in Millions)	FY06	FY07	FY08	FY09	FY10	FY11	FY12	FY13	Cost to Complete	Total Cost
PE1160403BB	87.267	76.679	60.750	51.529	38.343	37.674	26.656	32.578	Cont.	Cont.
SF100, Special Operations Aviation Systems Advanced Development	87.267	76.679	60.750	51.529	38.343	37.674	26.656	32.578	Cont.	Cont.

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 requirements. Timely application of SOF-unique technology is critical and necessary to meet requirements in such areas as: Low Probability of Intercept/Low Probability of Detection radar; digital terrain elevation data and electronic order of battle; digital maps; 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, evaluation of iridium and global positioning technologies and identification technologies; aerial refueling; and studies for future SOF aircraft requirements.

B. Program Change Summary:

	FY2006	FY2007	FY2008	FY2009
Previous President's Budget	102.840	83.704	59.900	41.597
Current Presiden't Budget	87.267	76.679	60.750	51.529
Total Adjustments	-15.573	-7.025	0.850	9.932
Congressional Program Reductions		-5.297		
Congressional Rescissions				
Congressional Increases				
Reprogrammings	-13.254			
Other Program Adjustments			0.850	9.932
SBIR Transfer	-2.319	-1.728		

Funding:

FY06: Decrease is the result of reprogramming to Special Operations Special Technology for Standoff Precision Guided Munitions technology demonstration shortfall and higher Command priorities (-$7.451 million), a DD 1415-1 Prior Approval Reprogramming (No. FY 06-17 PA) submitted to Congress to support a critical O&M GWOT shortfall (-$5.303 million), Small Business Innovative Research (SBIR) program administration (-$0.500 million) and transfer to the SBIR account (-$2.319 million).

FY07: Decrease is the result of a Congressional mark against the Common Avionics Architecture for Penetration program (-$5.000 million), Section 8106 redution (-$0.297 million) and Section 8106 reduction (-$0.297 million).

FY08: Net increase of $.850 million is due to the Terrain Following/Terrain Avoidance (TF/TA) Radar Program restructure to align the program funds with execution and an increase for an Iridium Global Positioning System (I-GPS) effort ($10.000 million).

FY09: Increase of $9.932 million is due to the TF/TA Radar Program restructure to align the program with execution.

Schedule: None.

Technical: None.

	Exhibit R-2a, RDT&E Project Justification	Date: FEBRUARY 2007
Appropriation/Budget Activity RDT&E BA # 7	Aviation Systems Advance Development/Project SF100	

Cost ($ in millions)	FY06	FY07	FY08	FY09	FY10	FY11	FY12	FY13
Aviation Sys Adv Dev	87.267	76.679	60.750	51.529	38.343	37.674	26.656	32.578
RDT&E Articles Quantity								

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 requirements. Timely application of SOF-unique technology is critical and necessary to meet requirements in such areas as: Low Probability of Intercept/Low Probability of Detection (LPI/LPD) radar; digital terrain elevation data and electronic order of battle; digital maps; enhanced situational awareness; near-real-time intelligence to include data fusion, threat detection and avoidance; electronic support measures for threat geolocation and specific emitter identification; navigation, target detection and identification technologies; aerial refueling; and studies for future SOF aircraft requirements.

- Aviation Engineering Analysis. Provides a rapid response capability to support SOF fixed wing aircraft. The purpose is to correct system deficiencies, improve asset life, and enhance mission capability through the means of feasibility studies and engineering analyses. This sub-project provides the engineering required to improve the design and performance integrity of the aircraft 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.

- Common Avionics Architecture for Penetration (CAAP). This program is joined with the USAF C-130 Avionics Modernization Program (AMP). CAAP provides LPD navigation for MC-130 E/H/P and off-board enhanced situational awareness (ESA), large color displays and a SOF processor for AC-130H/U and MC-130 E/H/P. The Command decided to terminate this effort due to higher command priorities.

- On-Board Enhanced Situational Awareness System (OBESA). This program continues development of OBESA, which consolidates threat data from on and off-board sensors into a single coherent image to the crew. OBESA includes the Below Line-Of-Sight Electronic Support Measures (BLOSEsM) processing software. BLOSEsM is an advanced receiver system which provides geo-location data on threats that are below the line of sight of the current SOF threat warning systems. The Command decided to defer transition from the ACTD due to higher command priorities.

- SOF K-band Terrain Following/Terrain Avoidance (TF/TA) Radar. Continues system design and development of a SOF common K-band LPI/LPD radar (Silent Knight Radar) to defeat advanced passive detection threat while maintaining ability to fly safe TF. This radar is targeted for use on all MH-47Gs, MH-60Ms, MC-130Hs & CV-22 aircraft.

- MC-130H Aerial Refueling (MCAR). Provides 20 MC-130H Combat Talon II aircraft with the capability to air refuel SOF rotary wing aircraft and CV-22. This capability will extend the range of rotary wing and CV-22 aircraft operating in politically sensitive/denied airspace. Elements of the air refueling system include non-developmental item aerial refueling pods and enlarged paratroop door windows.
- Iridium-Global Positioning System (I-GPS). Conducts a proof of concept study of Iridium-Global Positioning System (I-GPS) to evaluate the capability to provide handsets capable of using signals from iridium and global positioning system satellites to provide anti-jam, positioning, and timing accuracy capabilities.

B. Accomplishments/Planned Program

	FY06	FY07	FY08	FY09
Aviation Engineering Analysis	7.866	7.231	5.419	5.553
RDT&E Articles Quantity				

FY06 Conducted engineering and analysis for new aircraft and enhancements. Developed a replacement for sensor obsolescence issues.
FY07 Conduct engineering studies and analyses for Fixed Wing aviation SOF unique equipment and missions.
FY08 Conduct engineering studies and analyses for Fixed Wing aviation SOF unique equipment and missions.
FY09 Conduct engineering studies and analyses for Fixed Wing aviation SOF unique equipment and missions.

	FY06	FY07	FY08	FY09
Common Avionics Architecture for Penetration (CAAP)	62.769	29.961		
RDT&E Articles Quantity				

FY06 The C-130 AMP/CAAP program tested the Block 2 hardware and software in the Systems Integration Laboratory (SIL) in preparation for first flight of the DT&E configuration for the MC-130E/H/P Combat Talon aircraft. Additionally, the CAAP ESA capability will complete its SIL evaluations to support a Test Readiness Review. CAAP ESA goes on all AC/MC-130 aircraft. In parallel, design and development for the baseline configuration update to reflect post-contract award avionic modifications (Block 10) progresses.
FY07 Flight testing continues for TF performance at low levels and against passive detection threats.

	FY06	FY07	FY08	FY09
On-Board ESA	7.864	10.894		
RDT&E Articles Quantity				

FY06 Completed final laboratory integration and test of BLOSEsM components including Integrated Processor threat correlation, fusion, and display software; began initial installation of BLOSEsM hardware/software components into test aircraft.
FY07: Perform aircraft integration of BLOSEsM on MC-130 flight test aircraft. Conduct MC-130 BLOSEsM system flight test. Provide

BLOSEsM system transition documentation to USSOCOM to support OBESA legacy APR-46 system replacement on AC/MC-130s.

	FY06	FY07	FY08	FY09
SOF K-band TF/TA Radar	8.142	28.593	45.331	45.976
RDT&E Articles Quantity				

FY06 Complete TF/TA radar technology risk reduction initiated under Project D615 and transferred to SF100 in FY06.
FY07 Award contract for SOF common K-band TF/TA radar System Design and Development. Specific activities include hardware and software development, aircraft integration design, and initiation of developmental test plans for MH-47G platform.
FY08 Continue SDD of SOF common K-Band TF/TA radar. Continue hardware and software design and integration and refinement of developmental test plans for MH-47G platform.
FY09 Continue SDD of SOF common K-Band TF/TA radar. Continue hardware and software design and integration and refinement of developmental test plans for MH-47G platform.

	FY06	FY07	FY08	FY09
MC-130H Aerial Refueling	.626			
RDT&E Articles Quantity				

FY06 Completed development for tilt rotor aircraft.

	FY06	FY07	FY08	FY09
Iridium-Global Positioning System (I-GPS)			10.000	
RDT&E Articles Quantity				

FY08 Conducts a proof of concept study of Iridium-Global Positioning System (I-GPS) to evaluate the capability to provide handsets capable of using signals, from iridium and global positioning system satellites to provide anti-jam, positioning, and timing accuracy capabilities.

C. Other Program Funding Summary:

To Total

	FY06	FY07	FY08	FY09	FY10	FY11	FY12	FY13	Complete	Cost
Proc, C130 Mods	31.461	47.067	133.477	45.602	19.700	16.600	23.857	43.348	Cont.	Cont.

D. Acquisition Strategy :

- Aviation Engineering Analysis. Continue engineering analysis activities to correct system deficiencies, improve asset life, and enhance mission capability of SAF fixed-wing aircraft avionics and sensors.

- SOF K-band TF/TA Radar. A contract will be awarded 1Q FY07 for System Design and Development (SDD) based upon full and open competition. SDD will include radar development, integration onto an MH-47G, and system qualification/operation testing. The SDD contract includes a procurement option for six Low Rate Initial Production (LRIP) units.

Exhibit R-3 RDT&E Project Cost Analysis						DATE: FEBRUARY 2007					
APPROPRIATION / BUDGET ACTIVITY RDT&E DEFENSE-WIDE / 7			Special Operations Aviation Systems Advanced Development/PE1160403BB Aviation Systems Advance Development/SF100								
Actual or Budget Value ($ in millions)											
Cost Categories (Tailor to WBS, or System/ Item Requirements)	Contract Method & Type	Performing Activity & Location	Total PYs Cost	Budget Cost FY07	Award Date FY07	Budget Cost FY08	Award Date FY08	Budget Cost FY09	Award Date FY09	To Complete	Total Program
Primary Hardware Development											
CAAP	C/CPAF	Boeing, Long Beach, CA	235.278	29.961	Various						265.239
Award Fees			2.081								2.081
MC-130 Air Ref	CPAF	Boeing, Ft. Walton Beach, FL	38.815								38.815
TF/TA Radar Risk Reduction	CPIF	Raytheon, McKinney TX and Northrop Grumman, Baltimore, MD	8.142								8.142
TF/TA Radar SDD	CPIF	Raytheon, McKinney TX		28.593	Dec-06	45.331	Various	45.976	Various	112.857	232.757
OBESA	CPIF	Northrop Grumman, Dayton, Ohio	39.817	10.894	Various						50.711
Subtotal Product Dev			324.133	69.448		45.331		45.976		112.857	597.745
Remarks:											
Development Support											
Engineering/Studies											
Aviation Engineering Analysis	Various	Various	24.020	7.231	Various	5.419	Various	5.553	Various	Cont	Cont
Iridium-Global Pos Syst (I-GPS)	TBD	TBD				10.000	TBD				10.000
Subtotal Spt			24.020	7.231		15.419		5.553		22.445	74.668
Remarks:											
Total Cost			348.153	76.679		60.750		51.529		135.302	672.413
Remarks:											

Exhibit R-4, RDT&E Program Schedule Profile																																
																	Date: FEBRUARY 2007																
Appropriation/Budget Activity RDT&E/7					Program Element Number and Name PE1160403BB/Special Operations Aviation Systems Advanced Dev												Project Number and Name SF100/Aviation System Advance Development																
Fiscal Year	2006				2007				2008				2009				2010				2011				2012				2013			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Aviation Engineering Analysis - System Design Development (SDD)																																
C-130 CAAP/USAF AMP Development/Test																																
MC-130H Aerial Refueling Dev/Integration/Test																																
On-Board Enhanced Situational Awareness System																																
TF/TA Radar System Design and Development																																
Iridium-Global Pos System (I-GPS)																																

Exhibit R-4a, RDT&E Program Schedule Detail			Date: FEBRUARY 2007					
Appropriation/Budget Activity RDT&E/7	Program Element Number and Name PE1160403BB/Special Operations Aviationl Systems Adv Dev		Project Number and Name Project SF100/Aviation Systems Advance Development					
Schedule Profile	FY2006	FY2007	FY2008	FY2009	FY2010	FY2011	FY2012	FY2013
Aviation Engineering Analysis - System Design Development (SDD)	1-4Q	1-4Q	1-4Q	1-4Q	1-4Q	1-4Q	1-4Q	1-4Q
C-130 CAAP/USAF AMP Development/Test	1-4Q	1-4Q						
MC-130H Aerial Refueling Dev/Integration/Test	1-4Q							
On-Board Enhanced Situational Awareness System	1-4Q	1-4Q						
Terrain Following/Terrain Avoidance Radar Dev		1-4Q	1-4Q	1-4Q	1-4Q	1-4Q	1-4Q	1-4Q
Iridium-Global Positioning System (I-GPS)			2-4Q	1-2Q				

RDT&E BUDGET ITEM JUSTIFICATION SHEET (R-2 Exhibit)	DATE FEBRUARY 2007
APPROPRIATION / BUDGET ACTIVITY RDT&E, DEFENSE-WIDE / 7	R-1 ITEM NOMENCLATURE / PROJECT NO. PE 1160404BB Special Operations (SO) Tactical Systems Development

COST (Dollars in Millions)	FY06	FY07	FY08	FY09	FY10	FY11	FY12	FY13	Cost to Complete	Total Cost
PE1160404BB	95.636	82.143	42.262	48.986	43.692	30.227	18.895	15.253	Cont.	Cont
3326 AC-130U GUNSHIP	11.453	1.563							Cont.	Cont.
D476 PSYOPS ADV DEV	4.873	7.402	6.931	17.000	12.750	.703			Cont.	Cont
D615 SOF AVIATION	6.760	3.933	5.368	3.827	15.422	12.537	3.524		Cont.	Cont
S0417 UNDERWATER SYSTEMS ADV DEV	.580	4.511	1.800	3.147	1.000	1.000	.500	.500	Cont.	Cont
S1684 SOF SURFACE CRAFT ADVANCE SYSTEMS	9.786	3.118	3.191	5.213	2.000				Cont.	Cont
S350 SO MISSION PLANNING ENVIRONMENT	5.143	6.451							0.0	85.492
S375 WEAPONS SYSTEMS ADV DEV	17.228	24.208	9.573	8.571	2.410	2.449	1.944	2.348	Cont.	Cont
S625 SOF TRAINING SYSTEMS	4.000								0.0	120.811
S700 SO COMMUNICATIONS ADV DEV	24.505	28.715	10.810	11.228	8.608	10.560	12.927	12.405	Cont.	Cont
S800 SO MUNITIONS ADV DEV	5.682		2.000						Cont.	Cont
S900 SO MISCELLANEOUS EQUIPMENT ADV DEV	5.626	2.242	2.589		1.502	2.978			Cont.	Cont

A. Mission Description and Budget Item Justification:

This program element provides for development, testing, and integration of specialized equipment to meet the unique requirements of Special Operations Forces (SOF). Specialized 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.

B. Program Change Summary:

	FY06	FY07	FY08	FY09
Previous President's Budget	105.238	45.241	20.325	14.862
Current President's Budget	95.636	82.143	42.262	48.986
Total Adjustments	-9.602	36.902	21.937	34.124
Congressional Program Reductions		-6.246		
Congressional Rescissions				
Congressional Increases		45.000		
Reprogrammings	-7.229		21.937	34.124
Other Program Adjustments				
SBIR	-2.373	-1.852		

Funding:

FY06: Net decrease (-$9.602 million) by Project:

- Project 3129 (-$4.222 million): Decrease is due to Prior Approval Reprogramming (No. FY 06-17 PA) submitted to Congress in support of a critical O&M Global War on Terror (GWOT) shortfall (-$4.129 million) and Small Business Innovative Research (SBIR) transfer (-$0.93 million).
- Project 3326 (-$7.183 million): Decrease is due to reprogramming to Program Element (PE) 1160402BB, Special Operations Advanced Technology Development, to support the Gunship Viper development effort (-$2.548million); FY 2006 Omnibus Reprogramming No. FY 06-22 PA (-$1.562 million); realignments for higher command priorities (-$2.658 million); and SBIR transfer (-$0.415 million).
- Project D476 (-$0.110 million): Decrease is due to SBIR transfer (-$0.110 million).

- Project D615 (-$2.126 million): Decrease is due to two Congressional adds internally reprogrammed by OSD to the correct PE for execution (-$1.964 million) and SBIR transfer (-$0.162 million).

- Project S0417 (-$2.773 million): Decrease is due to a Congressional add that was internally reprogrammed by OSD to the correct PE for execution (-$1.774 million), a Congressional add that was realigned to Project S1684 for execution (-$0.964 million), and SBIR transfer (-$0.035 million).

- Project S1684 ($9.786 million): Net increase is due to two Congressional adds that were internally reprogrammed by OSD into this PE/project for proper execution ($9.023 million), a Congressional add that was realigned from Project SO417 for proper execution ($0.964 million), and SBIR transfer (-$0.201 million).

- Project S350 ($0.304 million): Net increase is due to reprogramming from PE 1160425BB, Special Operations Aircraft Defensive Systems, to support interface and testing of mission planning software ($1.657 million); realignment for higher command priorities (-$1.245 million); and for SBIR transfer (-$0.108 million).

- Project S375 (-$1.232 million): Net decrease is due to a Congressional add that was internally reprogrammed by OSD to another PE for proper execution (-$0.986 million), FY 2006 OMNIBUS Reprogramming No. FY 06-22 PA (-$0.720 million), realignments for higher command priorities ($0.163 million), SBIR transfer (-$0.389 million), and a Congressional add that was internally reprogrammed by OSD into this PE/project for proper execution ($0.700 million).

- Project S625 ($4.000 million): Net increase is due to reprogramming from PE 1160425BB, Special Operations Aircraft Defensive Systems, to support the Air-Ground Interactive Simulator software development testing ($1.255 million), realignment from Project 3326 in support of the AC-130U Gunship Multi-Spectral System (GMS-2) modification ($3.000 million), and realignment for higher command priorities (-$0.255 million).

- Project S700 (-$0.290 million): Net decrease is a Prior Approval Reprogramming (No. FY 06-17 PA) submitted to Congress in support of a critical O&M GWOT shortfall (-$2.516 million), FY 2006 Omnibus Reprogramming No. FY 06-22 PA (-$2.718 million), Congressional adds that were internally reprogrammed by OSD into this PE/project for proper execution ($8.484 million), Congressional adds that were internally reprogrammed/realigned to the correct PE/project for execution (-$3.056 million), realignments for higher command priorities ($0.136 million) and SBIR transfer (-$0.620 million).

- Project S800 ($0.999 million): Net increase is realignment into this project for Precision Sniper Rifle ammunition ($1.103 million) and SBIR transfer (-$0.104 million).

- Project S900 (-$6.755 million): Net decrease is a Congressional add internally reprogrammed by OSD to the correct PE for execution (-$6.900 million); an internal reprogramming into this PE/project to properly execute a congressional add for Lightweight All Terrain Vehicles ($1.200 million); a Prior Approval Reprogramming (No. FY 06-17 PA) submitted to Congress in support of a critical O&M GWOT shortfall (-$0.333 million); a reprogramming from PE 1160403BB, Aviation Advanced Development, to support administrative costs associated with the SBIR program ($0.500 million); a reprogramming from PE 1160408BB, SOF Operational Enhancements, to support the development and testing of the Digital Data Link on the Rucksack Portable Unmanned Aerial System ($1.514 million); an internal realignment of a Congressional add to project S700 for proper execution (-$2.506 million); realignments for higher command priorities (-$0.108 million) and SBIR transfer (-$0.122 million).

FY07: Net increase of $36.902 million is a result of Section 8106 reduction (-$0.318 million), a Congressional mark against the Multi-Band/Multi-Mission Radio upgrade program (-$5.928 million), SBIR transfer (-$1.852 million) and the following Congressional adds ($45.000 million):

- Project D615: Next Generation Navigation Computer System ($1.000 million).
- Project S0417: Advanced Mark V Craft Prototype Development ($4.000 million)
- Project S375: Combat Assault Rifle ($1.800 million), Artic Warfare Boot ($1.000 million), Nickel Boron Coating ($1.000 million), Combat Boot – Polyurethane ($1.000 million), Gunfire Detection System ($1.200 million), Integrated Warfighter ($2.100 million), Tactical Boot Suite ($1.000 million), Weapons Shot Counter ($1.000 million), MARSOC BRITE M22 ($2.200 million), and Holographic Imager ($1.000 million).
- Project S700: Covert Wavelet ($2.000 million), SOCOM Imagery Dissemination System ($1.500 million), Strategic Communications ($2.800 million), Tactical Communication Testbed ($1.500 million), C2 Mission Manager ($1.000 million), Warrior Reach ($1.000 million), Multi-Band Inter/Intra Team Radio ($9.000 million), and STAR-TEC Partnership Program ($2.400 million).
- Project S900: Closed-Circuit Rebreather ($1.000 million) and Over-the-Horizon Augmented Reconnaissance ($1.300 million).
- Project S1684: Integrated Bridge System ($1.000 million) and Small Boat Family ICS ($2.200 million).

FY08: Net increase of $21.937 million by project:

- Project 3326 (-$2.788 million): Funds were realigned to support higher command priorities.
- Project D476 ($5.529 million): Funds were added to continue the primary hardware development, system engineering, and developmental test & evaluation (DT&E) on Psychological Operations Broadcast Systems (POBS) and Psychological Operations Media Displays (POMD), and to begin primary hardware and software development for the Next Generation Loud Speaker (NGLS) variants.
- Project D615 ($2.978 million): Funds were added to begin development of the Infrared Exhaust Suppressor (IES) for the A/MH-6 Little Bird fleet to provide a passive countermeasure capability that is compatible with the A/MH-6's higher performance engine ($4.433 million) and improved lightweight armor for the MH-47/MH-60 Aircraft Occupant Ballistic Protection System (AOBPS) in order to reduce weight and permit additional critical payloads on these mission aircraft ($0.935 million); funds were realigned to support higher command priorities (-$2.390 million).
- Project S0417 ($1.800 million): Funds were added for concept and technology development/demonstration of a potential SEAL Delivery Vehicle (SDV) follow-on platform and to continue to develop upgrades/replacements for obsolete and/or unsupportable equipment.
- Project S1684 ($3.191 million): Added funds to begin development of an improved Rigid Inflatable Boat (RIB) ($2.000 million) and to develop performance improvements to the current Combatant Craft Forward Looking Infrared (CCFLIR) System ($1.191 million).
- Project S350 (-$4.018 million): The Special Operations Mission Planning Environment (SOMPE) funds were reprogrammed to PE 1160427BB, Mission Training and Preparation Systems, in order to properly capture mission planning resources.
- Project S375 ($6.738 million): Funds were added to develop an advanced Night Vision Goggle system, to develop the next generation laser range finder and designator to support the delivery of laser and GPS-guided missiles and munitions, and to begin development of the next generation SOF communications headset for the Modular Integrated Communications Helmet (MICH).
- Project S700 ($6.447 million): Added funds to begin development and test of software applications for the Special Operations Resource Business Information System (SORBIS) ($8.728 million) and to begin technology insertions for the Tactical Local Area Network (TACLAN) ($2.082 million). Realigned funds to support higher command priorities (-$4.373 million).
- Project S800 ($1.500 million): Added funds to begin the effort to redesign, test and qualify munitions in the Multi-Purpose Anti-armor Anti-Personnel Weapon System program in order to comply with the USSOCOM Insensitive Munitions Plan.
- Project S900 ($0.560 million): Added funds for additional improvements and tests to the various SOF Ground Mobility Vehicle variants.

FY09: Net increase of $34.124 million by project:

- Project 3326 (-$1.663 million): Funds were realigned to support higher command priorities.
- Project D476 ($14.540 million): Added funds to continue the primary hardware development, systems engineering, and DT&E on POBS and POMD, and to continue primary hardware and software development for NGLS variants.
- Project D615 ($1.019 million): Added funds to complete the qualification and testing of the A/MH-6 Little Bird IES ($2.169 million) and to continue the MH-47/MH-60 AOBPS development effort ($1.658 million). Realigned funds to support higher command priorities (-$2.808 million).
- Project S0417 ($2.000 million): Added funds to continue the SDV follow-on effort.
- Project S1684 ($5.213 million): Added funds to initiate developmental testing/operational testing (DT/OT) of the improved RIB ($4.000 million) and to complete DT/OT of the improved CCFLIR ($1.213 million).
- Project S350 (-$4.125 million): The Special Operations Mission Planning Environment (SOMPE) funds were reprogrammed to PE 1160427BB, Mission Training and Preparation Systems, in order to properly capture mission planning resources.
- Project S375 ($6.024 million): Added funds to continue development of the advanced NVG, the next generation laser range finder and designator, and the next generation headset for the MICH.
- Project S700 ($11.116 million): Added funds to continue JEM technology insertions ($6.380 million), to continue SORBIS development and software applications testing ($2.610 million), and to continue TACLAN technology insertions ($2.126 million).

Schedule: N/A.

Technical: N/A.

Exhibit R-2a, RDT&E Project Justification	Date: FEBRUARY 2007
Appropriation/Budget Activity RDT&E BA # 7	PSYOP Advanced Development/Project D476

Cost ($ in millions)	FY06	FY07	FY08	FY09	FY10	FY11	FY12	FY13
	4.873	7.402	6.931	17.000	12.750	0.703		
RDT&E Articles Quantity								

A. Mission Description and Budget Item Justification: This project provides for the development and acquisition of Psychological Operations (PSYOP) equipment. PSYOP is 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 PSYOP in support of combatant commanders. The PSYOP sub-projects funded are grouped by the level of organization they support. Sub-projects include:

- PSYOP Broadcast System (POBS), formerly Special Operations Media System A (SOMS A). POBS consists of fixed and deployable multi-media production facilities for radio and television programming, distribution systems, and dissemination systems to provide PSYOP support to theater commanders. POBS is comprised of several interfacing systems that can stand alone or interoperate with other PSYOP systems as determined by mission requirements. POBS includes: the fixed site Media Production Center (MPC), a deployable Theater MPC (TMPC); the PSYOP Distribution System (PDS) that provides a communications link to POBS systems worldwide; the transit case Fly-Away Broadcast Systems (FABS) consisting of any combination of AM, FM, SW, and TV transmitters and radio/TV production systems; and Long Range Broadcast System (LRBS). LRBS subsystems will include unmanned aerial vehicle (UAV) payloads, scatterable media, telephone/cell, and Internet broadcast.

- Commando Solo supports combat operations by flying PSYOP broadcast missions for the purpose of broadcasting radio and/or television signals deep into denied territory. These broadcasts are made from EC-130J aircraft that are equipped with high powered transmitters and large antenna arrays that operate in the 0.45-1,000 MHz frequency range.

- Family of Loudspeakers (FOL). FOL permits loudspeaker missions to be conducted over larger areas than previous equipment and provides a greater standoff distance for U.S. Forces/assets. The replacement for FOL is the Next Generation Loudspeaker System (NGLS) consisting of 7 variants: Manpack System variant; Vehicle/Watercraft System variant; Unmanned Air Vehicle (UAV) System variant; Unmanned Ground Vehicle (UGV) System variant; Scatterable Media Long Duration (SMLD) System variant; Scatterable Media Short Duration (SMSD) System variant; and Sonic Projection System variant.

B. Accomplishments/Planned Program

	FY06	FY07	FY08	FY09
POBS	1.432	7.402	6.181	16.500
RDT&E Articles Quantity				

FY06 Commenced primary hardware development, systems engineering, and Developmental Test and Evaluation (DT&E) on the LRBS and POBS modernization. Completed test and evaluation on the FM and TV FABS.
FY07 Continue primary hardware development, system engineering, and DT&E on the LRBS, POBS modernization efforts, and PSYOP planning and analysis system.
FY08 Continues primary hardware development, system engineering, and DT&E on the LRBS, POBS modernization efforts, and PSYOP planning and analysis system. Commences primary hardware and software development, systems engineering and DT&E on PSYOP Media Displays (POMD).
FY09 Continues primary hardware development, system engineering, and DT&E on the LRBS, POBS modernization efforts, and POMD.

	FY06	FY07	FY08	FY09
Commando Solo	3.441			
RDT&E Articles Quantity				

FY06 Developed and tested a replacement narrowband transmitter for the hard-wired Commando Solos.

	FY06	FY07	FY08	FY09
FOL			0.750	0.500
RDT&E Articles Quantity				

FY08 Commences primary hardware and software development, systems engineering, and DT&E and Operational Test and Evaluation (OT&E) on NGLS variants.
FY09 Continues primary hardware and software development, systems engineering, DT&E and OT&E on NGLS variants.

C. Other Program Funding Summary:

	FY06	FY07	FY08	FY09	FY10	FY11	FY12	FY13	To Complete	Total Cost
Proc, PSYOP Equipment	28.927	87.915	103.104	95.731	73.719	44.266	11.070		.	444.732

D. Acquisition Strategy.

- POBS consists of wide-area systems providing radio, television programming and multi-media production, distribution and dissemination support to the theater commander. POBS is comprised of several interfacing systems that can stand alone or interoperate with other PSYOP systems as determined by mission requirements. The program acquires and modifies as necessary commercial and governmental-off-the-shelf (GOTS) systems and equipment to replace or enhance current system capabilities. These various sub-programs are in a post-Milestone III or various stages of milestone decisions.

- Commando Solo funds required upgrades to the Commando Solo Special Mission Equipment that broadcasts PSYOP television and radio messages to target audiences in denied areas. The program acquires and integrates into the EC-130J commercial and GOTS systems to replace or enhance current system capabilities and address equipment shortfalls due to obsolescence.

- The FOL replacement is the NGLS that consists of 7 variants: Manpack System variant; Vehicle/Watercraft System variant; UAV System variant; UGV System variant; SMLD System variant; SMSD System variant; and Sonic Projection System variant. The program acquires and modifies, as necessary, COTS/GOTS systems and equipment to replace or enhance current system capabilities.

Exhibit R-3 RDT&E Project Cost Analysis										DATE: FEBRUARY 2007	
APPROPRIATION / BUDGET ACTIVITY RDT&E DEFENSE-WIDE / 7			Special Operations Tactical Systems Development/PE1160404BB PSYOP Advanced Development /D476								
			Actual or Budget Value ($ in millions)								
Cost Categories (Tailor to WBS, or System/Item Requirements)	Contract Method & Type	Performing Activity & Location	Total PYs Cost	Budget Cost FY07	Award Date FY07	Budget Cost FY08	Award Date FY08	Budget Cost FY09	Award Date FY09	To Complete	Total Program
Primary Hardware Dev	MIPR	Natick Lab, Natick, MA	1.582								1.582
	MIPR	NAVAIR, St Inigoes, MD	0.132								0.132
	MIPR	NAVAIR, St Inigoes, MD	0.168								0.168
	ALLOT	Army-CECOM, Ft Monmouth, NJ	3.655								3.655
	MIPR	DOE, Nat'l Engr Lab, Idaho Falls, ID	3.240								3.240
	MIPR	SPAWAR, Charleston, SC	0.897								0.897
Systems Engineering	ALLOT	Army-CECOM, Ft Monmouth, NJ	1.336								1.336
	REQN	Various	2.141								2.141
	MIPR	SPAWAR, Charleston, SC	0.060								0.060
	MIPR	NAVAIR, St. Inigoes, MD	3.500								3.500
Subtotal Product Dev			16.711	0.000		0.000		0.000			16.711
Remarks:											
Development Spt											
POBS	TBD	TBD		7.402	Jan-07	6.181	Dec-07	16.500	Dec-08	12.953	43.036
FOL	TBD	TBD				0.750	Dec-07	0.500	Dec-08	0.500	1.750
Subtotal Spt			0.000	7.402		6.931		17.000		13.453	44.786
Remarks:											
Developmental Test & Eval	Various	Various	0.113								Cont.
	MIPR	Army ATC, Aberdeen Prov Gd, MD	0.758								Cont.
	MIPR	Soldier Biological Cmd, Natick, MA	0.546								0.546
	MIPR	JITC, Ft Huachuca, AZ	1.844								Cont.
	MIPR	USASOC, Ft Bragg, NC	0.296								0.296
	MIPR	NAVAIR, St. Inigoes, MD	0.140								0.140
	MIPR	SPAWAR, Charleston, SC	0.446								Cont.
Subtotal T&E			4.143	0.000		0.000		0.000			Cont.
Remarks:											
Contractor Engineering Spt											
Subtotal Management											
Remarks:											
Total Cost			20.854	7.402		6.931		17.000		13.453	Cont
Remarks:											

Exhibit R-4, RDT&E Program Schedule Profile	Date: FEBRUARY 2007

Appropriation/Budget Activity	Program Element Number and Name	Project Number and Name
RDT&E/7	PE1160404BB/Special Operations Tactical System Development	Project D476/PSYOP Advanced Development

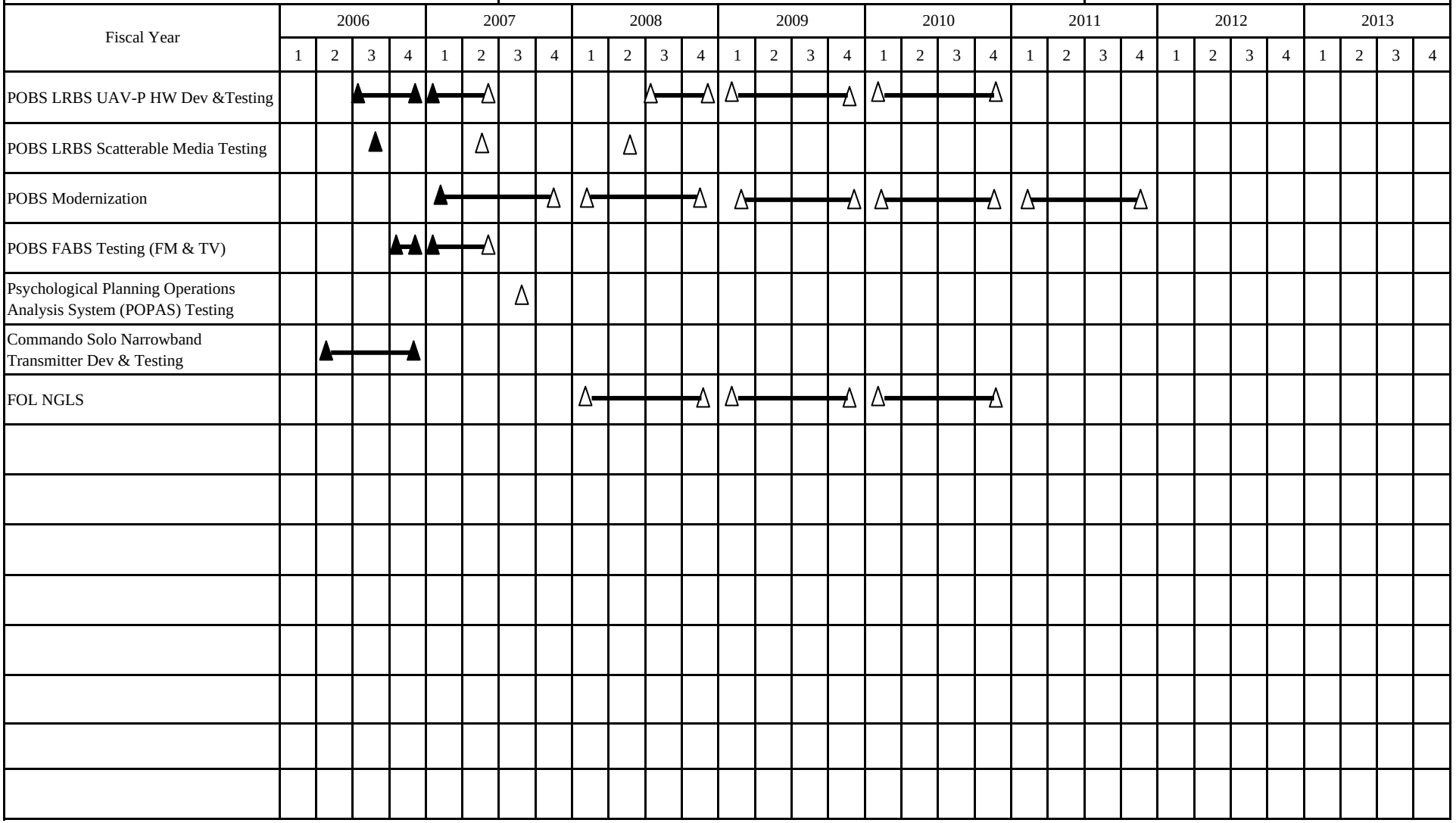

Exhibit R-4a, RDT&E Program Schedule Detail				Date: FEBRUARY 2007				
Appropriation/Budget Activity RDT&E/7	Program Element Number and Name PE1160404BB/Special Operations Tactical Systems Development			Project Number and Name Project D476/PSYOP Advanced Development				
Schedule Profile	FY2006	FY2007	FY2008	FY2009	FY2010	FY2011	FY2012	FY2013
POBS LRBS UAV-P HW Dev & Testing	3-4Q	1-2Q	3-4Q	1-4Q	1-4Q			
POBS LRBS Scatterable Media Testing	3Q	2Q	2Q					
POBS Modernization		1-4Q	1-4Q	1-4Q	1-4Q	1-4Q		
POBS FABS Testing (FM & TV)	4Q	1-2Q						
POPAS Testing		3Q						
Commando Solo Narrowband Transmitter Dev & Testing	2-4Q							
FOL NGLS			1-4Q	1-4Q	1-4Q			

Exhibit R2-a, RDT&E Project Justification	Date: FEBRUARY 2007
Appropriation/Budget Activity RDT&E.A BA # 7	Special Operations Forces (SOF) Aviation /Project D615

Cost ($ in millions)	FY06	FY07	FY08	FY09	FY10	FY11	FY12	FY13
SOF Aviation	6.760	3.933	5.368	3.827	15.422	12.537	3.524	
RDT&E Articles Quantity								

A. Mission Description and Budget Item Justification: This project provides aviation support to Special Operations Forces (SOF) in worldwide contingency operations and low-intensity conflicts. The specialized aircraft for these missions must be capable of rapid deployment and undetected penetration of hostile areas. These aircraft must be capable of 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. This project will develop/upgrade SOF rotary wing aircraft systems that will be capable of successful operations in increasingly hostile environments. Rotary wing systems supported by this project include: MH-60L/K/M, MH-47D/E/G, and A/MH-6M. Efforts include:

- MH-47/MH-60/A/MH-6M Aircraft. (1) Develops a follow-on weapon system to the currently fielded M-134 Mini Gun. The modernized weapon system will provide a lighter and more reliable/maintainable system with improved suppressive fire capability. (2) Continues development of the A/MH-6M aircraft by improving the tail rotor drive train, adding yaw stability augmentation system, and redesigning the vertical fin to improve tail rotor control and pilot workload. (3) Begins development of an infrared (IR) exhaust suppressor for A/MH-6M aircraft to provide a passive countermeasure capability that is compatible with A/MH-6M's higher performance engine.

- MH-47/MH-60 Avionics/Sensors. Begins development of the Aircraft Occupant Ballistic Protection System (AOBPS) to reduce weight to permit additional critical payloads on mission aircraft while maintaining or improving armor effectiveness.

B. Accomplishments/Planned Program

	FY06	FY07	FY08	FY09
MH-47/MH-60/A/MH-6M - Aircraft	6.760	2.959	4.433	2.169
RDT&E Articles Quantity				

FY06 Began development of the weapons modernization program to include replacement for the M-134 Mini Gun. Continued development of A/MH-6M tail rotor drive train improvement.
FY07 Continues development of the weapons modernization program.
FY08 Begins development of the infrared exhaust suppressor for the A/MH-6M. Completes qualification and testing for the A/MH-6M tail rotor drive train improvement and the weapons modernization program.
FY09 Completes the qualification and testing of the infrared exhaust suppressor for the A/MH-6M.

	FY06	FY07	FY08	FY09
MH-47/MH-60 – Avionics/Sensors			.935	1.658
RDT&E Articles Quantity				

FY08 Begins development of improved lightweight armor for the AOBPS.
FY09 Continues development of the AOBPS.

C. Other Program Funding Summary:

	FY06	FY07	FY08	FY09	FY10	FY11	FY12	FY13	To Complete	Total Cost
Rotary Wing Upgs & Sust PROC	167.043	113.084	79.214	61.439	61.610	57.451	76.100	79.152	Cont.	Cont.

D. Acquisition Strategy: Acquisition Strategy.

- A/MH-6M - This effort provides necessary drive train analyses, a passive IR countermeasure capability, component development and testing, and test support/data analysis efforts required to improve operational safety margins of the A/MH-6M aircraft. A competitive source selection process will be conducted for the weapons system replacement to the extent possible. Proprietary considerations may direct some efforts to the original equipment manufacturer.

- MH-47/MH-60 Aircraft - This effort provides for the development and qualification of the replacements for the M-134 machine gun, potential light weight battery and components of the weapons system. A competitive source selection process will be conducted for the weapons system replacement to the extent possible. Proprietary considerations may direct some efforts to the original equipment manufacturer.

- MH-47/MH-60 Avionics/Sensors - Determination and development of next-generation improvements, enhancements, and upgrades to sensors, active and passive survivability systems will be conducted using competitive processes to the maximum extent practicable. Proprietary considerations may direct some efforts to the original equipment manufacturer.

Exhibit R-3 RDT&E Project Cost Analysis						DATE: FEBRUARY 2007					
APPROPRIATION / BUDGET ACTIVITY RDT&E DEFENSE-WIDE / 7			Special Operations Tactical Systems Development/PE1160404BB Special Operations Forces Aviation/D615								
Actual or Budget Value ($ in millions)											
Cost Categories (Tailor to WBS, or System/Item Requirements)	Contract Method & Type	Performing Activity & Location	Total PYs Cost	Budget Cost FY07	Award Date FY07	Budget Cost FY08	Award Date FY08	Budget Cost FY09	Award Date FY09	To Complete	Total Program
Primary Hardware Dev											
MH-47/60 Aircraft	Various	PM TAPO/Ft Eustis, VA	16.918	2.959	Various						19.877
MH-47/60 Avionics/Sensors	Various	PM TAPO/Ft Eustis, VA	60.200			0.935	Various	1.658	Various	5.033	67.826
A/MH-6M	Various	PM MELB, Ft. Eustis, VA	11.611			4.433	Various	2.169	Various		18.213
MH-53	Cost Plus	PM DIRCM, MacDill AFB, FL	6.911								6.911
Subtotal Product Dev			95.640	2.959		5.368		3.827		5.033	112.827
Remarks:											
Management											0.000
Subtotal Spt											0.000
Remarks:											
Developmental Test & Eval											
MH-47/60 Aircraft	Various	PM TAPO/Ft Eustis, VA	4.000								4.000
MH-47/60 Avionics/Sensors	Various	PM TAPO/Ft Eustis, VA	8.294								8.294
A/MH-6M	Various	PM-MELB/Ft Eustis, VA	16.576								16.576
Subtotal T&E			28.870	0.000		0.000		0.000			28.870
Remarks:											
Subtotal Management											
Remarks:											
Total Cost			124.510	2.959		5.368		3.827		5.033	141.697
Remarks:											

Exhibit R-4, RDT&E Program Schedule Profile	Date: FEBRUARY 2007
Appropriation/Budget Activity RDT&E/7	Project Number and Name Project D615/Special Operations Forces Aviation

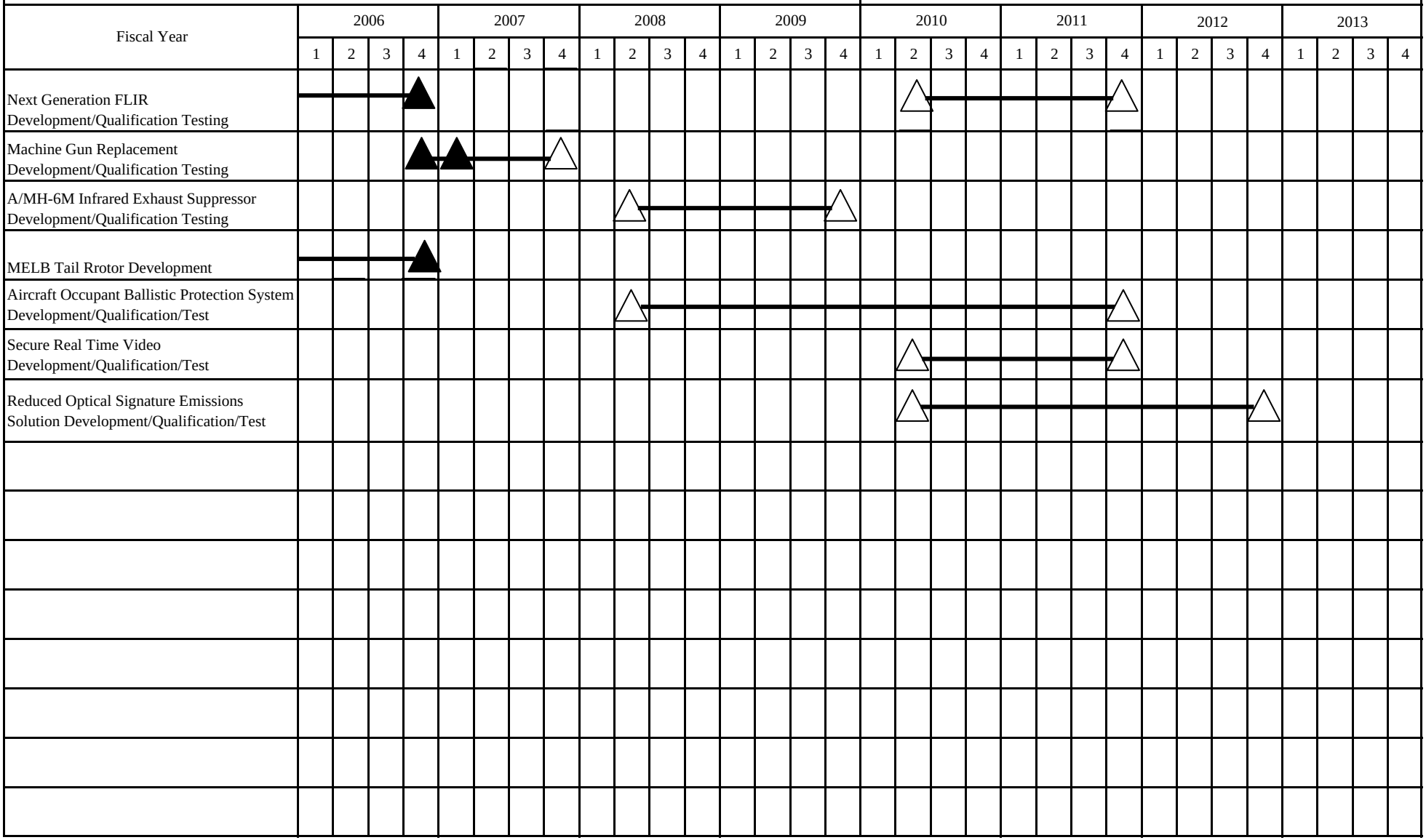

Exhibit R-4a, RDT&E Program Schedule Detail				Date: FEBRUARY 2007				
Appropriation/Budget Activity RDT&E/7	Program Element Number and Name PE1160404BB/Special Operations Tactical Systems Development			Project Number and Name Project D615/SOF Aviation				
Schedule Profile	FY2006	FY2007	FY2008	FY2009	FY2010	FY2011	FY2012	FY2013
Next Generation FLIR Development/Qualification Testing	1-4Q				2-4Q	1-4Q		
Machine Gun Replacement Development/Qualification Testing	4Q	1-4Q						
A/MH-6M Infrared Exhaust Suppressor Development/Qualification Testing			2-4Q	1-4Q				
MELB Tail Rotor Development	1-4Q							
Aircraft Occupant Ballistic Protection System Development/Qualification/Test			2-4Q	1-4Q	1-4Q	1-4Q		
Secure Real Time Video Development/Qualification/Test					2-4Q	1-4Q		
Reduced Optical Signature Emissions Solution Development/Qualification/Test					2-4Q	1-4Q	1-4Q	

	Exhibit R-2a, RDT&E Project Justification	Date: JANUARY 2007
Appropriation/Budget Activity RDT&E BA # 7	Underwater Systems Advanced Development/Project S0417	

Cost ($ in millions)	FY06	FY07	FY08	FY09	FY10	FY11	FY12	FY13
Underwater Systems Advanced Dev	.580	4.511	1.800	3.147	1.000	1.000	.500	.500
RDT&E Articles Quantity		1						

A. Mission Description and Budget Item Justification: This project funds the development of Naval Special Warfare (NSW) support items used during hydrographic/inland reconnaissance, beach obstacle clearance, underwater ship attack, and other direct action missions. Sub-projects include:

- Non-Gasoline Burning Outboard Engine (NBOE). Evaluation of a submersible alternative fuel outboard engine for use on Special Operations Forces (SOF) Combat Rubber Raiding Craft.

- Advanced MK V prototype. Congressional add to develop a prototype for possible replacement of MK V craft.

- Undersea Systems. Development of undersea systems, which provide SOF combat swimmers with the necessary diving and diving related equipment to fulfill assigned underwater combat missions. Includes the following:

  - SEAL Delivery Vehicle (SDV). Develop replacements for obsolete and/or unsupportable electronics with current technology to improve safety, reliability and performance. Conduct concept and technology development for potential replacement platform.

B. Accomplishments/Planned Program

	FY06	FY07	FY08	FY09
NBOE		.614		
RDT&E Articles Quantity				
FY07 Evaluated submersible alternative outboard engines.				

	FY06	FY07	FY08	FY09
MK V: Advanced MKV Prototype.		3.897		
RDT&E Articles Quantity		1		
FY07 MK V Prototype Development and Testing. This initiative was a Congressional add.				

	FY06	FY07	FY08	FY09
SDV	.580		1.800	3.147
RDT&E Articles Quantity				

FY06 Continued to develop and upgrade/replace obsolete and/or unsupportable electronic equipment. Evaluated mobility improvements.
FY08 Concept and technology development/demonstration for potential follow-on platform. Continues to develop and upgrade/replace obsolete and/or unsupportable electronic equipment.
FY09 Continues concept and technology development for potential follow-on platform.

C. Other Program Funding Summary:

	FY06	FY07	FY08	FY09	FY10	FY11	FY12	FY13	To Complete	Total Cost
PROC, SOF Maritime Equip			1.245	.200	.100	.100	.100	.100	TBD	TBD
PROC, MK MO D1 SDV	2.123	2.463	8.080	7.073	1.500	2.850	10.000	3.000	TBD	TBD

D. Acquisition Strategy:

- NBOE. Develop/conduct market survey for existing commercial off the shelf engines that meet revised requirements. Conduct performance testing on candidate engines with follow-on suitability tests. Evaluate potential technical modifications as required.

- SDV. This effort replaces obsolete and/or unsupportable electronics equipment with current equipment. Identification and development of equipment for installing, upgrading and/or replacing systems on the SDV will be accomplished through either Best-Value acquisition or, where appropriate, original equipment manufacturer replacement efforts. Conduct concept studies and technology development for a potential next generation platform following completion of an analysis of alternatives in FY07.

Exhibit R-3 RDT&E Project Cost Analysis						DATE: FEBRUARY 2007					
APPROPRIATION / BUDGET ACTIVITY RDT&E DEFENSE-WIDE / 7			Special Operations Tactical Systems Development/PE1160404BB Underwater Systems Advance Development/S0417								
Actual or Budget Value ($ in millions)											
Cost Categories (Tailor to WBS, or System/Item Requirements)	Contract Method & Type	Performing Activity & Location	Total PYs Cost	Budget Cost FY07	Award Date FY07	Budget Cost FY08	Award Date FY08	Budget Cost FY09	Award Date FY09	To Complete	Total Program
Electronic Obsolescence											
SEAL Delivery Vehicle (SDV)	WR	CSS, Panama City, FL	0.201			0.500	Jan-08				0.701
Subtotal Product Dev			0.201	0.000		0.500		0.000			0.701
Remarks											
Concept and Technology Development											
SDV	WR	CSS, Panama City, FL				1.300	Dec-07	3.147	Dec-08	Cont.	Cont.
Subtotal T&E			0.000	0.000		1.300		3.147		Cont.	Cont.
Remarks											
Primary Hardware											
*MK V Advanced Prototype	TBD	Revenge Advanced Composites, Inc., St. Petersburg, FL.		3.497	Feb-07						3.497
Subtotal Performance Testing				3.497							3.497
Performance Testing											
Non-Gasoline Burning Outboard Engine	TBD	TBD		0.614	Jan-07						0.614
MK V Prototype Testing	Various	Various		0.400	Mar-07						0.400
Subtotal Performance Testing				1.014						Cont.	1.014
Total Cost			0.201	4.511		1.800		3.147		Cont.	Cont.

Remarks:

* This was a FY07 Congressional Add for Advanced MK Craft Prototype Development. Will be moved to PE 1160402BB - Special Operations Advanced Technology Development. Project S200 - Special Operations Technology Project.

Exhibit R-4, RDT&E Program Schedule Profile																																
																	Date: FEBRUARY 2007																
Appropriation/Budget Activity RDT&E/7									Program Element Number and Name PE1160404BB/Special Operations Tactical System Development												Project Number and Name Project S0417/Underwater System Advanced Development												
Fiscal Year	2006				2007				2008				2009				2010				2011				2012				2013			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
1. SEAL Delivery Vehicle																																
Develop and Test Improved Electronics	▲												△																			
Concept Development									△							△																
Technology Development											△												△									
ECP Development														△																		△
2. Non-Gasoline Burning Outboard Engine						△																										
3. MK V Prototype Development						△		△																								
4. MK V Prototype Testing								△	△																							

Exhibit R-4a, Schedule Profile			Date: FEBRUARY 2007					
Appropriation/Budget Activity RDT&E/7	Program Element Number and Name PE1160404BB/Special Operations Tactical Systems Development		Project Number and Name Project S0417/Underwater Systems Advanced Development					
Schedule Profile	FY2006	FY2007	FY2008	FY2009	FY2010	FY2011	FY2012	FY2013
1. SEAL Delivery Vehicle								
Develop and Test Improved Electronics	1Q-4Q	1Q-4Q	1Q-4Q	1Q				
Concept Development			1Q-4Q	1Q-4Q				
Technology Development			3Q-4Q	1Q-4Q	1Q-4Q	1Q-3Q		
ECP Development				2Q-4Q	1Q-4Q	1Q-4Q	1Q-4Q	1Q-4Q
2. Non-Gasoline Burning Outboard Engine		2Q						
3. MK V Prototype Development		2Q-4Q						
MK V Protoype Testing		4Q	1Q					

	Exhibit R-2a, RDT&E Project Justification	Date: FEBRUARY 2007
Appropriation/Budget Activity RDT&E BA # 7	SOF Surface Craft Advance Systems S1684	

Cost ($ in million)	FY06	FY07	FY08	FY09	FY10	FY11	FY12	FY13
SOF Surface Craft Advance Systems	9.786	3,118	3.191	5.213	2.000			
RDT&E Articles Quantity	1	2	1	2				

A. Mission Description and Budget Item Justification**:** This project provides for development and testing of surface craft and selected items of specialized equipment to meet the unique requirements of Special Operations Forces (SOF). The craft capabilities and unique equipment provides small, highly trained forces the ability to successfully engage the enemy and conduct clandestine operations associated with SOF Maritime Missions. Project also includes Congressional Add funding for Advanced Composite Materials, High Speed Military Craft, Integrated Bridge System (IBS), and Integrated Combat System (ICS).

- NSW RIB Program: This program provides for engineering support, program support for design and specification development for an improved Naval Special Warfare (NSW) Rigid Inflatable Boat (RIB) capability. The resulting capability will be a multi-mission craft with improved sea keeping and maneuverability, reduced detectability with enhanced shock mitigation, and human systems integration. Additionally, the new system is envisioned being air transportable, air droppable, and increased reliability and maintainability.

- Combatant Craft Forwarding Looking Infrared (CCFLIR) Program: This program provides for engineering and development of performance improvements to the current FLIR system on the Special Operations Craft Riverine (SOCR), Mark V Special Operations Craft (MK V SOC), NSW RIB and the next generation RIB.

B. Accomplishments/Planned Program

Cost ($ in million)	FY06	FY07	FY08	FY09
NSW RIB Program			2.000	4.000
RDT&E Articles Quantity				1

FY08 Establishes Program Office, conducts a market survey, releases the request for proposal, and awards development contract.
FY09 Initiates Developmental Testing/Operational Testing (DT/OT).

Cost ($ in million)	FY06	FY07	FY08	FY09
CCFLIR Program			1.191	1.213
RDT&E Articles Quantity				1

FY08 Conducts engineering and development efforts, integration, and begins DT.
FY09 Complete DT/OT

Cost ($ in million)	FY06	FY07	FY08	FY09
High Speed Military Craft	1.446			
RDT&E Articles Quantity				

FY06 This initiative was a Congressional Add. Program Management, studies, and engineering effort for High Speed Military Craft.

Cost ($ in million)	FY06	FY07	FY08	FY09
Advanced Composite Materials	7.376			
RDT&E Articles Quantity				

FY06 This initiative was a Congressional Add. Program Management, studies, and engineering efforts associated with Advanced Composite Materials.

Cost ($ in million)	FY06	FY07	FY08	FY09
IBS	.964	.974		
RDT&E Articles Quantity		1		

FY06 This initiative was a Congressional Add. Engineering and development of IBS.
FY07 This initiative was a Congressional Add. Integration and testing of IBS test article.

Cost ($ in million)	FY06	FY07	FY08	FY09
ICS		2.144		
RDT&E Articles Quantity		1		

FY07 This initiative was a Congressional Add. Development, integration and testing of ICS Prototype.

C. Other Program Funding Summary:

	FY06	FY07	FY08	FY09	FY10	FY11	FY12	FY13	To Complete	Total Cost
PROC, NSW RIB	14.754	19.007	10.426	12.112	9.700	12.648	12.926	13.209	Cont.	Cont.
PROC, CCFLIR			2.481	2.494	2.508	2.521	2.656	2.704	Cont.	Cont.
PROC, ICS		.996								

D. Acquisition Strategy:

- Next Generation NSW RIB Capability – Competitive Award
- CCFLIR – Spiral development improvements thru existing contract with FLIR Systems, Inc.

Exhibit R-3 RDT&E Project Cost Analysis						DATE: FEBRUARY 2007					
APPROPRIATION / BUDGET ACTIVITY RDT&E DEFENSE-WIDE / 7			Special Operations Tactical Systems Development/PE1160404BB SOF Surface Craft Advanced Systems/S1684								
Actual or Budget Value ($ in millions)											
Cost Categories (Tailor to WBS, or System/Item Requirements)	Contract Method & Type	Performing Activity & Location	Total PYs Cost	Budget Cost FY07	Award Date FY07	Budget Cost FY08	Award Date FY08	Budget Cost FY09	Award Date FY09	To Complete	Total Program
Primary Hardware Dev											
RIB Next Gen	CPFF	Various						2.200	Nov-08	Cont.	Cont.
IBS	CPFF	Asimuth Inc., Morgantown, W. Va	0.964	0.996	Feb-07						1.960
CCFLIR	CPFF	FSI, Boston, MA				0.700	Jan-08	0.500	Nov-08	Cont.	Cont.
High Speed Military Craft	CPFF	Seemann, Composites, Inc, LA	1.446								1.446
Adv Composites	CPFF	Seemann, Composites, Inc, LA	4.367								4.367
ICS	TBD	Trident Inc., Fairfax, VA		2.122	Mar-07						2.122
Subtotal Product Dev			6.777	3.118		0.700		2.700		Cont.	Cont.
Remarks:											
Support and Management Organizations											
RIB Next Gen	Various	Various				0.800	Oct-07	1.100	Oct-08	Cont.	Cont.
CCFLIR	Various	Various				0.191	Oct-07	0.300	Oct-08	Cont.	Cont.
Adv Composites	Various	Various	1.560								1.560
Subtotal Spt			1.560			0.991		1.400		Cont.	Cont.
Remarks:											
Developmental Test & Eval											
RIB Next Gen	Various	Various						0.400	Apr-09	Cont.	Cont.
CCFLIR	Various	Various				0.100	Apr-08	0.200	Oct-08	Cont.	Cont.
Subtotal T&E						0.100		0.600		Cont.	Cont.
Remarks:											
Contractor Engineering Spt											
RIB Next Gen	CPFF	Various				1.200	Jan-08	0.300	Oct-08	Cont.	Cont.
CCFLIR	CPFF	FSI, Boston, MA				0.200	Nov-07	0.213	Apr-09	Cont.	Cont.
Adv Composites	CPFF	Seemann Composites, Inc, LA	1.449								1.449
Subtotal Engineering Spt			1.449			1.400		0.513		Cont.	Cont.
Remarks:											
Total Cost			9.786	3.118		3.191		5.213		Cont.	Cont.
Remarks:											

Exhibit R-4, RDT&E Program Schedule Profile																																
																Date: FEBRUARY 2007																	
Appropriation/Budget Activity									Program Element Number and Name														Project Number and Name									
RDT&E/7									PE1160404BB/Special Operations Tactical System Development														Project S1684 SOF Surface Craft Adv Dev									
Fiscal Year	2006				2007				2008				2009				2010				2011				2012				2013			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Next Gen RIB																																
IBS																																
MS B																																
Release RFP																																
Design Contract Award																																
Prototype Delivery																																
Combined DT/OT																																
MS C																																
LRIP Contract Award																																
OPEVAL Complete																																
IOC																																
CCFLIR																																
P3I Development Program																																
Engineering & Development																																
ECP Testing																																
Production Verification																																
Advanced Composite Materials																																
High Speed Military Craft																																
SOCR ICS																																

Exhibit R-4a, RDT&E Program Schedule Detail				Date: FEBRUARY 2007				
Appropriation/Budget Activity RDT&E/7	Program Element Number and Name PE1160404BB/Special Operations Tactical Systems Development			Project Number and Name Project S1684/SOF Surface Craft Advance Development				
Schedule Profile	FY2006	FY2007	FY2008	FY2009	FY2010	FY2011	FY2012	FY2012
Next Generation NSW RIB								
IBS	4Q	2Q						
MS B			2Q					
Release RFP			3Q					
Design Contract Award			4Q					
Prototype Delivery				3Q				
Combined DT/OT				3Q-4Q	1Q			
MS C					2Q			
LRIP Contract Award					2Q			
OPEVAL Complete					4Q			
IOC						1Q		
CCFLIR								
P3I Development Program			1Q-4Q	1Q-4Q	1Q-4Q			
Engineering & Development			2Q-4Q	1Q				
ECP Testing				2Q-3Q				
Production Verification					1-Q			
Advanced Composite Materials	3Q-4Q							
High Speed Military Craft	3Q-4Q							
ICS		2Q						

Exhibit R-2a, RDT&E Project Justification	Date: FEBRUARY 2007
Appropriation/Budget Activity RDT&E.A BA # 7	Weapons and Support Systems Advanced Development /Project S375

Cost ($ in millions)	FY06	FY07	FY08	FY09	FY10	FY11	FY12	FY13
Weapons and Support Sys Adv Dev	17.228	24.208	9.573	8.571	2.410	2.449	1.994	2.348
RDT&E Articles Quantity								

A. Mission Description and Budget Item Justification: This project provides for development and testing of specialized, lightweight individual weapons, fire control/surveillance devices, and combat equipment to meet the unique requirements of Special Operations Forces (SOF). SOF often deploy as small, independent, quick reaction, foot-mobile teams independent of primary logistics support. Existing weapons and combat equipment are frequently unsuited to these conditions. Sub-projects include:

- Family of Sniper Detection Systems (FSDS). Provides the capability for SOF units to rapidly locate the position of a sniper's origin of fire in near-real-time. Detects and locates small arms gunfire from 5.56mm, 7.62mm and .50 caliber weapons for the conduct of counter-sniper operations. This system also provides passive area surveillance at day or night and can be configured for urban or rural environments. This program was increased by an FY 2007 Congressional add.

- Heavy Sniper Rifle (HSR). Precision Sniper Rifle (PSR) will characterize .338 ammunition and upgrade existing MK13 sniper weapons (300 WinMag) to a new caliber. The .338 round provides SOF with a highly accurate round for target engagements with ranges up to 1500 meters or more. The Anti-Materiel Rifle (AMR) will pursue technology that will provide SOF with accurate engagement capabilities on hard target, critical nodes, and other materiel.

- Integrated Night/Day Observation/Fire Control (INOD). The INOD provides the SOF sniper with a lightweight, low signature/fire control and observation device that allows the sniper to detect, acquire, and engage targets out to the weapon's maximum effective range under day/night conditions. The INOD allows the sniper to go from day to night operations without re-zeroing. This system will include sensor fusion of both image intensification and thermal infrared sensors. This program was increased by FY 2005 and FY 2006 Congressional adds.

- Lightweight Attack Weapon (LAW). The M72 66mm Lightweight Attack Weapon is a shoulder-fired, man-portable, self-contained, single use, lightweight rocket. The LAW has two warhead variants--the Anti Armor (AA) and Anti Structural Munitions (ASM) warheads. The LAW has two propulsion variants--the current rocket motor and the Fire From Enclosure (FFE) propulsion system that is under development. This program was increased by an FY 2006 Congressional add.

- M4A1 SOF Carbine Accessory Kit (M4MOD). The M4MOD Kit enhances all SOF weapons by using the latest technological advances in optional accessories (up to 30 different functions/capabilities) such as day scopes, night scopes, active aiming laser module, visible lights, grenade launchers, suppressors, hand grips, and close quarters battle sights. These accessories greatly enhance the lethality of the weapon system and the survivability of the SOF operator. This program was increased by FY 2004, FY 2005, and 2006 Congressional adds.

- Weapons Shot Counter. This was a Congressional add to develop a device to improve the reliability and maintainability of weapons used by the SOF operator. These devices will provide the Unit Armorer a means to track the number of rounds fired and anticipate the need for maintenance and repair prior to the firearms failure, ultimately minimizing or eliminating parts failures and malfunctions in combat.

- Night Vision Devices (NVD). The SOF NVD system includes advanced field of view goggles, improved sensors, multi-spectral imaging, sensor fusion, SOF Laser Range Finder and Designator [SOFLRD Precision Target Locator Designator (PTLD)], and micro-laser integration and improved displays. The SOFLRD will be a combined laser range finder, geological locator, and laser designator for directing both Global Positioning System (GPS) and laser guided munitions.

- Precision Laser Targeting Device (PLTD). The PLTD will be a hand-held laser range finder and targeting device with an embedded GPS to provide the SOF operator with the ability to direct close air support missions by determining the geo-location of a target to support the delivery of GPS-guided munitions.

- SOF Combat Assault Rifle (SCAR). SCAR is an evolutionary acquisition, incremental approach that will provide the SOF operator with a 5.56 mm (SCAR-L) and a 7.62mm (SCAR-H) family of rifles that are modular in barrel length. SCAR variants will replace a suite of weapons currently in the SOF inventory. SCAR includes the 40mm Enhanced Grenade Launcher Module (EGLM), which replaces the M203 grenade launcher. EGLM includes a fire control unit (FCU) that provides precision ballistic solution. Enhanced 40mm ammunition will also be developed. This program was increased by an FY 2007 Congressional add.

- SOF Advanced Tactical Parachute System (SOFTAPS). Provides SOF unique steerable static line parachute capable of operating from high performance Special Operations fixed and rotary wing aircraft on high and low elevation drop zones. Operates at a slower descent rate, faster turn rate and reduced opening shock transfer than current MC1-1D and MC1-1B/E family of parachutes, which allows safer delivery of heavier personnel/equipment loads at higher elevations.

- Combat Boot-Polyurethane. This was a Congressional add to conduct market surveys for COTS products to conduct combat evaluations or develop a Polyurethane Combat Boot that can provide the SOF operator footwear flexibility and protection in harsh warfare environments.

- SOF Personal Equipment Advanced Requirements (SPEAR). SPEAR develops and acquires items that provide SOF Personnel required protection from natural threats (environmental, terrain, etc.), enemy (ballistics, laser, blunt trauma) threats, and survival items that allow them to perform at the required level to meet SOF Missions. SPEAR Kit includes; 1), ballistic armor, helmets, and eye wear, 2) cold weather, maritime and other protective clothing, 3) communication headsets and equipment, 4) load carriage and backpack systems, and other systems that address SOF operator deficiencies with regard to survival and mission execution in all terrains, climates and environments world wide.

- Artic/Mountain Climbing Warfare Boot. This was a Congressional add to conduct market surveys for COTS products to conduct combat evaluations or develop a warfare boot that can provide the SOF operator footwear flexibility and protection in harsh warfare environments.

- SOF Tactical Boot Suite Development. This was a Congressional add to develop a family of boots for use by the SOF operator in various mission sets and environments.

- Combat Casualty Care Equipment – Kit (CCCEKIT). The CCCEKIT is a technology transfer initiative to identify a variety of medical items and equipment approved by the Food and Drug Administration to include intraosseous infusion devices, patient monitoring and assessment devices, emergency airway kits, and devices that support patient management and enroute care capabilities for the far-forward treatment of SOF casualties in remote and austere environments.

- MARSOC BRITE M22 Imagery. Supports development of enhancements for near real-time high resolution BRITE satellite imagery using M22 SATCOM dissemination broadcasts. This was an FY 2007 Congressional add.

- Nickle Boron Coating. This initiative was funded by Congressional adds in FY 2006 and FY 2007. Nickel Boron Coatings technology has the potential to provide a lubrication-free operation and corrosion protection to pistols, semi-automatic rifles and machine guns.

- Unmanned Vehicle Targeting (UVT). SOF UVT will explore, develop and demonstrate application of integrated unmanned vehicle technologies to identify geo-locate and track targets, and to support engagement of those targets by other weaponized platforms. These technologies include: network command and control of, and communication with, the unmanned platforms; enhanced onboard sensors and processing equipment for both navigation and targeting; and enhanced software analysis and visualization tools to rapidly identify and geo-locate targets from sensor data at the ground control station.

- Holographic Close Combat Optic. This initiative was funded by a Congressional add. Holographic sights provide operators with a rapid target acquisition display to engage in close quarters as well as distant targets with increased identification and accuracy.

- Integrated Warfare Info System (IWIS). Develops a single Intelligence, Surveillance and Reconnaissance (ISR) tool to provide SOF with an integrated sighting system.

B. Accomplishments/Planned Program

	FY06	FY07	FY08	FY09
FSDS	.217	.569		
RDT&E Articles Quantity				

FY06 Conducted test and evaluated on-going Gunfire Detection System (GDS) performance improvements to enhance ShotGuard software accuracy and configuration improvements to provide wireless connectivity with integrated GPS and compass.
FY07 Commence testing and evaluation of enhanced Data Interface Acquisition Module (DIAM) for radio frequency communication.

	FY06	FY07	FY08	FY09
FSDS		1.170		
RDT&E Articles Quantity				

FY07 Congressional add to develop a version of the FSDS that will integrate onto combatant craft.

	FY06	FY07	FY08	FY09
HSR			.500	.500
RDT&E Articles Quantity				

FY08 Pursues an Anti-Materiel Rifle (AMR) capability. Conducts market research, industry conferences, and developmental testing of an anti-materiel solution.
FY09 Tests and evaluates AMR.

	FY06	FY07	FY08	FY09
INOD	.492			
RDT&E Articles Quantity	1			

FY06 Developed a dual band INOD system that will allow the sensor fusion of both image intensification and thermal infrared into one camera for the weapons sight.

	FY06	FY07	FY08	FY09
LAW	2.458	4.772		
RDT&E Articles Quantity				

FY06 Congressional add to develop the LAW M72 variants including the AA and ASM warheads and the Fire From Enclosure (FFE) propulsion system. Completed development of the M72A9 version with the ASM and rocket motor.
FY07 Complete development of the LAW M72 variants. Complete development of the M72E8 with the AA warhead and the FFE propulsion, and the M72E10 with the ASM warhead and the FFE propulsion. The M72A9 with the ASM warhead and the rocket motor propulsion will have a Fielding & Deployment Release (F&DR) in FY07.

	FY06	FY07	FY08	FY09
M4MOD	.070	.237	.255	.262
RDT&E Articles Quantity				

FY06 Tested advances to weapon accessories.
FY07 Test and evaluate Mini Day/Night Sight (MDNS) project improvements.
FY08 Pursues fused clip-on imaging device through market research, industry conference, and solicitation to replace two systems: CVND-I2 and CNVD-T.
FY09 Conducts user assessments, test and evaluation and source selection of CNVD-F (Fused).

	FY06	FY07	FY08	FY09
Weapons Shot Counter		.974		
RDT&E Articles Quantity				

FY07 Congressional add to develop a shot counter capability for machine guns and heavy weapons.

	FY06	FY07	FY08	FY09
NVD			5.000	3.000
RDT&E Articles Quantity				

FY08 Develops an advanced Night Vision Goggle system (i.e., sensor fusion, color, wide field of view), increasing the capabilities of the existing goggles. Develops the next generation laser range finder and designator to support the delivery of laser guided and GPS guided

missiles and munitions.

FY09 Continues to develop advanced NVG (sensor fusion, color, wide field of view). Continues the development and miniaturization of the next generation laser range finder and designator.

	FY06	FY07	FY08	FY09
PLTD	.870		1.000	1.000
RDT&E Articles Quantity	1			

FY06 Completed the prototype development and testing of the initial PLTD system. Completed DT/OT and laser safety review.

FY08 Continues weight reduction and miniaturization of the inertial navigation system.

FY09 Continues weight reduction and miniaturization of the inertial navigation system.

	FY06	FY07	FY08	FY09
SCAR	3.384	1.754		
RDT&E Articles Quantity				

FY06 Completed the prototype development and testing of the SCAR family of weapons.

FY07 This initiative is a congressional add to conduct initial Operational Test and Evaluation of SCAR.

	FY06	FY07	FY08	FY09
SOFTAPS				.512
RDT&E Articles Quantity				

FY09 Participates in Army pre-planned product improvement (P3I) for Advanced Tactical Parachute System (ATPS).

	FY06	FY07	FY08	FY09
Polyurethane Combat Boot		.974		
RDT&E Articles Quantity				

FY07 Congressional add to develop US manufacturing capability for polyurethane direct injection.

	FY06	FY07	FY08	FY09
SPEAR	4.218	5.173	2.101	2.558
RDT&E Articles Quantity				

FY06 Conducted market surveys for COTS products to conduct combat evaluations and/or conduct competitive source selections to initiate development of the next generation body armor, environmental protection, ballistic eyewear, Identify Friend or Foe (IFF), Modular Integrated Communications Helmet (MICH), and survival equipment.

FY07 Complete development of ballistic eyewear. Continue development of the next generation body armor, environmental protection,

ballistic eyewear, IFF, MICH, and survival equipment. Initiate 3 market surveys for maritime equipment.
FY08 Continues development of the next generation body armor and environmental protection. Initiates development of the next generation headset for the MICH and release competitive contract for maritime equipment.
FY09 Continues development of the next generation body armor and environmental protection. Completes development of the next generation headset for the MICH.

	FY06	FY07	FY08	FY09
Artic/Mountain Climbing Warfare Boot	.964	.974		
RDT&E Articles Quantity				

FY06 Congressional add to conduct market surveys for commercial off the shelf (COTS) product combat evaluations and/or conduct competitive source selections to initiate development of mountain climbing warfare boot for SOF operators.
FY07 Congressional add to continue research, development, test and evaluation of an extreme cold weather boot for SOF operators.

	FY06	FY07	FY08	FY09
SOF Tactical Boot Suite Development		.974		
RDT&E Articles Quantity				

FY07 Congressional add to research, develop, test and evaluate a SOF peculiar boot suite.

	FY06	FY07	FY08	FY09
CCCEKIT		.499	.717	.739
RDT&E Articles Quantity				

FY07 Entered concept development for modernization of SOF medical capabilities for operating in austere environments. Initiated prototype demonstrations of lighter, more efficient medical Sets, Kits and Outfits (SKOs) and far-forward surgical capabilities.
FY08 Conducts operational assessment of SKOs in preparation for procurement and fielding.
FY09 Initiates evaluation and qualification of SOF Surgeon and Casualty Evacuation (CASEVAC) kits.

	FY06	FY07	FY08	FY09
MARSOC BRITE M221		2.144		
RDT&E Articles Quantity				

FY07 Congressional add to develop enhancements to the BRITE M22 Imagery system.

	FY06	FY07	FY08	FY09

Nickel Boron Coating	.700	.974		
RDT&E Articles Quantity				

FY06 Congressional add to test/evaluate a nickel boron coating to create a lubricant-free M4A1 carbine.
FY07 Congressional add to continue the effort to test and evaluate a nickel boron coating on SOF machine guns.

	FY06	FY07	FY08	FY09
UVT	3.855			

FY06 Congressional add. Entered concept development and demonstrated application of integrated unmanned vehicle technologies to identify and track targets.

	FY06	FY07	FY08	FY09
Holographic Close Combat Optic		.974		
RDT&E Articles Quantity				

FY07 Congressional add to develop a Holographic Close Combat Optic application to be utilized on low velocity 40mm weapons and heavy machine guns.

	FY06	FY07	FY08	FY09
IWIS		2.046		
RDT&E Articles Quantity				

FY07 Congressional add to develop a single ISR tool to provide SOF with an integrated sighting system.

C. Other Program Funding Summary:

	FY06	FY07	FY08	FY09	FY10	FY11	FY12	FY13	To Complete	Total Cost
PROC, Small Arms and Weapons	140.736	136.665	160.087	73.657	112.045	58.906	33.715	58.338	Cont.	Cont.

D. Acquisition Strategy.

- HSR. Precision Sniper Rifle will pursue a .338 round to meet range capability gap from 1000-1500m. Anti-Materiel Rifle will pursue technology that will provide SOF with accurate engagement on hard targets, critical nodes, and other materiel.

- M4MOD. The initial intent of the M4MOD program was to provide SOF with the ability to adapt the M4A1 carbine to optimize its operational effectiveness and has evolved as the program to adapt all SOF weapons in order to increase their operational effectiveness through improved target recognition, acquisition and hit capability during day and night from close quarters to maximum effective range of each

weapon. The program spiral develops new capabilities in block upgrades that are first developed and tested, and then fielded to the full spectrum of SOF operators. Future carbine programs (SCAR) will leverage and then drive the advancement of accessories within this program. All SOF weapons programs leverage M4MOD to increase operational effectiveness. Blocks include family of muzzle brake suppressors, shot counter mini day/night sight (MDNS), and numerous other components designed to enhance the capabilities of the weapon while at the same time combining capabilities into single, smaller devices.

- NVD. Development of next generation NVD. Program will use evolutionary acquisition approach.

- PLTD. The PLTD program will leverage an Army warfighter rapid acquisition program to develop a SOF version of a laser targeting device capable of providing geo-location of a target for the delivery of global positioning system guided munitions. This version is required to improve the accuracy of coordinate geo-location to eliminate the possibility of fratricide incidents.

- SOFTAPS. Sole Source award to Irvin Aerospace for Test Articles, Low Rate Initial Production and SF-10A Data Rights. Sole Source to Para-Flite, Inc., for Harness and Subassembly Development with Production Options. Full and Open Competition for Full Rate Production with Multiple Award Indefinite Delivery/Indefinite Quantity Contracts with minimum and maximum quantities.

- SPEAR. The SPEAR program is an evolutionary acquisition program that utilizes a variety of acquisition methods, including COTS, Modified COTS (MCOTS), NDI and developmental acquisition strategies to accomplish program objectives. Many items will undergo spiral development to achieve continuous improvement and objective level requirements. Maximum use of Javits-Wagner-O'Day set asides (i.e., National Institute of the Severely Handicapped) will be used.

- CCCEKIT. The CCCEKIT will leverage Federal Drug Administration-approved COTS equipment and devices to provide modernized, standardized SOF medical lifesaving capabilities for use in austere environments during extended delays in casualty evacuation.

Exhibit R-3 RDT&E Project Cost Analysis						DATE: FEBRUARY 2007					
APPROPRIATION / BUDGET ACTIVITY RDT&E DEFENSE-WIDE / 7			Special Operations Tactical Systems Development/PE1160404BB Weapons Systems Advance Development/S375								
Actual or Budget Value ($ in millions)											
Cost Categories (Tailor to WBS, or System/Item Requirements)	Contract Method & Type	Performing Activity & Location	Total PYs Cost	Budget Cost FY07	Award Date FY07	Budget Cost FY08	Award Date FY08	Budget Cost FY09	Award Date FY09	To Complete	Total Program
Hardware Dev											
FSDS	FFP/T&M	PM-CCS, Picatinny, NJ	1.687	1.414	Dec-06						3.101
INOD	CPFF	Various	5.492								5.492
DUNS	CPFF	NSWC-Crane, Crane, IN	1.700								1.700
LAW	Various	NSWC-Crane, Crane, IN	1.664	1.881	Dec-06						3.545
LCMR	CPFF	PM LCMR, Ft. Monmouth, NJ	0.432								0.432
M4MOD	Various	NSWC-Crane, Crane, IN	5.213	1.287	Jan-07						6.500
NVD	ALLOT	Various	2.791			4.000	Feb-08	2.000	Feb-09		8.791
PLTD	CPFF	PM Sensors & Lasers, Ft. Belvoir, VA	2.870			0.500	Jan-08	0.500	Jan-09		3.870
SCAR	ALLOT	NSWC-Crane, Crane, IN		0.294	Jan-07					Cont.	Cont.
SPEAR	Various	PM Spear, Natick, MA	5.814	3.867	Various	0.912	Various	1.156	Various	Cont.	Cont.
TECH TRANSFER: CCCEKIT	Various	Various		0.499	Mar-07	0.717	Mar-08	0.739	Mar-09	Cont.	Cont.
MARSOC BRITE M22 Imagery	TBD	TBD		2.144	Jan-07						2.144
IWIS	TBD	TBD		2.046	Various						2.046
UV VT	Various	TBD	3.855								3.855
Subtotal Product Dev			31.518	13.432		6.129		4.395		Cont.	Cont.
Remarks:											
Development Spt											
HSR	Various	NSWC-Crane, Crane, IN	0.290					0.100	Dec-08		0.390
LAW	Various	NSWC-Crane, Crane, IN	1.314	2.597	Dec-06						3.911
LCMR	CPFF	PM LCMR, Ft. Monmouth, NJ	0.342								0.342
M4MOD	ALLOT	NSWC-Crane, Crane, IN	0.413	0.150	Various						0.563
NVD	ALLOT	Various	1.205			0.500	Feb-08	0.500	Feb-09		2.205
PLTD	CPFF	PM Sensors & Lasers, Ft. Belvoir, VA	0.250			0.250	Feb-08	0.250	Feb-09		0.750
SCAR	ALLOT	NSWC-Crane, Crane, IN	0.443	0.040	Jan-07						0.483
SPEAR	Various	PM Spear, Natick, MA	2.414	1.187	Various	0.316	Various	0.384	Various	Cont.	Cont.
SOFTAPS	Various	Soldier Systems Center, Natick, MA	0.391								0.391
Integrated Logistics Spt											
LCMR	CPFF	PM LCMR, Ft. Monmouth, NJ	0.208								0.208
M4MOD	ALLOT	NSWC-Crane, Crane, IN	0.214	0.014	Various						0.228
SOFTAPS	Various	TACOM, ILSC-SBC, Warren, MI	0.011					0.256	Jan-09	0.536	0.803
INOD	CPFF	Various	0.125								0.125

Exhibit R-3 RDT&E Project Cost Analysis						DATE: FEBRUARY 2007					
APPROPRIATION / BUDGET ACTIVITY RDT&E DEFENSE-WIDE / 7			Special Operations Tactical Systems Development/PE1160404BB Weapons Systems Advance Development/S375								
Actual or Budget Value ($ in millions)											
Cost Categories (Tailor to WBS, or System/Item Requirements)	Contract Method & Type	Performing Activity & Location	Total PYs Cost	Budget Cost FY07	Award Date FY07	Budget Cost FY08	Award Date FY08	Budget Cost FY09	Award Date FY09	To Complete	Total Program
SCAR	ALLOT	NSWC-Crane, Crane, IN		0.012	Jan-07					Cont.	Cont.
Configuration Mgmt											
LCMR	ALLOT	PM LCMR, Ft. Monmouth, NJ	0.390								0.390
M4MOD	ALLOT	NSWC-Crane, Crane, IN	0.197	0.043	Jan-07					Cont.	Cont.
NVD	ALLOT	Various	0.443			0.100	Mar-08	0.100	Mar-09		0.643
SPEAR	ALLOT	PM Spear, Natick, MA	0.000			0.054	Various	0.054	Various	Cont.	Cont.
Subtotal Spt			8.650	4.043		1.220		1.644		Cont.	Cont.
Remarks:											
Developmental Test											
HSR	ALLOT	NSWC-Crane, Crane, IN	0.000			0.500	Feb-08	0.350	Feb-09		0.850
INOD	CPFF	Various	0.135								0.135
LCMR	ALLOT	PM LCMR, Ft. Monmouth, NJ	0.355								0.355
M4MOD	ALLOT	NSWC-Crane, Crane, IN	2.264	0.648	Jan-07	0.255	Jan-08	0.262	Jan-09	Cont.	Cont.
PLTD	CPFF	PM Sensors & Lasers, Ft. Belvoir, VA	0.487			0.100	Jan-08	0.100	Jan-09		0.687
SCAR	ALLOT	NSWC-Crane, Crane, IN	0.654	0.010	Jan-07					Cont.	Cont.
SPEAR	ALLOT	PM Spear, Natick, MA	1.719	0.706	Various	0.233	Various	0.265	Various	Cont.	Cont.
SOFTAPS	ALLOT	Yuma Proving Grounds, Yuma, AZ	1.110								1.110
Operational Test											
FSDS	ALLOT	PM-CCS, Picatinny, NJ	0.075	0.245	Dec-06						0.320
INOD	CPFF	NSWC-Crane, Crane, IN	0.250								0.250
LCMR	ALLOT	PM LCMR, Ft. Monmouth, NJ	0.340								0.340
M4MOD	ALLOT	NSWC-Crane, Crane, IN	2.982	0.775	Various					Cont.	Cont.
NVD	ALLOT	Various	0.899			0.150	Feb-08	0.150	Feb-09		1.199
PLTD	ALLOT	Various	0.000			0.150	Mar-08	0.150	Mar-09		0.300
SPEAR	ALLOT	PM Spear, Natick, MA	1.033	0.571	Various	0.322	Various	0.465	Various	Cont.	Cont.
SCAR	ALLOT	NSWC-Crane, Crane, IN	1.592	1.194	Jan-07					Cont.	Cont.
SOFTAPS	ALLOT	USA OTC, ABNSOTD, Ft. Bragg, NC	0.382					0.256	Feb-09	0.536	1.174
Subtotal T & E			14.277	4.149		1.710		1.998		Cont.	Cont.
Remarks:											

Exhibit R-3 RDT&E Project Cost Analysis						DATE: FEBRUARY 2007					
APPROPRIATION / BUDGET ACTIVITY RDT&E DEFENSE-WIDE / 7			Special Operations Tactical Systems Development/PE1160404BB Weapons Systems Advance Development/S375								
Actual or Budget Value ($ in millions)											
Cost Categories (Tailor to WBS, or System/Item Requirements)	Contract Method & Type	Performing Activity & Location	Total PYs Cost	Budget Cost FY07	Award Date FY07	Budget Cost FY08	Award Date FY08	Budget Cost FY09	Award Date FY09	To Complete	Total Program
Government Eng Spt											
LCMR	ALLOT	PM LCMR, Ft. Monmouth, NJ	0.289								0.289
M4MOD	ALLOT	NSWC-Crane, Crane, IN	0.139	0.050	Various						0.189
SCAR	ALLOT	NSWC-Crane, Crane, IN	0.325							Cont.	Cont.
SPEAR	ALLOT	PM Spear, Natick, MA	0.447	0.923	Various	0.189	Various	0.139	Various	Cont.	Cont.
Engineering Support											
HSR	ALLOT	NSWC-Crane, Crane, IN						0.050	Jan-09		0.050
LAW	ALLOT	NSWC-Crane, Crane, IN	0.200	0.294	Dec-06						0.494
LCMR	ALLOT	PM LCMR, Ft. Monmouth, NJ	0.269								0.269
M4MOD	ALLOT	NSWC-Crane, Crane, IN	0.980	0.160	Jan-07						0.980
SCAR	ALLOT	NSWC-Crane, Crane, IN	0.300	0.044	Jan-07					Cont.	Cont.
SPEAR	ALLOT	PM Spear, Natick, MA	0.000	0.434	Various					Cont.	Cont.
Travel											
FSDS	ALLOT	PM-CCS, Picatinny, NJ	0.125	0.080	Dec-06						0.205
LCMR	ALLOT	PM LCMR, Ft. Monmouth, NJ	0.138								0.138
M4MOD	ALLOT	NSWC-Crane, Crane, IN	0.384	0.032	Various						0.414
NVD	ALLOT	Various	0.282			0.250	Various	0.250	Various		0.782
SCAR	ALLOT	NSWC-Crane, Crane, IN	0.070	0.160	Various					Cont.	Cont.
SPEAR	ALLOT	PM Spear, Natick, MA	0.323	0.407	Various	0.075	Various	0.095	Various	Cont.	Cont.
SOFTAPS	MIPR	Army T&E / USFS	0.017								0.017
Subtotal Management			4.288	2.584		0.514		0.534		Cont.	Cont.
Remarks: Other Prior Year			3.227								
Total Cost			61.960	24.208		9.573		8.571		Cont.	Cont.
Remarks:											

Exhibit R-4, RDT&E Program Schedule Profile			Date: FEBRUARY 2007
Appropriation/Budget Activity RDT&E/7	Program Element Number and Name PE1160404BB/Special Operations Tactical System Development		Project Number and Name Project S375/Weapons Systems Advanced Development

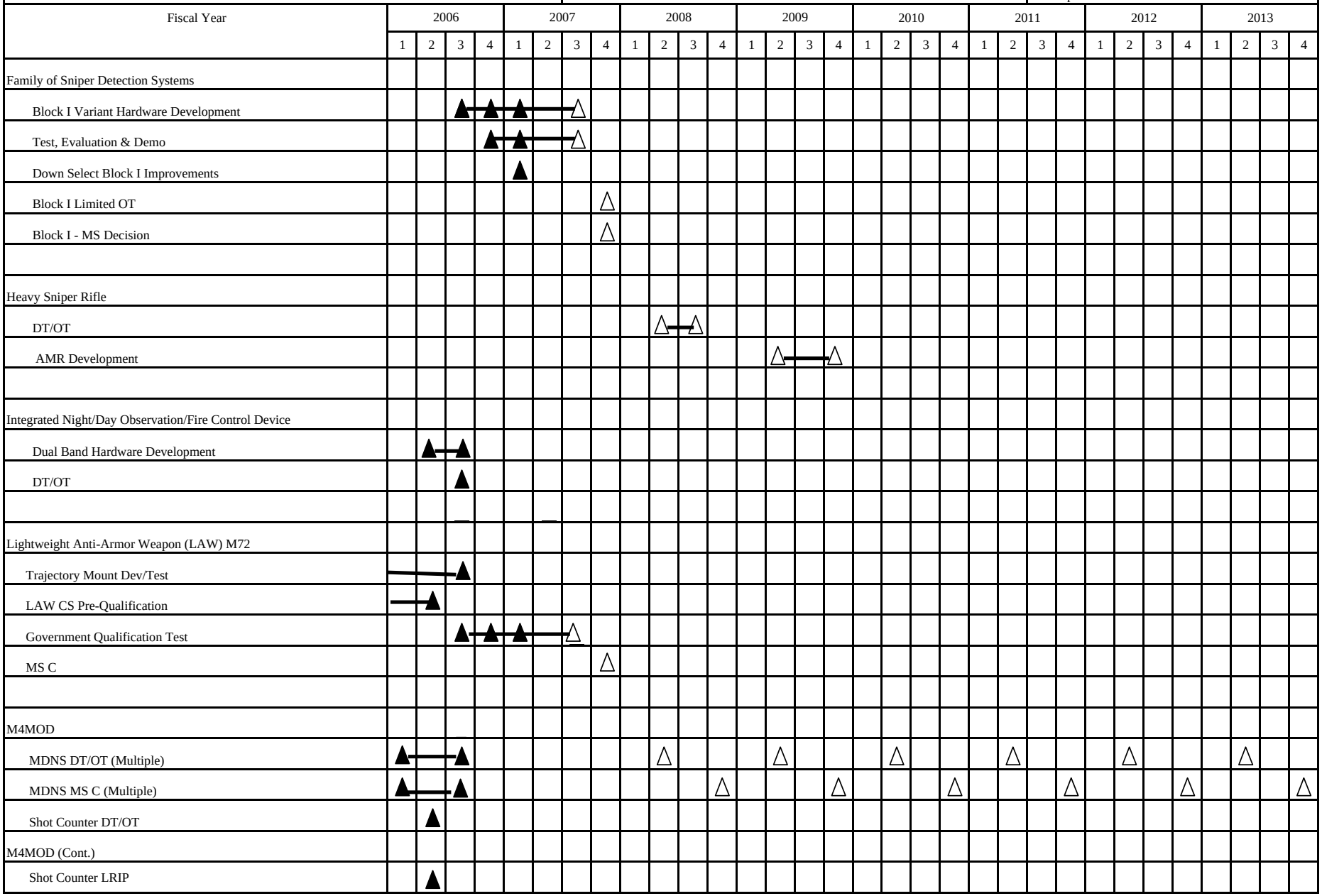

Exhibit R-4, RDT&E Program Schedule Profile			Date: FEBRUARY 2007
Appropriation/Budget Activity RDT&E/7	Program Element Number and Name PE1160404BB/Special Operations Tactical System Development		Project Number and Name Project S375/Weapons Systems Advanced Development

Fiscal Year	2006				2007				2008				2009				2010				2011				2012				2013			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Shot Counter MS C				▲																												
Shot Counter SMG Development						△	—	△																								
Nickel Boron Coating Lube-free M-4				▲	▲	—	△																									
Nickel Boron Coating Development SOF Machine Guns						△	—	—	△																							
Holographic Sight Development						△	—	△																								
Night Vision Device (SOF Laser Rangefinder and Designator (SOFLRD))																																
Prototype Development										△	—	—	—	△																		
Development/Test															△																	
MS C																△																
PLTD																																
MS C								△																								
INS Minaturization, P3I									△							△																
SOF Combat Assault Rifle																																
DT/OT/LUA	▲																															
UA #3			▲																													
MS-C LRIP		▲																														
Prototype Development	▲	—	—	▲																												
IOT&E						△	—	△																								
MS-C FRP								△																								
FUE							△																									
SOF Tactical Advanced Parachute System																																
OPEVAL - Leverage ATPS P3I													▲	—	—	—	—	—	—	—	—	—	—	△								

Exhibit R-4, RDT&E Program Schedule Profile			Date: FEBRUARY 2007
Appropriation/Budget Activity RDT&E/7	Program Element Number and Name PE1160404BB/Special Operations Tactical System Development		Project Number and Name Project S375/Weapons Systems Advanced Development

Fiscal Year	2006				2007				2008				2009				2010				2011				2012				2013			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
SOF Personnel Eequipment Advanced Requirements (SPEAR)																																
Protective Combat Uniform																																
MS C		▲																														
IOC		▲																														
Body Armor P3I																																
DT		▲	—	▲	▲			△																								
OT			▲	▲	▲			△																								
MS C							△																									
IOC					▲																											
Body Armor P3I (MSAP) Emerging Requirement																																
DT/OT				▲	▲																											
MS C						△																										
IOC								△																								
Backpacks																																
DT						△																										
OT						△	—	△																								
MS C									△																							
IOC													△																			
Eye Protection																																
MS A/B					▲																											
DT						△	—	△																								
OT						△	—	△																								
MS C									△																							
IOC			—	—	—		—				△																					
Modular Integrated Communication Helmet																																
MS A/B						△																										

Exhibit R-4, RDT&E Program Schedule Profile	Date: FEBRUARY 2007	
Appropriation/Budget Activity RDT&E/7	Program Element Number and Name PE1160404BB/Special Operations Tactical System Development	Project Number and Name Project S375/Weapons Systems Advanced Development

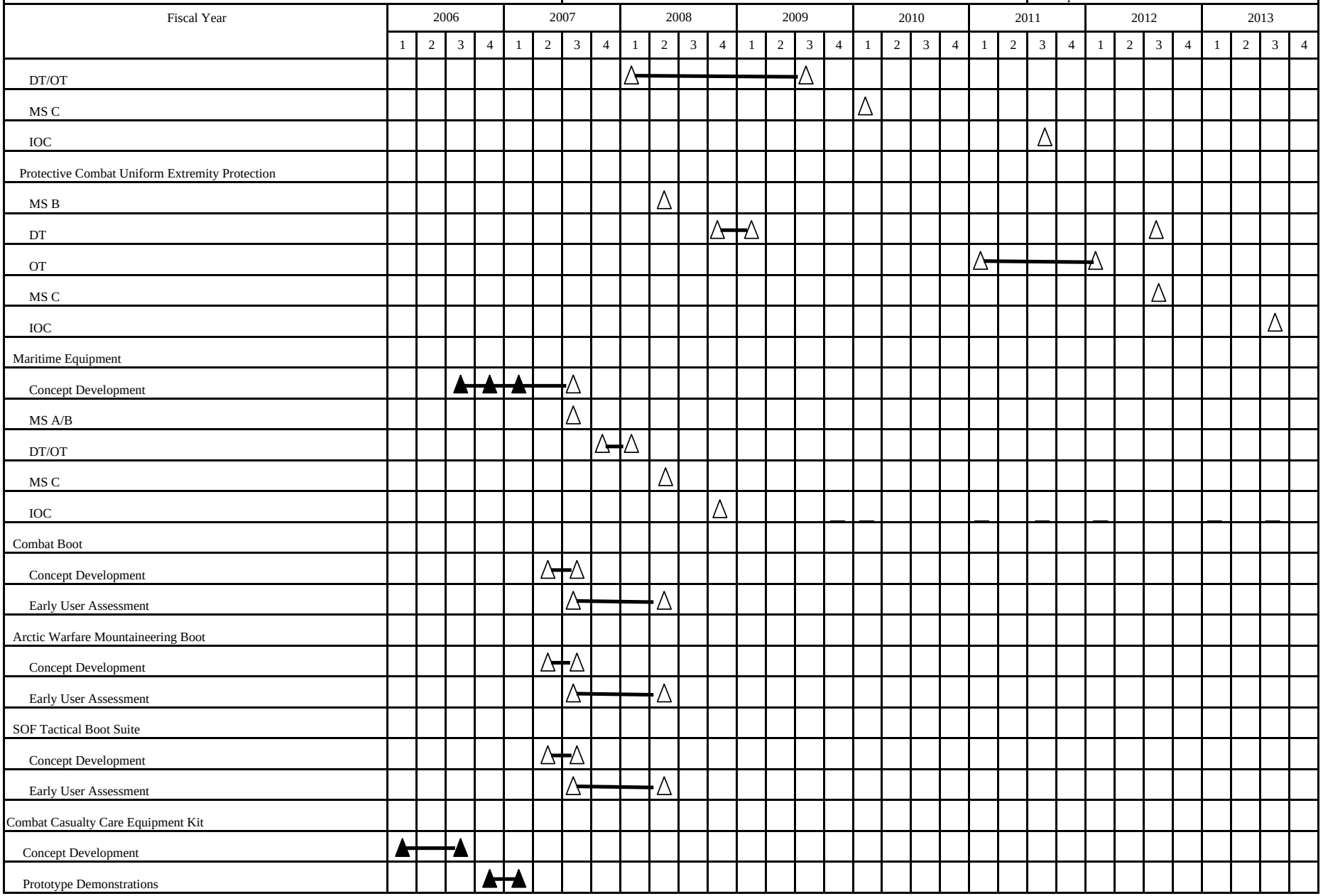

Exhibit R-4, RDT&E Program Schedule Profile																																
																	Date: FEBRUARY 2007																
Appropriation/Budget Activity RDT&E/7									Program Element Number and Name PE1160404BB/Special Operations Tactical System Development																Project Number and Name Project S375/Weapons Systems Advanced Development										
Fiscal Year	2006				2007				2008				2009				2010				2011				2012				2013			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Operational Assessment					▲	△																										
Initial Fielding							△																									
CASEVAC																																
Concept Development				▲	▲	△			△																							
Prototype Demonstrations										△		△																				
Operational Assessment													△	△																		
Initial Fielding															△																	
Surgeon Kits																																
Concept Development																				△				△								
Prototype Demonstrations																										△		△				
Operational Assessment																													△	△		
Initial Fielding																															△	
MARSOC BRITE M22 Imagery						△		△																								

Exhibit R-4a, RDT&E Program Schedule Detail				Date: FEBRUARY 2007				
Appropriation/Budget Activity	Program Element Number and Name			Project Number and Name				
RDT&E/7	PE1160404BB/Special Operations Tactical Systems Development			Project 375/Weapons Systems Advanced Development				
Schedule Profile	FY2006	FY2007	FY2008	FY2009	FY2010	FY2011	FY2012	FY2013
Family of Sniper Detection Systems								
Block I Variant - Hardware Development & Fabrication	3 - 4Q	1 - 3Q						
Test, Evaluation & Demo	4Q	1 - 3Q						
Down Select Block I Improvements		1Q						
Block I - Limited OT		4Q						
Block I - MS Decision		4Q						
Heavy Sniper Rifle								
DT/OT			2 - 3Q					
Anti-Materiel Rifle Development				2 - 4Q				
Integrated Night/Day Observation/Fire Control Device								
Dual Band Hardware Development	2 - 3Q							
DT/OT	3Q							
Lightweight Anti-Armor Weapon (LAW) M72								
Trajectory Mount Dev/Test	1 - 3Q							
LAW CS Pre-Qualification	1 - 2Q							
Government Qualification Test	3 - 4Q	1 - 3Q						
MS C		4Q						
M4MOD								
MDNS DT/OT (Multiple)	1 - 3Q		2Q	2Q	2Q	2Q	2Q	2Q
MDNS MS C (Multiple)	1 - 3Q		4Q	4Q	4Q	4Q	4Q	4Q
Shot Counter DT/OT	2Q							
Shot Counter LRIP	2Q							
Shot Counter MS C	4Q							
Shot Counter SMG Development		2 - 4Q						
Nickel Boron Coating Lube-free M-4	4Q	1 - 3Q						
Nickel Boron Coating Development SOF Machine Guns		2 - 4Q	1Q					
Holographic Sight Development		2 - 4Q						
Night Vision Device (SOF Laser Rangefinder and Designator [SOFLRD])								
Prototype Development			2 - 4Q	1 - 2Q				
Developmental Test				3Q				
MS C				4Q				

Exhibit R-4a, RDT&E Program Schedule Detail				Date: FEBRUARY 2007				
Appropriation/Budget Activity	Program Element Number and Name			Project Number and Name				
RDT&E/7	PE1160404BB/Special Operations Tactical Systems Development			Project 375/Weapons Systems Advanced Development				
Schedule Profile	FY2006	FY2007	FY2008	FY2009	FY2010	FY2011	FY2012	FY2013
PLTD								
MS C		4Q						
INS Minaturization, P3I			1Q	4Q				
SOF Combat Assault Rifle								
DT/OT/LUA	1Q							
UA#3	3Q							
MS-C LRIP	2Q							
Prototype Development	1 - 4Q							
IOT&E		2 - 3Q						
MS C FRP		4Q						
FUE		3Q						
SOF Tactical Advanced Parachute System								
OPEVAL - Leverage ATPS P3I				1 - 4Q	1 - 4Q	1 - 4Q		
SOF Personnel Equipment Advanced Requirements (SPEAR)								
Protective Combat Uniform								
MS C	2Q							
IOC	2Q							
Body Armor P3I								
DT	2 - 4Q	1 - 4Q						
OT	3 - 4Q	1 - 4Q						
MS C		3Q						
IOC		1Q						
Body Armor P3I (MSAP) Emerging Requirement		1Q						
DT/OT	4Q	1Q						
MS C		2Q						
IOC		4Q						
Backpacks								
DT		2Q						
OT		2 - 3Q						
MS C			1Q					
IOC				1Q				
Eye Protection								
MS A/B		1Q						
DT		2 - 3Q						

Exhibit R-4a, RDT&E Program Schedule Detail				Date: FEBRUARY 2007				
Appropriation/Budget Activity	Program Element Number and Name			Project Number and Name				
RDT&E/7	PE1160404BB/Special Operations Tactical Systems Development			Project 375/Weapons Systems Advanced Development				
Schedule Profile	FY2006	FY2007	FY2008	FY2009	FY2010	FY2011	FY2012	FY2013
SPEAR (Cont)								
OT		2 - 3Q						
MS C			1Q					
IOC			3Q					
Modular Integrated Communication Helmet								
MS A/B		2Q						
DT/OT			1 - 4Q	1 - 3Q				
MS C					1Q			
IOC						3Q		
Protective Combat Uniform Extremity Protection								
MS B			2Q					
DT			4Q	1Q			3Q	
OT						1 - 4Q	1Q	
MS C							3Q	
IOC								3Q
Maritime Equipment								
Concept Development	3 - 4Q	1 - 3Q						
MS A/B		3Q						
DT/OT		4Q	1Q					
MS B/C			2Q					
IOC			4Q					
Combat Boot								
Concept Development		2 - 3Q						
Early User Assessment		3 - 4Q	1 - 2Q					
Arctic Warfare Mountaineering Boot								
Concept Development		2 - 3Q						
Early User Assessment		3 - 4Q	1 - 2Q					
SOF Tactical Boot Suite Development								
Concept Development		2 - 3Q						
Early User Assessment		3 - 4Q	1 - 2Q					
Combat Casualty Care Equipment Kit								
Concept Development	1 - 3Q							
Prototype Demonstrations	4Q	1Q						
Operational Assessment		1 - 2Q						
Initial Fielding		3Q						
CASEVAC								
Concept Development	4Q	1-4Q	1Q					

Exhibit R-4a, RDT&E Program Schedule Detail				Date: FEBRUARY 2007				
Appropriation/Budget Activity	Program Element Number and Name			Project Number and Name				
RDT&E/7	PE1160404BB/Special Operations Tactical Systems Development			Project 375/Weapons Systems Advanced Development				
Schedule Profile	FY2006	FY2007	FY2008	FY2009	FY2010	FY2011	FY2012	FY2013
SPEAR (Cont)								
Prototype Demonstrations			2 - 4Q					
Operational Assessment				1 - 2Q				
Initial Fielding				3Q				
Surgeon Kit								
Concept Development					4Q	1 - 4Q		
Prototype Demonstrations							2 - 4Q	
Operational Assessment								1 - 2Q
Initial Fielding								3Q
MARSOC BRITE M22 Imagery		2-4Q	1Q					

	Exhibit R-2a, RDT&E Project Justification	Date: FEBRUARY 2007
Appropriation/Budget Activity RDT&E BA # 7	SOF Communications Advanced Development S700	

Cost ($ in million)	FY06	FY07	FY08	FY09	FY10	FY11	FY12	FY13
SOF Communications Advance Development	24.505	28.715	10.810	11.228	8.608	10.560	12.927	12.405
RDT&E Articles Quantity								

A. MISSION AND DESCRIPTION: This project provides for communication systems to meet emergent requirements to support Special Operations Forces (SOF). The SOF mission mandates that SOF systems remain technologically superior to any threat to provide a maximum degree of survivability. SOF units require communications equipment that improves their warfighting capability without degrading their mobility. Therefore, SOF Communications Advanced Development is a continuing effort to develop lightweight and efficient SOF Command, Control, Communications, and Computer (C4) capabilities.

United States Special Operations Command (USSOCOM) has developed an overall strategy to ensure that Command, Control, Communications, Computer 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 the 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 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. The sub-projects funded in this project meet annual emergent requirements and are grouped by the level of organizational element they support: Operational Element (Team), Above Operational Element (Deployed) and Above Operational Element (Garrison).

OPERATIONAL ELEMENT (TEAM)

- Command, Control, Communications, Computers, and Intelligence Automation System (C4IAS) Distributed Common Ground System (DCGS) provides SOF leadership with the situational awareness for planning and executing SOF missions. DCGS integrates Tactical Processing, Exploitation, and Dissemination (TPED) data into the SOF information enterprise. Through development and integration efforts SOF networks will provide SOF leadership with unique decision-making capabilities to include measurement and signature data, sensor exploitation, data compressions and man-portable workstations.

- Multi-Band Inter/Intra Team Radio (MBITR) provides lightweight, handheld, inter/intra team communications for Special Operations Forces (SOF). SOF teams conduct air, ground, and maritime missions across the entire operational spectrum. In the past, these missions required SOF teams to carry multiple handheld radios operating in several different frequency bands [Very High Frequency (VHF) FM, VHF

AM, Ultra-High Frequency (UHF) AM and UHF FM] to ensure positive communications. The MBITR provides each of these frequency bands in a single handheld radio with embedded Type 1 Communications Security (COMSEC). It provides SOF teams with the ability to communicate on a user selected frequency (30-512 MHz) using a single tactical handheld radio. It is interoperable with various agencies of the U.S. Government, Air Traffic Control and allied foreign forces. The MBITR is the platform for the development of Cluster 2 Joint Tactical Radio System (JTRS), JTRS Enhanced MBITR (JEM). The JTRS Cluster 2 JEM is the interim JTRS handheld radio solution and will provide capabilities such as enhanced Information Security (INFOSEC), Blue Force Tracking (BFT), Global Positioning System (GPS), beacon functions and waveform portability. The JEM is Software Communications Architecture compliant, which is one of the primary tenets of the JTRS program.

- Multi-Band/Multi-Mission Radio (MBMMR). MBMMR provides voice and data communication in either a manpack or fixed mount radio configuration. It is designed to operate on a user-selected frequency from a 30 to 512 MHz in VHF and UHF bands as well as Line-of-Sight, Demand Assigned Multiple Access Satellite Communications and Maritime modes. MBMMR features National Security Agency (NSA) endorsed type 1 embedded COMSEC. It operates in both military and public service bands and is compatible with the Electronic Counter-Counter Measure capabilities of the Single Channel Ground Airborne Radio System and HAVE QUICK II equipment. Other features include selectable power output up to 20 watts, night vision goggle compatible and saltwater immersible.

- Tactical Local Area Network (TACLAN). The TACLAN program provides SOF operational commanders and forward deployed forces advanced automated data processing and display capabilities to support situational awareness, mission planning and execution, and command and control of forces. The TACLAN program consists of TACLAN Suites, Mission Planning Kits (MPK) and Field Computing Devices (FCD). Each TACLAN Suite consists of three easily transportable, multiple integrated networks, 60 general use laptops and 10 intelligence laptops. A TACLAN network contains commercial servers, routers, and hubs which can operate at user selectable classification levels, [e.g., unclassified, collateral, coalition or Sensitive Compartmented Information (SCI) networks.] An MPK consists of computers and ancillary equipment used by SOF teams for detailed mission planning. FCDs are small hand-held computing devices used by the most forward deployed SOF to automatically interface with the TACLAN suite via tactical communications.

- Tactical Communications Systems Testbed was a Congressional add in FY05, FY06, and FY07. This initiative serves as a testbed to evaluate new technologies for SOF communications under a rapid prototyping concept. The focus is on the following discrete efforts that have been recommended by SOF users as having a significant potential impact to enhancing current capabilities: Tactical Wireless Communications Across the Battlespace; High Bandwidth WiMax; Real-Time/Near Real-Time Video Compression; Broadband Global Area Network, Network Modeling Tools, Migration to IP V6, and Information Assurance & Commercial-Off-the-Shelf (COTS) compatibility.

- Machine Based Language Translator (MBLT) provides a revolutionary capability for tactical, real-time, voice to voice multi-language capability. It supports SOF operations worldwide by maintaining highly perishable language translation proficiency, and provides immediate translation capability for SOF without general language training or training in rare dialects.

- Covert Wavelet Packet Modulation was an FY06 and FY07 Congressional add. Developed a Low Probability of Intercept/Low Probability of Detection (LPI/LPD) waveform generator and architecture for insertion into the JEM radio program.

- Covert Waveform III was an FY06 Congressional add. Developed new JTRS compliant covert communication capability with embedded positive threat identification.

- SOCOM Imagery Dissemination System initiative was an FY06 and FY07 Congressional add. This initiative explores an end-to-end technology system that consists of a PC-based COTS software package for end user situation awareness clients, and a UNIX-based software package for the remote imagery dissemination server.

- Improved USSOCOM Information Transfer was an FY06 Congressional add. Apply real-time knowledge management tools using information technologies and cognitive science to meet urgent Special Operations requirements.

- SOCOM Tactical Systems Development was an FY06 Congressional add. Research and develop environmentally hardened tactical system components in support of SOF direct action and reconnaissance operations.

- Voice Activated Handheld Translator was an FY06 Congressional add. Prototype a one-way language translation device, and research possibilities of achieving true two-field, expedient two-way real-time translation capability for SOF applications.

- Warrior Reach was an FY06 Congressional add. This initiative is a joint initiative to integrate real-world intelligence, surveillance and reconnaissance (ISR) capabilities into USSOCOM mission preparation and operational architectures to improve current mission preparation, testing and operational capabilities.

- Strategic Communications Support is an FY07 Congressional add. Develops culturally relevant media campaigns through management and execution of media approach planning, product development and prototyping, and commercial quality multi-media product development to support dissemination and distribution of multi-media products.

• STAR-TEC was an FY06 and FY07 Congressional add. The Science Technology and Research – Technology Enterprise Center (STAR-TEC) is a partnership program to facilitate business relationships with early stage manufacturing and technology businesses interested in producing critical products, technologies, and/or specialized services for SOF.

• C2 Mission Manager is an FY07 Congressional add. Develops software to manage, filter and display Air Support Requests. This funding will also add functionality to produce Mission Summary Reports.

ABOVE OPERATIONAL ELEMENT

• Special Operations Resource Business Information System (SORBIS) This initiative is to provide an enterprise-wide solution which will bring together resource and acquisition management data from disparate systems and databases (both internal and external) used throughout USSOCOM into an integrated business system that can provide a common user interface and common source and view of the data. It will enable users to complete acquisition management, planning, programming, and budgeting collaborative decision processes and retain information necessary to satisfy mission requirements, generate standard and ad hoc reports, graphically display performance metrics and data, and conduct in depth data analysis and reporting.

B. ACCOMPLISHMENTS/PLANNED PROGRAM

Cost ($ in million)	FY06	FY07	FY08	FY09
C4IAS DCGS				0.112
RDT&E Articles Quantity				

FY09 Begins development of a SOF network that provides SOF with unique decision-making capabilities.

Cost ($ in million)	FY06	FY07	FY08	FY09
MBITR	5.132	15.953		6.380
RDT&E Articles Quantity				

FY06 Continued technology insertions for the JEM, which will provide BFT, combat search and rescue functionality, improved data throughout networking, LPI/LPD, simultaneous noise and data operations, GPS, and enhanced Satellite Communications (SATCOM) capabilities.
FY07 Continue technology insertions for the JEM with emphasis on BFT, with emphasis on SATCOM and Demand Assigned Multiple Access (DAMA) research, engineering, and development which provides MBITR users with SATCOM capability.
FY09 Continues technology insertions for the JEM, with emphasis on SATCOM and DAMA research, engineering, and development.

Cost ($ in million)	FY06	FY07	FY08	FY09
MBMMR	1.920	.480		
RDT&E Articles Quantity				

FY06 Commenced development of a reprogrammable COMSEC chip.
FY07 Complete development of a reprogrammable COMSEC chip.

Cost ($ in million)	FY06	FY07	FY08	FY09
TACLAN			2.082	2.126
RDT&E Articles Quantity				

FY08 Begins development and integration of BFT secure wireless biometrics embedded national tactical receiver (ENTR) and DCGS data sharing capabilities.
FY09 Continues development and integration of BFT secure wireless biometrics ENTR and DCGS data sharing capabilities.

Cost ($ in million)	FY06	FY07	FY08	FY09
Tactical Communications System Testbed Initiative	1.639	1.461		
RDT&E Articles Quantity				

FY06 This initiative was a Congressional add. Continued tactical communications system testbed initiative to evaluate new technologies for SOF communications under a rapid prototyping concept. Evaluated enhancements to existing SOF deployable communications systems under both laboratory and operational conditions, while focusing on four discrete efforts to enhance current capabilities.
FY07 This initiative was a Congressional add. Continue tactical communications system testbed initiative to evaluate new technologies for SOF communications under a rapid prototyping concept. Evaluate enhancements to existing SOF deployable communications systems under both laboratory and operational conditions, while focusing on four discrete efforts to enhance current capabilities.

Cost ($ in million)	FY06	FY07	FY08	FY09
MBLT	0.295	0.398		
RDT&E Articles Quantity				

FY06 Began development and assessment of one-way automated language translation capability for SOF tactical applications.
FY07 Complete development and assessment of one-way automated language translation capability for SOF tactical applications.

Cost ($ in million)	FY06	FY07	FY08	FY09
Covert Wavelet Packet Modulation	1.349	1.948		
RDT&E Articles Quantity				

FY06 This initiative was a Congressional add. Developed a JTRS compliant LPI/LPD waveform generator and architecture for insertion into the JEM radio program.
FY07 This initiative was a Congressional add. Continue development of a JTRS compliant LPI/LPD waveform generator and architecture for insertion into the JEM radio program.

Cost ($ in million)	FY06	FY07	FY08	FY09
Covert Waveform III	2.313			
RDT&E Articles Quantity				

FY06 This initiative was a Congressional add. Developed new JTRS compliant covert communication capability with embedded positive threat identification.

Cost ($ in million)	FY06	FY07	FY08	FY09
SOCOM Imagery Dissemination System	1.927	1.461		
RDT&E Articles Quantity				

FY06 This initiative was a Congressional add. Explored end-to-end technology for PC-based end user situation awareness system for remote imagery dissemination.
FY07 This initiative was a Congressional add. Continue exploration of an end-to-end technology for PC-based end user situation awareness system for remote imagery dissemination.

Cost ($ in million)	FY06	FY07	FY08	FY09
USSOCOM Improved Information Transfer	3.278			
RDT&E Articles Quantity				

FY06 This initiative was a Congressional add. Applied real-time knowledge management tools using information technologies and cognitive science to meet urgent Special Operations requirements.

Cost ($ in million)	FY06	FY07	FY08	FY09
SOC Tactical Systems Development	1.639			
RDT&E Articles Quantity				

FY06 This initiative was a Congressional add. Researched and developed environmentally hardened tactical system components in support of SOF direct action and reconnaissance operations.

Cost ($ in million)	FY06	FY07	FY08	FY09
Voice Activated Handheld Translator	1.061			

FY06 This initiative was a Congressional add. Prototyped a one-way language translation device, and researched possibilities of achieving true two-field, expedient two-way real-time translation capability for SOF applications.

	FY06	FY07	FY08	FY09
Cost ($ in million)				
Warrior Reach	1.446	.974		

FY06 This initiative was a Congressional add. Commenced integration of real-world ISR capabilities into USSOCOM mission preparation and operational architectures to improve current mission preparation, testing and operational capabilities.
FY07 Continue integration of real-world ISR capabilities into USSOCOM mission preparation and operational architectures to improve current mission preparation, testing and operational capabilities.

	FY06	FY07	FY08	FY09
Cost ($ in million)				
Strategic Communications Support		2.727		

FY07 Develop and prototype products useful in providing dissemination and distribution of culturally relevant multi-media campaigns.

	FY06	FY07	FY08	FY09
Cost ($ in million)				
STARTEC	2.506	2.339		

FY06 Initiated partnership program with early stage manufacturing and technology businesses that will produce critical technologies for SOF.
FY07 Continue partnership program with early stage manufacturing and technology businesses that will produce critical technologies for SOF.

	FY06	FY07	FY08	FY09
Cost ($ in million)				
C2 Mission Manager		.974		

FY07 Develop software to manage, filter and display Air Support request and Mission Summary Reports.

	Exhibit R-2a, RDT&E Project Justification	Date: FEBRUARY 2007
Appropriation/Budget Activity RDT&E BA # 7	SOF Communications Advanced Development S700	

Cost ($ in million)	FY06	FY07	FY08	FY09
SORBIS			8.728	2.610
RDT&E Articles Quantity				

FY08 Commences development and test for resource planning, programming and budgeting, and acquisition management capabilities software applications.
FY09 Completes software application development and test for resource and acquisition management execution capabilities.

C. Other Program Funding Summary:

	FY06	FY07	FY08	FY09	FY10	FY11	FY12	FY13	To Complete	Total Cost
PROC, Comm/Equip and Electronics	151.373	65.960	175.073	140.681	148.399	151.703	173.459	165.184	Cont.	Cont.

D. Acquisition Strategy:

- C4IAS DCGS is a post Milestone C fielded SOF communication infrastructure that will evaluate and develop infrastructure technologies adaptors that support the seamless transmission of critical DCGS Intelligence, Surveillance, and Reconnaissance products.

- MBITR is a post-Milestone III fielded SOF communications system that is being upgraded to become software communications architecture compliant as directed by OSD.

- SORBIS acquisition strategy seeks to optimize a cost, schedule, and performance mix, by pursuing a commercial-off-the-shelf (COTS) materiel solution through full and open competition. Commercial and Government agency sources will be leveraged for required certifications, functional and operational test and acceptance support.

- TACLAN is a post-Milestone C fielded program that is being upgraded to reduce the footprint of deployable networks and related equipment.

Exhibit R-3 RDT&E Project Cost Analysis						DATE: FEBRUARY 2007					
APPROPRIATION / BUDGET ACTIVITY RDT&E DEFENSE-WIDE / 7			Special Operations Tactical Systems Development/PE1160404BB SOF Communications Advanced Development/S700								
Actual or Budget Value ($ in millions)											
Cost Categories (Tailor to WBS, or System/Item Requirements)	Contract Method & Type	Performing Activity & Location	Total PYs Cost	Budget Cost FY07	Award Date FY07	Budget Cost FY08	Award Date FY08	Budget Cost FY09	Award Date FY09	To Complete	Total Program
Primary Hardware Dev											
Develop MBITR COMSEC Chip	MIPR	NSA, Ft Meade, MD	2.177								2.177
Develop MBMMR 2007 Operating Sys S/W	T&M	Raytheon Network Centric Sys, Fort Wayne, IN	9.118	0.480	Nov-06						9.598
Material Improv & Corrosion Control	SS - FFP	Concurrent Technologies Corp, Largo, FL	2.454								2.454
Subtotal Product Dev			13.749	0.480		0.000	0.000	0.000		0.000	14.229
Remarks:											
Development Spt											
Machine Based Language Translator	MIPR	DARPA	0.302	0.398	Dec-06					0.719	1.419
DCGS Design	TBD	TBD						0.112	Dec-08	Cont.	Cont.
SORBIS Design	TBD	TBD				8.728	Dec-07	2.610	Dec-08		11.338
TACLAN	TBD	TBD				2.082	Dec-07	2.126	Dec-08	Cont.	Cont.
Subtotal Spt			0.302	0.398		10.810		4.848		Cont.	Cont.
Remarks:											

Exhibit R-3 RDT&E Project Cost Analysis						DATE: FEBRUARY 2007					
APPROPRIATION / BUDGET ACTIVITY RDT&E DEFENSE-WIDE / 7						Special Operations Tactical Systems Development/PE1160404BB SOF Communications Advanced Development/S700					
Actual or Budget Value ($ in millions)											
Cost Categories (Tailor to WBS, or System/Item Requirements)	Contract Method & Type	Performing Activity & Location	Total PYs Cost	Budget Cost FY07	Award Date FY07	Budget Cost FY08	Award Date FY08	Budget Cost FY09	Award Date FY09	To Complete	Total Program
Developmental Test & Eval											
Tactical Communication System Testbed	MIPR	SPAWAR-Charleston, SC	4.170	1.461	Jan-07						5.631
Covert Wavelet Packet Modulation	MIPR	AFRL, Rome, NY	1.349	1.948	Jan-07						3.297
Covert Waveform III	MIPR	AFRL, Rome, NY	2.313								2.313
SOCOM Imagery Dissemination System	TBD	TBD	1.927	1.461	Jan-07						3.388
USSOCOM Improved Information Transfer	MIPR	NSMA, Arlington, VA	3.278								3.278
SOF Tactical Systems Development	TBD	TBD	1.639								1.639
Voice Activated Handheld Translator	MIPR	,	1.061								1.061
Warrior Reach	MIPR	NAWC, Orlando, FL	1.446	0.974	Jan-07						2.420
C2 Mission Manager	MIPR	MacDill AFB, FL		0.974	Jan-07						0.974
Strategic Communications Support	MIPR	MacDill AFB, FL		2.727	Jan-07						2.727
STAR-TEC Partnership	MIPR	MacDill AFB, FL	2.506	2.339	Jan-07						4.845
Subtotal T&E			19.689	11.884		0.000		0.000			31.573
Remarks:											
Contractor Engineering Spt											
Subtotal Management											
Remarks:											
Total Cost			33.740	12.762		10.810		4.848		Cont.	Cont.
Remarks:											

Exhibit R-4, RDT&E Program Schedule Profile																																
																Date: FEBRUARY 2007																	
Appropriation/Budget Activity RDT&E/7									Program Element Number and Name PE1160404BB/Special Operations Tactical System Development																Project Number and Name Project S700 SOF Communications Adv Dev								
Fiscal Year	2006				2007				2008				2009				2010				2011				2012				2013			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
C4IAS DCGS														▲	—	△	▲	—	—	△	▲	—	—	△	▲	—	—	△	▲	—	—	△
MBITR Technology Insertions	▲	—	—	△	▲	—	—	△	▲	—	—	△	▲	—	—	△	▲	—	—	△	▲	—	—	△	▲	—	—	△	▲	—	—	△
Develop MBMMR COMSEC Chip		▲	—	△	▲	—	—	△																								
Special Operations Resource Business Information System									▲	—	—	△	▲	—	△																	
Tactical LAN										▲	—	△	▲	—	—	△	▲	—	—	△	▲	—	—	△	▲	—	—	△	▲	—	—	△
Tactical Communication System Testbed Initiative		▲	—	△	▲	—	—	△																								
Machine Based Language Translator		▲	—	△	▲	—	△											▲	—	△		▲	—	△								
Covert Wavelet Packet Modulation		▲	—	△	▲	—	—	△																								
Covert Waveform III		▲	—	△																												
SOCOM Imagery Dissemination System		▲	—	△	▲	—	—	△																								
SOCOM Improved Information Transfer		▲	—	△																												
SOC Tactical Systems Development		▲	—	△																												
Voice Activated Handheld Translator		▲	—	△																												
Warrior Reach		▲	—	△																												
C2 Mission Manager					▲	—	—	△																								
Strategic Communications Support					▲	—	—	△																								
STAR-TEC Partnership		▲	—	△	▲	—	—	△																								

Exhibit R-4a, RDT&E Program Schedule Detail				Date: FEBRUARY 2007				
Appropriation/Budget Activity RDT&E/7	Program Element Number and Name PE1160404BB/Special Operations Tactical Systems Development			Project Number and Name Project S700/SOF Communications Advance Development				
Schedule Profile	FY2006	FY2007	FY2008	FY2009	FY2010	FY2011	FY2012	FY2013
C4IAS DCGS				2-4Q	1-4Q	1-4Q	1-4Q	1-4Q
MBITR Technology Insertions	1-4Q	1-4Q	1-4Q	1-4Q	1-4Q	1-4Q	1-4Q	1-4Q
Develop MBMMR COMSEC Chip	2-4Q	1-4Q						
Special Operations Resource Business Info System			1-4Q	1-2Q				
Tactical LAN			2-4Q	1-4Q	1-4Q	1-4Q	1-4Q	1-4Q
Tactical Communication System Testbed Initiative	2-4Q	1-4Q						
Machine Based Language Translator	2-4Q	1-3Q			2-4Q	1-3Q		
Covert Wavelet Packet Modulation	2-4Q	1-4Q						
Covert Waveform III	2-4Q							
SOCOM Imagery Dissemination System	2-4Q	1-4Q						
SOCOM Improved Information Transfer	2-4Q							
SOC Tactical Systems Development	2-4Q							
Voice Activated Handheld Translator	2-4Q							
Warrior Reach	2-4Q	1-4Q						
C2 Mission Manager		1-4Q						
Strategic Communication Support		1-4Q						
STAR-TEC Partnership	2-4Q	1-4Q						

	Exhibit R-2a, RDT&E Project Justification			Date: FEBRUARY 2007
Appropriation/Budget Activity RDT&E BA # 7				SO Munitions Advanced Development/Project S800

Cost ($ in millions)	FY06	FY07	FY08	FY09	FY10	FY11	FY12	FY13
SO Munitions Adv Dev	5.682		2.000					
RDT&E Articles Quantity								

A. Mission Description and Budget Item Justification**:** This project provides for the development and qualification of selected, specialized munitions and equipment to meet unique Special Operations Forces (SOF) requirements. Sub-projects include:

- Foreign & Nonstandard Materiel (FNM). Program provides for development of all non-standard munitions.
- Heavy Sniper Rifle (HSR). Provides MK11 Sniper Support Rifle (SSR), MK12 Special Purpose Rifle (SPR), MK13 300 WinMag, and MK15 .50 Caliber sniper weapons systems to SOF.
- Multi-purpose Anti-armor Anti-personnel Weapon System (MAAWS). MAAWS is a multi-purpose, man-portable, line-of-sight, reloadable salt water submersible, jumpable, and recoilless, day/night, anti-armor and anti-personnel weapon system with a family of ten (10) ammunition rounds and a sub caliber training system.
- Remote Activation Munition System (RAMS). Magneto-Inductive RAMS (MI-RAMS) provides SOF the capability to remotely control detonation of demolition charges. MI-RAMS transmits through earth, rock, buildings, caves, and fresh and salt water.

B. Accomplishments/Planned Program

	FY 2006	FY 2007	FY 2008	FY 2009
FNM	.130			
RDT&E Articles Quantity				

FY06 Developed a diversionary device (flash bang hand grenade) to replace the MK141 diversionary device. The MK141 flash proved to be unsafe during operations. To avoid future injuries, USSOCOM qualified and purchased a new diversionary device using a Commercial-Off The Shelf strategy.

	Exhibit R-2a, RDT&E Project Justification			Date: FEBRUARY 2007
Appropriation/Budget Activity RDT&E BA # 7				SO Munitions Advanced Development/Project S800

	FY 2006	FY 2007	FY 2008	FY 2009
HSR	.973			
RDT&E Articles Quantity				

FY06 Ammunition characterization of .338 ammunition.

	FY 2006	FY 2007	FY 2008	FY 2009
MAAWS	.482		2.000	
RDT&E Articles Quantity				

FY06 A Congressional add funded this effort. The Multi Target (MT) warhead defeats triple brick or 8 inches reinforced concrete, and puts a lethal follow-through charge behind the wall.
FY08 Provides insensitive munition improvements to munitions fielded from MAAWS family of ten (10) ammunition rounds. Funds effort to develop, test and qualify packaging to contain explosion in the event of an unplanned stimulus in accordance with the USSOCOM Insensitive Munitions (IM) Plan as required by Chapter 141, Title 10 USC, Sections 2388 & 2389.

	FY 2006	FY 2007	FY 2008	FY 2009
RAMS	4.097			
RDT&E Articles Quantity				

FY06 This effort was funded by a Congressional add. Developed and applied Magneto Inductive (MI) technology for the initiation of explosives. MI technology will enable SOF operators to remotely initiate underground or underwater demolition charges to attack well protected targets.

C. Other Program Funding Summary**:**

	FY06	FY07	FY08	FY09	FY10	FY11	FY12	FY13	To Complete	Total Cost
PROC, SOF Munitions	69.046	21.342	26.509	23.715	36.869	36.824	36.899	37.904	Cont.	Cont.

D. Acquisition Strategy:
MAAWS: Leverage existing IM technology and develop novel solutions to make the MAAWS family of ammunition IM safe. Redesign the MAAWS ammunition packaging to enhance IM safety.

Exhibit R-3 COST ANALYSIS						DATE: FEBRUARY 2007					
APPROPRIATION / BUDGET ACTIVITY RDT&E DEFENSE-WIDE / 7			Special Operations Tactical Systems Development/PE1160404BB Special Operations Munitions Advanced Development/S800								
Actual or Budget Value ($ in millions)											
Cost Categories (Tailor to WBS, or System/Item Requirements)	Contract Method & Type	Performing Activity & Location	Total PYs Cost	Budget Cost FY07	Award Date FY07	Budget Cost FY08	Award Date FY08	Budget Cost FY09	Award Date FY09	To Complete	Total Program
Primary Hardware Dev											
MAAWS Dev IM Packaging	FFP	ARDEC, Picatinny, NJ				0.385	Dec-08				0.385
MAAWS Dev	FFP	ARDEC, Picatinny, NJ	17.913								17.913
Subtotal Product Dev			17.913	0.000		0.385		0.000			18.298
Remarks:											
Developmental Test & Eval											
MAAWS IM Testing/Qual		ARDEC, Picatinny, NJ				1.615	Mar-08				1.615
Subtotal T&E			0.000	0.000		1.615		0.000			1.615
Remarks:											
Contractor Engineering Spt											
Government Engineering Spt											
Program Management Spt											
Subtotal Management			0.000	0.000		0.000	0.000	0.000		0.000	0.000
Remarks:											
Total Cost			17.913	0.000		2.000		0.000		0.000	19.913
Remarks:											

Exhibit R-4, Schedule Profile																																
																		Date: FEBRUARY 2007														
Appropriation/Budget Activity RDT&E/7									Program Element Number and Name PE1160404BB/Special Operations Tactical System Development														Project Number and Name Project S800 SO Munitions Adv Dev								
Fiscal Year	2006				2007				2008				2009				2010				2011				2012				2013			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Foreign & Nonstandard Materiel BTV-1 Bottom Top Vent Single Flash Bang Grenade Development	◀	—	—	▶																												
Heavy Sniper Rifle Ammo Characterization			◀	—	—	△																										
M3 MAAWS Multi Target 756 Develop, Test & Qualify	◀	—	—	▶																												
XM156 MI-RAMS Magneto Inductive Remote Activation Munition System Development	◀	—	—	▶																												
Insenstive Munition Development									△	—	—	△																				

Exhibit R-4a, Schedule Profile				Date: FEBRUARY 2007				
Appropriation/Budget Activity RDT&E/7	Program Element Number and Name PE1160404BB/Special Operations Tactical Systems Development			Project Number and Name Project S800/SO Munitions Advance Development				
Schedule Profile	FY2006	FY2007	FY2008	FY2009	FY2010	FY2011	FY2012	FY2013
Foreign & Nonstandard Materiel BTV-1 Bottom								
Top Vent Single Flash Bang Grenade Development	1-4Q							
Heavy Sniper Rifle Ammo Characterization	3-4Q	1-2Q						
M3 Multi-Purpose Anti-Armor Anti-Personnel Weapon System (MAAWS) Multi Target 756 Develop, Test & Qualify	1-4Q							
XM156 Magneto Inductive Remote Activation Munition System Development	1-4Q							
MAAWS Insensitive Munitions Development			1-4Q					

	Exhibit R-2a, RDT&E Project Justification			Date FEBRUARY 2007
Appropriation/Budget Activity RDT&E BA # 7				SO Miscellaneous Equipment Advanced Development/Project S900

Cost ($ in millions)	FY06	FY07	FY08	FY09	FY10	FY11	FY12	FY13
SO Miscellaneous Equipment Advanced Development	5.626	2.242	2.589		1.502	2.978		
RDT&E Articles Quantity								

A. Mission Description and Budget Item Justification**:** This project funds the development and testing of Family of Special Operations Vehicles (FSOV). 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. Sub-projects funded in this project include:

- Alternative Mobility Vehicle (AMV) is an FY 2006 Congressional add. Funding for this effort will test and evaluate a prototype diesel hybrid powered light-duty off-road vehicle for potential use by SOF.

- Lightweight Tactical All Terrain Vehicle (LTATV) is an FY 2006 Congressional add. This initiative will develop a multi-fuel engine that primarily runs on JP8 fuel using the current ATV engine.

- Non-Standard Commercial Vehicle (NSCV). Funds will develop a roll on /roll off kit for NSCVs. Modification kits will include but are not limited to infrared lights, communication mounts, winches and weapon mounts that can be deployed and installed on NSCVs operating in all theaters.

- Ground Mobility Vehicles (GMV). Funding provides for product improvements in the areas of suspension, power management, armor protection, and overall SOF unique vehicle design for all SOF tactical vehicle configurations. The various modifications make it essential to keep up with the increased weight and the impact that it has on the basic vehicle.

- Rucksack Portable Unmanned Aircraft System. Project provides for spiral development for the Rucksack Portable Unmanned Aircraft System (RPUAS) related to payload and Digital Data Link.

- Small Business Innovative Research (SBIR). Provides administrative support to manage the SBIR program.

- Closed Circuit Rebreather. Congress add to evaluate emerging rebreather technology for SOF applications.

- ROVER Over-the-horizon Augmented Reconnaissance (ROAR) is a Congressional add that complements the SOF Remote Operations Video Enhanced Receiver (ROVER) by providing near real-time dissemination from Unmanned Aircraft Systems (UAS) video feeds down to multiple users. ROAR allows the ground force operator with situational awareness to see where the UAS in his mission area are looking; the user is then able to make a 'smart' request for video or frame data to his area of interest. ROAR improves collections and analyses within the constraints of existing communications operations. A single ROAR system can support multiple ROVER feeds, as long as the data can be delivered to the ROAR system.

B. Accomplishments/Planned Program

	FY 2006	FY 2007	FY 2008	FY 2009
AMV	2.361			
RDT&E Articles Quantity				

FY06 Congressional add began development of a prototype hybrid electric power train.

	FY 2006	FY 2007	FY 2008	FY 2009
LTATV	1.200			
RDT&E Articles Quantity				

FY06 Congressional add began development to convert existing LTATV gasoline engines.

	FY 2006	FY 2007	FY 2008	FY 2009
NSCV	.384			
RDT&E Articles Quantity				

FY06 Modified and tested the NSCV used by SOF.

	FY 2006	FY 2007	FY 2008	FY 2009
GMV			2.589	
RDT&E Articles Quantity				

FY08 Modifies and tests the various GMV configurations with the add-on armor as well as other modifications.

	Exhibit R-2a, RDT&E Project Justification			Date FEBRUARY 2007
Appropriation/Budget Activity RDT&E BA # 7			SO Miscellaneous Equipment Advanced Development/Project S900	

	FY 2006	FY 2007	FY 2008	FY 2009
SBIR	.500			
RDT&E Articles Quantity				
FY06 Funded administrative costs associated with executing the congressionally mandated SBIR Program.				
	FY 2006	FY 2007	FY 2008	FY 2009
Closed Circuit Rebreather		.974		
RDT&E Articles Quantity				
FY07 Congressional add to evaluate emerging rebreather technology for SOF applications.				
	FY 2006	FY 2007	FY 2008	FY 2009
ROAR		1.268		
RDT&E Articles Quantity				
FY07 Congressional add to develop ROVER Over The Horizon Augmented Reconnaissance.				
	FY 2006	FY 2007	FY 2008	FY 2009
RPUAS	1.181			
RDT&E Articles Quantity				
FY06 Completed testing of the RPUAS and began Digital Data Link design and development.				

C. Other Program Funding Summary:

	FY06	FY07	FY08	FY09	FY10	FY11	FY12	FY13	To Complete	Total Cost
PROC, Tactical Vehicle	19.046	13.143	10.612	3.783	.285	.293	.300	.310	Cont.	Cont.

D. Acquisition Strategy:

- AMV is an evolutionary acquisition program that integrates emerging technology into current vehicle propulsion systems. The strategy supports the development of a hybrid electric propulsion system for vehicles.

- NSCV maximizes the use of commercial vehicles and Non-Developmental Items (NDI) technology to develop SOF deployable modification kits for the NSCV's.

- GMV improvements integrate emerging technology or COTS/NDI to correct problems with the current suspension, electrical, and armor of the existing GMV's.

- LTATV conversion is an evolutionary acquisition program that integrates emerging and COTS technology to convert a current gasoline engine into a JP8 optimized/multi-fuel engine.

Exhibit R-3 RDT&E Project Cost Analysis						DATE: FEBRUARY 2007					
APPROPRIATION / BUDGET ACTIVITY RDT&E DEFENSE-WIDE / 7			Special Operations Tactical Systems Development/PE1160404BB Special Operations Miscellaneous Equipment Advance Development S900								
Actual or Budget Value ($ in millions)											
Cost Categories (Tailor to WBS, or System/Item Requirements)	Contract Method & Type	Performing Activity & Location	Total PYs Cost	Budget Cost FY07	Award Date FY07	Budget Cost FY08	Award Date FY08	Budget Cost FY09	Award Date FY09	To Complete	Total Program
Primary Hardware Dev											
ROVER Over The Horizon Augmented Reconnaissance	TBD	TBD		1.268	TBD						1.268
Alternative Mobility Vehicle (AMV)	MIPR	TACOM, Warren, MI	0.861								0.861
Non Standard Commercial Vehicle (NSCV)	PO	SOFSA, Lexington, KY	0.384								0.384
Ground Mobility Vehicle (GMV)	TBD	Various				2.000	Various			Cont.	Cont.
Unmanned Vehicle (UV)	MIPR		1.097								1.097
Closed Circuit Rebreather	TBD	NSWC, Norfolk, VA		0.974							0.974
Unmanned Vehicle Targeting (UVT)	MIPR	Natick Soldier Center, Natick, MA	2.000								2.000
Subtotal Product Dev			4.342	2.242		2.000		0.000		Cont.	Cont.
Remarks:											
Development Spt											
AMV	TACOM		1.000								1.000
UV	TBD		0.506								0.506
Subtotal Spt			1.506	0.000		0.000		0.000			1.506
Remarks:											
Developmental Test & Eval											
GMV	TBD	Various				0.589	Various			Cont.	Cont.
LTATV	FFP	Polaris, Medina, MN	1.200								1.200
UV	MIPR	Army PEO, Natick, MA	0.084								0.084
Subtotal T&E			1.284	0.000		0.589		0.000		Cont.	Cont.
Remarks:											
Governemnt Engineering Spt											
AMV	MIPR	TACOM, Warren, MI	0.500								0.500
SBIR	PBAS	NSMA, Arlington, VA	0.500								0.500
Subtotal Management			1.000	0.000		0.000		0.000			1.000
Remarks:											
Total Cost			8.132	2.242		2.589		0.000		Cont.	Cont.
Remarks:											

Exhibit R-4, RDT&E Program Schedule Profile																																
																	Date: FEBRUARY 2007																
Appropriation/Budget Activity									Program Element Number and Name																Project Number and Name							
RDT&E/7									PE1160404BB/Special Operations Tactical System Development																Project S900 SO Misc Equip Adv Dev							
Fiscal Year	2006				2007				2008				2009				2010				2011				2012				2013			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Alternative Mobility Vehicle (AMV)																																
Concept Development																																
Government Prototype Demonstrations																																
LTATV Engine conversion to JP8																																
Concept Development																																
Government Prototype Demonstrations																																
NSCV System Upgrade																																
Design Development																																
RPUAS																																
--RPUAS Data Link Design/Development																																
GMV System Upgrade																																
Design Development																																
ROAR																																
Development																																
Integration																																
Testing																																
Closed Circuit Rebreather																																
Development																																

Exhibit R-4a, RDT&E Program Schedule Detail				Date: FEBRUARY 2007				
Appropriation/Budget Activity RDT&E/7	Program Element Number and Name PE1160404BB/Special Operations Tactical Systems Development			Project Number and Name Project S900/SO Miscellaneous Equipment Advance Development				
Schedule Profile	FY2006	FY2007	FY2008	FY2009	FY2010	FY2011	FY2012	FY2013
Alternative Mobility Vehicle (AMV)								
Concept Development	4Q	1Q - 2Q						
Government Prototype Demonstrations		2Q - 4Q						
LTATV engine conversion to JP8								
Concept Development		1Q - 2Q						
Government Prototype Demonstrations		2Q - 4Q						
.								
NSCV System Upgrade								
Design Development	4Q	1Q - 2Q						
Rucksack Portable Unmanned Aircraft System								
Data Link Design and Development	2Q - 4Q							
GMV System Upgrade								
Design Development			1Q-4Q					
ROAR								
Development		2Q-4Q						
Integration		3Q-4Q	1Q					
Testing			1Q					
Closed Circuit Rebreather								
Development		3Q-4Q	1Q-2Q					

RDT&E BUDGET ITEM JUSTIFICATION SHEET (R-2 Exhibit)	DATE FEBRUARY 2007
APPROPRIATION / BUDGET ACTIVITY RDT&E, DEFENSE-WIDE / 7	R-1 ITEM NOMENCLATURE / PROJECT NO. PE 1160405BB Special Operations (SO) Intelligence Systems Development/S400

COST (Dollars in Millions)	FY06	FY07	FY08	FY09	FY10	FY11	FY12	FY13	Cost to Complete	Total Cost
PE1160405BB	62.810	63.357	35.783	37.736	32.968	35.845	35.288	36.182	Cont.	Cont.
S400, SO INTELLIGENCE	62.810	63.357	35.783	37.736	32.968	35.845	35.288	36.182	Cont.	Cont.

A. Mission Description and Budget Item Justification:

This program element 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 within this program element address the primary areas of intelligence dissemination, sensor systems, 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 will 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:

	FY06	FY07	FY08	FY09
Previous President's Budget	59.751	29.011	28.115	37.341
Current President's Budget	62.810	63.357	35.783	37.736
Total Adjustments	3.059	34.346	7.668	0.395
Congressional Program Reductions		-0.246		
Congressional Rescissions				
Congressional Increases		36.020		
Reprogrammings	4.406			
Other Program Adjustments			7.668	0.395
SBIR Transfer	-1.347	-1.428		

Funding:

FY06: Net increase of $3.059 million is due to four Congressional adds internally reprogrammed by OSD to this Program Element (PE) for proper execution ($4.406 million) and transfer to the Small Business Innovative Research (SBIR) account (-$1.347 million).

FY07: Net increase of $34.346 million is the result of 14 Congressional adds ($36.020 million), Section 8106 reduction (-$0.246 million), and SBIR reduction (-$1.428 million).

FY08: Net increase of $7.668 million is the result of starting the Global Sensor Network (GSN) program—a new start ($9.800 million), and realigning funds to higher Command priorities (-$2.132 million).

FY09: Net increase of $0.395 million is due to continuing the GSN program ($8.899 million), realigning the Distributed Common Ground/Surface System (DCGS) program to PE 0305208BB—the Military Intelligence Program (MIP) PE for DCGS (-$3.170 million), and realigning funds to higher Command priorities (-$5.334 million).

Schedule: None.

Technical: None.

Exhibit R-2a, RDT&E Project Justification	Date: FEBRUARY 2007
Appropriation/Budget Activity RDT&E BA # 7	Special Operations Intelligence/Project S400

Cost ($ in millions)	FY06	FY07	FY08	FY09	FY10	FY11	FY12	FY13
SO Intelligence	62.810	63.357	35.783	37.736	32.968	35.845	35.288	36.182
RDT&E Articles Quantity								

A. Mission Description and Budget Item Justification: This project 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 below address the primary areas of intelligence dissemination, sensor systems, 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 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 will employ the latest standards and technology by transitioning from separate systems to full integration with the Global Information Grid (GIG). The GIG will allow 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). Sub-projects include:

OPERATIONAL ELEMENT (TEAM)

- National Systems Support to SOF (NSSS). The NSSS is a research and development rapid prototyping program. NSSS improves the combat effectiveness of USSOCOM, its components, and the Theater Special Operations Commands (TSOCs) by leveraging service and national agency development efforts on space-based intelligence and communications technologies and systems. This includes Imagery Intelligence, Signals Intelligence (SIGINT), and Measurement and Signature Intelligence processing and tactical display technologies and capabilities; evolving global information dominance technologies; and related meteorological, oceanographic, and space weather developments and architectures. NSSS coordinates and facilitates concepts and technologies for inclusion in Joint Chiefs of Staff Special Projects and selected Advanced Concept Technology Demonstrations (ACTDs) that use space systems to support tactical military operations.

- Joint Threat Warning System (JTWS). JTWS is an evolutionary acquisition (EA) program that provides threat warning, force protection, enhanced situational awareness, and target identification/acquisition information to SOF via signal intercept, direction finding and SIGINT. JTWS will employ continuing technology updates to address the changing threat environment. SOF SIGINT operators are globally deployed and fully embedded within Special Operations teams and aircrews in every operational environment. The JTWS state-of-the-art technology enables these operators to provide critical time sensitive targeting and actionable intelligence to the operational commander during mission execution. Intelligence derived from JTWS operations supports campaign objectives and the National Military

Strategy. JTWS provides variant systems utilizing common core software that allows operators to task, organize, and scale equipment based on anticipated signal environments and areas of operation. Systems will be modular; lightweight with minimal power requirements; and configurable to support body worn, man-pack, team-transportable, remote unattended, air and maritime operations in support of all SOF missions. Each JTWS, except Team Transportable, variant will be capable of operation by a single trained operator. The four variants are Ground SIGINT Kit, Team Transportable, Air, and Maritime.

- Optimal Placement of Unattended Sensors (OPUS). OPUS provides for the research and integration of a commercial lightweight, modular handheld sensor interface device. This effort will provide the capability to identify the optimal placement of unattended ground sensors in support of SOF mission planning efforts.

ABOVE OPERATIONAL ELEMENT (GARRISON)

- Special Operations Joint Interagency Collaboration Center (SOJICC) is an EA program providing a state-of-the-art capability designed to process, analyze, visualize and collaborate operations and intelligence data supporting SOF core missions, with an emphasis on counter-terrorism, counter-proliferation, information operations, and unconventional warfare. SOJICC applications fuse data from both open source and classified intelligence and operational data for use by SOF mission planners and intelligence personnel as directed by the Commander, USSOCOM. SOJICC will continue to employ technology updates to bridge the gap between operations and intelligence to support deliberate and crisis action planning while addressing the changing threat environment. Operational Preparation of the Environment (OPE) provides a mechanism for research, awareness for pre-deployment, and a bridge to mitigate the information gaps and seams between theaters.

- Counter-Proliferation Analysis and Planning System (CAPS). DOD has a planning mission for Counter-Proliferation (CP) contingency operations. OSD has identified CAPS as the standard CP planning toolset for DOD, and the Assistant to the Secretary of Defense for Nuclear, Chemical, and Biological Defense Programs has consolidated RDT&E funding at USSOCOM for overall program management. U.S. Strategic Command serves as the coordinator for CAPS production requirements and provides O&M funding. Defense Threat Reduction Agency provides science and technology expertise and integration support to enhance CAPS capabilities. CAPS provides tools and assessments to DOD and SOF mission planners to aid in worldwide identification and analysis of suspected Weapons of Mass Destruction and potential targets; assesses the associated effectiveness, costs and risks of various CP options and their collateral effects; and develops alternative plans. CAPS is a primary source of CP mission planning information for Combatant Commanders who are the principal customers. CAPS requires ongoing development, integration and testing of “leading edge technology” for operational planning and processes in order to provide the best possible engineering analysis and to support consequence engineering tools to meet changing threats.

- Global Sensor Network (GSN). The GSN communications architecture supports the warfighter to find and fix terrorist networks and/or individuals by networking attended and unattended sensors. GSN leverages the Global Video Surveillance Activity (GVSA) for the development and integration of biometric, SOTVS, and HFTTL capabilities. SOCOM, in collaboration with DoD, external agencies and Coalition partners, will develop, deploy, and employ a GSN directly supporting SOF operations against terrorist activities. Leveraging progress already achieved through sensor research and development within SOCOM, other agencies, and commercial industry, the DoD will create a GSN that makes processing, exploitation, and data dissemination available through a horizontally integrated architecture.

- Special Operations Command Research, Analysis & Threat Evaluation System (SOCRATES). SOCRATES is a garrison Sensitive Compartmented Information (SCI) intelligence automation architecture directly supporting the Command's global mission by providing a seamless and interoperable interface with SOF, DOD, national and service intelligence information systems. It provides the capabilities to exercise command and control, planning, collection, collaboration, data processing, video mapping, a wide range of automated intelligence analysis, direction, intelligence dissemination, imagery tools and applications (to include secondary imagery dissemination), as well as news and message traffic. The program ensures intelligence support to mission planning and the intelligence preparation of the battlespace by connecting numerous data repositories while maintaining information assurance. SOCRATES supports HQ USSOCOM, its component commands, TSOCs and forward based SOF units. Additionally, it provides the critical reachback for SOF tactically deployed Local Area Networks/Wide Area Networks. SOCRATES is comprised of state-of-the-art networking devices (firewalls, routers, switches, hubs, and modems), servers, storage devices, workstations, associated peripherals and Government-Off-the-Shelf (GOTS)/Commercial-Off-The-Shelf (COTS) software.

- Unattended Aerial Vehicle (UAV) Near-Real-Time Video Program is an initiative to develop a smart-pull, geospatial situational awareness information system providing SOF the ability to exploit, in near-real-time, specific segments of UAV electro-optic/infrared video.

- Wireless Management and Control Program is an initiative to establish a wireless center of excellence and follow-on tools and techniques that focus on Wireless Communication Intelligence capabilities to map, exploit and actively manipulate wireless signals of interest. Developed technologies against wireless communications must withstand the rigors of field deployment and be sustainable and upgradeable to remain relevant against emerging adversary technologies.

- Application Specific Integrated Circuit Development is an initiative to establish a SOCOM dedicated center for application specific integrated circuits technology design and development.

- Biowarfare Testing is an initiative to develop a light-weight portable system to detect and identify specific biological agents.

- Foxhound Arabic Software Testing and Evaluation is an initiative to test and evaluate Foxhound Arabic software for SOF applications.

- High Altitude Long Endurance is an initiative to develop a Direction Finding antenna system for employment in high altitude airship, UAV, and JTWS–A platforms/systems.

- High Value Target Tracking Devices is an initiative that accelerates the introduction of miniature high value target tracking and localization capabilities, and provides SOF with the tools and ability to track and report position information of these critical assets.

- Improved Special Operations Reconnaissance Kits is an initiative to develop a prototype and evaluate new software, hardware, and sensors that significantly enhance present capabilities.

- SOF Individual Threat Warning Receiver is an effort to develop and integrate a threat warning system into the body worn manpack for SOF personnel.

- Night Vision Integrated Display System is an effort to develop and integrate wearable display devices with state-of-the-art night vision technology. This is a potential technology insertion for SOTVS/RSTA.

- SOCOM Power Sources Integration Team is an effort to develop innovative power source capability by assessing current and emerging alternative power sources, and developing new battery technology module and new power source modules for JTWS variants.

- Tactical Miniature Software Definable Receiver (SDR) is an effort to develop advanced packaging for GSK II and Team Transportable variants to include research, design requirements and initial prototypes. Additionally, the effort will include advanced camouflaging concepts and miniaturized direction finding module development.

- Biometrics Signatures Research is a joint research project with the University of Louisville and industry to improve the military's ability to covertly locate, identify and track specific individuals. This research examines biometric signatures such as gait and chemical functions.

- Long Endurance Unattended Ground Sensor (UGS) Technology supports research and development of advanced, low power UGS technologies that will provide the warfighter with total, reliable and up-to-the-minute battlefield situational awareness. The program will

include the development of ad-hoc networks of small, low power Radio Frequency (RF) transceiver nodes that support: (1) high resolution mono- and multi-static RADAR for target detection, classification and tracking; (2) high bandwidth, covert communication of data, voice, and video; and (3) data/information ex-filtration via satellite communications for display using advanced visualization technologies. This is a potential technology insertion for SOTVS/RSTA.

- METOC Airdropped Sensors is an effort to develop small, lightweight and easily deployable sensors that can be dropped from an aircraft or helicopter to transmit data via satellite. This data can be viewed anywhere in the world within minutes after deployment. These sensors measure weather conditions and a variety of other environmental and situational parameters (meteorological and oceanographic data).

- Microelectromechanical Systems (MEMS) & Nanotechnology Defense Lab will develop evaluation prototypes to explore the functional operation of a range of micro-miniaturization technologies with the main focus on developing applications for tagging, tracking and locating (TTL), special communication, sensors, and related GWOT requirements.

- Multi-Spectral Laboratory & Services is a research effort concentrating on next-generation, multi-spectral sensors to support both the warfighter and first responder communities.

- Nanotechnology Integration Team. Applies technology to SOF tagging, tracking, and locating requirements.

- Payload Interface Master Module. Enhances functionality of prototype Payload Interface Master Modules developed under SBIR projects. Enhancements include security mechanisms, miniaturization, and power management improvements.

- SOF Long Endurance Demonstrator (SLED) continues research and development of the SLED in support of special reconnaissance and other potential intelligence uses.

- SOF Tactical Interface (SBIR 01-0006). Continues the development and testing of MANPACK antennas, receivers, direction finding algorithms, and software technologies supporting the JTWS family of systems.

- Tactical Miniature Shortwave Receiver is an effort to develop a miniature shortwave receiver.

B. Accomplishments/Planned Program

	FY06	FY07	FY08	FY09
NSSS SOF	0.787	0.911	0.952	1.005
RDT&E Articles Quantity				

FY06 Continued to leverage space intelligence, surveillance, and reconnaissance technology developments with SOF utility from the National Community and Military Services. NSSS assessed the operational utility of leveraged and developed technology.
FY07 Continue to leverage space intelligence, surveillance, and reconnaissance technology developments with SOF utility from the National Community and Military Services. NSSS assessed the operational utility of leveraged and developed technology.
FY08 Continues to leverage space intelligence, surveillance, and reconnaissance technology developments with SOF utility from the National Community and Military Services. NSSS will assess the operational utility of leveraged and developed technology.
FY09 Continues to leverage space intelligence, surveillance, and reconnaissance technology developments with SOF utility from the National Community and Military Services. NSSS will assess the operational utility of leveraged and developed technology.

	FY06	FY07	FY08	FY09
JTWS	14.154	8.781	4.106	4.578
RDT&E Articles Quantity				

FY06 This initiative was partially funded by a Congressional add. Completed Air Variant Increment 1 test and evaluation. Commenced development of the Team Transportable (TT) variant, GSK future increment and UAV payload.
FY07 Continue TT and GSK future increment development. Completed UAV payload development.
FY08 Continues TT and GSK future increment development and test and evaluation. Starts Air Variant Increment 2 development and testing.
FY09 Completes TT and GSK future increment development and test and evaluation. Continues development and testing of Air Variant Increment 2.

	FY06	FY07	FY08	FY09
OPUS	0.965	1.608		
RDT&E Articles Quantity				

FY06 This initiative was a Congressional add. Continued development and demonstration of commercial technology used to identify the optimal placement of unattended ground sensors.
FY07 This initiative was the continuation of a Congressional add. Continue development and demonstration of commercial technology used to identify the optimal placement of unattended ground sensors.

	FY06	FY07	FY08	FY09
SOJICC	1.433	3.092	2.854	3.070
RDT&E Articles Quantity				

FY06 Continued systems engineering and program management efforts to achieve data compatibility by integrating different COTS hardware and software applications for data mining and retrieval, link and nodal analysis, and data visualization.
FY07 Continue systems engineering and program management efforts to achieve data compatibility by integrating different COTS hardware and software applications for data mining and retrieval, link and nodal analysis, and data visualization.
FY08 Continues systems engineering and program management efforts to achieve data compatibility by integrating different COTS hardware and software applications for data mining and retrieval, link and nodal analysis, and data visualization.
FY09 Continues systems engineering and program management efforts to achieve data compatibility by integrating different COTS hardware and software applications for data mining and retrieval, link and nodal analysis, and data visualization.

	FY06	FY07	FY08	FY09
CAPS	16.608	17.673	18.071	20.184
RDT&E Articles Quantity				

FY06 Continued development of the CAPS database, intelligence support procedures, Information Technology systems planning, system integration and interface control, software development, and development of analytical tools and system interfaces.
FY07 Continue development of the CAPS database, intelligence support procedures, Information Technology systems planning, system integration and interface control, software development, and development of analytical tools and system interfaces.
FY08 Continues development of the CAPS database, intelligence support procedures, Information Technology systems planning, system integration and interface control, software development, and development of analytical tools and system interfaces.
FY09 Continues development of the CAPS database, intelligence support procedures, Information Technology systems planning, system integration and interface control, software development, and development of analytical tools and system interfaces.

	FY06	FY07	FY08	FY09
GSN			9.800	8.899
RDT&E Articles Quantity				

FY08 Commences GSN program start, develops GSN biometric systems, evaluates new technologies for SOTVS and HFTTL systems, and supports and integrates service sensors' architecture and configuration to SOF systems.
FY09 Continues development of GSN biometric systems, evaluates new technologies for SOTVS and HFTTL systems, and integrates service sensors' architecture and configuration to SOF systems.

	FY06	FY07	FY08	FY09
SOCRATES	1.921			
RDT&E Articles Quantity				

FY06 Completed efforts to develop a Multi-Level Security guard that provides the capability to automatically pass imagery and data classified SECRET and below from a TOP SECRET system to a SECRET system without manual intervention.

	FY06	FY07	FY08	FY09
UAV Near-Real-Time Video Program	0.965			
RDT&E Articles Quantity				

FY06 This initiative was a Congressional add. Continued to develop a smart-pull, geospatial situational awareness information system providing SOF the ability to exploit, in near-real-time, specific segments of UAV electro-optic/infrared video.

	FY06	FY07	FY08	FY09
Wireless Management and Control Project	1.689			
RDT&E Articles Quantity				

FY06 This initiative was a Congressional add. Completed the development of tools and techniques focusing on Wireless Communication Intelligence.

	FY06	FY07	FY08	FY09
Application Specific Integrated Circuit Development	4.053	3.215		
RDT&E Articles Quantity				

FY06 This initiative was a Congressional add. Funded efforts for establishing a dedicated center for application specific integrated circuits technology design and development.
FY07 This initiative was a continuation of a Congressional add. Continue efforts to establish a dedicated center for application specific integrated circuits technology design and development.

	FY06	FY07	FY08	FY09
Biowarfare Testing	.965			
RDT&E Articles Quantity				

FY06 This initiative was a Congressional add. Began development of a light-weight portable system to detect and identify specific biological agents.

	FY06	FY07	FY08	FY09
Foxhound Arabic Software Testing and Evaluation	1.307			
RDT&E Articles Quantity				
FY06 This initiative was a Congressional add. Began testing and evaluation of Foxhound Arabic software for SOF applications.				
	FY06	FY07	FY08	FY09
High Altitude Long Endurance Airships	1.016			
RDT&E Articles Quantity				
FY06 This initiative was a Congressional add. Developed a fully-automated synthesis device for producing electronically and optically active nanostructures for high altitude airship electronics and sensors.				
	FY06	FY07	FY08	FY09
High Value Target Tracking Devices	2.032			
RDT&E Articles Quantity				
FY06 This initiative was a Congressional add. Commenced acceleration of introduction of miniature High Value Target Tracking and localization capabilities to provide SOF with the tools and ability to track and report position information of critical assets.				
	FY06	FY07	FY08	FY09
Improved Special Operation Reconnaissance Kits	2.177			
RDT&E Articles Quantity				
FY06 This initiative was a Congressional add. Began development and evaluation of new software, hardware, and sensors to significantly enhance present SOTVS/RSTA capabilities. This is a potential technology insertion for SOTVS/RSTA.				
	FY06	FY07	FY08	FY09
SOF Individual Threat Warning Receiver (ITWR)	7.431			
RDT&E Articles Quantity				
FY06 This initiative was a Congressional add. Began development of a SOF ITWR.				
	FY06	FY07	FY08	FY09
Night Vision Integrated Display System	0.483			
RDT&E Articles Quantity				
FY06 This initiative was a Congressional add. Began development of integrated wearable display devices with state-of-the-art night vision technology. This is a potential technology insertion for SOTVS/RSTA.				

	FY06	FY07	FY08	FY09
SOCOM Power Sources Integration Team	2.219	1.948		
RDT&E Articles Quantity				

FY06 This initiative was a Congressional add. Began to evaluate alternative power sources instead of traditional batteries.
FY07 This initiative was a continuation of a Congressional add. Continue efforts to evaluate alternative power sources to replace traditional batteries.

	FY06	FY07	FY08	FY09
Tactical Miniature SDR	2.605			
RDT&E Articles Quantity				

FY06 This initiative was a Congressional add. Began development of a miniature SDR.

	FY06	FY07	FY08	FY09
Biometrics Signatures Research		1.948		
RDT&E Articles Quantity				

FY07 This initiative was a Congressional add. Began initial research into refining biometric signatures, such as gait and chemical functions, for use in DoD systems.

	FY06	FY07	FY08	FY09
Long Endurance UGS Technology		1.657		
RDT&E Articles Quantity				

FY07 This initiative was a Congressional add. Begin research and development of advanced, low power unattended ground sensor (UGS) technologies that will provide the warfighter with total, reliable and up-to-the-minute battlefield situational awareness. The program will include the development of ad-hoc networks of small, low power Radio Frequency (RF) transceiver nodes that support: (1) high resolution mono- and multi-static RADAR for target detection, classification and tracking; (2) high bandwidth, covert communication of data, voice, and video; and (3) data/information ex-filtration via satellite communications for display using advanced visualization technologies. This is a potential technology insertion for SOTVS/RSTA.

	FY06	FY07	FY08	FY09
METOC Airdropped Sensors		1.364		
RDT&E Articles Quantity				

FY07 This initiative was a Congressional add. Begin development of sensors that can be dropped from aircraft or helicopters to collect meteorological and oceanographic data.

	FY06	FY07	FY08	FY09
MEMS & Nanotechnology Def Lab		2.240		
RDT&E Articles Quantity				
FY07 This initiative was a Congressional add. Develop prototypes of micro-sensor and optical navigation devices, implement desired features, and transition the TTL devices to field applications.				
	FY06	FY07	FY08	FY09
Multi-Spectral Laboratory & Services		1.461		
RDT&E Articles Quantity				
FY07 This initiative was a Congressional add. Begin research of next-generation, multi-spectral sensors to support both the warfighter and first responder communities.				
	FY06	FY07	FY08	FY09
Nanotechnology Integration Team		1.871		
RDT&E Articles Quantity				
FY07 This initiative was a Congressional add. Apply nanotechnology to SOF tagging, tracking, and locating requirements.				
	FY06	FY07	FY08	FY09
Payload Interface Master Module (PIMM)		.974		
RDT&E Articles Quantity				
FY07 This initiative was a Congressional add. Build enhanced PIMM prototypes to add additional capabilities to command, control, and communicate with the Next Generation Loud Speaker System onboard Unmanned Ground Vehicles.				
	FY06	FY07	FY08	FY09
SOF Long Endurance Demonstrator (SLED)		4.872		
RDT&E Articles Quantity				
FY07 This initiative was a Congressional add. Continue research and developed that had begun as an Advanced Concept Technology Demonstration effort for the SLED platform.				
	FY06	FY07	FY08	FY09
SOF Tactical Interface (SBIR 01-0006)		8.183		
RDT&E Articles Quantity				
FY07 This initiative was a Congressional add. Continued development and testing of manpack antennas, receivers, direction finding algorithms, and software technologies supporting the JTWS family of systems.				

	FY06	FY07	FY08	FY09
Tactical Miniature S/W Receiver		1.559		
RDT&E Articles Quantity				

FY07 This initiative was a Congressional add. Develop a miniature shortwave receiver.

C. Other Program Funding Summary:

	FY06	FY07	FY08	FY09	FY10	FY11	FY12	FY13	To Complete	Total Cost
PROC, SOF Intelligence Sys	64.227	33.354	70.943	65.596	66.456	58.906	41.065	54.374	Cont.	Cont.
PROC, Unmanned Vehicles	0.000	19.400	0.000	0.000	0.000	0.000	0.000	0.000	0.000	9.400
PROC, Combat Mission Rqmts	6.732	2.562	0.000	0.000	0.000	0.000	0.000	0.000	Cont.	Cont.

D. Acquisition Strategy:

- NSSS is a project to introduce and integrate national systems capabilities into the SOF force structure and operations. NSSS activities include increasing national and commercial systems awareness, demonstrating the tactical utility of national systems and commercial data, testing technologies and evaluating operational concepts in biennial Joint Staff Special Projects, and transitioning promising concepts and technologies to other SOF program offices for execution.

- JTWS is an EA program that provides threat warning, force protection, enhanced situational awareness, and target identification/ acquisition information to SOF via signals intercept, direction finding and SIGINT. JTWS will employ continuing technology updates to address the changing threat environment.

- OPUS. Systems Readiness Center will leverage existing OPUS COTS technology to provide a capability to plan, coordinate and identify the optimal placement of unattended sensors.

- SOJICC is an EA program providing a state-of-the-art capability designed to process, analyze, visualize and collaborate operations and intelligence data supporting SOF core missions, with an emphasis on counter-terrorism, counter-proliferation, information operations, and unconventional warfare. SOJICC applications fuse data from both open source and classified intelligence and operational data for use by SOF mission planners and intelligence personnel as directed by the Commander, USSOCOM. SOJICC will continue to employ technology updates to bridge the gap between operations and intelligence to support deliberate and crisis action planning while addressing the changing threat environment.

- CAPS is an on-going developmental initiative chartered by the Assistant to the Secretary of Defense for Nuclear, Chemical and Biological Defense Programs, which was transferred to USSOCOM from the Defense Threat Reduction Agency to develop, integrate and test "leading edge technology" for operational planning to provide engineering analysis and support consequence engineering tools to meet changing threats.

- GSN will utilize leading edge technology to develop capabilities to collect, exploit, store, and retrieve information from multiple sensor fields. The GSN communications architecture supports the war fighter to find and fix terrorist networks and/or individuals by networking attended and unattended sensors. GSN leverages the Global Video Surveillance Activity (GVSA) for the development and integration of biometric, SOTVS, and HFTTL capabilities. SOCOM, in collaboration with DoD, external agencies and Coalition partners, will develop, deploy, and employ a GSN directly supporting SOF operations against terrorist activities. Leveraging progress already achieved through sensor research and development within SOCOM, other agencies, and commercial industry, the DoD will create a GSN that makes processing, exploitation, and dissemination data available through a horizontally integrated architecture.

- SOCRATES will develop a SOF-peculiar cross-domain solution to support the seamless integration of intelligence data into mission planning and command and control capabilities in both a garrison and tactical environment. USSOCOM will leverage available funds against ongoing efforts by other government agencies to meet SOF-peculiar documented requirements.

Exhibit R-3 RDT&E Project Cost Analysis						DATE: FEBRUARY 2007					
APPROPRIATION / BUDGET ACTIVITY RDT&E DEFENSE-WIDE / 7			Special Operations Intelligence Systems Development/PE1160405BB Special Operations Intelligence/S400								
Actual or Budget Value ($ in millions)											
Cost Categories (Tailor to WBS, or System/Item Requirements)	Contract Method & Type	Performing Activity & Location	Total PYs Cost	Budget Cost FY07	Award Date FY07	Budget Cost FY08	Award Date FY08	Budget Cost FY09	Award Date FY09	To Complete	Total Program
Product Development											
JTWS Air Increment 1 Dev	MIPR	SPAWAR, Charleston, SC	9.266								9.266
JTWS Air Increment 2 Dev	MIPR	SPAWAR, Charleston, SC				0.500	Nov-07	2.500	Nov-08	Cont.	Cont.
JTWS Team Transpotable Dev	MIPR	SPAWAR, Charleston, SC	1.600	2.540	Dec-06	1.900	Nov-07				6.040
JTWS GSK Increment 2 Dev	MIPR	SPAWAR, Charleston, SC	6.100	3.621	Dec-06	1.356	Nov-07	1.708	Nov-08	Cont.	Cont.
JTWS GSK/UAV Plus-up	MIPR	SPAWAR-Charleston, SC & SRC, Charleston, SC	2.957								2.957
JTWS Network Variants Plus-up	MIPR	OGA		2.193	Jan-07						2.193
CAPS Development	MIPR	Lawrence Livermore National Labs (LLNL), Livermore, CA	44.642	16.991	Nov-06	17.296	Nov-07	19.377	Nov-08	Cont.	Cont.
GSN Development	TBD	TBD				4.950	Dec-07	3.700	Dec-08	Cont.	Cont.
NSSS Development	MIPR	Various Government Agencies	0.386	0.472	Dec-06	0.483	Dec-07	0.516	Dec-08	Cont.	Cont.
SOCRATES MSL Development	MIPR	AFRL, Wright-Patterson AFB, OH	1.962								1.962
Wireless Management & Control	FFP	EWA, Herndon, VA	5.368								5.368
Individual Threat Warning Receiver	MIPR	Trident, Germantown, MD	7.590								7.590
Power Source Integration	TBD	TBD	2.267	1.948	Jan-07						4.215
Tactical Miniature SDR Receiver	TBD	TBD	2.661								2.661
UAVNRTVP	MIPR	ITAC, Reston, VA	2.328								2.328
ASICD	MIPR	Networld Exchange, Inc, Carlsbad, CA	7.494	3.215	Jan-07						10.709
High Altitude Long Endurance Airships	MIPR	RDECOM, Aberdeen Proving Ground, MD	1.016								1.016
High Value Target Tracking Devices	MIPR	Dept of Energy, Washington, DC	2.032								2.032
Improved SO Reconnaissance Kits	MIPR	AFRL, Eglin Air Force Base, FL	2.177								2.177
OPUS	FFP	Prologic Incorporated, Fairmount, WV	1.945	1.608	Jan-07						3.553
Night Vision Integrated Display	MIPR	SPAWAR-Charleston, SC & SRC, Charleston,	0.493								0.493
Biometrics Signatures Research	MIPR	NAVSEA		1.948	Dec-06						1.948
Long Endurance UGS Technology	TBD	TBD		1.657	Jan-07						1.657
METOC Airdropped Sensors	TBD	TBD		1.364	Jan-07						1.364
MEMS & Nanotechnology Def Lab	TBD	TBD		2.240	Dec-06						2.240
Multi-Spectral Laboratory & Services	MIPR	SPAWAR-Charleston, SC & SRC, Charleston, SC		1.461	Dec-06						1.461
Payload Interface Master Module	TBD	TBD		0.974	Jan-07						0.974
SOF Tactical Interface (SBIR 01-0006)	TBD	TBD		8.183	Jan-07						8.183
Tactical Miniature S/W Receiver	TBD	TBD		1.559	Jan-07						1.559
Nanotechnology Integ. Team	TBD	TBD		1.871	Mar-07						1.871

Exhibit R-3 RDT&E Project Cost Analysis						DATE: FEBRUARY 2007					
APPROPRIATION / BUDGET ACTIVITY RDT&E DEFENSE-WIDE / 7			Special Operations Intelligence Systems Development/PE1160405BB Special Operations Intelligence/S400								
Actual or Budget Value ($ in millions)											
Cost Categories (Tailor to WBS, or System/Item Requirements)	Contract Method & Type	Performing Activity & Location	Total PYs Cost	Budget Cost FY07	Award Date FY07	Budget Cost FY08	Award Date FY08	Budget Cost FY09	Award Date FY09	To Complete	Total Program
Product Development (Cont.)											
SOF Long Endurance Demo (SLED)	TBD	TBD		4.872	Mar-07						4.872
Subtotal Product Dev			102.284	58.717		26.485		27.801		Cont.	Cont.
Remarks:											
Support Costs											
JTWS Support	MIPR	Various Government Agencies	2.019	0.097	Jan-07						2.116
CAPS Support	MIPR	Various Government Agencies	1.732	0.682	Nov-06	0.775	Nov-07	0.807	Nov-08	Cont.	Cont.
SOJICC Support	MIPR	Various Government Agencies	0.074								0.074
Subtotal Support Costs			3.825	0.779		0.775		0.807		Cont.	Cont.
Remarks:											
Test & Evaluation											
SOJICC Inter Op Test	MIPR	JITC, Albequerque, NM	0.159								0.159
JTWS Test (DT/OT/Support)	TBD	TBD		0.330	Jun-07	0.350	Jun-08	0.370	Jun-09	Cont.	Cont.
Subtotal T&E			0.159	0.330		0.350		0.370			0.159
Remarks:											
Management Services											
SOJICC Integration Support	MIPR	MITRE, Tampa, FL	3.846	3.092	Dec-06	1.231	Dec-07	1.338	Dec-08	Cont.	Cont.
SOJICC Integration Support	C-CPAF	EITC, Tampa, FL				1.623	Dec-07	1.732	Dec-06	Cont.	Cont.
NSSS Program Support	C-CPAF	Jacobs-Sverdrup, Tampa, FL	1.997	0.439	Oct-06	0.469	Oct-07	0.489	Oct-08	Cont.	Cont.
JTWS Program Support	C-CPAF	Jacobs-Sverdrup, Tampa, FL	0.829								0.829
GSN Integration	TBD	TBD				4.850	Dec-07	5.199	Dec-08	Cont.	Cont.
Subtotal Management			6.672	3.531		8.173		8.758		Cont.	0.829
Remarks:											
Total Cost			112.940	63.357		35.783		37.736		Cont.	Cont.
Remarks											

Exhibit R-4, RDT&E Program Schedule Profile	Date: FEBRUARY 2007
Appropriation/Budget Activity RDT&E/7	Project Number and Name Project S400/SO Intelligence

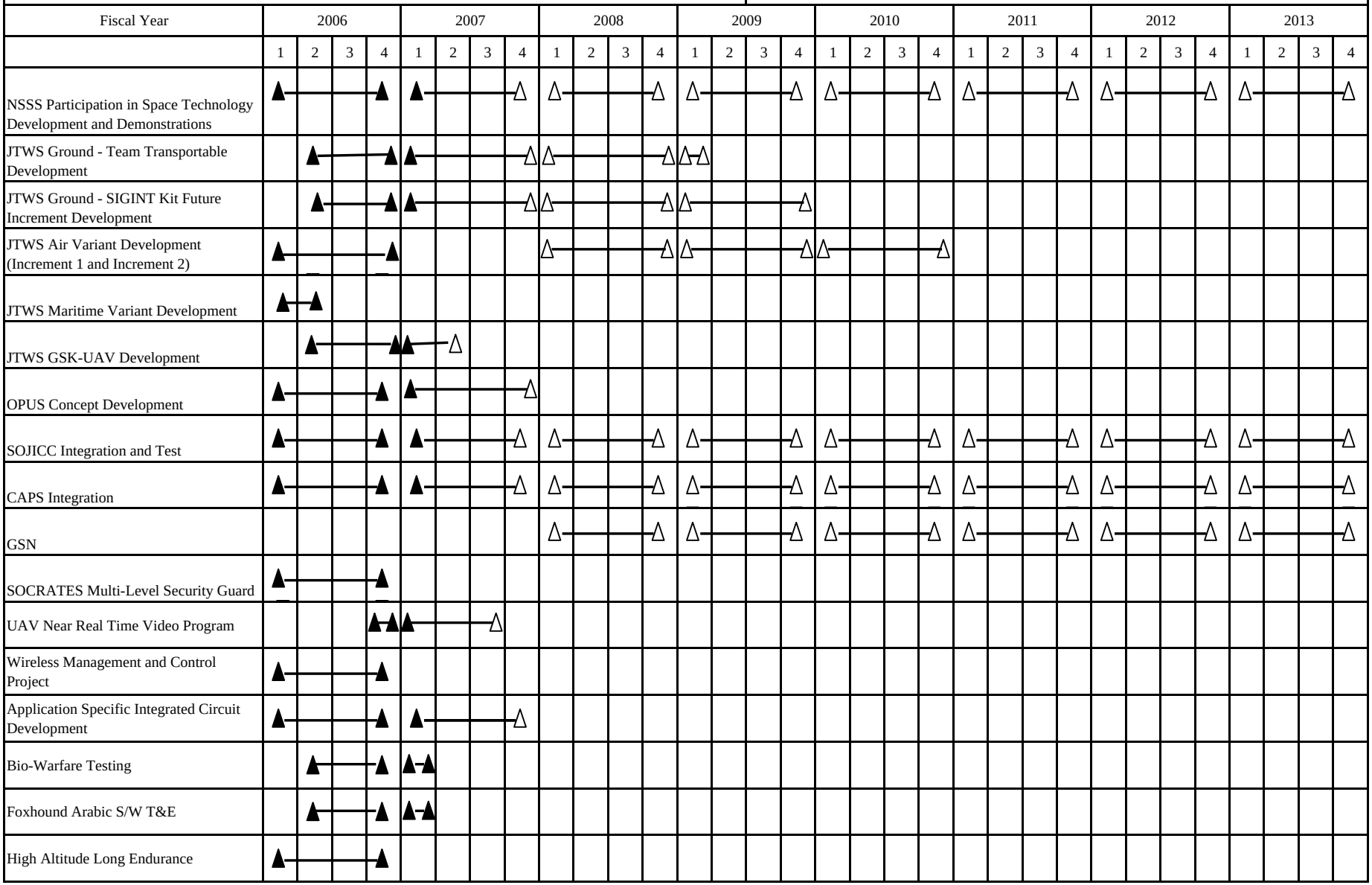

Exhibit R-4, RDT&E Program Schedule Profile																																
Date: FEBRUARY 2007																																
Appropriation/Budget Activity RDT&E/7																	Project Number and Name Project S400/SO Intelligence														
Fiscal Year	2006				2007				2008				2009				2010				2011				2012				2013			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
High Value Target Tracking Devices		▲	—	▲	▲	▲																										
Improved SO Reconnaissance Kits		▲	—	▲	▲	▲																										
SOF Individual Threat Warning Receiver		▲	—	▲	▲	▲																										
Night Vision Integrated Display System		▲	—	▲	▲	▲																										
SOCOM Power Sources Integration Team		▲	—	▲	▲	▲																										
Tactical Miniature SDR		▲	—	▲	▲	▲																										
Biometrics Signature Research					▲	—	—	△																								
Long Endurance UGS Tech.					▲	—	—	△																								
METOC Airdropped Sensors					▲	—	—	△																								
MEMS & Nanotech. Def. Lab.					▲	—	—	△																								
Multi-Spectral Lab. & Svcs.					▲	—	—	△																								
Nanotechnology Integ. Team					▲	—	—	△																								
Payload Interface Master Module					▲	—	—	△																								
SOF Long Endurance Demo (SLED)					▲	—	—	△																								
SOF Tac. Interface (SBIR 01-0006)					▲	—	—	△																								
Tactical Miniature S/W Receiver					▲	—	—	△																								

Exhibit R-4a, RDT&E Program Schedule Detail				Date: FEBRUARY 2007				
Appropriation/Budget Activity RDT&E/7	Program Element Number and Name PE1160405BB/Special Operations Intelligence Systems Development			Project Number and Name Project S400/SO Intelligence				
Schedule Profile	FY2006	FY2007	FY2008	FY2009	FY2010	FY2011	FY2012	FY2013
NSSS Participation in Space Technology	1-4Q	1-4Q	1-4Q	1-4Q	1-4Q	1-4Q	1-4Q	1-4Q
JTWS Ground - Team Transportable Development	2-4Q	1-4Q	1-4Q	1Q				
JTWS Ground - SIGINT Kit Future Increment Development	2-4Q	1-4Q	1-4Q	1-4Q				
JTWS Air Variant Development (Increment 1 and Increment 2)	1-4Q		1-4Q	1-4Q	1-4Q			
JTWS Maritime Variant Development	1-2Q							
JTWS GSK-UAV Development	2-4Q	1-2Q						
Optimal Placement of Unattended Sensors	1-4Q	1-4Q						
SOJICC Integration and Test	1-4Q	1-4Q	1-4Q	1-4Q	1-4Q	1-4Q	1-4Q	1-4Q
CAPS Integration	1-4Q	1-4Q	1-4Q	1-4Q	1-4Q	1-4Q	1-4Q	1-4Q
Global Sensor Network (GSN)			1-4Q	1-4Q	1-4Q	1-4Q	1-4Q	1-4Q
SOCRATES Multi-Level	1-4Q							
UAV Near Real-Time Video Program	4Q	1-3Q						
Wireless Management and Control Project	1-4Q							
Application Specific Integrated Circuit Development	1-4Q	1-4Q						
High Altitude Long Endurance Airships	1-4Q							
Bio-Warfare Testing	2-4Q	1Q						
Foxhound Arabic Software Test and Evaluation	2-4Q	1Q						
High Value Target Tracking Devices	2-4Q	1Q						
Improved SO Reconnaissance Kits	2-4Q	1Q						
SOF Individual Threat Warning Receiver	2-4Q	1Q						
Night Vision Integrated Display System	2-4Q	1Q						
SOCOM Power Sources Integration Team	2-4Q	1Q						
Tactical Miniature SDR	2-4Q	1Q						
Biometrics Signatures Research		1-4Q						
Long Endurance UGS Technology		1-4Q						
METOC Airdropped Sensors		1-4Q						
MEMS & Nanotechnology Def. Lab.		1-4Q						
Multi-Spectral Laboratory & Services		1-4Q						
Nanotechnology Integration Team		1-4Q						
Payload Interface Master Module		1-4Q						

Exhibit R-4a, RDT&E Program Schedule Detail				Date: FEBRUARY 2007				
Appropriation/Budget Activity RDT&E/7	Program Element Number and Name PE1160405BB/Special Operations Intelligence Systems Development			Project Number and Name Project S400/SO Intelligence				
Schedule Profile	FY2006	FY2007	FY2008	FY2009	FY2010	FY2011	FY2012	FY2013
SOF Long Endurance Demo (SLED)		1-4Q						
SOF Tactical Interface (SBIR 01-0006)		1-4Q						
Tactical Miniature S/W Receiver		1-4Q						

RDT&E BUDGET ITEM JUSTIFICATION SHEET (R-2 Exhibit)	DATE FEBRUARY 2007
APPROPRIATION / BUDGET ACTIVITY RDT&E, DEFENSE-WIDE / 7	R-1 ITEM NOMENCLATURE / PROJECT NO. PE 1160421BB Special Operations CV-22 Development/SF200

COST (Dollars in Millions)	FY06	FY07	FY08	FY09	FY10	FY11	FY12	FY13	Cost to Complete	Total Cost
PE1160421BB	28.860		23.473	26.375	25.335	64.508	24.757	19.485	Cont.	Cont.
SF200 CV-22	28.860		23.473	26.375	25.335	64.508	24.757	19.485	Cont.	Cont.

A. Mission Description and Budget Item Justification: The CV-22 is a Special Operations Forces (SOF) variant of the V-22 vertical lift, multi-mission aircraft. The CV-22 will provide 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 CV-22 acquisition program delayed incorporation of some operational capabilities until the completion of a Block 10 CV-22 program. This strategy was agreed to by the Department of the Navy and USSOCOM.

Block 10: Integrate and test Directional Infrared Countermeasures, a system that protects against infrared guided missiles; design, integrate and validate the Troop Commander Situational Awareness station to provide the embarked troop commander access to the CV-22's communication, navigation and mission management system; relocate the ALE-47 chaff and flare dispenser control head to allow any cockpit crew member to activate defensive countermeasures; add 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 block will provide more robust performance of the CV platform in navigation, maneuverability and mission deployment. Initial risk reduction and trade studies will be pursued prior to starting System Development and Demonstration (SDD).

Block 30: Design, integrate, test, and validate enhancements required to meet SOF unique mission requirements to maintain performance against the evolving threat environment. This block will enhance survivability and performance against potential threats through reduction of electronic signature emissions and improved countermeasures. Initial risk reduction and trade studies will be pursued prior to starting SDD.

B. Program Change Summary:

	FY2006	FY2007	FY2008	FY2009
Previous President's Budget	29.526		31.660	28.551
Current President's Budget	28.860		23.473	26.375
Total Adjustments	-0.666		-8.187	-2.176
Congressional Program Reductions				
Congressional Rescissions				
Congressional Increases				
Congressional Transfer				
Reprogrammings				
Other Program Adjustments			-8.187	-2.176
SBIR Transfer	-0.666			

Funding:

FY06: Decrease is due to transfer to the Small Business Innovative Research (SBIR) account (-$.0.666 million).

FY08: Decrease is due to realignments to fund higher Command priorities (-$8.187 million).

FY09: Decrease is due to realignments to fund higher Command priorities (-$2.176 million).

Schedule: None.

Technical: None.

Exhibit R-2a, RDT&E Project Justification	Date: FEBRUARY 2007
Appropriation/Budget Activity RDT&E BA # 7	CV-22/Project SF200

Cost ($ in millions)	FY06	FY07	FY08	FY09	FY10	FY11	FY12	FY13
CV-22	28.860		23.473	26.375	25.335	64.508	24.757	19.485
RDT&E Articles Quantity								

A. Mission Description and Budget Item Justification: The CV-22 is a Special Operations Forces (SOF) variant of the V-22 vertical lift, multi-mission aircraft. The CV-22 will provide 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 CV-22 acquisition program delayed incorporation of some operational capabilities until the completion of a Block 10 CV-22 program. This strategy was agreed to by the Department of the Navy and the USSOCOM.

Block 10: Integrate and test Directional Infrared Countermeasures (DIRCM), a system that protects against infrared guided missiles; design, integrate and validate the Troop Commander Situational Awareness station to provide the embarked troop commander access to the CV-22's communication, navigation and mission management system; relocate the ALE-47 chaff and flare dispenser control head to allow any cockpit crew member to activate defensive countermeasures; add a second forward firing chaff and flare dispenser to provide an adequate quantity of consumable countermeasures for the extended duration of SOF infiltration/exfiltration/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.

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Exhibit R-2a, RDT&E Project Justification	Date: FEBRUARY 2007
Appropriation/Budget Activity RDT&E BA # 7	CV-22/Project SF200

B. Accomplishments/Planned Program

	FY06	FY07	FY08	FY09
Block 10	27.036			
RDT&E Articles Quantity				

FY06 Continued development/integration/testing of Block 10 capabilities and engineering and logistics support.

	FY06	FY07	FY08	FY09
Block 20	1.824		23.743	26.375
RDT&E Articles Quantity				

FY06 Conduct trade studies and begin system requirements definition for Block 20 capabilities, and provide engineering and logistics support.
FY08 Start design and development of Block 20.
FY09 Continue design and development of Block 20.

C. Other Program Funding Summary:

	FY06	FY07	FY08	FY09	FY10	FY11	FY12	FY13	To Complete	Total Cost
PROC, CV-22 SOF Osprey	99.195	168.102	238.636	173.816	176.447	164.290	176.725	192.849	Cont.	Cont.

D. Acquisition Strategy.

The CV-22 program is managed by the Navy V-22 Joint Program Office (NAVAIR 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 is sent from USSOCOM to PMA-275 to be placed on contract with the V-22 prime contractor. Block 10 capability is required for full compliance with the Joint Operational Requirements Document and associated Milestone III Capabilities Production Document (CPD). Future Block upgrades are planned to follow the same acquisition strategy, with 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.

Exhibit R-3 RDT&E Project Cost Analysis			DATE: FEBRUARY 2007								
APPROPRIATION / BUDGET ACTIVITY RDT&E DEFENSE-WIDE / 7			Special Operations CV-22 Development/PE1160421BB CV-22/SF200								
Actual or Budget Value ($ in millions)											
Cost Categories (Tailor to WBS, or System/ Item Requirements)	Contract Method & Type	Performing Activity & Location	Total PYs Cost	Budget Cost FY07	Award Date FY07	Budget Cost FY08	Award Date FY08	Budget Cost FY09	Award Date FY09	To Complete	Total Program
Primary Hardware (H/W) Dev	SS/CPAF	NAVAIR/PMA-275 & Bell-Boeing, Patuxent River, MD	174.553							Cont.	Cont.
Additional Test Aircraft (ATA) Modification	SS/CPAF/IF	NAVAIR/PMA-275 & Bell-Boeing, Patuxent River, MD	62.187								62.187
Block 20 Trade Studies, Risk Reduction and Development	TBD	TBD	1.469			17.574	Mar-08	20.336	Mar-09	Cont.	Cont.
Award/Incentive Fees											
Primary H/W Dev			13.132							Cont.	Cont.
ATA			6.350								6.350
Prior Year Completed Efforts	Various	Various	100.521								
Subtotal Product Dev			358.212	0.000		17.574		20.336		Cont.	Cont.
Remarks:											
Engineering, and Logistics Support	Various	Various	39.692			5.899	Dec-07	6.039	Dec-08	Cont.	Cont.
Subtotal Management			39.692	0.000		5.899		6.039		Cont.	Cont
Remarks:											
Total Cost			397.904	0.000		23.473		26.375		Cont.	Cont.
Remarks:											

Exhibit R-4, RDT&E Program Schedule Profile | Date: FEBRUARY 2007

Appropriation/Budget Activity	Program Element Number and Name	Project Number and Name
RDT&E/7	PE1160421BB/Special Operations CV-22 Development	Project SF200/CV-22

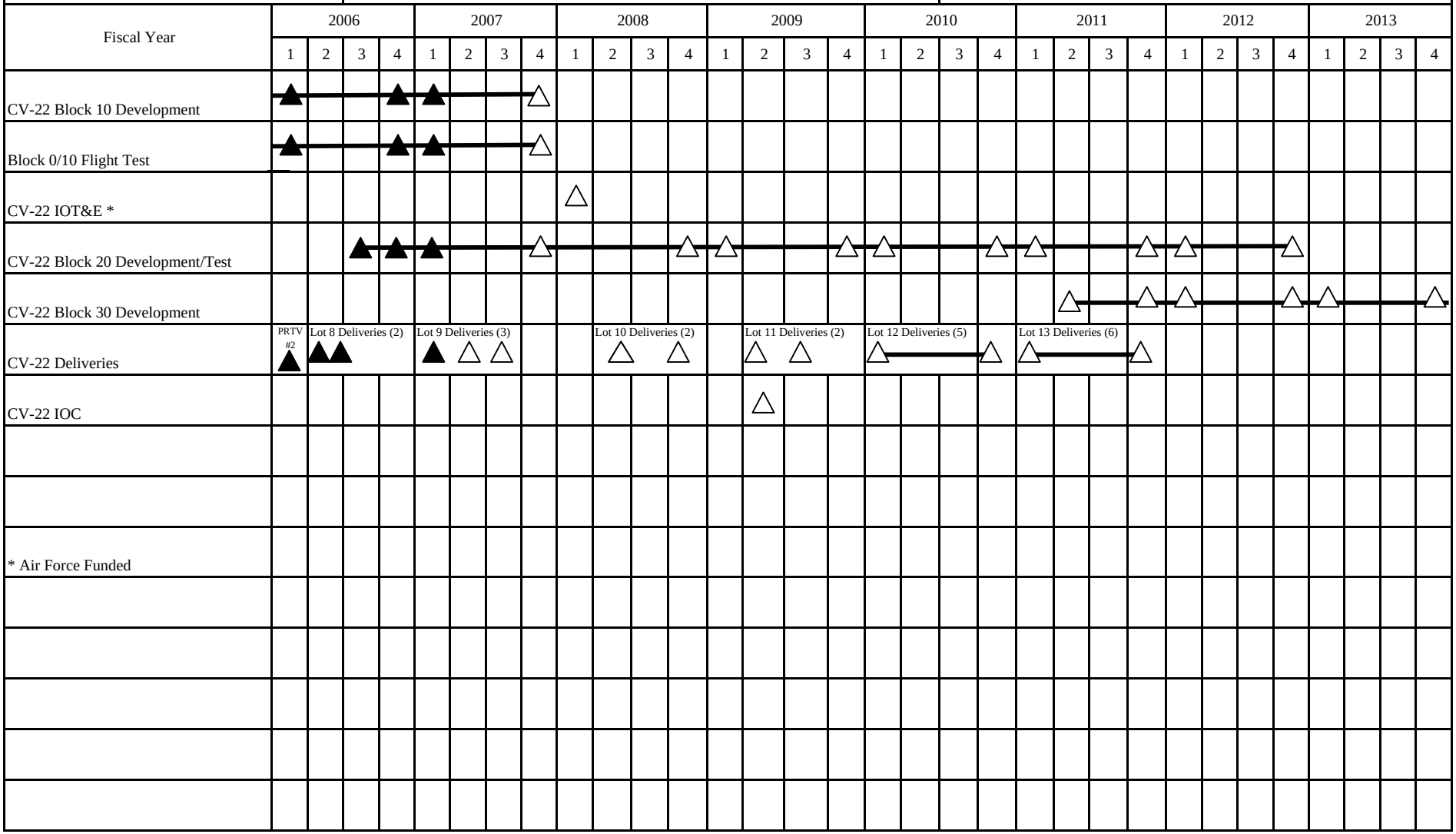


Exhibit R-4a, Schedule Profile				Date: FEBRUARY 2007					
Appropriation/Budget Activity RDT&E/7	Program Element Number and Name PE1160421BB/Special Operations CV-22 Development			Project Number and Name Project SF200/CV-22					
Schedule Profile		FY2006	FY2007	FY2008	FY2009	FY2010	FY2011	FY2012	FY2013
CV-22 Block 10 Development		1-4Q	1-4Q						
Block 0/10 Flight Test		1-4Q	1-4Q						
CV-22 IOT&E *				1Q					
CV-22 Block 20 Development/Test		3-4Q	1-4Q	1-4Q	1-4Q	1-4Q	1-4Q	1-4Q	
CV-22 Block 30 Development/Test							2-4Q	1-4Q	1-4Q
CV-22 Deliveries		1-3Q	1-2Q, 4Q	2Q, 4Q	1Q, 3Q	1-4Q	1-4Q	1-4Q	1-4Q
CV-22 IOC					2Q				
* Air Force Funded									

RDT&E BUDGET ITEM JUSTIFICATION SHEET (R-2 Exhibit)	DATE FEBRUARY 2007
APPROPRIATION / BUDGET ACTIVITY RDT&E, DEFENSE-WIDE / 7	R-1 ITEM NOMENCLATURE / PROJECT NO. PE 1160425BB Special Operations Aircraft Defensive Systems / Project 3284

COST (Dollars in Millions)	FY06	FY07	FY08	FY09	FY10	FY11	FY12	FY13	Cost to Complete	Total Cost
PE1160425BB	20.765	4.726	5.195	5.272	5.381	5.446	5.523	5.601	Cont.	Cont.
3284, Special Operations Aircraft Defensive Systems	20.765	4.726	5.195	5.272	5.381	5.446	5.523	5.601	Cont.	Cont.

A. Mission Description and Budget Item Justification: This program element provides for the definition, development, prototyping and testing of aircraft defensive avionics systems. It includes the identification and development of hardware and software enhancements for each Special Operations Forces (SOF) aircraft to reduce detection, vulnerability, and threat engagement from threat radars and Infrared (IR) missiles, thereby increasing the overall survivability of SOF assets. This program element funds dispenser upgrade and improvement programs, threat and missile warning receiver enhancements, radio frequency jammer improvements, and enhanced IR jamming systems. It also provides systems for SOF-unique portions of the Electronic Warfare Avionics Integrated Systems Facility.

B. Program Change Summary:

	FY2006	FY2007	FY2008	FY2009
Previous President's Budget	26.934	7.850	6.836	4.235
Current President's Budget	20.765	4.726	5.195	5.272
Total Adjustments	-6.169	-3.124	-1.641	1.037
Congressional Program Reductions		-3.018		
Congressional Rescissions				
Congressional Increases				
Reprogrammings	-5.562			
Other Program Adjustments			-1.641	1.037
SBIR Transfer	-0.607	-0.106		

Funding:

FY06: Decrease of $6.169 million is due to a DD 1415-1 Prior Approval Reprogramming (No. FY 06-17 PA) submitted to Congress to support a critical O&M GWOT shortfall (-$2.650 million), reprogramming to higher command priorities (-$2.912 million), and transfer to the Small Business Innovative Research (SBIR) account (-$0.607 million).

FY07: Decrease of $3.124 million is a result of a Congressional reduction to the Low Band Jammer modification (-$3.000 million), SBIR transfer (-$0.106 million), and Section 8106 reduction (-$.018 million).

FY08: Funds were realigned to support higher command priorities (-$1.641 million).

FY09: Increase funds technology insertions for the Directional Infrared Countermeasures modification ($1.037 million).

Schedule: None.

Technical: None.

	Exhibit R-2a, RDT&E Project Justification	Date: FEBRUARY 2007
Appropriation/Budget Activity RDT&E BA # 7	SOF Aircraft Defensive System/Project 3284	

Cost ($ in million)	FY06	FY07	FY08	FY09	FY10	FY11	FY12	FY13
SOF Aircraft Defense System	20.765	4.726	5.195	5.272	5.381	5.446	5.523	5.601
RDT&E Articles Quantity								

A. Mission Description and Budget Item Justification: This project provides definition, development, prototyping and testing of aircraft defensive avionics systems. Project identifies hardware and software enhancements for each Special Operations Forces (SOF) aircraft that will reduce detection, vulnerability, and threat engagement from threat radars and Infrared (IR) missiles, thereby increasing the overall survivability of SOF assets. This project identifies and develops enhancements to each platform to meet the projected threat. Recommendations for equipment modification or replacement will be developed by each system program manager based upon the results of ongoing engineering assessments and user operational requirements. This project funds dispenser upgrade and improvement programs, threat and missile warning receiver enhancements, radio frequency jammer improvements, and enhanced IR jamming systems. Project also provides systems for SOF-unique portions of the Warner Robins-Air Logistics Center Electronic Warfare Avionics Integrated Systems Facility (EWAISF). Sub-projects include:

- Directional Infrared Countermeasures (DIRCM). The baseline program was a joint international cooperative United Kingdom/United States (UK/US) project to develop and procure an IR jammer for MC-130E/H and AC-130H/U aircraft capable of countering missile threats in the band one, two and four IR frequency spectrum. The program continues to support technology insertion to revise jam codes to address emerging threats.

- Next Generation Missile Warning System (NexGen MWS). Increment 3 in the spiral development of the AAQ-24 DIRCM System. Cooperative development program with Air Force to significantly extend DIRCM threat engagement range. Funds support two contracts through completion of System Design and Development (SDD) phase.

- EWAISF. The EWAISF directly supports software development and testing for EW systems. The EWAISF effort is a type of systems integration laboratory designed to support the incorporation of SOF aircraft defensive systems modifications into specific SOF platforms.

- Low Band Jammer (LBJ). Program funds the integration of the ALQ-196 LBJ modification. The LBJ will improve the capability of the ALQ-172 radio frequency jammer by adding low band jamming coverage for MC-130H Combat Talon II aircraft and AC-130U Gunships. The Command decided to terminate this effort for MC-130H and AC-130U in FY06 due to higher Command priorities.

B. Accomplishments/Planned Program

Cost ($ in million)	FY06	FY07	FY08	FY09
DIRCM	2.329	1.806	3.100	3.131
DIRCM NexGen MWS	8.500			
RDT&E Articles Quantity				

FY06 Continued to support a cooperative UK/US development/production program for 57 SOF C-130 aircraft, contractor engineering support, and nonrecurring engineering costs. Completed development of a NexGen MWS as P3I for DIRCM.
FY07 Continue to support a cooperative UK/US development/production program for 57 SOF C-130 aircraft, contractor engineering support, and nonrecurring engineering costs for SOCOM unique lamp based hardware.
FY08 Continues to support 57 SOF C-130 DIRCM modified aircraft and technology insertion to develop advanced jam codes to counter emerging threats and other software updates.
FY09 Continues to support 57 SOF C-130 DIRCM modified aircraft and technology insertion to develop advanced jam codes to counter emerging threats and other software updates.

Cost ($ in million)	FY06	FY07	FY08	FY09
EWAISF	1.900	1.916	2.095	2.141
RDT&E Articles Quantity				

FY06 Continued to support laboratory efforts to maintain SOF aircraft defensive systems.
FY07 Continue to support laboratory efforts to maintain SOF aircraft defensive systems.
FY08 Continues to support laboratory efforts to maintain SOF aircraft defensive systems.
FY09 Continues to support laboratory efforts to maintain SOF aircraft defensive systems.

Cost ($ in million)	FY06	FY07	FY08	FY09
LBJ	8.036	1.004		
RDT&E Articles Quantity				

FY06 Continued nonrecurring engineering for MC-130E.
FY07 Complete nonrecurring engineering for MC-130E.

C. Other Program Funding Summary:

	FY06	FY07	FY08	FY09	FY10	FY11	FY12	FY13	To Complete	Total Cost
C-130 Mods (PROC)										
DIRCM	6.810									220.923

D. Acquisition Strategy:

- DIRCM. The memorandum of agreement between the UK/US established the cooperative international baseline DIRCM program. The UK Ministry of Defense is the lead for the program. UK law applies to all baseline acquisition actions. USSOCOM program manager is the US Deputy to the UK DIRCM program manager. Follow on software development is sole source to the original equipment manufacture, Northrop Grumman.

- NexGen MWS. Competitively award a contract to two contractors for the SDD phase of the program. A separate contract will be competitively awarded for the production phase.

- EWAISF. Award sole source contracts to the manufacturer of the prime mission equipment required for hardware and software integration into the EWAISF. Capability improvements are on-going system changes.

Exhibit R-3 RDT&E Project Cost Analysis						DATE: FEBRUARY 2007					
APPROPRIATION / BUDGET ACTIVITY RDT&E DEFENSE-WIDE / 7			Special Operations Tactical Systems Development/PE1160425BB Special Operations Forces Aircraft Defensive System/3284								
Actual or Budget Value ($ in millions)											
Cost Categories (Tailor to WBS, or System/Item Requirements)	Contract Method & Type	Performing Activity & Location	Total PYs Cost	Budget Cost FY07	Award Date FY07	Budget Cost FY08	Award Date FY08	Budget Cost FY09	Award Date FY09	To Complete	Total Program
Primary Hardware Dev											
Directional Infrared Countermeasures (DIRCM)	SS/FFP	Northrop, Chicago, IL	101.684								101.684
Tech Integration DIRCM	SS/CPFF	Northrop, Chicago, IL	14.853	1.091	Various	2.478	Various	2.488	Various	Cont	Cont.
NexGen MWS	CPIF	Northrop, Chicago, IL/Lockheed Martin, Orlando, FL	44.332								44.332
Electronics Warfare Avionics Integrated Systems Facility	SS/CPFF	Various	20.678	1.916	Various	2.095	Various	2.141	Various	Cont.	Cont.
HPFOTD	CPAF	Boeing, Ft. Walton Beach, FL	109.931								109.931
Low Band Jammer	CPAF	Boeing, Ft. Walton Beach, FL	61.943	1.004	Jan-07						62.947
Subtotal Product Dev			353.421	4.011		4.573		4.629		Cont.	Cont.
Remarks:											
Development Spt											
Subtotal Spt											
Remarks:											
Developmental Test & Eval											
Subtotal T&E											
Remarks:											
Contractor Engineering Spt											
DIRCM	FP	Sverdrup, Tampa, FL	6.098	0.715	Dec-06	0.622	Dec-07	0.643	Dec-08	Cont.	Cont.
Subtotal Contract Engineering Spt			6.098	0.715		0.622		0.643		Cont.	Cont.
Remarks:											
Total Cost			359.519	4.726		5.195		5.272		Cont	Cont
Remarks:											

Exhibit R-4, RDT&E Program Schedule Profile	Date: FEBRUARY 2007

Appropriation/Budget Activity	Program Element Number and Name	Project Number and Name
RDT&E/7	PE1160425BB/Special Operations Aircraft Defensive Systems	Project 3284/SOF Aircraft Defensive Systems

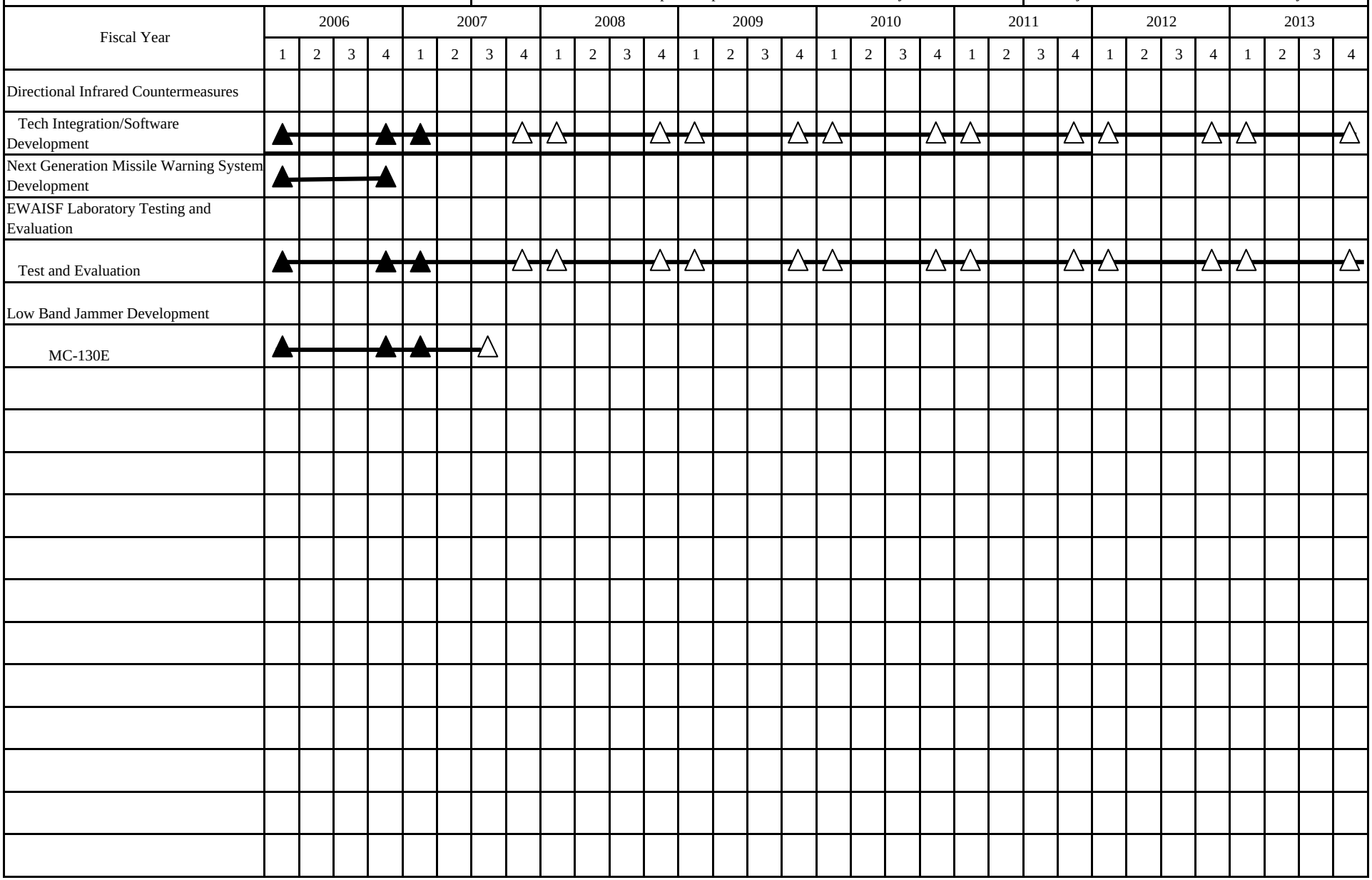


Exhibit R-4a, RDT&E Program Schedule Detail				Date: FEBRUARY 2007				
Appropriation/Budget Activity RDT&E/7	Program Element Number and Name PE1160425BB/Special Operations Aircraft Defensive Systems			Project Number and Name Project 3284/SOF Aircraft Defensive Systems				
Schedule Profile	FY2006	FY2007	FY2008	FY2009	FY2010	FY2011	FY2012	FY2013
Directional Infrared Countermeasures								
Tech Integration/Software Development	1-4Q	1-4Q	1-4Q	1-4Q	1-4Q	1-4Q	1-4Q	1-4Q
Next Generation Missile Warning System Development	1-4Q							
Electronic Warfare Avionics Integrated System								
Test and Evaluation	1-4Q	1-4Q	1-4Q	1-4Q	1-4Q	1-4Q	1-4Q	1-4Q
Low Band Jammer Development								
MC-130E	1-4Q	1-3Q						

RDT&E BUDGET ITEM JUSTIFICATION SHEET (R-2 Exhibit)	DATE FEBRUARY 2007
APPROPRIATION / BUDGET ACTIVITY RDT&E, DEFENSE-WIDE / 7	R-1 ITEM NOMENCLATURE / PROJECT NO. PE 1160426BB Special Operations Advanced SEAL Delivery System Development/S0418

COST (Dollars in Millions)	FY06	FY07	FY08	FY09	FY10	FY11	FY12	FY13	Cost to Complete	Total Cost
PE1160426BB	22.110	31.616	20.292	7.100	1.500	1.500				84.118
S0418, Advanced SEAL Delivery System Dev	22.110	31.616	20.292	7.100	1.500	1.500				84.118

A. Mission Description and Budget Item Justification:

This program element provides for development, testing, and integration of specialized equipment for the Advanced SEAL Delivery System (ASDS) to meet the unique requirements of Special Operations Forces (SOF). Specifically, this program element provides for the ASDS-1 Improvement Program with the goal of improving the performance to the required level and insertion of technologies to avoid obsolescence. The Improvement Program consists of integration, testing and installation of reliability improvements resulting from a series of critical system reviews. The improved performance of ASDS-1 will permit small, highly trained forces to conduct required operations to operate in denied areas controlled by a sophisticated threat that mandates SOF systems remain technologically superior to threat forces to ensure mission success.

B. Program Change Summary:

	FY06	FY07	FY08	FY09
Previous President's Budget	31.888	32.452	20.292	7.100
Current President's Budget	22.110	31.616	20.292	7.100
Total Adjustments	-9.778	-0.836		
Congressional Reductions		-0.123		
Congressional Rescissions				
Congressional Increases				
Reprogrammings	-9.059			
Other Program Adjustments				
SBIR Transfer	-0.719	-0.713		

Funding:

FY06: Decrease of $9.778 million is due to the transfer of two congressional adds that were internally reprogrammed by OSD to the correct Program Element for execution (-$9.059 million) and transfer to the Small Business Innovative Research (SBIR) account (-$0.719 million).

FY07: Decrease of -$0.836 million includes SBIR transfer (-$0.713 million) and Section 8106 reduction (-$0.123 million).

FY08: No change.

FY09: No change.

Schedule: None.

Technical: None.

	Exhibit R-2a, RDT&E Project Justification	Date: FEBRUARY 2007
Appropriation/Budget Activity RDT&E BA # 7	Advanced SEAL Delivery System Development(ASDS)/Project S0418	

Cost ($ in millions)	FY06	FY07	FY08	FY09	FY10	FY11	FY11	FY12
ASDS Development	22.110	31.616	20.292	7.100	1.500	1.500		
RDT&E Articles Quantity								

A. Mission Description and Budget Item Justification: This project funds the development of the ASDS. The ASDS is a one atmosphere submersible that will provide Naval Special Operations Forces with a new clandestine long range insertion capability required to conduct traditional SEAL missions ranging from reconnaissance to direct action in denied maritime environments. ASDS advantages over the current SEAL Delivery Vehicle, a wet submersible, include greatly increased range, increased payload and passenger capacity, state of the art sensors and communications, the ability to loiter in a target area, and protection of personnel from complex dive profiles and exposure to long cold water transit.

B. Accomplishments/Planned Program

	FY06	FY07	FY08	FY09
ASDS Development	22.110	31.616	20.292	7.100

FY06 Commenced concept studies for future ASDS employment Concept of Operations. Reliability Improvement Program began end-to-end assessment, ASDS Reliability Action Panel analyses, detailed critical system review. Systems Reliability Builds included hydraulic redesign (including accumulator and reservoir), environmental control unit, periscope, battery cables and the operation compartment cable waterproofing. Began obsolescence issues identification for Integrated Control and Display (ICAD), Carbon Dioxide Sensor, and platform-wide Diminished Manufacturing Sources (DMS) review and correction.
FY07 Concept studies, critical system review and reliability improvements. Obsolescence – ICAD, DMS.
FY08 Continues Reliability Improvement Program.
FY09 Obsolescence and Technical Insertion.

C. Other Program Funding Summary:

	FY06	FY07	FY08	FY09	FY10	FY11	FY12	FY13	To Complete	Total Cost
ASDS PROC	20.719	12.578	10.621	5.770	5.962	6.171				494.903

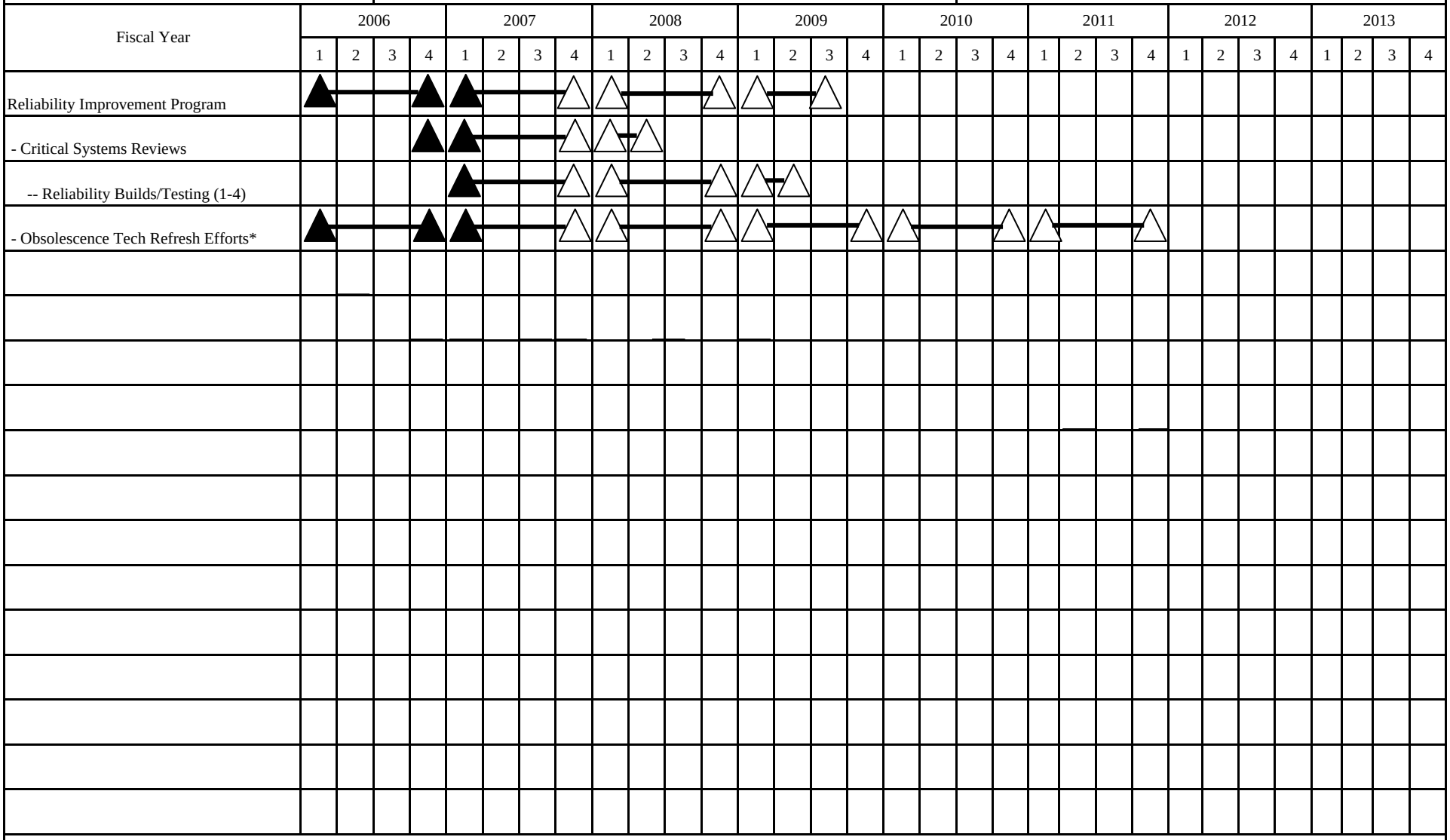
D. Acquisition Strategy: N/A

- Under Secretary of Defense, Acquisition, Technology and Logistics Acquisition Decision Memorandum dated 06 APR 2006 canceled the ASDS program because it was not ready to proceed and directed the establishment of an ASDS-1 Improvement Program with the goal of improving ASDS-1 performance to the required level, inserting technologies to avoid obsolescence, and assessing alternate materiel solutions for fulfilling remaining operational requirements.

The ASDS Reliability Improvement Program is managed by NAVSEA, PMS-399, SOF Undersea Mobility office. The Program Executive Officer Maritime at USSOCOM provides oversight. One prototype has been built to date. The program has been restructured to focus on improving the reliability of ASDS.

Exhibit R-3 RDT&E Project Cost Analysis						DATE: FEBRUARY 2007					
APPROPRIATION / BUDGET ACTIVITY RDT&E DEFENSE-WIDE / 7						Special Operations Tactical Systems Development/PE1160426BB Advanced SEAL Delivery System Development/S0418					
Actual or Budget Value ($ in millions)											
Cost Categories (Tailor to WBS, or System/Item Requirements)	Contract Method & Type	Performing Activity & Location	Total PYs Cost	Budget Cost FY07	Award Date FY07	Budget Cost FY08	Award Date FY08	Budget Cost FY09	Award Date FY09	To Complete	Total Program
Primary Hardware Dev											
ASDS	CPIF/C	Northrop-Grumman	310.026								310.026
ASDS	CPFF	Newport News Ship Yard, VA	8.605								8.605
ASDS P3I and Host Support	Various	Various	37.280								37.280
ASDS Reliability Improvements	CPFF/CPIF/CPAF	Various	22.110	31.616	Various	20.292	Various	7.100	Various	3.000	84.118
Subtotal Product Dev			378.021	31.616		20.292		7.100		3.000	440.029
Remarks											
Technical Data											
ASDS	Various	Northrop-Grumman	10.894								10.894
Subtotal Supt.			10.894								10.894
Remarks											
Test & Evaluation											
OT&E (ASDS)	Various	OPTEVFOR, Norfolk, VA	6.285								6.285
Host Testing (ASDS)	Various	NAVSEA, Washington Navy Yard	20.615								20.615
LFT&E (ASDS)	Various	NAVSEA, Washington Navy Yard	2.995								2.995
Subtotal T&E			29.895								29.895
Remarks											
Management											
Various (ASDS)	Various	Various	14.085								14.085
											0.000
											0.000
Subtotal Management			14.085	0.000							14.085
Remarks:											
Total Cost			432.895	31.616		20.292		7.100		3.000	494.903
Remarks:											

Exhibit R-4, RDT&E Program Schedule Profile			Date: FEBRUARY 2007
Appropriation/Budget Activity RDT&E/7	Program Element Number and Name PE1160426BB/Special Operations Advanced SEAL Delivery System Development		Project Number and Name Project S0418/Advanced SEAL Delivery System Development



* Reliability Builds 1-4 incorporate reliability improvements resulting from the Critical Sytem Reviews. The reviews will address obsolescence and technical insertions.

Exhibit R-4a, RDT&E Program Schedule Detail					Date: FEBRUARY 2007			
Appropriation/Budget Activity RDT&E/7	Program Element Number and Name PE1160426BB/Special Operations Advanced Sea, Air, Land (SEAL) Delivery System Development				Project Number and Name Project S0418/Advanced SEAL Delivery System			
Schedule Profile	FY2006	FY2007	FY2008	FY2009	FY2010	FY2011	FY2012	FY2013
Advanced SEAL Delivery System								
Reliability Improvement Program	1-4Q	1-4Q	1-4Q	1-3Q				
- Critical Systems Reviews	4Q	1-4Q	1-2Q					
- Reliability Builds/Testing (1-4)		1-4Q	1-4Q	1Q				
Obsolescence Tech Insertion Efforts	1-4Q	1-4Q	1-4Q	1-4Q	1-4Q	1-4Q		

RDT&E BUDGET ITEM JUSTIFICATION SHEET (R-2 Exhibit)	DATE FEBRUARY 2007
APPROPRIATION / BUDGET ACTIVITY RDT&E, DEFENSE-WIDE / 7	R-1 ITEM NOMENCLATURE / PROJECT NO. PE 1160427BB Mission Training and Preparation Systems (MTPS)/S750

COST (Dollars in Millions)	FY06	FY07	FY08	FY09	FY10	FY11	FY12	FY13	Cost to Complete	Total Cost
PE1160427BB		1.736	6.405	4.058	4.098	4.140	4.181	9.307	Cont.	Cont.
S750, MTPS		1.736	6.405	4.058	4.098	4.140	4.181	9.307	Cont.	Cont.

A. Mission Description and Budget Item Justification: This program element funds the development, integration, and test of MTPS to support training, avoid obsolescence, and keep the simulators current with the weapon systems configurations. Funds are also used to upgrade mission planning and rehearsal systems, as well as add, enhance and upgrade mission rehearsal capabilities in current training devices. The MTPS initiative also includes a focus on systems engineering, configuration management, and architecture development, as well as interoperability and commonality between diverse SOF training systems.

B. Program Change Summary:

	FY2006	FY2007	FY2008	FY2009
Previous President's Budget		1.782	1.636	2.673
Current President's Budget		1.736	6.405	4.058
Total Adjustments		-.046	4.769	1.385
Congressional Program Reductions		-.007		
Congressional Rescissions				
Congressional Increases				
Reprogrammings				
Other Program Adjustments			4.769	1.385
SBIR Transfer		-.039		

Funding:

FY07: Decrease of $0.046 million is the result of Section 8106 reduction (-$0.007 million) and transfer to the Small Business Innovative Research (SBIR) account (-$0.039 million).

FY08: Net increase is due to realignment of the Special Operations Mission Planning Element (SOMPE) program from Program Element (PE) 1160404BB, Project S350, for proper execution ($4.018 million); additive funds for MTPS Common Environment/Common Database ($2.387 million); and realignments to support higher Command priorities (-$1.636 million).

FY09: Net increase is due to realignment of the SOMPE program from PE 1160404BB for proper execution ($4.125 million) and realignments to support higher Command priorities (-$2.740 million).

Schedule: None.

Technical: None.

	Exhibit R-2a, RDT&E Project Justification	Date: FEBRUARY 2007
Appropriation/Budget Activity RDT&E BA # 7	Mission Training and Preparation Systems (MTPS)/Project S750	

Cost ($ in millions)	FY06	FY07	FY08	FY09	FY10	FY11	FY12	FY13
MTPS		1.736	6.405	4.058	4.098	4.140	4.181	9.307
RDT&E Articles Quantity								

A. Mission Description and Budget Item Justification: This project funds the analysis, development, integration, and test of MTPS to support training, avoid obsolescence, and keep the simulators current with the weapon systems configurations. Funds are also used to analyze, develop, test, integrate and upgrade mission planning and rehearsal systems, as well as add, enhance and upgrade mission rehearsal capabilities in current training devices. The MTPS initiative also includes a focus on systems engineering, configuration management, and architecture development, as well as interoperability and commonality between diverse SOF training systems. Sub-projects include:

- United States Special Operations Command (USSOCOM) Simulator Block Update: Funds the necessary developmental upgrades to USSOCOM training systems to overcome obsolescence and concurrency issues and enhance mission rehearsal capabilities.

- Distributed Mission Training Rehearsal System (DMTRS): Consolidates existing common environment and common database components and conducts further development of those components to provide a complete system for Distributed Mission Operations, Training and Rehearsal (DMO/DMT/DMR). This initial development is focused on a common database and common environment solution which can be applied to all MTPS training and rehearsal systems. The development builds on an existing SOF Common Database (SOF CDB) specification and a common Computer Generated Forces (CGF) Analysis of Alternatives developed under US Army Special Operations Command Simulator Block Updates.

- SOMPE: The SOMPE program provides an integrated software suite of mission planning, mission preview and mission execution tools to support all phases of SOF operations from deliberate to time critical. The SOMPE program 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 STRIKE, Digital Navigation, and Unmanned Arial System Command & Control. Spanning all elements of USSOCOM, SOMPE is embedded in the Center for Special Operations (CSO), Theater Special Operations Commands (TSOCs), Joint Special Operations Task Force (JSOTF), Joint Special Operations Aviation Components (JSOAC), SOF war fighters, and their war fighting platforms. The SOMPE program develops, integrates, fields, trains and sustains mission planning thru execution applications for the SOF war fighter.

B. Accomplishments/Planned Program

USSOCOM Simulator Block Update	FY06	FY07	FY08	FY09
Combat Mission Simulator		1.736		
RDT&E Articles Quantity				

FY07: Funds the necessary developmental updates to USSOCOM simulators to overcome obsolescence and concurrency issues and enhance mission planning and rehearsal capabilities.

DMTRS	FY06	FY07	FY08	FY09
Common Environment/Common Database			2.387	
RDT&E Articles Quantity				

FY08: Funds the development of the SOF Common Database/Common Environment solution into all MTPS systems.

	FY06	FY07	FY08	FY09
SOMPE	*	*	4.018	4.058
RDT&E Articles Quantity				

*Reported under PE 1160404BB/S350.PR

FY08: Software development for mission data loading software to interface with mission planning system. Automation of operational level planning processes and interfaces for Command and Control (C2). Seamless data sharing for time sensitive collaborative planning, intelligence planning, situational awareness and mapping/visualization systems.
FY09: Continues FY08 efforts.

C. Other Program Funding Summary:

	FY06	FY07	FY08	FY09	FY10	FY11	FY12	FY13	To Complete	Total Cost
MTPS PROC		14.732	61.024	33.005	20.601	19.877	50.014	26.191	Cont.	Cont.

D. Acquisition Strategy:

- USSOCOM Simulator Block Updates: The Simulator Block Update funding is sent from USSOCOM to the program management office to be placed on contract with selected contractors under each program, respectively. Individual acquisition strategies, including contract types, are

developed for each major update.

- DMTRS: The DMTRS funding is sent from USSOCOM to the program management office to be placed on contract with competitively selected contractors.

- SOMPE: The SOMPE program is managed by the Special Operations Mission Planning Office at Fort Eustis. Funding is sent from USSOCOM to the program management office to be awarded via competition or sole source with various contractors under each project. Individual acquisition strategies are developed as projects are identified.

Exhibit R-3 RDT&E Project Cost Analysis						DATE: FEBRUARY 2007					
APPROPRIATION / BUDGET ACTIVITY RDT&E DEFENSE-WIDE / 7						Program Element 1160427BB/Mission Training and Preparation Systems (MTPS) Project Name and Number MTPS/S750					
Actual or Budget Value ($ in millions)											
Cost Categories (Tailor to WBS, or System/Item Requirements)	Contract Method & Type	Performing Activity & Location	Total PYs Cost	Budget Cost FY07	Award Date FY07	Budget Cost FY08	Award Date FY08	Budget Cost FY09	Award Date FY09	To Complete	Total Program
USSOCOM Simulator Block Update	Various	PEO STRI, Orlando, FL	49.640	1.736	Nov-06					Cont	Cont
DMTRS Computer Generated Forces	TBD	PEO STRI, Orlando, FL	0.000			2.387	Nov-07			Cont	Cont
SOMPE SOFTWARE DEV:											
	T&M	Tybrin, Ft., Walton Beach, FL				1.468	Oct-07	1.558	Oct-08	Cont	Cont
	CPFF	CCIS, Raleigh, NC				0.400	Nov-07	0.400	Oct-08	Cont	Cont
	CPFF	FTI/BAI, San Diego, CA				0.600	Nov-07	0.500	Oct-08	Cont	Cont
Subtotal Product Dev			49.640	1.736		4.855		2.458		Cont	Cont
Remarks:											
SOMPE Development Support	C/CPFF	CAS, Huntsville, AL				1.150	Dec-07	1.175	Dec-08	Cont	Cont
Subtotal Support						1.150		1.175		Cont	Cont
Remarks											
Developmental Test & Eval	C/CPFF	CAS, Huntsville, AL				0.400	Dec-07	0.425	Dec-08	Cont	Cont
Subtotal T&E						0.400		0.425		Cont	Cont
Remarks											
Total Cost			49.640	1.736		6.405		4.058		Cont	Cont
Remarks:											

Exhibit R-4, RDT&E Program Schedule Profile | Date: FEBUARY 2007

Appropriation/Budget Activity: RDT&E/

Program Element Number and Name: PE1160427BB/Mission Training and Preparation Systems

Project Number and Name - S750PR MTPS

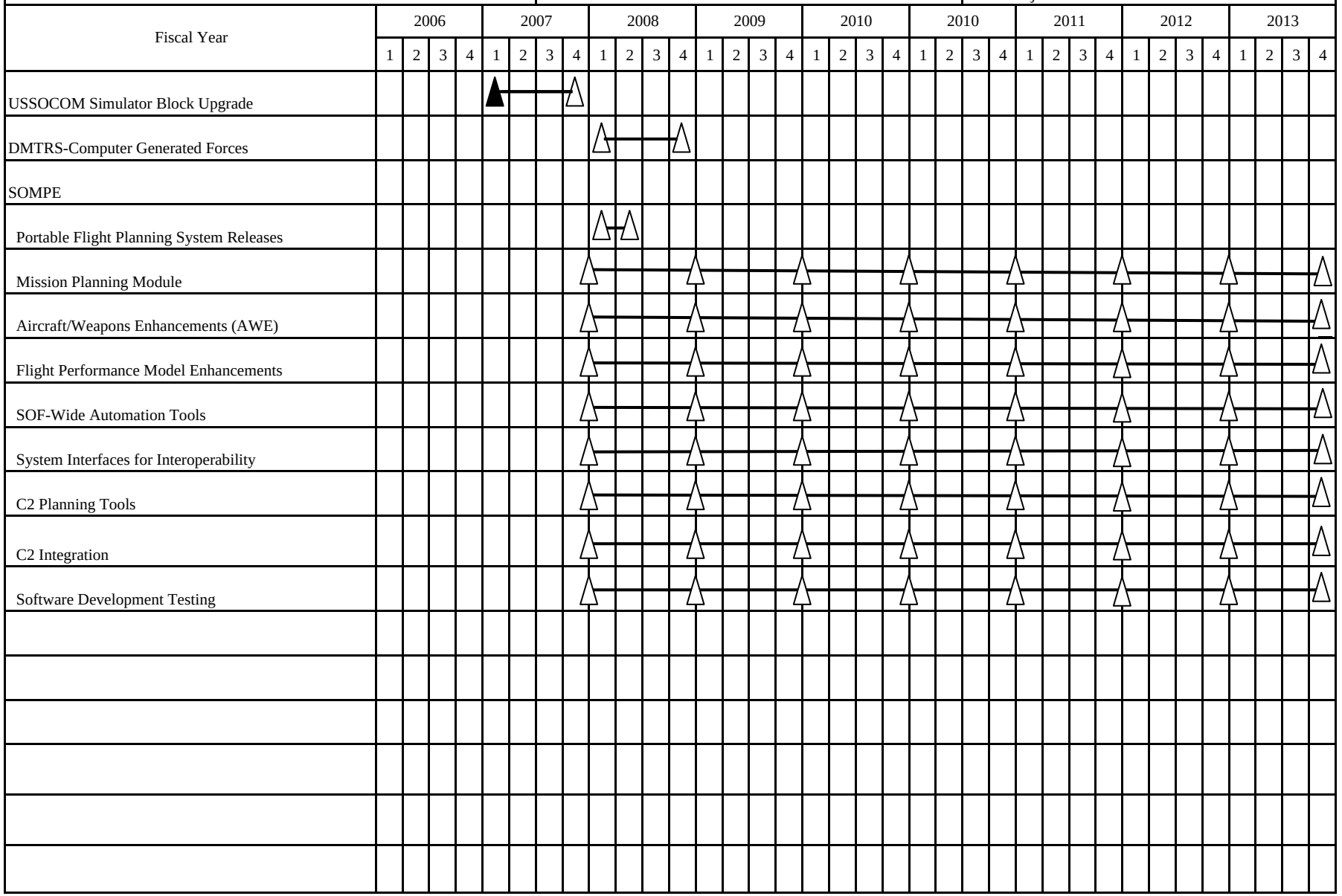


Exhibit R-4a, RDT&E Program Schedule Detail					Date: FEBRUARY 2007				
Appropriation/Budget Activity RDT&E/	Program Element Number and Name PE1160427BB/Mission Training and Preparation System (MTPS)				Project Number and Name Mission Training and Preparation Systems (MTPS)/Project S750				
Schedule Profile	FY2006	FY2007	FY2008	FY2009	FY2010	FY2011	FY2012	FY2013
USSOCOM Simulator Block Update		1-4Q						
DMTRS-Computer Generated Forces			1-4Q	1 Q				
SOMPE								
Portable Flight Planning System Releases			1-2Q					
Mission Planning Modules			1-4Q	1-4Q	1-4Q	1-4Q	1-4Q	1-4Q
Aircraft/Weapons Enhancements (AWE)			1-4Q	1-4Q	1-4Q	1-4Q	1-4Q	1-4Q
Flight Performance Model Enhancements			1-4Q	1-4Q	1-4Q	1-4Q	1-4Q	1-4Q
SOF-Wide Automation Tools			1-4Q	1-4Q	1-4Q	1-4Q	1-4Q	1-4Q
System Interfaces for Interoperability			1-4Q	1-4Q	1-4Q	1-4Q	1-4Q	1-4Q
C2 Planning Tools			1-4Q	1-4Q	1-4Q	1-4Q	1-4Q	1-4Q
C2 Integration			1-4Q	1-4Q	1-4Q	1-4Q	1-4Q	1-4Q
Software Development Testing			1-4Q	1-4Q	1-4Q	1-4Q	1-4Q	1-4Q

RDT&E BUDGET ITEM JUSTIFICATION SHEET (R-2 Exhibit)	DATE FEBRUARY 2007
APPROPRIATION / BUDGET ACTIVITY RDT&E, DEFENSE-WIDE / 7	R-1 ITEM NOMENCLATURE / PROJECT NO. PE 1160428BB Unmanned Vehicles (UV)/S850

COST (Dollars in Millions)	FY06	FY07	FY08	FY09	FY10	FY11	FY12	FY13	Cost to Complete	Total Cost
PE1160428BB		3.040	1.500	1.530	1.560	1.590	1.620	1.650	Cont.	Cont.
S850, Unmanned Vehicles		3.040	1.500	1.530	1.560	1.590	1.620	1.650	Cont.	Cont.

A. Mission Description and Budget Item Justification: This program element addresses spiral development requirements validated in requirements documents; supports development testing; and integrates system enhancements to obtain objective requirements such as heavy fuel engine, increased endurance, reduced signature, increased telemetry range, and increased payload capacity for the Vehicle Craft Unmanned Aircraft System (VCUAS) and Logistics Support Vehicles to meet SOF mission requirements.

B. Program Change Summary:

	FY2006	FY2007	FY2008	FY2009
Previous President's Budget		1.521	18.254	17.632
Current President's Budget		3.040	1.500	1.530
Total Adjustments		1.519	-16.754	-16.102
Congressional Program Reductions		-0.012		
Congressional Rescissions				
Congressional Increases		1.600		
Reprogrammings				
Other Program Adjustments			-16.754	-16.102
SBIR Transfer		-0.069		

Funding:

FY07: Net increase of $1.519 million is due to a Congressional add for the Unmanned Logistics Support Vehicle ($1.600 million), Section 8106 reduction (-$0.012 million), and transfer to the Small Business Innovative Research (SBIR) account (-$0.069 million).

FY08: Decrease of $16.754 million is due to the Predator Medium Altitude Long Endurance Tactical (MALET) Unmanned Vehicle (UV) program being transferred to Program Element (PE) 0305219BB (-$13.100 million) in order to capture the effort as a Military Intelligence Program (MIP), and funds being reprogrammed to higher command priorities (-$3.654 million).

FY09: Decrease of $16.102 million is due to the Predator MALET UV program being transferred to PE 0305219BB (-$13.699 million) in order to capture the effort as MIP, and funds being reprogrammed to higher command priorities (-$2.403 million).

	Exhibit R-2a, RDT&E Project Justification	Date: FEBRUARY 2007
Appropriation/Budget Activity RDT&E BA # 7	Unmanned Vehicles (U)/Project S850	

Cost ($ in millions)	FY06	FY07	FY08	FY09	FY10	FY11	FY12	FY13
UV		3.040	1.500	1.530	1.560	1.590	1.620	1.650
RDT&E Articles Quantity								

A. Mission Description and Budget Item Justification: This project addresses spiral development requirements contained in Operational Requirements Document; supports development testing; integration of system enhancements for an evolutionary acquisition strategy to obtain objective SOF mission requirements which include payload integration, platform improvements, targeting capabilities and digital datalink for Rucksack Portable Unmanned Aircraft System (RPUAS); heavy fuel engine, increased endurance, reduced signature, increased telemetry range, and increased payload capacity for the Vehicle Craft Unmanned Aircraft System (VCUAS) and the development of a Logistics Support Vehicle (LSV).

B. Accomplishments/Planned Program

	FY06	FY07	FY08	FY09
RPUAS		1.481		
RDT&E Articles Quantity				

FY07 Supports payload integration, platform improvements targeting capabilities and digital datalinks.

	FY06	FY07	FY08	FY09
VCUAS			1.500	1.530
RDT&E Articles Quantity				

FY08 Supports development, testing, and integration of Vehicle Craft UAS (VCUAS) aircraft, payload, and ground control station improvements.
FY09 Continues development, testing, and integration of VCUAS aircraft, payload, and ground control station improvements.

	FY06	FY07	FY08	FY09
LSV		1.559		
RDT&E Articles Quantity				

FY07 Supports the evaluation of unmanned logistic support vehicle technologies.

C. Other Program Funding Summary:

	FY06	FY07	FY08	FY09	FY10	FY11	FY12	FY13	To Complete	Total Cost
Unmanned Vehicles PROC		24.617	37,107	26.200	17.035	12.498	15.266	15.673	Cont.	Cont.
Small Arms and Weapons PROC	19.905									19.905

D. Acquisition Strategy: Preplanned product improvements to be implemented as evolutionary upgrades to RPUAS and VCUAS.

Exhibit R-3 RDT&E Project Cost Analysis						DATE: FEBRUARY 2007					
APPROPRIATION / BUDGET ACTIVITY RDT&E DEFENSE-WIDE / 7						Program Element 1160428BB/Unmanned Vehicles (UV) Project Name and Number S850					
Actual or Budget Value ($ in millions)											
Cost Categories (Tailor to WBS, or System/Item Requirements)	Contract Method & Type	Performing Activity & Location	Total PYs Cost	Budget Cost FY07	Award Date FY07	Budget Cost FY08	Award Date FY08	Budget Cost FY09	Award Date FY09	To Complete	Total Program
Vehicle Craft Unmanned Aircraft System (VCUAS) Primary Hardware	Various	USSOCOM, MacDill AFB, FL				0.750	Dec-07	0.765	Dec-08	3.210	4.725
VCUAS Ancillary Hardware Development	Various	USSOCOM, MacDill AFB, FL				0.150	Dec-07	0.153	Dec-08	0.642	0.945
Subtotal Product Dev			0.000	0.000		0.900		0.918		3.852	5.670
Remarks:											
VCUAS Development Support	Various	USSOCOM, MacDill AFB, FL				0.150	Dec-07	0.153	Dec-08	0.642	0.945
VCUAS Software Development	Various	USSOCOM, MacDill AFB, FL				0.150	Dec-07	0.153	Dec-08	0.642	0.945
Subtotal Spt			0.000	0.000		0.300		0.306		1.284	1.890
Remarks:											
RPUAS Developmental Test & Evaluation	Various	NATICK	0.000	1.481	Nov-06						1.481
VCUAS Developmental Test & Evaluation	Various	USSOCOM, MacDill AFB, FL				0.150	Dec-07	0.153	Dec-08	0.642	0.945
LSV Develop Test & Evaluation	Various			1.559	Jan-07						1.559
Subtotal T&E			0.000	3.040		0.150		0.153		0.642	3.985
Remarks:											
VCUAS Contractor Engineering Support	TBD	USSOCOM, MacDill AFB, FL				0.150	Dec-07	0.153	Dec-08	0.642	0.945
Subtotal Management			0.000	0.000		0.150		0.153		0.642	0.945
Remarks:											
Total Cost			0.000	3.040		1.500		1.530		6.420	12.490
Remarks:											

Exhibit R-4, RDT&E Program Schedule Profile			Date: FEBRUARY 2007
Appropriation/Budget Activity RDT&E, Defense-Wide/7	Program Element Number and Name PE1160428BB/Unmanned Vehicles (UV)		Project Number and Name Project S850

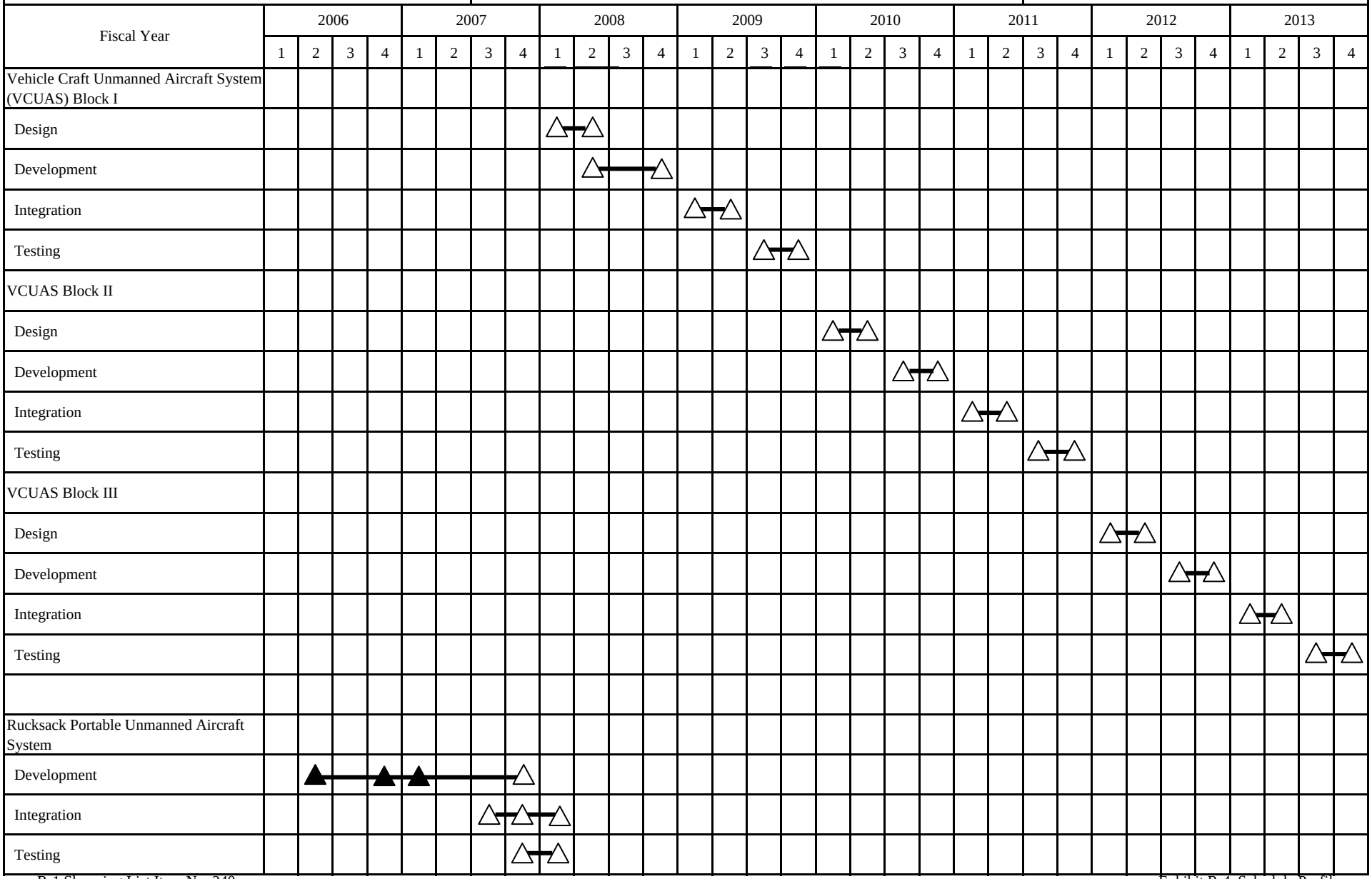


Exhibit R-4, RDT&E Program Schedule Profile																																
																	Date: FEBRUARY 2007																
Appropriation/Budget Activity									Program Element Number and Name														Project Number and Name									
RDT&E, Defense-Wide/7									PE1160428BB/Unmanned Vehicles (UV)														Project S850									
Fiscal Year	2006				2007				2008				2009				2010				2011				2012				2013			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Unmanned Logistics Support Vehicle																																
Development						△	—	△	△																							
Integration							△	—	△	△																						
Testing									△																							

Exhibit R-4a, RDT&E Program Schedule Detail					Date: FEBRUARY 2007			
Appropriation/Budget Activity	Program Element Number and Name				Project Number and Name			
RDT&E, Defense-Wide/7	PE1160428BB/Unmanned Vehicles (UV)				Project S850			
Schedule Profile	FY2006	FY2007	FY2008	FY2009	FY2010	FY2011	FY2012	FY2013
Vehicle Craft Unmanned Aircraft System (VCUAS)								
Design			1-2Q					
Development			2-4Q					
Integration				1-2Q				
Testing				3-4Q				
VCUAS Block III								
Design					1-2Q			
Development					3-4Q			
Integration						1-2Q		
Testing						3-4Q		
VCUAS Block IV								
Design							1-2Q	
Development							3-4Q	
Integration								1-2Q
Testing								3-4Q
Rucksack Portable Unmanned Aircraft System								
Development	2Q - 4Q	1Q - 4Q						
Integration		3Q - 4Q	1Q					
Testing		4Q	1Q					
Unmanned Logistic Support Vehicle								
Development		2Q - 4Q	1Q					
Integration		3Q - 4Q	1Q					
Testing			1Q					

RDT&E BUDGET ITEM JUSTIFICATION SHEET (R-2 Exhibit)	DATE FEBRUARY 2007
APPROPRIATION / BUDGET ACTIVITY RDT&E, DEFENSE-WIDE / 7	R-1 ITEM NOMENCLATURE / PROJECT NO. PE 1160429BB SOF Tanker Recapitalization/S875

COST (Dollars in Millions)	FY06	FY07	FY08	FY09	FY10	FY11	FY12	FY13	Cost to Complete	Total Cost
PE 1160429BB			12.701	4.666	4.246	2.772	3.058		Cont.	Cont.
S875, SOF Tanker Recapitalization			12.701	4.666	4.246	2.772	3.058		Cont.	Cont.

A new program element was established beginning in FY 2008 for SOF Tanker Recapitalization.

A. Mission Description and Budget Item Justification:

The Special Operations Forces (SOF) Tanker line funds the recapitalization of aging MC-130E/P airframes to perform clandestine or low visibility, single- or multi-ship low-level missions intruding politically-sensitive or hostile territories to provide air refueling for special operations helicopters. Secondary missions include airdrop of leaflets, small special operations teams, resupply bundles and combat rubber raiding craft. Additional capabilities include low-light navigation and in-flight refueling as a receiver. The Air Force will procure and field basic aircraft, common support equipment, and trainers for USSOCOM. A block upgrade approach will be used to incorporate SOF capabilities onto the aircraft.

Block 0: Integrate and test the Universal Air Refueling Receptacle Slipway Installation (UARRSI), SATCOM radio, Infrared Detection Set sensor, and Combat Systems Officer Station.

Block 1: Design, integrate, test and validate enhancements to meet SOF unique mission requirements for enhanced situational awareness and communication.

B. Program Change Summary:

	FY06	FY07	FY08	FY09
Previous President's Budget				
Current President's Budget			12.701	4.666
Total Adjustments			12.701	4.666
Congressional Program Reductions				
Congressional Increases				
Reprogrammings				
Other Program Adjustments			12.701	4.666
SBIR Transfer				

Funding:

FY08-FY09: Department established a new program to recapitalize the SOF Tanker fleet.

Schedule: None.

Technical: None.

Exhibit R-2a, RDT&E Project Justification	Date: FEBRUARY 2007
Appropriation/Budget Activity RDT&E BA # 7	SOF Tanker Recapitalization/S875

Cost ($ in millions)	FY06	FY07	FY08	FY09	FY10	FY11	FY12	FY13
SOF Tanker Recapitalization			12.701	4.666	4.246	2.772	3.058	
RDT&E Articles Quantity								

Project S875 was established beginning in FY 2008 for SOF Tanker Recapitalization.

A. Mission Description and Budget Item Justification: The Special Operations Forces (SOF) Tanker line funds the recapitalization of aging MC-130E/P airframes to perform clandestine or low visibility, single- or multi-ship low-level missions intruding politically-sensitive or hostile territories to provide air refueling for special operations helicopters. Secondary missions include airdrop of leaflets, small special operations teams, resupply bundles and combat rubber raiding craft. Additional capabilities include low-light navigation and in-flight refueling as a receiver. The Air Force will procure and field basic aircraft, common support equipment, and trainers for USSOCOM. A block upgrade approach will be used to incorporate SOF capabilities on to the aircraft.

Block 0: Integrate and test the Universal Air Refueling Receptacle Slipway Installation (UARRSI), SATCOM radio, Infrared Detection Set sensor, and Combat Systems Officer Station.

Block 1: Design, integrate, test and validate enhancements to meet SOF unique mission requirements for enhanced situational awareness and communication.

B. Accomplishments/Planned Program

	FY06	FY07	FY08	FY09
Block 0			12.701	4.666
RDT&E Articles Quantity				

FY08 Start integration of Block 0 equipment into host aircraft.
FY09 Continue integration of Block 0 equipment into host aircraft.

C. Other Program Funding Summary.

	FY06	FY07	FY08	FY09	FY10	FY11	FY12	FY13	To Complete	Total Cost
SOF Tanker Recap PROC			18.565	36.348	45.074	54.920	96.281	79.487	118.465	449.231

D. Acquisition Strategy. The Acquisition Strategy will be developed prior to the Milestone in 1st Quarter FY08 and approved by the Special Operations Acquisition Executive.

Exhibit R-3 RDT&E Project Cost Analysis						DATE: FEBRUARY 2007					
APPROPRIATION / BUDGET ACTIVITY RDT&E DEFENSE-WIDE / 7			Program Element 1160429BB/SOF Tanker Recapitalization Project Name and Number SOF Tanker Recapitalization/S875								
Actual or Budget Value ($ in millions)											
Cost Categories (Tailor to WBS, or System/Item Requirements)	Contract Method & Type	Performing Activity & Location	Total PYs Cost	Budget Cost FY07	Award Date FY07	Budget Cost FY08	Award Date FY08	Budget Cost FY09	Award Date FY09	To Complete	Total Program
Primary integration	TBD	TBD				12.701	Feb-08	4.666	Dec-08	Cont	Cont
Subtotal Product Dev			0.000	0.000		12.701		4.666		Cont	Cont
Remarks:											
Development Support											
Subtotal Spt			0.000	0.000		0.000		0.000			
Remarks:											
Developmental Test & Evaluation											
Subtotal T&E			0.000	0.000		0.000		0.000			
Remarks:											
Contractor Engineering Support											
Subtotal Management			0.000	0.000		0.000		0.000			
Remarks:											
Total Cost			0.000	0.000		12.701		4.666		Cont	Cont
Remarks:											

Exhibit R-4, RDT&E Program Schedule Profile																	Date: FEBRUARY 2007															
Appropriation/Budget Activity RDT&E, Defense-Wide/7									Program Element Number and Name PE1160429BB/SOF Tanker Recapitalization												Project Number and Name Project S875/SOF Tanker Recapitalization											
Fiscal Year	2006				2007				2008				2009				2010				2011				2012				2013			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Block 0 Integration and Test										△	—	—	△	—	—	—	△	—	—	—	△	—	—	—	△							
Block 1 Development																	△	—	—	—	△	—	—	—	△	—	—	—	△			

Exhibit R-4a, RDT&E Program Schedule Detail					Date: FEBRUARY 2007			
Appropriation/Budget Activity	Program Element Number and Name				Project Number and Name			
RDT&E, Defense-Wide/7	PE1160429BB/SOF Tanker Recapitalization				Project S875/SOF Tanker Recapitalization			
Schedule Profile	FY2006	FY2007	FY2008	FY2009	FY2010	FY2011	FY2012	FY2013
Block 0 Integration and Test			2-4Q	1-4Q	1-4Q	1-3Q		
Block 1 Development					1-4Q	1-4Q	1-4Q	