United States Special Operations Command

Fiscal Year (FY) 2009 Budget Estimates

February 2008

Research, Development, Test and Evaluation, Defense-Wide

FEBRUARY 2008

UNITED STATES SPECIAL OPERATIONS COMMAND
FISCAL (FY) 2009 BUDGET ESTIMATE
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
1SOW	1 Special Operations Wing
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
ADM-NVG	Advanced Digital Multi-Spectral Night Vision Goggle
ADP	Automated Data Processing
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
ALGL	Autonomous Landing Guidance System
ALGS	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
ASICD	Application Specific Integrated Circuit Development
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
BALCS	Body Armor Load Carriage System

ACRONYMS

BFT	Blue Force Tracking
BIO	Basic Input Output
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
CCCEKIT	Combat Casualty Care Equipment Kit
CCD	Coherent Change Detection
CCD	Charged Coupled Device (Forward Looking Infrared Radar Only)
CDR	Critical Design Review
CERP	Capital Equipment Replacement Plan
CESE	Civil Engineering Support Equipment
CFE	Contractor Furnished 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

ACRONYMS

CPAF	Cost Plus Award Fee
CS	Confined Space (Light Anti-Armored Weapons)
CS	Combat Swimmer
CSAR	Combat Survivor Evader Locator
CSEL	Combat Search and Rescue
CSOLO	Commando Solo
CW	Center Wing
DAGR	Defense Advanced Global Positioning System Receiver
DAMA	Demand Assured Multiple Access
DARPA	Defense Advanced Research Projects Agency
DAS	Distributed Aperture System
DCGS	Data Common Ground/Surface System
DCS	Decompression Sickness
DDR&E	Director, Defense Research & Engineering
DDS	Dry Deck Shelter
DERF	Defense Emergency Response Fund
DHEA	Dehydroepiandrosterone
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
DT	Development and Test
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

ACRONYMS

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
EPRO	Environmental Protection
ESA	Enhanced Situational Awareness
ETCAS	Enhanced Traffic Alert and Collision Avoidance System
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
FMBS	Family of Muzzle Brake Suppressors
FNM	Foreign & Nonstandard Materiel
FOL	Family of Loud Speakers
FPM	Flight Performance Model
FSOV	Family of SOF Vehicles
FSW	Family of Sniper Weapons
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
GPK	Gunner Protection Kit
GPS	Global Positioning System
GSK	Ground Signal Intelligence Kit
H-SUV	Hardened-Sport Utility Vehicle
HE	High Explosive
HEI	High Explosive Incendiary
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
IC	Interim Configuration
ICAD	Integrated Control and Display
ICLS	Interim Contractor Logistics Support
ICS	Interim Contractor Support
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
ILS	Integrated Logistics Support
INFOSEC	Information Security

INOD	Improved Night/Day Observation/Fire Control Device
INS	Inertial Navigation System
IOC	Initial Operational Capability
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
JTC	Joint Terminal Control
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
NET	New Equipment Training
NISH	National Institute of Severly Handicapped
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	Operational Test
OT&E	Operational Test and Evaluation
QOT&E	Qualification Test and Evaluation/Qualification Operational Test and Evaluation
P3I	Pre-Planned Product Improvement
PAI	Primary Aircraft Inventory
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
POBS	Psychological Operations Broadcasting System
POPAS	PSYOP Planning and Analysis 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
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
ROAR	Rover Over the Horizon Augmented Reconnaissance
ROSES	Reduced Optical Signature Emissions System
RPUAS	Rucksack Portable Unmanned Aircraft System
RSTA	Reconnaissance Surveillance Target Acquisition
RW	Rotary Wing
RWR	Radar Warning Receivers

SAFC	Special Applications for Contingencies
SAGIS	SOF Air-Ground Interface Simulator
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	Sensititive 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
SIE	SOF Information Enterprise
SIGINT	Signals Intelligence
SIL	Systems Integration Lab
SIPE	Swimming Induced Pulmonary Edema
SIRCM	Suite of Infrared Countermeasures
SIRFC	Suite of Integrated Radar Frequency 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
SOEP	Special Operations Eye Protection
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
TAT	To-Accompany Troops
TCCC	Tactical Combat Casualty Care
TACTICOMP	Tactical Computer
TCV	Transit Case Variant
TDFD	Time Delay Firing Device
TDE	Technology Development Exploitation
TPE	Theater Provided Equipment
TPED	Tactical Processing, Exploitation, and Dissemination
TEI	Technology Exploitation Initiative
TRR	Test Readiness Review
TRS	Tactical Radio System
TTHM	Titanium Tilting Helmet Mount
TT&L	Tagging, Tracking & Locating
UARRSI	Universal Aerial Refueling Receptacle Slipaway
UAS	Unmanned Aerial System
UAV	Unmanned Aerial Vehicle
UBA	Underwater Breathing Apparatus
UHF	Ultra High Frequency
UHMS	Undersea and Hyperbaric Medicine Society
UK	United Kingdom
US	United States
UTC	Unit Type Code
UV	Unmanned Vehicles
UVT	Unmanned Vehicle Targeting
VBL	Visible Bright Lights
VESTA	Vibro-Electronic Signature Target Analysis
VHF	Very High Frequency
VSD	Variable Speed Drogue
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 2007	FY 2008	FY 2009	FY 2010
23	1160401BB	Special Operations Technology Development	2	17.729	32.040	23.104	24.688
24	1160407BB	SOF Medical Technology Development	2	2.234	2.327	2.459	2.495
64	1160402BB	Special Operations Advanced Technology Development	3	145.245	41.251	28.930	27.191
65	1160472BB	SOF Information and Broadcast Systems Advanced Technology	3			10.990	5.950
170	0301318BB	Humint [2]	7				
173	0301555BB	Classified Programs [2]	7				
175	0301556BB	Special Programs [2]	7				
193	0304210BB	Special Applications for Contingencies	7	20.075	16.844	16.225	16.609
210	0305208BB	Distributed Common Ground/Surface Systems (MIP)	7			3.165	3.627
215	0305219BB	MQ-1 Predator A UAV (MIP)	7		12.765	13.679	3.813
229	1130435BB	STORM (MIP)[1]	7		26.413		
230	1160279BB	Small Business Innovative Research	7	12.213	7.883		
231	1160403BB	Special Operations Aviation Systems Advanced Development	7	67.695	55.451	43.977	41.033
232	1160404BB	Special Operations Tactical Systems Development	7	85.458	58.816	13.263	2.272
233	1160405BB	Special Operations Intelligence Systems Development (MIP)	7	58.562	62.417	39.125	34.177
234	1160408BB	SOF Operational Enhancements [1]	7	103.431	57.877	48.137	50.336
235	1160421BB	Special Operations CV-22 Development	7		22.872	38.229	27.140
236	1160425BB	Special Operations Aircraft Defensive Systems	7	3.760	5.062		
237	1160426BB	Advanced SEAL Delivery System (ASDS) Development	7	31.616	19.772	7.090	1.488
238	1160427BB	Mission Training and Preparation Systems	7	3.684	6.241	4.052	4.064
239	1160428BB	Unmanned Vehicles	7	10.040	6.334	1.527	1.547
240	1160429BB	MC-130J SOF Tanker Recapitalization	7		12.375	4.659	4.211
	1160474BB	SOF Communications Equipment and Electronics Systems	7				1.295
241	1160477BB	SOF Weapons Systems	7			2.759	1.290
242	1160478BB	SOF Soldier Protection and Survival Systems	7			3.190	1.467
243	1160479BB	SOF Visual Augmentation, Lasers, and Sensor Systems	7			3.495	0.496

R-1	Program Element #	Item	Budget Activity	FY 2007	FY 2008	FY 2009	FY 2010
	1160480BB	SOF Tactical Vehicles	7				1.490
244	1160482BB	SOF Rotary Wing Aviation	7			3.822	15.294
245	1160483BB	SOF Underwater Systems	7			3.142	0.992
246	1160484BB	SOF Surface Craft	7			5.206	1.984
247	1160488BB	SOF PSYOP	7			15.554	9.174
248	1160489BB	SOF Global Video Surveillance Activities[1]	7			14.686	24.914
249	1160490BB	SOF Operational Enhancements Intelligence[1]	7			8.729	8.753

[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:	**564.125**	**449.606**	**360.862**	**321.043**

RDT&E BUDGET ITEM JUSTIFICATION SHEET (R-2 Exhibit)	DATE FEBRUARY 2008
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)	FY07	FY08	FY09	FY10	FY11	FY12	FY13	Cost to Complete	Total Cost
PE1160401BB	17.729	32.040	23.104	24.688	24.880	28.121	30.375	Cont.	Cont.
S100, SO TECHNOLOGY BASE DEV	17.729	32.040	23.104	24.688	24.880	28.121	30.375	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:

	FY07	FY08	FY09
Previous President's Budget	17.730	21.282	23.135
Current President's Budget	17.729	32.040	23.104
Total Adjustments	-0.001	10.758	-0.031
Congressional Program Reductions		-0.209	
Congressional Increases		11.600	
Reprogrammings			
Other Program Adjustments			-0.031
SBIR Transfer		-0.633	

Funding:

FY07: Decrease (-$0.001 million) is due to reprogramming action to correct Sectional 8106 taxes applied in initial distribution.

FY08: Net increase ($10.758) resulting from Congressional reduction that includes (-$0.053 million) for Section 8097 and Section 8104 (-$0.156 million). Other program adjustments include transfer to Small Business Innovative Research account (-$0.633 million). And ($11.600 million) for the following Congressional Adds:

- Pulsed Energy Projectile ($1.000 million).
- SOF Network – Configure Sharing and Storage ($1.000 million).
- Neckel Boron Coating ($1.600 million).
- Athena – Threat Signal Locator ($1.000 million).
- Advanced Multi-purpose Micro-Display System ($1.000 million).
- Flashlight Soldier-to-Soldier Combat ID System ($2.000 million).
- Improved Sensor System ($2.000 million).
- Foilage Penetrating Reconnaissance and Surveillance ($2.000 million).

FY09: Decrease of (-$0.31 million) is due to economic inflation adjustments.

Schedule: None.

Technical: None.

Exhibit R-2a, RDT&E Project Justification	Date: FEBRUARY 2008
Appropriation/Budget Activity RDT&E BA # 2	Special Operations Technology Development/Project S100

Cost ($ in millions)	FY07	FY08	FY09	FY10	FY11	FY12	FY13
SOF Technology Base Development	17.729	32.040	23.104	24.688	24.880	28.121	30.375
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. Requirements in these areas may be advertised to industry and government research and development agencies via broad area announcements and calls for white papers. Efforts include:

- Intelligence Technologies. Develop 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.

- Mobility Technologies. Exploit and develop 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.

- Sensor Technologies. Exploit and develop technologies to provide SOF with standoff capabilities for targeting and locating personnel and equipment. Exploit technologies to provide real-time active decision-making capabilities, increased situational awareness, improved multi-spectral sensors, and advanced processing and display 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.

- Warrior Technologies. Exploit and develop 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.

- Technology Studies. Conduct concept studies to explore/validate projects that support USSOCOM strategic capability guidance.

- Training Technologies. Develop technologies to meet critical SOF training capability objectives. Develop and apply software and hardware improvements for state-of-the-art training systems and equipment.

- 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). This effort invests in critical science and technology efforts to improve operational capabilities for TTL high value individuals and objects in support of the GWOT.

Additionally, these efforts were added by Congress in FY 2008:

- Pulsed Energy Projectile. Investigate application of laser in a counter-materiel role against UAV's.

- SOF Network-Centric Sharing and Storage. Develop secure data storage.

- Nickel Boron Coating for SOCOM Vehicles. Investigate anti-corrosive coating.

- Athena – Threat Signal Locator. Design, develop and demonstrate a modular capability to detect, locate and defeat combatant communications on the asymmetric battlefield.

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

- Flashlight Soldier-to-Soldier Combat ID System. Develop a flashlight soldier-to-soldier combat identification system.

- Improved Sensor System. Continue development of sensor package design for the Advanced Distributed Aperture system project.

- Foliage Penetrating Reconnaissance and Surveillance System. Develop and evaluate a multi-sensor foliage penetrating reconnaissance and surveillance system,

B. Accomplishments/Planned Program

	FY07	FY08	FY09
Intelligence Technologies.	2.412	.512	1.043
RDT&E Articles Quantity			

FY07 Continued development of FY06 efforts. Completed Antenna Enhancements project. Initiated TTL project to explore nanotechnology applications initiatives to TTL for SOF applications. Initiated C4 technology projects to address identified C4 science and technology capability gaps PSYOP AM Antenna and "Athena " project to develop SOF mounted/dismounted direction finding/jamming capabilities.
FY08 Continue development of FY07 efforts. Continue modular DF project. Initiates Intel technology projects to address identified Intel Science & Technology (S&T) capability gaps.
FY09 Continues development of FY08 efforts. Initiates Intel technology projects to address identified Intel science and technology capability gaps. Continues to exploit, develop and demonstrate technologies that provide SOF with improved intelligence 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.

	FY07	FY08	FY09
Mobility Technologies	3.866	3.443	3.311
RDT&E Articles Quantity			

FY07 Continued development of FY06 efforts. Initiated follow-on studies and analyses and the investigation of new and existing technologies needed to replace the Mark V Special Operations Craft (MK V SOC). Completed Shock Mitigation for High Speed Boats. Initiated mobility technology projects to address mobility science and technology capability gaps: Sea, Air, Land Delivery Vehicle Nuclear Guided Missile Submarine (SDV SSGN) Vertical Launch project. Completed Small Versatile Maritime Mobility Craft project and transition to user community.
FY08 Continue development of FY07 efforts. Initiate follow-on studies and Joint Capabilities Integration and Development System (JCIDS) support analyses needed to support a Mark V Special Operations Craft replacement requirements validation. Initiates mobility technology projects to address mobility S&T capability gaps, Joint Heavylift (JHL).
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.

	FY07	FY08	FY09
Sensor Technologies	0.900	0.819	1.043
RDT&E Articles Quantity			

FY07 Continued development of FY06 efforts. Continued Enhanced Hostile Detection Capability and Night Vision Windshield/Distributed Aperture System. Initiated sensor technology projects to address sensor science and technology capability gaps.
FY08 Continue development of FY07 efforts. Continue investigations of science and technology focus areas. Continue Enhanced Hostile Detection Capability and Night Vision Windshield/Distributed Aperture System.
FY09 Continues development of FY08 efforts. Continues to exploit technologies to provide SOF with standoff capabilities for targeting and locating personnel and equipment, enhancing sensors and situational awareness. Exploits technologies that enhance logistics, reduce cost and enhance performance of SOF sensors. Continues investigations of science and technology focus areas.

	FY07	FY08	FY09
Warrior Technologies	1.565	.512	
RDT&E Articles Quantity			

FY07 Completed color Night Vision Fusion (polarimetry) project.
FY08 Continue Advanced Digital Multispectral Night Vision Goggle.
FY09 Continue development of FY08 efforts. Continue to exploit technologies to provide the SOF warrior with enhanced force protection, weapons, and personal equipment.

	FY07	FY08	FY09
Technology Studies	.839	3.518	2.206
RDT&E Articles Quantity			

FY07 Initiated Ballistic Protection Required Capabilities Study for MH-47 Aircraft. Initiated follow-on studies and analyses and the investigation of new and existing technologies needed to replace the MK V SOC. Initiated Short Wave Infrared Radar (SWIR) Characterization Study.
FY07 Initiated follow-on studies and analyses and the investigation of new and existing technologies needed to replace the MK V SOC.
FY08 Initiate follow-on studies and JCIDS support analyses needed to support a MK V SOC replacement requirements validation. Continue 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.

	FY07	FY08	FY09
Training Technologies	.787	1.524	1.867
RDT&E Articles Quantity			

FY07 Complete Tactical Language Trainer.
FY08 Complete Enhanced Display system for SAGIS trainer.
FY09 Initiate training technology projects to address training Science & Technology capability gaps.

	FY07	FY08	FY09
Classified	2.000	1.997	2.086
RDT&E Articles Quantity			

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

	FY07	FY08	FY09
Tagging, Tracking, and Locating Technologies		8.480	11.548
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.

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

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

	FY07	FY08	FY09
Helios/Global Observer	2.193		
RDT&E Articles Quantity			

FY07 This initiative was a Congressional add and a follow on from FY06 for continued investigation and evaluation of alternative fuel propulsion systems for high altitude unmanned aerial systems.

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

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

	FY07	FY08	FY09
Pulsed Energy Projectile		.974	
RDT&E Articles Quantity			

FY08 This initiative was a Congressional add. Investigate application of laser in a counter-materiel role against UAV's.

	FY07	FY08	FY09
SOF Network-Centric Sharing and Storage		.907	
RDT&E Articles Quantity			

FY08 This initiative was a Congressional add. Develop secure data storage in support of multi-level and classification stateless networks.

	FY07	FY08	FY09
Nickel Boron Coating for SOCOM Vehicles		1.558	
RDT&E Articles Quantity			

FY08 This initiative was a Congressional add. Investigate coatings for military utility within Ground Vehicles to increase service life as application to support Breaching Operations, to investigate application on propellers to reduce cavitations, and to investigate applications as anti-corrosive coating.

	FY07	FY08	FY09
Athena-Threat Signal Locator		.974	
RDT&E Articles Quantity			

FY08 This initiative was a Congressional add. Design, develop and demonstrate a modular capability to detect, locate and defeat combatant communications on the asymmetric battlefield.

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

FY08 This initiative was a Congressional add and a follow on to FY07 where the funding was in the S200 line. Integrate micro-display and miniature electronics heads-up displays..

	FY07	FY08	FY09
Flashlight Soldier-to-Soldier Combat ID System		1.949	
RDT&E Articles Quantity			

FY08 This initiative was a Congressional add. Develop a flashlight soldier-to-soldier combat identification system.

	FY07	FY08	FY09
Improved Sensor System		1.949	
RDT&E Articles Quantity			

FY08 This initiative was a Congressional add. Continue development of sensor package design for the Advanced Distributed Aperture system project.

	FY07	FY08	FY09
Foliage Penetrating Reconnaissance and Surveilance		1.950	
RDT&E Articles Quantity			

FY08 This initiative was a Congressional add. Develop and evaluate a multi-sensor foliage penetrating reconnaissance and surveillance system.

C. Other Program Funding Summary: None.

D. Acquisition Strategy. N/A.

RDT&E BUDGET ITEM JUSTIFICATION SHEET (R-2 Exhibit)	DATE FEBRUARY 2008
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)	FY07	FY08	FY09	FY10	FY11	FY12	FY13	Cost to Complete	Total Cost
PE1160407BB	2.234	2.327	2.459	2.495	2.547	2.603	2.661	Cont.	Cont.
S275, SOF MEDICAL TECHNOLOGY	2.234	2.327	2.459	2.495	2.547	2.603	2.661	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:

	FY07	FY08	FY09
Previous President's Budget	2.234	2.388	2.464
Current President's Budget	2.234	2.327	2.459
Total Adjustments	0.000	-0.061	-0.005
Congressional Program Reductions		-0.015	
Congressional Increases			
Reprogrammings			
Other Program Adjustments			-0.005
SBIR Transfer		-0.46	

Funding:

FY07: No change.

FY08: Congressional reduction includes (-$0.004 million) Section 8097 and Section 8104 (-$0.011 million). Other program adjustments include transfer to Small Business Innovative Research account (-$0.046 million).

FY09: Decrease of (-$0.005 million) is due to economic inflation adjustments.

Schedule: None.

Technical: None.

Exhibit R-2a, RDT&E Project Justification	Date: FEBRUARY 2008
Appropriation/Budget Activity RDT&E BA # 2	SOF Medical Technology/Project S275

Cost ($ in millions)	FY07	FY08	FY09	FY10	FY11	FY12	FY13
SOF Medical Technology	2.234	2.327	2.459	2.495	2.547	2.603	2.661
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

	FY07	FY08	FY09
Combat Casualty Care	.895	.632	.665
RDT&E Articles Quantity			

FY07 Completed ongoing studies: Tactical Combat Casualty Care Technology Transition Initiative. Initiated new studies: Recombinant Hemostatic Agents for Penetrating Brain Injury, Testing and Field Evaluations of the Welch Allyn (WA) Propaq LT for use by SOF, and Wearable Low-Power Plasma Knife.
FY08 Completes ongoing studies: Testing and Field Evaluations of the WA Propaq LT for use by SOF and Wearable Low-Power Plasma Knife. Continues ongoing studies: Recombinant Hemostatic Agents for Penetrating Brain Injury. Initiates new studies: SOCOM Lab Set.
FY09 Completes ongoing studies: Recombinant Hemostatic Agents for Penetrating Brain Injury, SOCOM Lab Set. Initiates new studies: Develop Mission Essential Elements for Enroute Care.

	FY07	FY08	FY09
Diving Medicine	.124	.170	.179
RDT&E Articles Quantity			

FY07 Initiated new studies: Intravenous Perfluorocarbon and Recompression Therapy After the Onset of Severe Decompression Sickness.
FY08 Continues ongoing studies: Intravenous Perfluorocarbon and Recompression Therapy After the Onset of Severe Decompression Sickness.
FY09 Completes ongoing studies: Intravenous Perfluorocarbon and Recompression Therapy After the Onset of Severe Decompression Sickness.

			FY07	FY08	FY09
Medical Informatics			.220	.254	.365
RDT&E Articles Quantity					

FY07 Completed ongoing studies: SOF Medical Training Presentations. Continued ongoing studies: SOF Nutrition Training Material for USSOCOM and Advanced Distant Learning for 18D Course of Instruction. Initiated new studies: SOF Medical Lessons Learned, and The History of the Development of the SOF Medic.
FY08 Completes ongoing studies: SOF Nutrition Training Material for USSOCOM, Advanced Distant Learning for 18D Course of Instruction and The History of the Development of the SOF Medic. Continues ongoing studies: SOF Medical Lessons Learned.
FY09 Completes ongoing studies as follows: SOF Medical Lessons Learned. Initiates new studies: Update SOF/Joint Medical Doctrine and Procedures.

			FY07	FY08	FY09
Performance Enhancements			.995	1.271	1.250
RDT&E Articles Quantity					

FY07 Completed ongoing studies: Visual Aberration in Post-Corneal Refractive Surgery Patients using Panoramic Night Vision Goggles and Efficacy of Dehydroepiandrosterone Administration to Protect Soldiers Against Stress Induced Defects in Memory and Cognition. Continued ongoing studies: Prevention of Motion Sickness in SOF Operations. Initiated new studies: Comparison of Flight Proficiency and Risk Taking Behavior in Aviators Given Dextroamphetamine or Modafinil during Extended Operations, Altitude Decompression Sickness Risk Assessment Computer Upgrade - Staged In-Flight Decompression, and Effect of Exogenous Erythropoietin on Acute Mountain Sickness Symptoms in Humans.
FY08 Completes ongoing studies: Prevention of Motion Sickness in SOF Operations and Altitude Decompression Sickness Risk Assessment Computer Upgrade - Staged In-Flight Decompression. Continues ongoing studies: Comparison of Flight Proficiency and Risk Taking Behavior in Aviators Given Dextroamphetamine or Modafinil during Extended Operations and Effect of Exogenous Erythropoietin on Acute Mountain Sickness Symptoms in Humans. Initiates new studies: Anti-Clotting Agents, Biomarkers and Dynamical Function Tests for Optimized Health and Performance, Physical Performance Trainability Limits on SOF Standards used for Recruitment and Initial Selection and Metabolic Markers to Develop Assays and Optimize Warfighter Fitness.
FY09 Completes ongoing: Comparison of Flight Proficiency and Risk Taking Behavior in Aviators Given Dextroamphetamine or Modafinil during Extended Operations, Effect of Exogenous Erythropoietin on Acute Mountain Sickness Symptoms in Humans and Anti-Clotting Agents. Continues ongoing studies: Biomarker and Dynamical Function Tests for Optimized Health and Performance, Physical Performance Trainability Limits on SOF Standards used for Recruitment and Initial Selection and Metabolic Markers to Develop Assays and Optimize Warfighter Fitness. Initiates new studies: Ergogenics and Ergonomics, and Operational Performance in Adverse Environment Studies.

C. Other Program Funding Summary. None.

D. Acquisition Strategy. N/A.

RDT&E BUDGET ITEM JUSTIFICATION SHEET (R-2 Exhibit)	DATE FEBRUARY 2008
APPROPRIATION / BUDGET ACTIVITY RDT&E, DEFENSE-WIDE / 3	R-1 ITEM NOMENCLATURE / PROJECT NO. PE 1160402BB Special Operations (SO) Advanced Technology Development/S200

COST (Dollars in Millions)	FY07	FY08	FY09	FY10	FY11	FY12	FY13	Cost to Complete	Total Cost
PE 1160402BB	145.245	41.251	28.930	27.191	27.420	29.661	34.880	Cont.	Cont.
S200, SO SPECIAL TECHNOLOGY	145.245	41.251	28.930	27.191	27.420	29.661	34.880	Cont.	Cont.

Beginning in FY 2009 resources were moved into new Program Elements (PE) 1160472BB, Special Operations Forces (SOF) Information and Broadcast Systems Advanced Technology and PE 1160473BB, SOF Fixed Wing Advanced Technology Development.

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:

	FY07	FY08	FY09
Previous President's Budget	133.815	29.935	29.544
Current President's Budget	145.245	41.251	28.930
Total Adjustments	11.430	11.316	-0.614
Congressional Program Reductions		-0.269	
Congressional Increases		12.400	4.400
Reprogrammings	11.430		-5.004
Other Program Adjustments			-0.010
SBIR Transfer		-0.815	

Funding:

FY07: Net increase $11.430 million is due to internal reprogramming of Congressional adds into the proper program element for execution.

FY08: Net increase of $11.316 million is due to Small Business Innovative Research account (-$0.815 million), congressional reductions Section 8097 (-$0.053 million), Section 8104 (-$0.156 million), and $12.400 million increase for the following Congressional Adds:

- 11m RIB Replacement Craft Design ($0.0800 million)
- Field Experimentation Program for Special Operations ($1.600 million)
- Information Networking for Operational Reporting and Monitoring ($2.000 million)
- Waterway Threat Detection Sensor System ($2.400 million)
- Improved Information Transfer to Special Forces ($3.200 million)
- Special Operations Portable Power Source ($2.400 million)

FY09: Net decrease (-$0.614 million) is the result of establishing new PEs and other adjustments. Funds were moved to 1160472BB, Special

Operations Forces (SOF) Information and Broadcast Systems Advanced Technology (-$6.000 million) and PE 1160473BB, SOF Fixed Wing Advanced Technology Development ($-5.004 million); increase for Iridium Global Positioning System ($4.400 million); and economic inflation adjustments (-$0.010 million).

Schedule: None.

Technical: None.

Exhibit R-2a, RDT&E Project Justification	Date: FEBRUARY 2008
Appropriation/Budget Activity RDT&E BA # 3	Special Operations Special Technology Project S200

Cost ($ in millions)	FY07	FY08	FY09	FY10	FY11	FY12	FY13
Special Operations Special Technology	145.245	41.251	28.930	27.191	27.420	29.661	34.880
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 now called Joint Capability Technology Demonstrations. 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:

- Command, Control, Communications, and Computer (C4) Technologies. Exploit emerging technologies to conduct ATDs that provide SOF with a robust C4 and Intelligence 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 produce new and improved capabilities in information operations and psychological operations.

- Mobility Technologies. 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.

- Sensor Technologies. 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 Warrior Technologies. 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.

- Tagging, Tracking, and Locating Technologies (TTL). Exploit emerging technologies to utilize the USSOCOM/Office of the Secretary of Defense Director, Defense Research & Engineering (DDR&E) TTL Science & Technology (S&T) Roadmap and the TTL Quick Look Capabilities Assessment. Exploit emerging technologies to locate and track targets or items of interest. Pursue advanced development and prototyping of TTL capabilities that have been proven to be feasible and operationally useful in Special Operations Advanced Technology Development.

- Advanced Tactical Laser (ATL) Advanced Concept Technology Demonstration (ACTD). The ATL ACTD was started in FY02 through funding provided by Deputy Under Secretary of Defense Advanced 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).

- Standoff Precision Guided Munition (SOPGM) Advanced Concept Technology Demonstration (ACTD). The objective of the SOPGM ACTD is to evaluate the military utility of adding a precision guided munitions capability to (SOF) Platforms. 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 or surrogate platforms against representative targets. The ACTD will provide an Initial Proof-of-Concept (IPOC) of the SOPGM weapon system and an interim Military Utility Assessment (MUA).

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

- Army DRAMA Composer. Automated diagnostics and repair capability for Warfighter Information Network-Tactical (WIN-T).

- 11m RIB Replacement Craft Design. To conduct design, modeling, and early prototyping for the 11m Rigid Inflatable Boat replacement craft.

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

- Information Networking for Operational Reporting and Monitoring. Develop and test a capability that guarantees critical intelligence information is immediately disseminated.

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

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

- Airborne Psychological Operations (PSYOP) Modernization. Pursue 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.

- 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.

- Rotary Wing Unmanned Aerial Vehicles (UAVs). Continued the ongoing ACTD and operationalized current systems.

- 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.

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

- Snapshot Synthetic Aperature Radar. Evaluate processor array for real-time processing of radar data.

- 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.

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

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

- Field Deployable Digital Holograph. Develop full color high speed technology to include Red, Green, Blue (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.

- Multimode Radar Low Probability of Intercept/Low Probability of Detection (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.

- Shock Mitigating Seat for Naval Special Warfare Rigid Inflatable Boat (NSW RIB). Develop a shock mitigating seat for the RIB.

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

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

- 3-D Facial Recognition Imaging Technology. Congressional add that integrates stereo vision in hand held stabilized night vision systems.

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

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

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

B. Accomplishments/Planned Program

	FY07	FY08	FY09
Command, Control, Communications, and Computers (C4) Technologies	3.313	1.506	1.534
RDT&E Article Quantity			

FY07 Continued development and evaluation of FY06 efforts. Continue to exploit emerging technologies to conduct Advanced Technology Demonstrations (ATD) that provide SOF with a robust C4 and Intelligence 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. Transitioned Network Security Technologies demonstration project into the Classification Stateless Trusted Environment. Initiate C4 technology projects to address identified C4 capability gaps.
FY08 Continue 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 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.

	FY07	FY08	FY09
Mobility Technologies	2.528	2.688	7.431
RDT&E Article Quantity			

FY07 Continued 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. Completed SEALION ATD. Transition Stiletto ATD to acquisition program management. Initiate mobility technology projects to address identified mobility capability gaps.

FY08 Continue 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. Initiate Joint Sea Hunter and Harbor Intrusion ATDs. Initiate Combat Autonomous Mobility System Joint Concept Technology Demonstration (CAMS) (JCTD) that will demonstrate the utility of modular, purpose-equipped, unmanned vehicles in a wide range of SOF mission tasks. Additionally, this JCTD will develop tactics, techniques, and procedures to effectively employ unmanned system technology within the SOF Direct Action and Surveillance Reconnaissance missions.
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.

	FY07	FY08	FY09
Sensor Technologies	4.591	3.704	3.377
RDT&E Article Quantity			

FY07 Continued 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 Continue 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.

	FY07	FY08	FY09
SOF Warrior Technologies	2.285	1.047	1.241
RDT&E Article Quantity			

FY07 Continued development and evaluation of FY06 efforts. Continue to exploit emerging technologies to conduct Advanced Technology Demonstration (ATD)s 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 Advanced Technology Underwater Breathing Apparatus (AT-UBA) ATD. Continued Military Free Fall Navigation ATD.
FY08 Continue 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. Initiate Frangible Ammunition project. Complete Military Free Fall Navigation ATD.
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. Continue Frangible Ammunition project.

	FY07	FY08	FY09
Tagging, Tracking, and Locating Technologies)		8.821	12.871
RDT&E Article Quantity			

FY08 Initiate projects from the USSOCOM Office of the Secretary of Defense Director, Defense Research and Engineering/DDR&E Tagging, Tracking, and Locating (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. Exploit emerging technologies to locate and track targets or items of interest. Projects will include leveraging and cooperative efforts with DOD, other government agencies, and industry.

	FY07	FY08	FY09
Advanced Tactical Laser (ATL)/ACTD	39.211		
RDT&E Article Quantity			

FY07 Completed 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. Completed integrated ATL system ground verification tests. Conducted high-power flight tests and demonstrate system

performance in the Design Reference Missions. Completed the Military Utility Assessment and delivered the system residuals required for operational forces to operate and maintain the ATL system in a potential extended user evaluation.

	FY07	FY08	FY09
PSYOP "Global Reach" ACTD	5.827	5.838	
RDT&E Article Quantity			

FY07 Continued 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 Unmanned Aerial System (UAS) platforms, demonstrating TV payload; conducting an Extended User Evaluation (EUE) on Wind Supported Air Delivery System (WSADS) UAS FM and loudspeaker broadcast payloads; transitioning WSADS FM broadcast payload; demonstrating 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 Psychological Operations (PSYOP) Target Audience Analysis and PSYOP Worksheets, under the PYSOP Planning and Analysis System (POPAS) umbrella. These efforts will culminate in further military utility assessments for UAS payloads, scatterable media, and the POPAS.
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 UAS loudspeaker broadcast payloads. Continues POPAS development and incremental fielding and transition software/hardware.

	FY07	FY08	FY09
Classified	4.960	5.564	2.476
RDT&E Article Quantity			

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

	FY07	FY08	FY09
Standoff Precision Guided Munition (SOPGM)	8.244		
RDT&E Article Quantity			

Phase 1 of the ACTD:
FY07 Conducted the SOPGM Initial Proof-of-Concept (IPOC) flight demonstrations to validate end-to-end system performance and support an Initial MUA. Flight demonstrations included 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 was turned over to the Air Force Special Operations Command (AFSOC) for an EUE. AFSOC employed 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 provided 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.

	FY07	FY08	FY09
11m RIB Replacement Craft Design		.780	
RDT&E Article Quantity			

FY08 This initiative was a Congressional add. Conduct design, modeling, and early prototyping for the 11m Rigid Inflatable Boat replacement craft.

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

FY07 This initiative was a Congressional add and a follow on to FY06. Transitioned video-based weapon sighting system developed under USSOCOM Small Business Innovative Research (SBIR).

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

FY07 This initiative was a Congressional add and a follow on to FY06. Integrated micro-display and miniature electronics into heads-up displays.
FY08 This initiative is a Congressional add to the Special Operations Technology Development program (PE1160401BB) in FY08 and will be included in the R2A for that PE.

	FY07	FY08	FY09
Nanotech Integration Team	1.871		
RDT&E Article Quantity			

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

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

FY07 This initiative was a Congressional add and a follow on to FY06. Integrated stereo multi-spectral sensors for autonomous navigation and obstacle avoidance.

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

FY07 This initiative was a Congressional add and follow on to FY06. Automated diagnostics and repair capability for Warfighter Information Network – Tactical (WIN-T) troubleshooting and performance management.

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

FY07 This initiative was a Congressional add and a follow on to FY06. Developed modular, retro-reflective-based sniper detection device for handheld or mounted automated search/detection.

	FY07	FY08	FY09
Field Experimentation Program For SOF (FEPSO)	.974	1.558	
RDT&E Article Quantity			

FY07 This initiative was a Congressional add and a follow on to FY06. Demonstrated the Zephyr High Altitude Long Endurance Airship for SOF persistent Intelligence Surveillance Reconnaissance (ISR) applications.
FY08 This initiative is a Congressional add and a follow on to FY07. Prototype and evaluate manned/unmanned platform and sensor networks to articulate new concepts of operation and employment for SOF.

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

FY07 This initiative was a Congressional add and a follow on to FY06. Developed improved textile materials for thermal protection and fire retardency.

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

FY07 This initiative was a Congressional add and a follow on to FY06. Improved the safety of fast-rope operations using advanced design and materials.

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

FY07 This initiative was a Congressional add and a follow on to FY06, rapidly fielded miniature electrical generation devices to power the mobile devices and voltages required by SOF.

	FY07	FY08	FY09
SOF Portable Power Source	3.167	2.339	
RDT&E Article Quantity			

FY07 This initiative was a Congressional add and a follow on to FY06, developed a 50 Watt solid-oxide fuel cell.
FY08 This initiative is a Congressional add and a follow on to FY07. Conduct research on systems to produce mobile electric power from a variety of fuels.

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

FY07 This initiative was a Congressional add and a follow on FY06, demonstrated a radar array processor fabricated from commercial-off-the-shelf micro processors for space applications.

	FY07	FY08	FY09
Snapshot Synthetic Aperature Radar	2.825		
RDT&E Article Quantity			

FY07 This initiative was a Congressional add. Evaluate processor array for real-time processing of radar data.

	FY07	FY08	FY09
Rotary Wing UAV	6.325		
RDT&E Article Quantity			
FY07 This initiative was a Congressional add. Continued the ongoing Advanced Concept Technology Demonstration and operationalized current systems.			
	FY07	FY08	FY09
Waterway Threat Detection Sensor System.	1.461	2.339	
RDT&E Article Quantity			
FY07 This initiative was a Congressional add and a follow on to FY06. Developed a lightweight sonar system for swimmer, unmanned underwater vehicle, and ship detection. FY08 This initiative is a Congressional add and a follow on to FY07. Refine development and test a lightweight sonar system for swimmer, unmanned underwater vehicle, and ship detection.			
	FY07	FY08	FY09
Airborne PSYOP Modernization	1.461		
RDT&E Article Quantity			
FY07 This initiative was a Congressional add. These funds were to be used to develop and test (1) paper like programmable electronic Psychological Operations leaflet with embedded electronics, and (2) electronic leaflet target area analysis prediction tools.			
	FY07	FY08	FY09
Aircraft EW Mounting System	4.678		
RDT&E Article Quantity			
FY07 This initiative was a Congressional add. Demonstrated advanced countermeasure technologies to provide contingency aircraft self-protection capability.			
	FY07	FY08	FY09
Field Deployable Digital Holograph	1.948		
RDT&E Article Quantity			
FY07 This initiative was a Congressional add. Developed full color high speed technology to include Red, Green, Blue laser evolution, film construction development, automated film handling and processing hardware design and development of 1 full color high speed holographic topography system.			

	FY07	FY08	FY09
Fuel Cell Power Systems	1.948		
RDT&E Article Quantity			
FY07 This initiative was a Congressional add. Developed a lightweight nickel-metal hydride fuel cell.			
	FY07	FY08	FY09
Improved Information Transfer For Special Forces	2.338		
RDT&E Article Quantity			
FY07 This initiative was a Congressional add. Applied real time knowledge management tools using information technologies and cognitive science to meet urgent Special Operations intelligence requirements. FY08 This initiative was a Congressional Add and a follow on to FY07. Continue application of real-time knowledge management tools using information technologies and cognitive science to meet urgent Special Operations intelligence requirements.			
	FY07	FY08	FY09
Language Teletraining System	6.820	3.118	
RDT&E Article Quantity			
FY07 This initiative was a Congressional add. Completed development of internet-based training technologies.			
	FY07	FY08	FY09
Life Cycle Support for Unmanned Systems	2.144		
RDT&E Article Quantity			
FY07 This initiative was a Congressional add. Explored concepts and technologies for the automated life-cycle support of unmanned ground systems.			
	FY07	FY08	FY09
Multimode Radar Low Probability of Intercept/Low Probability of Detection (LPI/LPD)	2.338		
RDT&E Article Quantity			
FY07 This initiative was a Congressional add. Developed millimeter wave LPI/LPD radar.			

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

FY07 This initiative was a Congressional add. Established a wireless battlefield network research and testing facility.

	FY07	FY08	FY09
Shock Mitigating Seat for NSW Rigid Inflatable Boat (RIB)	1.266		
RDT&E Article Quantity			

FY07 This initiative was a Congressional add. Transitioned a Phase II USSOCOM SBIR to develop a shock mitigating seat for the RIB.

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

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

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

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

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

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

	FY07	FY08	FY09
Unmanned Aerial Vehicle (UAV) Situational Awareness System	.974		
RDT&E Article Quantity			
FY07 This initiative was a Congressional add. Integrated UAV autonomous flight control system to fly in controlled airspace.			
	FY07	FY08	FY09
Closed Circuit Rebreather	.974		
RDT&E Article Quantity			
FY07 This initiative was a Congressional add. Evaluated emerging rebreather technology for SOF applications.			
	FY07	FY08	FY09
3-D Facial Recognition Imaging Technology	1.266		
RDT&E Article Quantity			
FY07 This initiative was a Congressional add. Integrated stereo vision in hand held stabilized night vision systems.			
	FY07	FY08	FY09
MK V: Advanced MK V Prototype	3.897		
RDT&E Article Quantity			
FY07 This initiative was a Congressional add. Evaluated emerging rebreather technology for SOF applications.			
	FY07	FY08	FY09
Integrated Warfare Information System (IWIS)	2.046		
RDT&E Article Quantity			
FY07 This initiative was a Congressional add. Developed a single Intelligence, Surveillance, and Reconnaissance tool to provide SOF with an integrated sighting system.			
	FY07	FY08	FY09
SOF Long Endurance Demonstrator (SLED)	4.872		
RDT&E Article Quantity			
FY07 This initiative was a Congressional add. Continued research and development that had begun as an Advance Concept Technology Demonstration effort for the SOF Long Endurance Demonstrator (SLED) platform.			

Exhibit R-2a, RDT&E Project Justification	Date: FEBRUARY 2008
Appropriation/Budget Activity RDT&E BA # 3	Special Operations Special Technology Project S200

	FY07	FY08	FY09
Information Networking for Operational and Monitoring		1.949	
RDT&E Article Quantity			

FY08 Develop and test a capability that guarantees critical intelligence information is immediately disseminated to deployed warfighters and other users.

C. Other Program Funding Summary: None.

D. Acquisition Strategy. N/A.

RDT&E BUDGET ITEM JUSTIFICATION SHEET (R-2 Exhibit)	DATE FEBRUARY 2008
APPROPRIATION / BUDGET ACTIVITY RDT&E, DEFENSE-WIDE / 3	R-1 ITEM NOMENCLATURE / PROJECT NO. PE 1160472BB SOF Information and Broadcast Systems Technology Development/S225

Cost (Dollars in Millions)	FY07	FY08	FY09	FY10	FY11	FY12	FY13	Cost to Complete	Total Cost
PE1160472BB			10.990	5.950	5.948	5.948	5.948	Cont.	Cont.
S225, SOF Information and Broadcast Systems Technology Development			10.990	5.950	5.948	5.948	5.948	Cont.	Cont.

A new program element (PE)(1160472BB) was established beginning in FY 2009 for SOF Information and Broadcast Systems Technology Development. FY 2009-2013 resources were moved from PE 1160402BB, Special Operations Advanced Technology Development.

A. Mission Description and Budget Item Justification: This Program Element (PE) conducts rapid prototyping, Advanced Technology Demonstrations (ATDs), and Advanced Concept Technology Demonstrations (ACTDs) of information and broadcast systems technology. This includes planning, analysis, evaluation, and production information systems capabilities and distribution and dissemination broadcast systems capabilities. This includes planning, analysis, evaluation, and production information systems capabilities and distribution and dissemination broadcast systems capabilities. It provides a means for demonstrating and evaluating the utility of emerging/advanced technologies in as realistic an operational environment as possible by SOF users. This PE 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 PE 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.

B. Program Change Summary:

	FY07	FY08	FY09
Previous President's Budget			
President's Budget			10.990
Total Adjustments			10.990
Congressional Program Reductions			
Congressional Increases			
Reprogrammings			
Other Program Adjustments			10.990
SBIR Transfer			

Funding:

FY07: No change.
FY08: No change.
FY09: Increase of $10.990 million is the result of establishing a new Program Element (PE). Funds were moved from PE 1160402BB, Special Operations Advanced Technology Development.

Schedule: None.

Technical: None.

	Exhibit R-2a, RDT&E Project Justification	Date: FEBRUARY 2008
Appropriation/Budget Activity RDT&E BA # 3	SOF Information and Broadcast Systems Advanced Technology/Project 225	

Cost ($ in million)	FY07	FY08	FY09	FY10	FY11	FY12	FY13
SOF Information and Broadcast Systems Advanced Technology			10.990	5.950	5.948	5.948	5.948
RDT&E Articles Quantity							

A new project was established for SOF Information and Broadcast Systems beginning in FY 2009. FY 2009-2013 resources were moved from project S200, Special Operations Special Technology.

A. Mission Description and Budget Item Justification: This project conducts rapid prototyping, Advanced Technology Demonstrations (ATDs), and Advanced Concept Technology Demonstrations (ACTDs) of information and broadcast system technology. 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:

- 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 initiate and continue development of emergent technologies available in the marketplace to transform and modernize PSYOP planning, analysis, development, broadcast, distribution, dissemination, and feedback capabilities. This initiative will also continue development of appropriate emerging technologies initially identified by ATDs and ACTDs to transition to acquisition programs. Technologies include: multi-frequency broadcasts systems; digital broadcast capabilities; remote controlled electronic paper; near real-time command and control of unattended PSYOP systems, especially in denied areas; focused/beam speaker sound technologies; visual projection technologies; advanced commercial broadcast technologies including Amplitude Modulation (AM) and Frequency Modulation (FM) radio transmitters and antenna; television (TV) transmitter and antenna systems; internet and telephony dissemination and broadcast systems, technologies capable of disseminating PSYOP products to reach target audiences across a wide

variety of media into denied areas; and technologies that automate and improve Psychological Operations (PSYOP) planning and analytical capability through integrated capabilities.

B. Accomplishments/Planned Program

Cost ($ in million)	FY07	FY08	FY09
PSYOP "Global Reach" Advanced Concept Technology Demonstration			4.970
RDT&E Articles Quantity			

FY09 Demonstrate and perform an extended user evaluation (EUE) for the broadcast payloads on Predator type Unmanned Aerial Vehicle platforms. Demonstrate and perform EUE for the broadcast payload for High Altitude Unmanned Aerial System (Global Observer or HALE). Both these EUEs will be in preparation for transition. In addition, transitions software/hardware for PSYOP Planning and Analysis System.

Cost ($ in million)	FY07	FY08	FY09
PSYOP Modernization			6.020
RDT&E Articles Quantity			

FY09 Explore emergent technologies available in the marketplace to transform and modernize PSYOP technology capabilities across several PSYOP shortcomings to include: the Next Generation Loudspeaker System, Long Range Broadcast System, PSYOP Media Displays, and Next Generation Leaflet Delivery System. This effort will also enhance and modernize PSYOP Broadcast Systems and PSYOP Print Systems.

C. Other Program Funding Summary:

	FY07	FY08
RDT&E, S200, Special Operations Technology	7.288	5.838

D. Acquisition Strategy: N/A.

RDT&E BUDGET ITEM JUSTIFICATION SHEET (R-2 Exhibit)	DATE FEBRUARY 2008
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)	FY07	FY08	FY09	FY10	FY11	FY12	FY13	Cost to Complete	Total Cost
PE0304210BB	20.075	16.844	16.225	16.609	16.647	17.018	17.392	Cont.	Cont.
9999.PR SAFC	20.075	16.844	16.225	16.609	16.647	17.018	17.392	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/Office of the Secretary of Defense (OSD) chartered approval process.

B. Program Change Summary:

	FY07	FY08	FY09
Previous President's Budget	20.074	15.687	16.247
Current President's Budget	20.075	16.844	16.225
Total Adjustments	0.001	1.157	-0.022
Congressional Program Reductions			
Congressional Increases	0.001	1.600	
Reprogrammings			
Other Program Adjustments		-0.11	-0.022
SBIR Transfer		-0.333	

Funding:

FY07: Net increase (-$0.001 million) is the result of a Congressional add ($7.258 million) for Comprehensive Port and Maritime Domain Awareness and a Congressional mark (-$7.257 million).

FY08: Net increase ($1.157 million) is a result of Congressional reductions Section 8097 (-$0.028 million) and Section 8104 (-$0.082 million), and Congressional add Mobile Optical Wireless Networking for Intelligence, Surveillance, and Reconnaissance ($1.600 million). Other program adjustments include transfer to Small Business Innovative Research account (-$0.333 million).

FY09: Net Decrease (-$0.022 million) is due to economic inflation adjustments.

Schedule: None.

Technical: None.

Exhibit R-2a, RDT&E Project Justification	Date: FEBRUARY 2008
Appropriation/Budget Activity RDT&E BA # 7	Special Applications for Contingencies/Project 9999

Cost ($ in millions)	FY07	FY08	FY09	FY10	FY11	FY12	FY13
Special Applications for Contingencies	20.075	16.844	16.225	16.609	16.647	17.018	17.392
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. Developed and fielded significant improvements to expendable Unmanned Aircraft Systems (UAS) supporting U.S. and Coalition SOF in the U.S. Central Command theater. Developed improvements to long range ground surveillance capabilities and continued development and integration of a networked ISR sensor system.

	FY07	FY08	FY09
SAFC - Contingencies	12.817	3.594	4.218
DT&E Articles Quantity			

FY07 Continued development and combat evaluation of selected unmanned delivery platforms and mounted or deliverable ISR capabilities for global contingencies including short notice requirements. Continued to develop counter-canopy technologies, persistent stare and quick reaction systems.
FY08 Continue development and combat evaluation of selected unmanned delivery platforms and mounted or deliverable ISR capabilities for global contingencies including short notice requirements. Continue to develop and evaluate counter-canopy technologies, persistent stare and quick reaction systems.
FY09 Continues development and combat evaluation of selected unmanned delivery platforms and mounted or deliverable ISR capabilities for global contingencies including short notice requirements. Continues to evaluate counter-canopy technologies, persistent stare and quick reaction systems.

	FY07	FY08	FY09
SAFC – Sensors		3.594	4.218
RDT&E Articles Quantity			

FY08 Continue research and assessment of emerging ISR technologies for maritime, land and air domains. Continue research and development of advanced mobile secure networking and detection technologies to create or enhance deployed, remotely emplaced surveillance architectures. Continues development and evaluation of unique unmanned sensor systems.
FY09 Continues research and assessment of emerging ISR technologies for maritime, land and air domains. Continues research and development of advanced mobile secure networking and detection technologies to create or enhance deployed, remotely emplaced surveillance architectures. Continues development and evaluation of unique unmanned sensor systems.

	FY07	FY08	FY09
SAFC – Unmanned Aircraft Systems		7.309	7.538
RDT&E Articles Quantity			

FY08 Continue to research, develop and evaluate emerging advances in fixed and rotary wing UAS capabilities. Continue to assess and improve UAS endurance and acoustic profile. Continue to enhance and evaluate common ground station capabilities including link performance and interoperability. Continue to develop, deploy and evaluate advanced auto-pilot technologies.
FY09 Continues to research, develop and evaluate emerging advances in fixed and rotary wing UAS capabilities. Continues to assess and improve UAS endurance and acoustic profile. Continues to enhance and evaluate common ground station capabilities including link performance and interoperability. Continues to develop, deploy and evaluate advanced auto-pilot technologies.

	FY07	FY08	FY09
Comprehensive Port and Maritime Domain Awareness	7.258		
RDT&E Articles Quantity			

FY07 Congressional add established a national center for maritime and port security to develop a maritime domain awareness (MDA) prototype system. The MDA system will link surveillance sensors, maritime sensors, data fusion capabilities, biometrics, and automated analysis and display of fused and network information for mission planning and coalition force protection.

	FY07	FY08	FY09
Mobile Optical Wireless Networking for Intel, Surveillance, and Recon		1.558	
RDT&E Articles Quantity			

FY08 Congressional add to develop and demonstrate the aerial component of a high speed mobile optical wireless communications link

designed to transmit sensor data with a low probability of intercept/detection.

C. Other Program Funding Summary:

	FY07	FY08	FY09	FY10	FY11	FY12	FY13	To Complete	Total Cost
Proc, SAFC	9.569	11.966	12.484	12.419	12.445	12.819	13.204	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 2008					
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	7.043	Aug-07	7.309	Jan-08	7.538	Dec-08	Cont.	Cont.
Com Port & Maritime Domain Awareness	MIPR	NAVAIR		7.258	Aug-07						7.258
ISR Sensor and Networking Development	MIPR	Various	37.187			4.383	Jan-08	4.469	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	MIPR	Various	6.779	4.233	Various	3.594	Various	4.218	Various	Cont.	Cont.
CP - Tactical Imagery Comm	MIPR	NAVSEA, Arlington VA	1.632								1.632
Subtotal Product Dev			91.388	18.534		15.286		16.225		Cont.	Cont.
Remarks:											
Subtotal Spt				0.000							0.000
Remarks:											
Extended User Evaluation	MIPR	NAVSEA, Arlington VA		1.300	Jul-07						1.300
Subtotal T&E				1.300							1.300
Remarks:											
Program Support	C-CPAF	Jacobs-Sverdrup, Tampa FL		0.241	Dec-06						0.241
Mobile Optical Wireless ISR Network	TBD	TBD				1.558	Various				1.558
Subtotal Management				0.241		1.558					1.799
Remarks:											
Total Cost			91.388	20.075		16.844		16.225		Cont.	Cont.
Remarks:											

Exhibit R-4, RDT&E Program Schedule Profile																														
Date: FEBRUARY 2008																														
Appropriation/Budget Activity	Program Element and Name																													
RDT&E/7	PE0304210BB/Special Applications for Contingencies (SAFC)																													
Project Number and Name	9999/SAFC																													
Fiscal Year	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		
UV and ISR Capabilities Development																														
UV and ISR Technology Integration & Testing																														
UV and ISR Prototype Demonstrations																														
UV and ISR Combat Evaluation																														
Com Port & Maritime Domain Awareness																														
Mobile Optical Wireless ISR Network																														

Exhibit R-4a, RDT&E Program Schedule Detail			Date: FEBRUARY 2008				
Appropriation/Budget Activity	Program Element Number and Name		Project Number and Name				
RDT&E/7	PE0304210BB/C3I-SAFC		Project 9999/SAFC				
Schedule Profile	FY2007	FY2008	FY2009	FY2010	FY2011	FY2012	FY2013
UVS and ISR Capabilities Development	1-4Q	1-4Q	1-4Q	1-4Q	1-4Q	1-4Q	1-4Q
UVS and ISR Technology Integration & Testing	1-4Q	1-4Q	1-4Q	1-4Q	1-4Q	1-4Q	1-4Q
UVS and ISR Prototype Demonstrations	1-4Q	1-4Q	1-4Q	1-4Q	1-4Q	1-4Q	1-4Q
UVS and ISR Combat Evaluation	1-4Q	1-4Q	1-4Q	1-4Q	1-4Q	1-4Q	1-4Q
Com Port & Maritime Domain Awareness	4Q	1-3Q					
Mobile Optical Wireless ISR Network		1-4Q					

RDT&E BUDGET ITEM JUSTIFICATION SHEET (R-2 Exhibit)	DATE FEBRUARY 2008
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)	FY07	FY08	FY09	FY10	FY11	FY12	FY13	Cost to Complete	Total Cost
PE 0305208BB			3.165	3.627	4.266	1.487	1.532	Cont.	Cont.
S400A, DCGS			3.165	3.627	4.266	1.487	1.532	Cont.	Cont.

A. Mission Description and Budget Item Justification: This program element provides for the identification, development, and testing of the Distributed Common Ground System (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 with capabilities to conduct exploitation of Full Motion Video from unmanned aerial vehicle assets organic to SOF. DCGS-SOF will integrate and implement the DCGS Integration Backbone standards and architecture on the SIE that will support net-centric data sharing between SOF fixed, tactical capabilities, and sensors. In coming years, DCGS-SOF will expand to incorporate connectivity to attended and unattended sensors via the GSN. DCGS-SOF will employ non-developmental commercial and government off-the-shelf hardware and software and will leverage from existing technology as much as possible.

B. Program Change Summary:

	FY07	FY08	FY09
Previous President's Budget			3.170
Current President's Budget			3.165
Total Adjustments			-0.005
Congressional Program Reductions			
Congressional Increases			
Reprogrammings			
Other Program Adjustments			-0.005
SBIR Transfer			

Funding:
FY07: No change.
FY08: No change.
FY09: Decrease of (-$0.005 million) is due to economic inflation adjustments.

Schedule: None.

Technical: None.

Exhibit R-2a, RDT&E Project Justification	Date: FEBRUARY 2008
Appropriation/Budget Activity RDT&E BA # 7	Distributed Common Ground/Surface System (DCGS)/Project S400A

-Cost ($ in millions)	FY07	FY08	FY09	FY10	FY11	FY12	FY13
DCGS			3.165	3.627	4.266	1.487	1.532
RDT&E Articles Quantity							

A. Mission Description and Budget Item Justification: This project provides for the identification, development, and testing of the Distributed Common Ground System (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 with capabilities to conduct exploitation of Full Motion Video from unmanned aerial vehicle assets organic to SOF. DCGS-SOF will integrate and implement the DCGS Integration Backbone standards and architecture on the SIE that will support net-centric data sharing between SOF fixed, tactical capabilities, and sensors. In coming years, DCGS-SOF will expand to incorporate connectivity to attended and unattended sensors via the GSN. DCGS-SOF will employ non-developmental commercial and government off-the-shelf hardware and software and will leverage from existing technology as much as possible.

B. Accomplishments/Planned Program

	FY07	FY08	FY09
DCGS-SOF			3.165
RDT&E Articles Quantity			

FY09 Begins the development of resource connectors required to integrate the SOF unique systems and sensors into the service-common mobile DCGS.

C. Other Program Funding Summary:

	FY07	FY08	FY09	FY10	FY11	FY12	FY13	To Complete	Total Cost
PROC, SOF Intelligence Systems		12.358	2.290			9.318	6.295	Cont.	Cont.

D. Acquisition Strategy:

- Distributed Common Ground/Surface System-Special Operations Forces (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 tactical processing, exploitation, and dissemination systems.

Exhibit R-3 RDT&E Project Cost Analysis								DATE: FEBRUARY 2008			
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
Prime Mission Equipment DCGS-SOF	Perf Based/ Time & Material	L3 Communications San Diego, CA						1.065	Dec-08	Cont.	Cont.
Subtotal Product Dev			0.000	0.000		0.000		1.065		Cont.	Cont.
Remarks:											
Support Costs	Perf Based/ Time & Material	L3 Communications San Diego, CA						0.300	Dec-08	Cont.	Cont.
Subtotal Support Costs			0.000	0.000		0.000		0.300		Cont.	Cont.
Remarks:											
Test & Evaluation	Perf Based/ Time & Material	L3 Communications San Diego, CA						0.300	Dec-08	Cont.	Cont.
Subtotal T&E			0.000	0.000		0.000		0.300		Cont.	Cont.
Remarks:											
Management Services	Perf Based/ Time & Material	L3 Communications San Diego, CA						1.500	Dec-08	Cont.	Cont.
Subtotal Management			0.000	0.000		0.000		1.500		Cont.	Cont.
Remarks:											
Total Cost			0.000	0.000		0.000		3.165		Cont.	Cont.
Remarks											

Exhibit R-4, RDT&E Program Schedule Profile		Date: FEBRUARY 2008
Appropriation/Budget Activity	Program Element and Name	Project Number and Name
RDT&E/7	PE0305208BB/Distributed Common Ground/Surface Systems (MIP)	Project S400A/Distributed Common Ground/Surface Systems

Fiscal Year	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
Distributed Common Ground/Surface Systems-SOF									△	—	—	△	△	—	—	△	△	—	—	△	△	—	—	△	△	—	—	△

Exhibit R-4a, RDT&E Program Schedule Detail			Date: FEBRUARY 2008				
Appropriation/Budget Activity RDT&E/7	Program Element Number and Name PE0305208BB/Distributed Common Ground/Surface System		Project Number and Name Project S400A/Distributed Common Ground/Surface Systems				
Schedule Profile	FY2007	FY2008	FY2009	FY2010	FY2011	FY2012	FY2013
Distributed Common Ground/Surface Systems-SOF			1-4Q	1-4Q	1-4Q	1-4Q	1-4Q

RDT&E BUDGET ITEM JUSTIFICATION SHEET (R-2 Exhibit)	DATE FEBRUARY 2008
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)	FY07	FY08	FY09	FY10	FY11	FY12	FY13	Cost to Complete	Total Cost
PE 0305219BB		12.765	13.679	3.813	3.888	4.531	4.635	Cont.	Cont.
S400B, Predator MALET		12.765	13.679	3.813	3.888	4.531	4.635	Cont.	Cont.

A. Mission Description and Budget Item Justification: This program element identifies, develops, and tests Special Operations Forces (SOF) organic MALET Unmanned Aerial Vehicle 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:

	FY07	FY08	FY09
Previous President's Budget		13.100	13.699
Current President's Budget		12.765	13.679
Total Adjustments		-0.335	-0.020
Congressional Program Reductions			
Congressional Increases			
Reprogrammings			
Other Program Adjustments		-0.083	-0.020
SBIR Transfer		-0.252	

Funding:
FY07: No change.
FY08: Congressional reductions include Section 8097 (-$0.335 million) and Section 8104 (-$0.062 million). Other program adjustments include transfer to Small Business Innovative Research account (-$0.252 million).

FY09: Decrease (-$0.020 million) is the result of economic inflation adjustments.

Schedule: None.

Technical: None.

Exhibit R-2a, RDT&E Project Justification	Date: FEBRUARY 2008
Appropriation/Budget Activity RDT&E BA # 7	Predator Medium Altitude Long Endurance Tactical (MALET)/Project S400B

Cost ($ in millions)	FY07	FY08	FY09	FY10	FY11	FY12	FY13
Predator MALET		12.765	13.679	3.813	3.888	4.531	4.635
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) organic MALET Unmanned Aerial Vehicle (UAV) platforms, 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 project addresses the primary areas of Intelligence, Surveillance, Rreconnaissance, and Target (ISR&T) acquisition.

B. Accomplishments/Planned Program

	FY07	FY08	FY09
Predator MALET		12.765	13.679
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:

	FY07	FY08	FY09	FY10	FY11	FY12	FY13	To Complete	Total Cost
PROC, Unmanned Vehicles	23.900	18.185	22.561	13.206	8.595	9.273	9.500	Cont.	Cont.

D. Acquisition Strategy:

- Predator MALET is an evolutionary acquisition program that provides improvements to SOF Predator 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 2008					
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											
Predator MALET	TBD	TBD				7.305	Various	7.672	Various	Cont.	Cont.
Subtotal Product Dev			0.000	0.000		7.305		7.672		Cont.	Cont.
Remarks:											
Support Costs											
Subtotal Support Costs			0.000	0.000		0.000		0.000		Cont.	Cont.
Remarks:											
Test & Evaluation											
Predator MALET	TBD	TBD				5.210	Various	5.759	Various	Cont.	Cont.
Subtotal T&E			0.000	0.000		5.210		5.759		Cont.	Cont.
Remarks:											
Management Services											
Predator MALET	TBD	TBD				0.250	Dec-07	0.248	Dec-08	Cont.	Cont.
Subtotal Management			0.000	0.000		0.250		0.248		Cont.	Cont.
Remarks:											
Total Cost			0.000	0.000		12.765		13.679		Cont.	Cont.
Remarks											

Exhibit R-4, RDT&E Program Schedule Profile		Date: FEBRUARY 2008
Appropriation/Budget Activity	Program Element and Name	Project Number and Name
RDT&E/7	PE0305219BB/MQ-1 Predator A UAV (MIP)	Project S400B/Predator Medium Altitude Long Endurance Tactical (MALET)

Fiscal Year	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
Predator MALET																												
Development/Integration				▲																								△
Test & Evaluation/User Assessment				▲																								△

Exhibit R-4a, RDT&E Program Schedule Detail			Date: FEBRUARY 2008				
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	FY2007	FY2008	FY2009	FY2010	FY2011	FY2012	FY2013
Predator MALET							
- Development/Integration		2-4Q	1-4Q	1-4Q	1-4Q	1-4Q	1-4Q
- Test & Evaluation/User Assessment		2-4Q	1-4Q	1-4Q	1-4Q	1-4Q	1-4Q

RDT&E BUDGET ITEM JUSTIFICATION SHEET (R-2 Exhibit)	DATE FEBRUARY 2008
APPROPRIATION / BUDGET ACTIVITY RDT&E, DEFENSE-WIDE / 7	R-1 ITEM NOMENCLATURE / PROJECT NO. PE 1160279BB Small Business Innovative Research (SBIR)

COST (Dollars in Millions)	FY07	FY08	FY09	FY10	FY11	FY12	FY13	Cost to Complete	Total Cost
PE1160279BB	12.213	7.883						Cont.	Cont.
S050, SBIR	12.213	7.883						Cont.	Cont.

A. Mission Description and Budget Item Justification:

The Small Business Innovative Research (SBIR) program element consists of a highly competitive three-phase award system which provides qualified small business concerns with the opportunity to propose high quality innovative ideas that meet specific research and development needs of USSOCOM. SBIR is a result of the Small Business Development Act of 1992. It was enacted by Congress in Public Law 97-219, reenacted by Public Law 99-443, and reauthorized by the SBIR Program Reauthorization Act of 2001. Starting in FY 1994, the SBIR program was refocused toward dual use and defense reinvestment efforts. Phase I projects evaluate the scientific technical merit and feasibility of an idea. Awards are up to $.100M with a maximum six-month period of performance. Phase II projects expand the results of, and further pursue, the developments of Phase I. Awards are up to $.750M with a maximum two-year period of performance. Phase III is for commercialization of the results of Phase II and requires the use of private or non-SBIR federal funding. DOD publishes government agency proposal projects twice per year for a consolidated DOD Request for Proposal. USSOCOM then awards its proposed SBIR projects.

	FY2007	FY2008	FY2009
Previous President's Budget	12.213	0.000	
Current President's Budget	12.213	7.883	
Total Adjustments	0.000	7.883	
Congressional Program Reductions			
Congressional Rescissions			
Congressional Increases			
Reprogrammings			
SBIR Transfer		7.883	

B. Program Change Summary:

Funding:

FY07: No Change.

FY08: Increase ($7.883 million) is the result of transferring funds from other program elements to the SBIR account.

FY09: No change.

Schedule: None.

Technical: None.

RDT&E BUDGET ITEM JUSTIFICATION SHEET (R-2 Exhibit)	DATE FEBRUARY 2008
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)	FY07	FY08	FY09	FY10	FY11	FY12	FY13	Cost to Complete	Total Cost
PE1160403BB	67.695	55.451	43.977	41.033	42.356	27.848	30.409	Cont.	Cont.
SF100, Special Operations Aviation Systems Advanced Development	67.695	55.451	43.977	41.033	42.356	27.848	30.409	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, Terrain Following/Terrain Avoidance 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 such as small-aircraft Gunship Platforms.

B. Program Change Summary:

	FY07	FY08	FY09
Previous President's Budget	76.679	60.750	51.529
Current President's Budget	67.695	55.451	43.977
Total Adjustments	-8.984	-5.299	-7.552
Congressional Program Reductions		-4.203	
Congressional Increases			
Reprogrammings	8.984		
Other Program Adjustments			-7.552
SBIR Transfer		-1.096	

Funding:

FY07: Net decrease (-$8.984 million) due to decreases to Common Avionics Architecture for Aviation (-$29.961 million) and Sustaining Engineering (-0.450 million) for higher command requirements, partially offset by increases to Aviation Engineering Analysis ($21.344 million) and Silent Knight Radar ($0.083 million).

FY08: Net decrease (-$5.299 million) due to Congressional Mark (-$3.841 million) and Congressional reduction to include (-$0.091 million) Section 8097 and Section 8104 (-$0.271 million). Other program adjustments include transfer to Small Business Innovative Research account (-$1.096 million).

FY09: Net decrease ($-7.552 million) is due to an adjustment to Silent Knight Radar ($-7.991 million), an increase for EC-130J support ($0.500 million), and economic inflation adjustment ($-0.061 million).

Schedule: None.

Technical: None.

	Exhibit R-2a, RDT&E Project Justification	Date: FEBRUARY 2008
Appropriation/Budget Activity RDT&E BA # 7	Aviation Systems Advance Development/Project SF100	

Cost ($ in millions)	FY07	FY08	FY09	FY10	FY11	FY12	FY13
Aviation Sys Adv Dev	67.695	55.451	43.977	41.033	42.356	27.848	30.409
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) Terrain Following/Terrain Avoidance (TF/TA) 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 such as Gunship-Lite concepts.

- Aviation Engineering Analysis. Provides a rapid response capability to support SOF fixed wing aircraft and unmanned aircraft systems. The purpose is to correct system deficiencies, improve asset life, and enhance mission capability through the means of feasibility studies, analysis of alternatives, pre-developmental risk reduction studies, and engineering analyses. This 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. Conduct risk reduction studies, analyses, and demonstrations to support Gunship-Lite Concepts.

- 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 Advanced Concepts Technology Demonstrations due to higher command priorities.

- SOF K-band 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-47G Heavy Assault helicopters, MH-60M Blackhawk helicopters, MC-130H Combat Talon II and CV-22 Tilt-Rotor aircraft.

- Iridium-Global Positioning System (I-GPS). Conducts a proof of concept study of 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.

- EC-130J Commando Solo Upgrades. Provides for new technology development to the EC-130J platform and SOF-unique equipment used to conduct Psychological Operations broadcast missions.

B. Accomplishments/Planned Program

	FY07	FY08	FY09
Aviation Engineering Analysis	28.125	1.578	5.515
RDT&E Articles Quantity			

FY07 Conducted engineering studies and analyses for Fixed Wing aviation SOF unique equipment and missions. Conducted feasibility study and user evaluation of the Viper Strike munition on SOF special mission purpose equipment.
FY08 Continue engineering studies and analyses for Fixed Wing aviation SOF unique equipment and missions.
FY09 Continue engineering studies and analyses for Fixed Wing aviation SOF unique equipment and missions. Conduct risk reduction studies, analyses, and demonstrations to support Gunship-Lite concepts

	FY07	FY08	FY09
On-Board Enhanced Situational Awareness (OBESA)	10.894		
RDT&E Articles Quantity			

FY07 Performed aircraft integration of Below Line-of-Sight Electronic Support Measures (BLOSESM) on MC-130 flight test aircraft. Conducted MC-130 BLOESM system flight test. Provided BLOSESM system transition documentation to USSOCOM to support OBESA legacy APR-46 system replacement on AC/MC-130 aircraft.

	FY07	FY08	FY09
SOF K-band Terrain Following /Terrain Avoidance (TF/TA) Radar	28.676	43.873	37.965
RDT&E Articles Quantity			

FY07 Awarded contract for SOF common K-band TF/TA radar System Design and Development (SDD). Specific activities include hardware and software development, aircraft integration design, and initiation of developmental test plans for MH-47G Heavy Assault helicopter 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 Continues 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.

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

FY08 Conduct a proof of concept study of 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.

	FY07	FY08	FY09
EC-130 Upgrades			0.497
RDT&E Articles Quantity			

FY09 Develops upgrades to the EC-130 Commando Solo SOF-unique transmitters and antenna arrays for SOF missions.

C. Other Program Funding Summary:

	FY07	FY08	FY09	FY10	FY11	FY12	FY13	To Complete	Total Cost
Proc, C130 Mods	101.268	118.744	47.018	21.386	15.976	24.675	40.328	Cont.	Cont.

D. Acquisition Strategy :

- Aviation Engineering Analysis. Continue engineering analysis activities to correct system deficiencies, improve asset life, analyze alternatives, and enhance mission capability of SOF fixed-wing aircraft and unmanned aircraft systems. Conduct risk reduction studies, analyses, and demonstrations to support Gunship-Lite concepts.

- SOF K-band Terrain Following/Terrain Avoidance Radar. In December 2006, a competitive System Design and Development (SDD) contract was awarded to Raytheon McKinney Company, Dallas TX. The SDD contract is for development of a SOF common radar, integration into an MH-47G Heavy Assault helicopter and system qualification/operational testing. The SDD contract includes a procurement option for six low rate initial production units, and an option for interim contractor support.

Exhibit R-3 RDT&E Project Cost Analysis						DATE: FEBRUARY 2008					
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											
Terrain Following/Terrain Avoidance (TF/TA) Radar Risk Reduction	CPIF	Raytheon, McKinney TX and Northrop	8.225								8.225
TF/TA Radar System Design & Development	CPIF	Raytheon, McKinney TX		28.676	Dec-06						28.676
MH-47 Prime Mission Product						31.993	Jan-08	22.839	Dec-08		
MH-47 Engineering						5.789	Jan-08	4.215	Dec-08		
On-Board Enhanced Situational Awareness	CPIF	Northrop Grumman, Dayton, Ohio	39.817	10.894	Various						50.711
EC-130J	TBD	TBD						0.497	Dec-08	Cont.	Cont.
Subtotal Product Dev			48.042	39.570		37.782		27.551		Cont.	Cont.
Remarks:											
Development Support											
Engineering/Studies											
Aviation Engineering Analysis	Various	Various	24.020	28.125	Various	1.578	Various	5.515	Various	Cont.	Cont.
Iridium-Global Pos System	TBD	TBD				10.000	Mar-08				10.000
TF/TA Radar											
MH-47 Production Support						6.091	Jan-08	8.025	Dec-08		
Subtotal Spt			24.020	28.125		17.669		13.540		Cont.	Cont.
Remarks:											
Development Test & Evaluation (T&E)											
MH-47 T&E								2.886	Dec-08		
Subtotal T&E								2.886			
Total Cost			72.062	67.695		55.451		43.977		Cont.	Cont.
Remarks:											

Exhibit R-4, RDT&E Program Schedule Profile			Date: FEBRUARY 2008
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

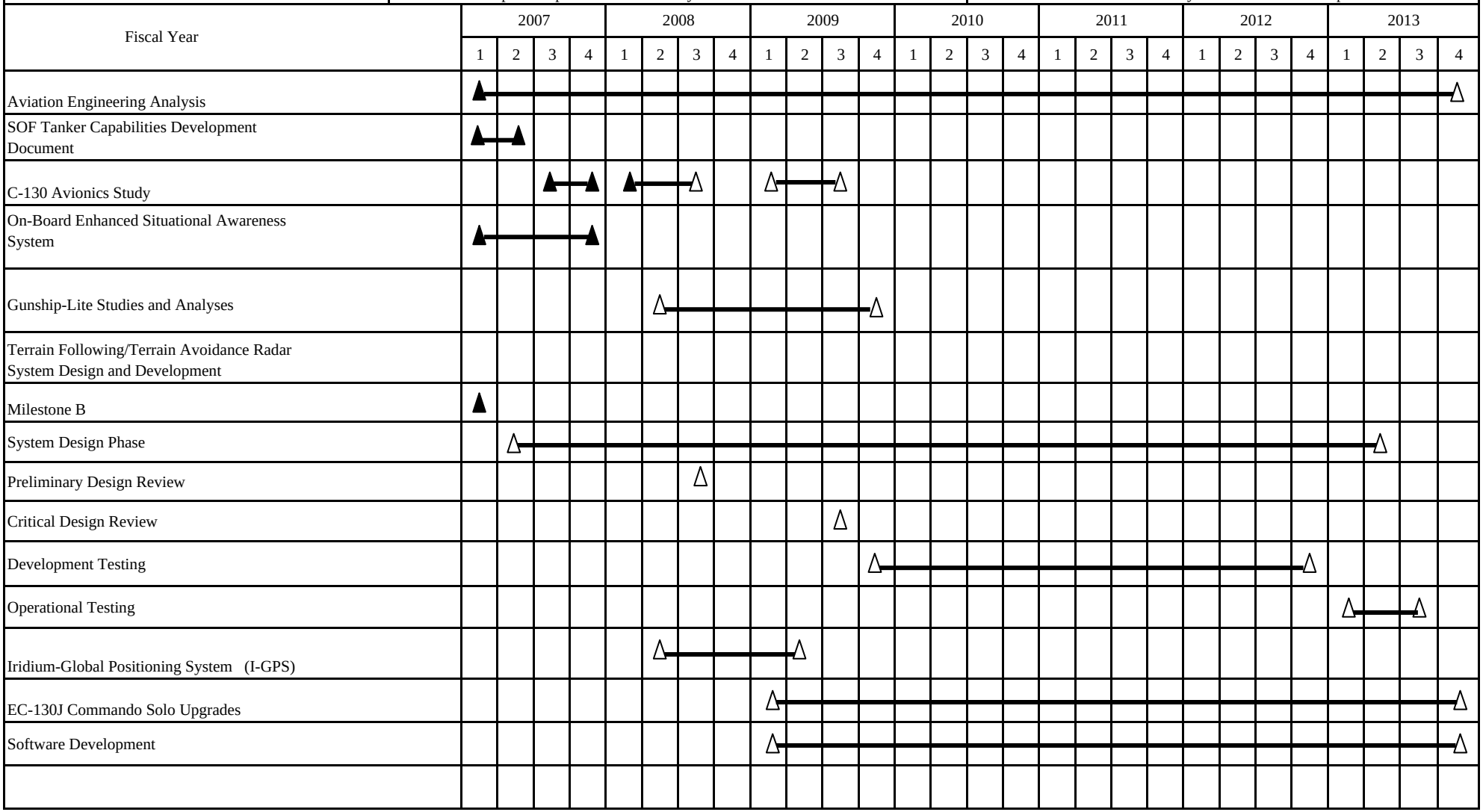


Exhibit R-4a, RDT&E Program Schedule Detail		Date: FEBRUARY 2008						
Appropriation/Budget Activity RDT&E/7	Program Element Number and Name PE1160403BB/Special Operations Aviationl Systems Adv Dev	Project Number and Name Project SF100/Aviation Systems Advance Development						
Schedule Profile	FY2007	FY2008	FY2009	FY2010	FY2011	FY2012	FY2013	
Aviation Engineering Analysis	1-4Q	1-4Q	1-4Q	1-4Q	1-4Q	1-4Q	1-4Q	
SOF Tanker Capability Development Document	1-2Q							
C-130 Avionics Study	3-4Q	1-3Q	1-3Q					
On-Board Enhanced Situational Awareness System	1-4Q							
Gunship-Lite Studies and Analysis		2-4Q	1-4Q					
Terrain Following/Terrain Avoidance Radar System Design and Development								
Milestone B/Contract Award	1Q							
System Design Phase	2-4Q	1-4Q	1-4Q	1-4Q	1-4Q	1-4Q	1-2Q	
Preliminary Design Review		3Q						
Critical Design Review			4Q					
Development Testing			4Q	1-4Q	1-4Q	1-4Q		
Operational Testing							1-3Q	
Inridium-Global Positioning System		2-4Q	1-2Q					
EC-130J Commando Solo Upgrades			1-4Q	1-4Q	1-4Q	1-4Q	1-4Q	
Software Development			1-4Q	1-4Q	1-4Q	1-4Q	1-4Q	

RDT&E BUDGET ITEM JUSTIFICATION SHEET (R-2 Exhibit)	DATE FEBRUARY 2008
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)	FY07	FY08	FY09	FY10	FY11	FY12	FY13	Cost to Complete	Total Cost
~~PE1160404BB~~	~~85.458~~	~~58.816~~	~~13.263~~	~~2.272~~	~~2.324~~	~~2.376~~	~~2.428~~	~~Cont.~~	~~Cont~~
3326 AC-130U GUNSHIP	8.433							Cont.	Cont.
D476 PSYOPS ADV DEV	9.402	6.754						Cont.	Cont
D615 SOF AVIATION	2.959	5.230						Cont.	Cont
S0417 UNDERWATER SYSTEMS ADV DEV	.614	1.753						Cont.	Cont
S1684 SOF SURFACE CRAFT ADVANCE SYSTEMS	3.118	6.715						Cont.	Cont
S350 SO MISSION PLANNING ENVIRONMENT	6.451							0.0	85.492
S375 WEAPONS SYSTEMS ADV DEV	24.768	16.540						Cont.	Cont
S625 SOF TRAINING SYSTEMS								0.0	120.811
S700 SO COMMUNICATIONS ADV DEV	28.445	17.353						Cont.	Cont.
S710 SOF AUTOMATION SYSTEMS			13.263	2.272	2.324	2.376	2.428	Cont.	Cont.
S800 SO MUNITIONS ADV DEV		1.949						Cont.	Cont.
S900 SO MISCELLANEOUS EQUIPMENT ADV DEV	1.268	2.522						Cont.	Cont.

Beginning in FY 2009, new Program Elements (PE) were created for most of the projects in this PE. A complete listing of new PEs for the projects and the resource amount moved can be found under paragraph B (Funding changes). Also, a new project, S710 SOF Automation Systems, was created in this PE with resources moving out of project S700, SO Communications Advanced Development.

RDT&E BUDGET ITEM JUSTIFICATION SHEET (R-2 Exhibit)	DATE FEBRUARY 2008
APPROPRIATION / BUDGET ACTIVITY RDT&E, DEFENSE-WIDE / 7	R-1 ITEM NOMENCLATURE / PROJECT NO. PE 1160404BB Special Operations (SO) Tactical Systems Development

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

B. Program Change Summary:

Funding:

	FY07	FY08	FY09
Previous President's Budget	82.143	42.262	48.986
Current President's Budget	85.458	58.816	13.283
Total Adjustments	3.315	16.554	-35.703
Congressional Program Reductions		-0.384	
Congressional Increases		18.100	
Reprogrammings			
Other Program Adjustments			
SBIR Transfer		-1.162	

FY07: Net increase ($3.315 million) by project:

- Project 3326: Increase ($6.870 million) is due to internal reprogramming for the GMS-2 operation flight program, tech order development, and logistics analysis.
- Project D476: Increase ($2.000 million) is due to FY 2007 OMNIBUS Reprogramming No. FY07-28R PA for Psychological Operations.
- Project D615: Decrease (-$0.974 million) is due to Above Threshold Reprogramming No. FY07-41R of Congressional add for Next Generation Navigation to Procurement for proper execution.

- Project S0417: Decrease (-$3.897 million) is due to internal reprogramming of Congressional add, Mark V Craft Prototype Development, to PE 1160402BB for proper execution.
- Project S375: Net increase ($0.560 million) is due to Above Threshold Reprogramming No. FY07-41R of Congressional add, MARSOC BRITE M22, to Procurement ($2.144 million); FY 2007 OMNIBUS Reprogramming No. FY07-28R PA for Precision Laser Targeting Device ($1.800 million); internal reprogramming of Congressional add, Integrated Warfighter (-$2.046 million) to PE 1160402BB for proper execution; and internal reprogramming for higher command priorities ($1.500 million).
- Project S700: Net decrease (-$0.270 million) is due to internal reprogramming of Congressional adds Warrior Reach (-$0.974 million) and C2 Mission Manager (-$0.974 million) to PE 1160427BB for proper execution and internal reprogramming for higher command priorities ($1.678 million).
- Project S900: Decrease (-$0.974 million) is due to internal reprogramming of Congressional add, Closed Circuit Rebreather, to PE 1160402BB for proper execution.

FY08: Net increase ($16.554 million) by project:

- Project D476: Congressional reductions include Section 8097 (-$0.011 million) and Section 8104 (-$0.033 million). Other program adjustments include transfer to Small Business Innovative Research account (-$0.133 million).
- Project D615: Congressional reductions include Section 8097 (-$0.009 million) and Section 8104 (-$0.025 million). Other program adjustments include transfer to Small Business Innovative Research account (-$0.104 million).
- Project S0417: Congressional reductions include Section 8097 (-$0.003 million) and Section 8104 (-$0.009 million). Other program adjustments include transfer to Small Business Innovative Research account (-$0.035 million).
- Project S1684: Net increase ($3.524 million) is due to congressional reductions Section 8097 (-$0.011 million) and Section 8104 (-$0.033 million) transfer to Small Business Innovative Research account (-$0.132 million), and the following Congressional adds:
    - Small Boat Family Integrated Combat System , $1.600 million
    - Naval Special Warfare RIB Payload Capacity Project, $2.100 million
- Project S375: Net increase ($6.967 million) is due to congressional reductions for Section 8097 (-$0.027 million) and Section 8104 (-$0.080 million), transfer to Small Business Innovative Research account (-$0.326 million), and the following Congressional adds:
    - Special Operations Forces Advanced Mission Planning Tools, $3.200 million

  - Expendable Airdrop Delivery Systems, $0.800 million
  - Special Operations Forces Tagging, Tracking, and Locating Tool Kit, $1.000 million
  - Multi-User Panoramic Synthetic Vision System, $2.400 million
- Project S700: Net increase ($6.543 million) is due to congressional reductions for Section 8097 (-$0.029 million) and Section 8104 (-$0.085 million), transfer to Small Business Innovative Research account (-$0.343 million), and the following Congressional adds:
  - Covert WPM Waveform Modules, $2.000 million
  - Command and Control Mission Manager Spiral 5, $1.600 million
  - Semi-autonomous or Unattended Psychological Operations, $1.600 million
  - Communications Enhancements to Fielded TACTI-NET Systems, $0.800 million
  - SOCOM Computer Research, $1.000 million
- Project S800: Congressional reductions include Section 8097 (-$0.003 million) and Section 8104 (-$0.009 million). Other program adjustments include transfer to Small Business Innovative Research account (-$0.039 million).
- Project S900: Congressional reductions include Section 8097 (-$0.004 million) and Section 8104 (-$0.013 million). Other program adjustments include transfer to Small Business Innovative Research account (-$0.050 million).

FY09: Net decrease (-$35.723 million) by project:
- Project D476: Decrease (-$17.000 million) is due to moving resources to new PE 1160488BB, SOF PSYOPS (-$15.554 million), economic inflation adjustments (-$0.022 million), and internal realignments for higher command priorities (-$1.424 million).
- Project D615: Decrease (-$3.827 million) is due to moving resources to new PE 1160482BB, SOF Rotary Wing Aviation (-$3.822 million) and economic inflation adjustments (-$0.005 million).
- Project S0417: Decrease (-$3.147 million) is due to moving resources to new PE 1160483BB, SOF Underwater Systems (-$3.142 million) and economic inflation adjustments (-$0.005 million).
- Project S1684: Decrease (-$5.213 million) is due to moving resources to new PE 1160484BB, SOF Surface Craft (-$5.206 million) and economic inflation adjustments (-$0.007 million).
- Project S375: Decrease (-$8.571 million) is due to moving resources to new PE 1160477BB, SOF Weapon Systems ($2.759 million), internal realignment for higher command priorities (-$3.000 million), and economic inflation adjustments (-$0.053 million).

- Project S700: Decrease (-$11.228 million) is due to a realignment of resources to a new project, S710 SOF Automation Systems.
- Project S710: Net increase ($13.263 million) is due to realignment of resources from Project S700, SO Communications Advanced Development ($11.228 million), realignment for higher command priorities ($2.055 million), and economic inflation adjustments (-$0.020 million).

Schedule: N/A.

Technical: N/A.

	Exhibit R-2a, RDT&E Project Justification	Date: FEBRUARY 2008
Appropriation/Budget Activity RDT&E BA # 7	SOF Automation Systems/Project S710	

Cost ($ in million)	FY07	FY08	FY09	FY10	FY11	FY12	FY13
SOF Automation Systems			13.263	2.272	2.324	2.376	2.428
RDT&E Articles Quantity							

A new project, S710, was established for SOF Automation Systems beginning in FY 2009. FY 2009-2013 resources were moved from project S700, Special Operations Communications Advanced Development.

A. Mission Description and Budget Item Justification: The Special Operations Forces (SOF) Automation Systems Project provides for automation systems to meet emergent requirements to support SOF. The SOF mission mandates that SOF systems remain technologically superior to any threat to provide a maximum degree of survivability. SOF Automation Systems is a continuing effort to procure interoperable 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 infosphere is a multitude of existing and projected national assets that allows SOF elements to operate with any force combination in multiple environments. The C4 programs funded in this project meet annual emergent requirements.

OPERATIONAL ELEMENT (TEAM)

- C4I Automation Systems (C4IAS)-Distributed Common Ground System (DCGS): C4IAS is a garrison infrastructure directly supporting the Command's global mission by providing a seamless and interoperable interface with SOF, Department of Defense (DoD), and Service information systems. It provides the capabilities to exercise command and control and collaboration, process and share intelligence data, and facilitate mission planning and the operational preparation of the battlespace, connecting numerous data repositories while maintaining information assurance. Additionally, it provides the critical reachback for SOF tactically deployed local area networks/wide area networks. C4IAS-DCGS is composed of state-of-the-art automated systems (firewalls, routers, switches, hubs, and modems), servers, storage devices, workstations and associated peripherals. The program supports a myriad of SOF user requirements, and uses a variety of government-off-the-shelf/commercial-off-the-shelf software and databases to ensure interoperability between SOF units.
- 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; 10 intelligence laptops; routers; and ancillary equipment used by SOF Command and Control Nodes, forming a deployed Local Area Network (LAN). MPKs consist of four general use laptops and ancillary equipment used by SOF teams for detailed mission planning support. FCDs are small hand-held computing devices used by the most forward deployed SOF teams to automatically interface with the TACLAN suite via tactical communications.

ABOVE OPERATIONAL ELEMENT

A. Special Operations Resource Business Information System (SORBIS). This initiative is to provide an enterprise-wide solution that 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 view of the data. It will enable users to perform acquisition management as well as planning, programming, and budgeting collaborative decision processes. The system will retain information on validated 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)	FY07	FY08	FY09
Command, Control, Communications, Computers and Intelligence Automation Systems			0.111
RDT&E Articles Quantity			

FY09 Begins development of SOF Distributed Common Ground System (DCGS) resource adapters that will ensure DCGS service data can be seamlessly ingested into the DCGS-SOF capability.

Cost ($ in million)	FY07	FY08	FY09
TACLAN			2.111
RDT&E Articles Quantity			

FY09 Continues development and integration of Blue Force Tracking secure wireless biometrics, Embedded National Tactical Receiver and DCGS data sharing capabilities.

Cost ($ in million)	FY07	FY08	FY09
Special Operations Resource Business Information System (SORBIS)			11.041
RDT&E Articles Quantity			

FY09 Completes software application development and test for resource planning, programming, and budgeting capabilities, an effort that begins in FY 2008 under project S700.

C. Other Program Funding Summary:

	FY07	FY08	FY09	FY10	FY11	FY12	FY13	To Complete	Total Cost
PROC, SOF Automation Systems			55.248	42.879	43.418	41.699	42.379	Cont	Cont
PROC, Communication Equipment and Electronics	42.101	54.137							
RDT&E, SOF Communications Advanced Development		11.314							

D. Acquisition Strategy:

- Command, Control, Communications, Computers and Intelligence Automation Systems (C4IAS)-Distributed Common Ground System (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.

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

SORBIS acquisition strategy seeks to optimize a cost, schedule, and performance mix, pursuing a commercial-off-the-shelf 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.

Exhibit R-3 RDT&E Project Cost Analysis						DATE: FEBRUARY 2008					
APPROPRIATION / BUDGET ACTIVITY RDT&E DEFENSE-WIDE / 7			Special Operations Tactical Systems Development/PE 1160404BB						SOF Automation Systems/S710		
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											
C4IAS - Develop SOF Distributed Common Ground System Capability	TBD	TBD						0.111	Jan-09	Cont	Cont
Tactical Local Area Network - Develop/Integrate Evolutionary Technology Insertion Capabilities	IDIQ	iGov Technolgies, Tampa, FL						2.111	Jan-09	Cont	Cont
Subtotal Product Dev			0.000	0.000		0.000	0.000	2.222		Cont	Cont
Remarks:											
Development Support Software Development											
Special Operations Resource Business Information System - Software Application Development	TBD	TBD						11.041	Jan-09		11.041
Subtotal Support			0.000	0.000		0.000		11.041			11.041
Remarks:											
Total Cost			0.000	0.000		0.000		13.263		Cont	Cont

Exhibit R-4, RDT&E Program Schedule Profile		Date: FEBRUARY 2008
Appropriation/Budget Activity	Program Element and Name	Project Number and Name
RDT&E/7	PE1160404BB/Special Operations Tactical Systems Development	Project S710/SOF Automation Systems

Fiscal Year	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
C4IAS - Develop SOF Distributed Common Ground System Capability										△		△	△			△	△			△	△			△	△			△
Tactical Local Area Network - Develop/Integrate Evolutionary Technology Insertion Capabilities										△		△	△			△	△			△	△			△	△			△
Special Operations Resource Business Information System - Software Application Development										△		△																

Exhibit R-4a, RDT&E Program Schedule Detail			Date: FEBRUARY 2008				
Appropriation/Budget Activity RDT&E/7	Program Element Number and Name PE1160404BB/Special Operations Tactical Systems Development		Project Number and Name Project S710/SOF Automation Systems				
Schedule Profile	FY2007	FY2008	FY2009	FY2010	FY2011	FY2012	FY2013
C4IAS - Develop SOF Distributed Common Ground System Capability			2-4Q	1-4Q	1-4Q	1-4Q	1-4Q
Tactical Local Area Network - Develop/Integrate Evolutionary Technology Insertion Capabilities			2-4Q	1-4Q	1-4Q	1-4Q	1-4Q
Special Operations Resource Business Information System - Software Application Development			2-4Q				

RDT&E BUDGET ITEM JUSTIFICATION SHEET (R-2 Exhibit)	DATE FEBRUARY 2008
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)	FY07	FY08	FY09	FY10	FY11	FY12	FY13	Cost to Complete	Total Cost
PE1160405BB	58.562	62.417	39.125	34.177	35.586	36.417	37.269	Cont.	Cont.
S400, SO INTELLIGENCE	58.562	62.417	39.125	34.177	35.586	36.417	37.269	Cont.	Cont.

A. Mission Description and Budget Item Justification: This program element provides for the identification, development, and testing of SOF intelligence equipment to identify and eliminate deficiencies in providing timely intelligence to deployed forces. Sub-projects address the primary areas of intelligence dissemination, sensor systems, integrated threat warning to SOF mission platforms, and tactical exploitation of national system capabilities.

USSOCOM has developed an overall strategy to ensure that Command, Control, Communications, Computers, and Intelligence (C4I) systems continue to provide SOF with the required capabilities into the 21st century. USSOCOM's C4I systems comprise an integrated network of systems providing positive command and control and timely exchange of intelligence and threat warning to all organizational echelons. The C4I systems that support this new architecture employ the latest standards and technology by transitioning from separate systems to full integration with the Global Information Grid (GIG). The GIG allows SOF elements to operate with any force combination in multiple environments.

B. Program Change Summary:

	FY07	FY08	FY09
Previous President's Budget	63.357	35.783	37.736
Current President's Budget	58.562	62.417	39.125
Total Adjustments	-4.795	26.634	1.389
Congressional Program Reductions		-0.402	
Congressional Increases		27.480	
Reprogrammings	-4.795		
Other Program Adjustments			1.389
SBIR Transfer		-0.444	

Funding:

FY07: Net decrease (-$4.795 million) is due to internal reprogrammings of Congressional adds for proper execution; High Altitude Airship ($0.974 million) and Transliteration/Geneology ($0.974 million) from PE 1160402BB and Nanotechnology Integration (-$1.871 million) and SOF Long Endurance Demonstrator (-$4.782 million) were reprogrammed to PE 1160402BB.

FY08: Net increase $26.634 million is due to Congressional reductions for Section 8097 (-$0.102 million) and Section 8104 (-$0.300 million). Other program adjustments include transfer to Small Business Innovative Research account (-$0.444 million), as well as the following Congressional adds:

- Direction Finding (DF) Light: Advance Packaging and DF in Support of Joint Threat Warning System, $1.200 million
- Unattended SIGINT Node, $3.200 million
- Integrated Bridge System, $1.000 million
- SOCOM Imagery Dissemination System, $1.600 million

- Tactical SIGINT and GEO-Location Cognitive Analysis, $0.400 million
- Advanced Long Endurance Unattended Ground Sensor, $2.080 million
- Advanced Tactical Threat Warning Radio, $1.600 million
- Application Specific Integrate Circuit Development, $4.000 million
- Automated Threat Warning for Improved Warfighter Survivability, $1.600 million
- Joint METOC Program, $1.600 million
- Multi-spectral Laboratory and Analytical Service Program, $0.800 million
- Picoceptor and Processor for Manportable Threat Warning, $2.400 million
- Lightweight Weapon/Anit-Structure Munition Heat Rocket Confined Spaces, $6.000 million

FY09: Net increase ($1.389 million) is due to adding $1.500 million for Locating, Tagging, and Tracking and economic inflation adjustments (-$0.111 million).

Schedule: None.

Technical: None.

Exhibit R-2a, RDT&E Project Justification	Date: FEBRUARY 2008
Appropriation/Budget Activity RDT&E BA # 7	Special Operations Intelligence/Project S400

Cost ($ in millions)		FY07	FY08	FY09	FY10	FY11	FY12	FY13
SO Intelligence		58.562	62.417	39.125	34.177	35.586	36.417	37.269
RDT&E Articles Quantity								

A. Mission Description and Budget Item Justification: This project provides for the identification, development, and testing of SOF intelligence equipment to identify and eliminate deficiencies in providing timely intelligence to deployed forces. Sub-projects address the primary areas of intelligence dissemination, sensor systems, integrated threat warning to SOF mission platforms, and tactical exploitation of national system capabilities. The systems acquired in this line item are Special Operations Command, Research, Analysis and Threat Evaluation System (SOCRATES); Special Operations Tactical Video System (SOTVS); Joint Threat Warning System (JTWS); Tactical Local Area Network (TACLAN); the Special Operations Joint Interagency Collaboration Center (SOJICC); Locating, Tagging, and Tracking for Global War on Terrorism (LTTG); Distributed Common Ground Systems (DCGS); and Sensitive Site Exploitation (SSE).

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

OPERATIONAL ELEMENT (TEAM)

- National Systems Support to SOF (NSSS). NSSS is a research and development rapid prototyping program focused on technology insertions into SOF programs. NSSS improves the combat effectiveness of USSOCOM, its components, and the Theater Special Operations Commands by leveraging service and national agency development efforts on space-based intelligence and communications technologies and systems. This includes Imagery Intelligence, Signals Intelligence, 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 Joint Concept Technology Demonstrations 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 Signals Intelligence (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 (SO) 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 variant, except Team Transportable, will be capable of operation by a single trained operator. The five variants are Ground SIGINT Kit (GSK), Team Transportable (TT), Air, Maritime, and Precision Geo-Location (PGL).

- 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 continues 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 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). Department of Defense (DoD) has a planning mission for Counter-Proliferation (CP) contingency operations. The Office of the Secretary of Defense (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. The Defense Threat Reduction Agency provides science and technology expertise and integration support to enhance Counter-Proliferation Analysis and Planning System (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 Counter-Proliferation (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; Special Operations Tactical Video System (SOTVS); and Locating, Tagging, and Tracking for Global War on Terrorism (LTTG) 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.

- LTTG. LTTG provides global Combatant Commanders and SOF operators with an immediate capability to locate, tag, and track people, things, and activities. LTTG provides actionable intelligence for SOF planners. The LTTG mission sets are systems which are comprised of a mix of different classes of tags and their associated detection, interrogation, viewing, tracking and communications systems including GPS datalogger and radio frequency (RF) beacon capabilities, radar, and passive and active infrared/ultra violet optical capabilities.

- Application Specific Integrated Circuit (ASIC) Development is an initiative to establish a SOCOM dedicated center for application specific integrated circuits technology design and development. ASIC development supports the design, development, test and support integration of an ASIC chipset for projects being developed under the Special Reconnaissance Capabilities Program. It provides a reduction in the size of the current chips and increases reliability while decreasing power consumption.

- High Altitude Long Endurance Airships is an initiative to develop a Direction Finding antenna system for employment in high altitude airship, Unmanned Aerial Vehicle, and Joint Threat Warning System–A platforms/systems.

- Transliteration and Geneology Search. Allowed continued test and evaluation of Foxhound Software.

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

- 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 signatures such as gait and stand-off biometrics identification.

- 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 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 exfiltration via satellite communications for display using advanced visualization technologies. This is a potential technology insertion for Special Operations Tactical Video System/Reconnaissance Surveillance Target Acquisition.

- Meteorological and Oceanographic 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 & 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, special communications, sensors, and related Global War on Terrorism (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. Testing of bio-metrics and Psychological Operations efforts.

- Payload Interface Master Module (PIMM). Enhances functionality of prototype PIMMs developed under Small Business Innovative Research projects. Enhancements include security mechanisms, miniaturization, and power management improvements.

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

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

- Advanced Tactical Threat Warning Radio. Develop a handheld threat warning and communications radio through the use of reconfigurable software radio techniques. Radio should be minimal in size, weight and power consumption. Include innovative use of reliable and durable packaging for a mixed-signal product.

- Direction Finding (DF) Light: Advanced Packaging and Direction Finding in Support of JTWS. Advanced Packaging and Direction Finding in Support of JTWS. Continue the development of the Team Transportable DF Node into a ruggedized solution. Field testing will characterize the geo-location using DF collaboration. This DF node may present a solution for the Ground Signals Intelligence Kit (GSK) 2 Tactical DF Requirements. The camouflage packaging will be characterized to determine the performance of the system using camouflage. This will assist the operators in determining which camouflage to use.

- Picoceptor and Processor for Manportable Threat Warning. This is a continuation of an FY07 initiative for pico-processor development. The proof-of concept will be tested in FY08.

- Lightweight Weapon/Anit-Structure Munition (LAW/ASM). The M72 66mm Lightweight Anti-Armor Weapon is a shoulder-fired, man-portable, self-contained, single use, Lightweight rocket. The LAW has two warhead variants—the Anti-Armor (AA) and ASM warheads. The LAW has two proposion variants—the current rocket motor and Fire From Enclosure propulsion system that is under development.

- Joint Meteorological and Oceanographic Program (SOCOM). Provide USSOCOM with deployable sensors to measure weather conditions and other environmental and situational parameters. Develops an air-droppable version and meets requirements for additional measurement capabilities.

- Automated Threat Warning for Improved Warfighter Survivability. During a typical mission the warfighter is overwhelmed with multiple tasking and tools. Automation allows the operator to configure the system pre-mission with known Signals of Interest and the tasking (audio routing, record, DF, etc.) required once the signal is acquired.

- SOCOM Imagery Dissemination System. Explore an end-to-end technology system that consists of a Personal Computer (PC)-based Commercial Off the Shelf software package for end user situation awareness clients, and a UNIX-based software package for the remote imagery dissemination server.

- Advanced Long Endurance Unattended Ground Sensor Technologies is an initiative to support the research and development of

advanced, low power unattended ground sensor technologies that provide the warfighter with total, reliable and up-to-the-minute battlefield situational awareness with information ex-filtration via satellite communications for display using advanced visualization technologies.

- Tactical Signals Intelligence (SIGINT) and Geo-location Cognitive Analysis. The operator is overwhelmed with data from all sources (SIGINT system, other networks, etc). The development of an analytical tool will aid the operator in compiling all the information on a specific interest. This interest could be all known information on a Signal (Frequency), Person, Location, etc.

- Unattended SIGINT Node. This is a continuation of FY07 development of a SOF tactical interface which will integrate the systems that were developed in previous years under the ManPack Advanced Concept Technology Demonstration.

- Integrated Bridge System. A system that enhances maritime craft bridge-console and operator interface through human factors engineering and integration with console designs and displays.

B. Accomplishments/Planned Program

		FY07	FY08	FY09
National Systems Support to SOF (NSSS)		0.911	0.925	0.998
RDT&E Articles Quantity				

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

		FY07	FY08	FY09
Joint Threat Warning System (JTWS)		8.781	4.006	4.547
RDT&E Articles Quantity				

FY07 Continued Team Transportable (TT) and Ground Signals Intelligence Kit (GSK) future increment development. Completed Unmanned Aerial Vehicle payload development. FY07 included a Congressional add for JTWS Network Variants development. Started Air Variant 2 Development.

FY08 Continue TT and GSK future increment development and test and evaluation. Continue Air Variant Increment 2 development and testing.
FY09 Continues TT and GSK future increment development and test and evaluation. Continues development and testing of Air Variant Increment 2.

		FY07	FY08	FY09
Optical Placement of Unattended Sensors		1.608		
RDT&E Articles Quantity				

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

		FY07	FY08	FY09
Special Operations Joint Interagency Collaboration Center		3.092	2.780	2.983
RDT&E Articles Quantity				

FY07 Continued systems engineering and program management efforts to achieve data compatibility by integrating different Commercial-off-the-shelf (COTS) hardware and software applications for data mining and retrieval, link and nodal analysis, and data visualization.
FY08 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.
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.

		FY07	FY08	FY09
Counter-Proliferation Analysis and Planning System (CAPS)		17.673	18.378	20.046
RDT&E Articles Quantity				

FY07 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.
FY08 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.
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.

		FY07	FY08	FY09
Global Sensor Network (GSN)			9.552	9.051
RDT&E Articles Quantity				

FY07 This initiative was a continuation of a Congressional add. Continued efforts to establish a dedicated center for application specific integrated circuits technology design and development.
FY08 This initiative is a continuation of a Congressional add. Continued efforts to establish a dedicated center for application specific integrated circuits technology design and development. Support the design, development, test and support integration of an ASIC chipset for projects being developed under the Special Reconnaissance Capabilities Program.

		FY07	FY08	FY09
Locating, Tagging and Tracking for Global War on Terrorism				1.500
RDT&E Articles Quantity				

FY09 Begin development to rapidly integrate commercial/government available tagging, tracking, and locating hardware into specialized mission products.

		FY07	FY08	FY09
High Altitude Long Endurance Airships		0.974		
RDT&E Articles Quantity				

FY07 This initiative was a Congressional add. Continued development of a direction finding antenna system for employment in high altitude airships, Unmanned Aerial Vehicle, and Joint Threat Warning System-Air platforms/systems.

		FY07	FY08	FY09
Transliteration and Geneology Search		0.974		
RDT&E Articles Quantity				

FY07 This initiative was a continuation of a Congressional add. Continued testing and evaluation of Foxhound Software.

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

FY07 This initiative was a continuation of a Congressional add. Continued efforts to evaluate alternative power sources to replace traditional batteries.

		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.

		FY07	FY08	FY09
Long Endurance Unattended Ground Sensor (UGS) Technology		1.657		
RDT&E Articles Quantity				

FY07 This initiative was a Congressional add. Began 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.

		FY07	FY08	FY09
Meteorological and Oceanographic (METOC) Airdropped Sensors		1.364		
RDT&E Articles Quantity				

FY07 This initiative was a Congressional add. Began development of sensors that can be dropped from aircraft or helicopters to collect METOC data.

		FY07	FY08	FY09
Microelectromechanical Systems & Nanotechnology Defense Laboratory		2.240		
RDT&E Articles Quantity				

FY07 This initiative was a Congressional add. Developed prototypes of micro-sensor and optical navigation devices, implemented desired features, and transitioned the tagging, tracking and locating devices to field applications.

		FY07	FY08	FY09
Multi-Spectral Laboratory & Services		1.461	.780	
RDT&E Articles Quantity				

FY07 This initiative was a Congressional add. Began research of next-generation, multi-spectral sensors to support both the warfighter and first responder communities. Testing of bio-metrics and Psychological Operations efforts.
FY08 This initiative is a continuation of a Congressional add.

		FY07	FY08	FY09
Payload Interface Master Module (PIMM)		.974		
RDT&E Articles Quantity				
FY07 This initiative was a Congressional add. Began development of PIMM.				
		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 Joint Threat Warning System (JTWS) family of systems.				
		FY07	FY08	FY09
Tactical Miniature Shortwave Receiver		1.559		
RDT&E Articles Quantity				
FY07 This initiative was a Congressional add. Developed a miniature shortwave receiver.				
		FY07	FY08	FY09
Advanced Tactical Threat Warning Radio (ATTWR)			1.558	
RDT&E Articles Quantity				
FY08 This initiative is a Congressional add. Develop a handheld threat warning and communications radio using reconfigurable software radio techniques.				
		FY07	FY08	FY09
Direction Finding (DF) Light Advanced Packaging and Direction Finding in Support of JTWS			1.169	
RDT&E Articles Quantity				
FY08 This initiative is a Congressional add. Continue the development of the Team Transportable DF Node into a ruggedized solution.				
		FY07	FY08	FY09
Picoceptor and Processor for Manportable Threat Warning			2.339	
RDT&E Articles Quantity				
FY08 Congressional add. This is a continuation of a FY07 initiative for pico-processor development. The proof-of concept will be tested in FY08.				

		FY07	FY08	FY09
Lightweight Anti-Armor Weapon (LAW)/Anti-Structural Munition (ASM)			5.847	
RDT&E Articles Quantity				

FY08 This is a Congressional add. Continue development of the LAW M72 variants. Complete development of the M72E8 with the Anti-Armor warhead and the Fire From Enclosure (FFE) propulsion, and the M72E10 with the ASM warhead and the FFE propulsion.

		FY07	FY08	FY09
Joint Meteorological and Oceanographic (METOC) Program (SOCOM)			1.558	
RDT&E Articles Quantity				

FY08 This initiative is a Congressional add. Provide USSOCOM with deployable sensors to measure weather conditions and other environmental and situational parameters.

		FY07	FY08	FY09
Automated Threat Warning for Improved Warfighter Survivability			1.558	
RDT&E Articles Quantity				

FY08 This initiative is a Congressional add. During a typical mission the warfighter is overwhelmed with multiple tasking and tools. Automation allows the operator to configure the system pre-mission with known Signals of Interest and the tasking (audio routing, record, DF, etc.) required once the signal is acquired.

		FY07	FY08	FY09
SOCOM Imagery Dissemination System			1.558	
RDT&E Articles Quantity				

FY08 This initiative is a Congressional add. Continue exploration of an end-to-end technology for Personnel Computer-based end user situation awareness system for remote imagery dissemination.

		FY07	FY08	FY09
Advanced Long Endurance Unattended Ground Sensor Technologies			2.027	
RDT&E Articles Quantity				

FY08 This initiative is a Congressional add. Support research and development of advanced, low power unattended ground sensor technologies that provide the warfighter with total, reliable and up-to-the-minute battlefield situational awareness with information ex-filtration via satellite communications for display using advanced visualization technologies.

		FY07	FY08	FY09
Tactical Signal Intelligence (SIGINT) and Geo-location Cognitive Analysis			0.392	
RDT&E Articles Quantity				

FY08 This initiative is a Congressional add. The operator is overwhelmed with data from all sources (SIGINT system, other networks, etc). The development of an analytical tool will aid the operator in compiling all the information on a specific interest. This interest could be all known information on a Signal (Frequency), Person, Location, etc.

		FY07	FY08	FY09
Unattended SIGINT Node			3.118	
RDT&E Articles Quantity				

FY08 This is a Congressional add. This is a continuation of FY07 development of a SOF tactical interface which will integrate the systems that were developed in previous years under the ManPack Advanced Concept Technology Demonstration.

		FY07	FY08	FY09
Integrated Bridge System			0.974	
RDT&E Articles Quantity				

FY08 This is a Congressional add. A system that enhances maritime craft bridge-console and operator interface through human factors engineering and integration with console design and displays.

C. Other Program Funding Summary:

	FY07	FY08	FY09	FY10	FY11	FY12	FY13	To Complete	Total Cost
PROC, SOF Intelligence System	49.099	116.796	54.122	72.081	68.737	66.536	64.408	Cont.	Cont.
PROC, Unmanned Vehicles	189.634	0.000	0.000	0.000	0.000	0.000	0.000	0.000	9.400
PROC, Combat Mission Requirements	2.562	0.000	0.000	0.000	0.000	0.000	0.000	Cont.	Cont.

D. Acquisition Strategy:

- National Systems Support to SOF (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.

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

- 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.

- Counter-Proliferation Analysis and Planning System 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.

- Global Sensor Network (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 for the development and integration of biometric; Special Operations Tactical Video System; and Locating, Tagging, and Tracking for Global War on Terrorism (LTTG) 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.

The LTTG Program is an EA program that provides Global Combatant Commanders and SOF operators with an immediate capability to locate, tag, and track, high value targets in the Global War on Terrorism (GWOT). The systems provide situational awareness and targeting information from autonomous tracking and close target reconnaissance systems. The LTTG program will provide commercial-off-the-shelf and government-off-the-shelf tagging, tracking, and local commodities in the form of the mission sets tailored to support SOF missions.

Exhibit R-3 RDT&E Project Cost Analysis						DATE: FEBRUARY 2008					
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- Joint Threat Warning System (JTWS)											
JTWS Air Increment 1 Dev	MIPR	SPAWAR, Charleston, SC	9.266								9.266
JTWS Air Increment 2 Dev	MIPR	SPAWAR, Charleston, SC		0.488	Dec-06	0.489	Nov-07	1.200	Nov-08	Cont.	Cont.
JTWS Team Transportable Dev	MIPR	SPAWAR, Charleston, SC	1.600	4.673	Dec-06	1.867	Nov-07	0.549	Nov-08	Cont.	Cont.
JTWS Ground Signal Intelligence (GSK) Increment 2 Dev	MIPR	SPAWAR, Charleston, SC	6.100	1.000	Dec-06	1.330	Nov-07	2.428	Nov-08	Cont.	Cont.
JTWS GSK/UAV Add	MIPR	SPAWAR-Charleston, SC & SRC, Charleston, SC	2.957								2.957
JTWS Network Variants Add	MIPR	OGA		2.193	Jan-07						2.193
Counter-Proliferation Analysis and Planning System (CAPS) Development	MIPR	Lawrence Livermore National Labs (LLNL), Livermore, CA	44.642	16.991	Nov-06	17.621	Nov-07	19.239	Nov-08	Cont.	Cont.
Global Sensor Network (GSN) Development	TBD	TBD				4.730	Dec-07	7.124	Dec-08	Cont.	Cont.
National System Support to SOF (NSSS) Development	MIPR	Various Government Agencies	0.386	0.472	Dec-06	0.469	Dec-07	0.509	Dec-08	Cont.	Cont.
Power Source Integration	MIPR	SPAWAR, Charleston, SC	2.267	1.948	Jan-07						4.215
Application Specific Integrated Circuit Dev	MIPR	Networld Exchange, Inc, Carlsbad, CA	7.494	3.215	Jan-07						10.709
High Altitude Long Endurance Airships	MIPR	REDCOM, Aberdeen Proving Ground, MD	1.016	0.974	Jan-07						1.990
Optimal Placement of Unattended Sensors (OPUS)	FFP	Prologic Incorporated, Fairmount, WV	1.945	1.608	Jan-07						3.553
Biometrics Signatures Research	MIPR	NAVSEA		1.948	Dec-06						1.948
Long Endurance Unattended Ground Sensor (UGS) Technology	MIPR	SPAWAR, Charleston, SC		1.657	Sep-07						1.657
Meterological and Oceanographic (METOC) Airdropped Sensors	TBD	TBD		1.364	Mar-08						1.364
Microelectromechanical System (MEMS) & Nanotechnology Defense Laboratory	IDIQ	Blackbird Industries, Herdon, VA		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	CPFF/IDIQ	Trident Systems Inc., Fairfax, VA		0.974	Jan-07						0.974
SOF Tactical Interface (SBIR 01-0006)	CPFF/IDIQ	Trident Systems Inc., Fairfax, VA		8.183	Jan-07						8.183
Tactical Miniature S/W Receiver	MIPR	SPAWAR, Charleston, SC		1.559	Jan-07						1.559
Transliteration and Geneology Search	TBD	TBD		0.974	Mar-08						0.974
Advanced Tactical Threat Warning Radio	TBD	TBD				1.558	Various				1.558
Lightweight Anti-Armor Weapon (LAW)/Anti-Structural Munitions (ASM) Heat Rocket Confined Spaces	TBD	TBD				3.880	Various				3.880

Exhibit R-3 RDT&E Project Cost Analysis								DATE: FEBRUARY 2008			
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
Automated Threat Warning for Improved War	TBD	TBD				1.558	Various				1.558
Integrated Bridge System	TBD	TBD				0.974	Various				0.974
Subtotal Product Dev			77.673	53.922		34.476		31.049		Cont.	Cont.
Remarks:											
Support Costs											
Joint Threat Warning System (JTWS) Support	MIPR	Various Government Agencies	2.019	0.097	Jan-07						2.116
Counter-Proliferation Analysis and Planning System (CAPS) Support	MIPR	Various Government Agencies	1.732	0.682	Nov-06	0.757	Nov-07	0.807	Nov-08	Cont.	Cont.
Special Operations Joint Interagency Collaboration Center (SOJICC) Support	MIPR	Various Government Agencies	0.074								0.074
Subtotal Support Costs			3.825	0.779		0.757		0.807		Cont.	Cont.
Remarks:											
Test & Evaluation											
SOJICC Inter Op Test	MIPR	JITC, Ft. Huachuca, AZ	0.159								0.159
JTWS Test (DT/OT/Support)	MIPR	JITC, Ft. Huachuca, AZ		0.330	Jun-07	0.320	Jun-08	0.370	Jun-09	Cont.	Cont.
Subtotal T&E			0.159	0.330		0.320		0.370		Cont.	Cont.
Remarks:											
Management Services											
SOJICC Integration Support	MIPR	MITRE, Tampa, FL	3.846	3.092	Dec-06	1.198	Dec-07	1.251	Dec-08	Cont.	Cont.
SOJICC Integration Support	C-CPAF	L3 Communications, Tampa, FL				1.582	Dec-07	1.732	Dec-08	Cont.	Cont.
National System Support to SOF (NSSS) Program Support	C-CPAF	Jacobs, Tampa, FL	1.997	0.439	Oct-06	0.456	Oct-07	0.489	Oct-08	Cont.	Cont.
JTWS Program Support	C-CPAF	Jacobs, Tampa, FL	0.829								0.829
Global Sensor Network (GSN) Integration	TBD	TBD				4.822	Dec-07	1.927	Dec-08	Cont.	Cont.
Man-Portable Threat Warning System	TBD	TBD				2.339	Various				2.339
Application Specific Integrated Circuits	TBD	TBD				3.898	Various				3.898
Imagery Dissemination System	TBD	TBD				1.558	Various				1.558

Exhibit R-3 RDT&E Project Cost Analysis						DATE: FEBRUARY 2008					
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
Management Services (Cont'd)											
Long Endurance Unattended Sensor	TBD	TBD				2.027	Various				2.027
Advanced Multi-Special Lab & Analytical Ssyems	TBD	TBD				0.780	Various				0.780
Tactical SIGINT and Gelocation	TBD	TBD				0.392	Various				0.392
Unattended SIGINT Node	TBD	TBD				3.118	Various				3.118
JTWS DF Light Advanced Packing & Direction Finding	TBD	TBD				1.169	Various				1.169
LAW/ASM Heat Rocket Confined Spaces	TBD	TBD				1.967	Various				1.967
Joint METOC Program	TBD	TBD				1.558	Various				1.558
Locating, Tagging, and Tracking for Global War on Terrorism (LTTG)	TBD	TBD						1.500			1.500
Subtotal Management			6.672	3.531		26.864		6.899		Cont.	Cont.
Remarks:											
Total Cost			88.329	58.562		62.417		39.125		Cont.	Cont.
Remarks											

Exhibit R-4, RDT&E Program Schedule Profile		Date: FEBRUARY 2008
Appropriation/Budget Activity	Program Element and Name	Project Number and Name
RDT&E/7	PE1160405BB/Special Operations Intelligence Systems Development (MIP	Project S400/SO Intelligence

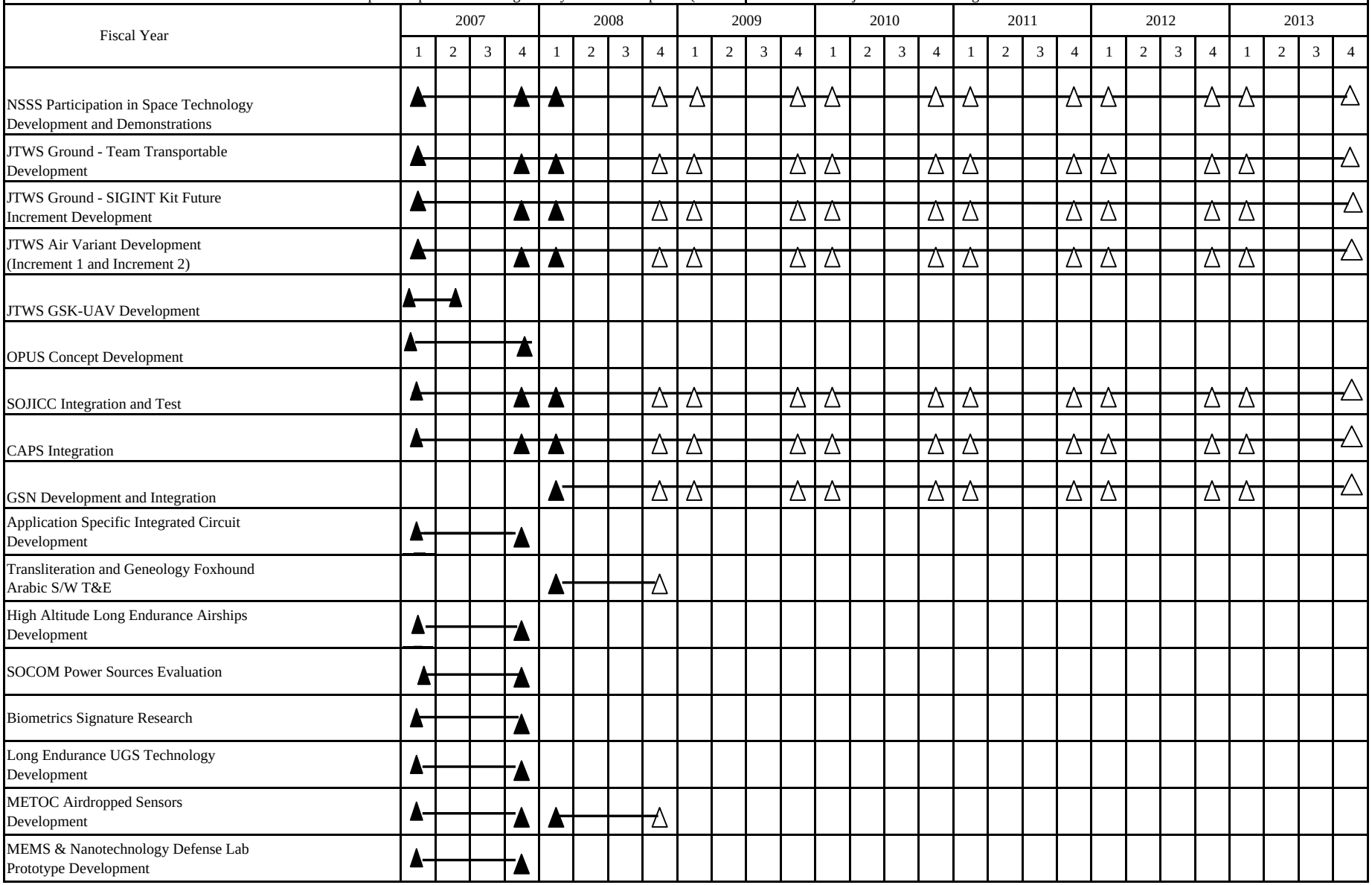


Exhibit R-4, RDT&E Program Schedule Profile		Date: FEBRUARY 2008
Appropriation/Budget Activity	Program Element and Name	Project Number and Name
RDT&E/7	PE1160405BB/Special Operations Intelligence Systems Development (MIP	Project S400/SO Intelligence

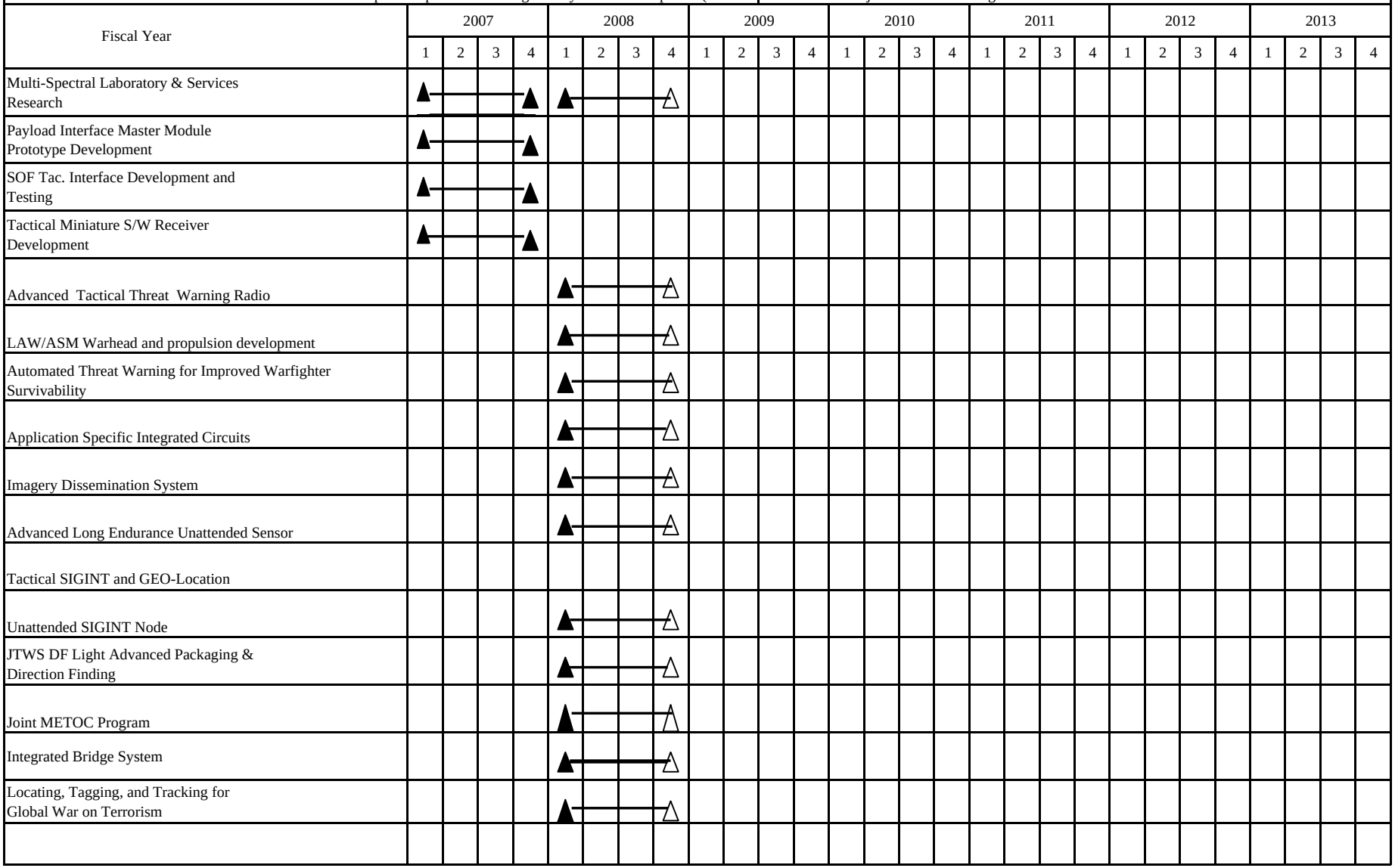


Exhibit R-4a, RDT&E Program Schedule Detail			Date: FEBRUARY 2008				
Appropriation/Budget Activity RDT&E/7			Project Number and Name Project S400/SO Intelligence				
Schedule Profile	FY2007	FY2008	FY2009	FY2010	FY2011	FY2012	FY2013
NSSS Participation in Space Technology Development and Demonstrations	1-4Q	1-4Q	1-4Q	1-4Q	1-4Q	1-4Q	1-4Q
JTWS Ground - Team Transportable Future Increment Development	1-4Q	1-4Q	1Q	1-4Q	1-4Q	1-4Q	1-4Q
JTWS Ground - SIGINT Kit Future Increment Development	1-4Q	1-4Q	1-4Q	1-4Q	1-4Q	1-4Q	1-4Q
JTWS Air Variant Future Increment Development	1-4Q	1-4Q	1-4Q	1-4Q	1-4Q	1-4Q	1-4Q
JTWS GSK-UAV Development	1-2Q						
Optimal Placement of Unattended Sensors Concept Development	1-4Q						
SOJICC Integration	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
Global Sensor Network (GSN) Development and Integration		1-4Q	1-4Q	1-4Q	1-4Q	1-4Q	1-4Q
Application Specific Integrated Circuit Development	1-4Q						
Transliteration and Geneology Foxhand Arabic Software Test and Evaluation		1-4Q					
High Altitude Long Endurance Airships Development	1-4Q						
SOCOM Power Sources Evaluation	1-4Q						
Biometrics Signatures Research	1-4Q						
Long Endurance UGS Technology Development	1-4Q						
METOC Airdropped Sensors Development		1-4Q					
MEMS & Nanotechnology Defense Lab. Prototype Development	1-4Q						
Multi-Spectral Laboratory & Services Research	1-4Q	1-4Q					
Payload Interface Master Module Prototype Development	1-4Q						
SOF Tactical Interface Development and Testing	1-4Q						
Tactical Miniature S/W Receiver Development	1-4Q						
Advanced Tactical Threat Warning Radio		1-4Q					
LAW/ASM Warhead and Propulsion Development		1-4Q					
Automated Threat Warning for Improved Warfighter Survivability		1-4Q					
Application Specific Integrated Circuits		1-4Q					
Imagery Dissemination System		1-4Q					
Advanced Long Endurance Unattended Sensor		1-4Q					
Tactical SIGINT and Geo-location		1-4Q					

Exhibit R-4a, RDT&E Program Schedule Detail			Date: FEBRUARY 2008				
Appropriation/Budget Activity RDT&E/7			Project Number and Name Project S400/SO Intelligence				
Schedule Profile	FY2007	FY2008	FY2009	FY2010	FY2011	FY2012	FY2013
Locating, Tagging and Tracking for Global War on Terrorism		1-4Q					
Unattended SIGINT Node		1-4Q					
JTWS DF Light Advanced Packaging & Direction Finding		1-4Q					
LAW/ASM Heat Rocket Confined Spaces		1-4Q					
Joint METOC Program		1-4Q					
Integrated Bridge System		1-4Q					

RDT&E BUDGET ITEM JUSTIFICATION SHEET (R-2 Exhibit)	DATE FEBRUARY 2008
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)	FY07	FY08	FY09	FY10	FY11	FY12	FY13	Cost to Complete	Total Cost
PE1160421BB		22.872	38.229	27.140	42.064	29.304	30.491	Cont.	Cont.
SF200 CV-22		22.872	38.229	27.140	42.064	29.304	30.491	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. The V-22 Joint Program Office is using spiral acquisition to develop improved capabilities in block increments. The Block 10 increment was completed in FY07 and the Block 20 increment starts in FY08.

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 improved capabilities to include, but not limited to, more robust performance in navigation, weapons, avionics, survivability, maneuverability mission deployment and improved reliability and maintainability of the CV platform. Initial risk reduction and trade studies were initiated in FY06, and System Design and Development starts in FY08.

B. Program Change Summary:

	FY07	FY08	FY09
Previous President's Budget		23.473	26.375
Current President's Budget		22.872	38.229
Total Adjustments		-0.601	11.854
Congressional Program Reductions		-0.149	
Congressional Increases			
Reprogrammings			
Other Program Adjustments			11.854
SBIR Transfer		-0.452	

Funding:

FY07: No change.

FY08: Congressional reduction includes (-$0.038 million) Section 8097 and Section 8104 (-$0.111 million). Other program adjustments include transfer to Small Business Innovative Research account (-$0.452 million).

FY09: Increase ($11.854 million) is due to realignment of funds to meet joint program funding requirements.

Schedule: None.

Technical: None.

Exhibit R-2a, RDT&E Project Justification	Date: FEBRUARY 2008
Appropriation/Budget Activity RDT&E BA # 7	CV-22/Project SF200

Cost ($ in millions)	FY07	FY08	FY09	FY10	FY11	FY12	FY13
CV-22		22.872	38.229	27.140	42.064	29.304	30.491
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. The V-22 Joint Program Office is using spiral acquisition to develop improved capabilities in block increments supported with rapid prototyping. The Block 10 increment is completing in FY 2007 and the Block 20 increment is starting in FY 2008.

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/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 improved capabilities to include, but not limited to, robust performance in navigation, weapons, avionics, survivability, maneuverability, mission deployment, improved reliability and maintainability of the CV platform. Initial risk reduction and trade studies were initiated in FY 2006, and System Development and Demonstration starts in FY 2008.

B. Accomplishments/Planned Program

	FY07	FY08	FY09
Block 20		22.872	38.229
RDT&E Articles Quantity			

FY08 Start design and development of Block 20.
FY09 Continues design and development of Block 20.

C. Other Program Funding Summary:

	FY07	FY08	FY09	FY10	FY11	FY12	FY13	To Complete	Total Cost
PROC, CV-22 SOF Osprey	195.151	213.759	161.971	152.629	151.910	154.251	175.721	215.359	1,420.745

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 Research, Development, Testing, and Evaluation funding was 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 2008								
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
Prior Year Completed Efforts **(Block 10)**	Various	Various	359.134								359.134
Block 20 Development/Flight Test	SS/CPAF/IF	NAVAIR/PMA-275 & Bell-Boeing, Patuxent River, MD				13.044	Dec-07, Jun-08	29.677	Dec-08	Cont.	Cont.
Subtotal Product Dev			359.134	0.000		13.044		29.677		Cont.	Cont.
Remarks:											
Engineering and Logistics Support	Various	Various	39.692			4.350	Various	1.158	Various		45.200
Flight Test Support	Various	Various				5.478	Dec-07	7.394	Dec-08	Cont.	Cont.
Subtotal Management			39.692	0.000		9.828		8.552		Cont.	Cont
Remarks:											
Total Cost			398.826	0.000		22.872		38.229		Cont.	Cont.
Remarks:											

Exhibit R-4, RDT&E Program Schedule Profile			Date: FEBRUARY 2008
Appropriation/Budget Activity RDT&E/7	Program Element Number and Name PE1160421BB/Special Operations CV-22 Development		Project Number and Name SF200/CV-22

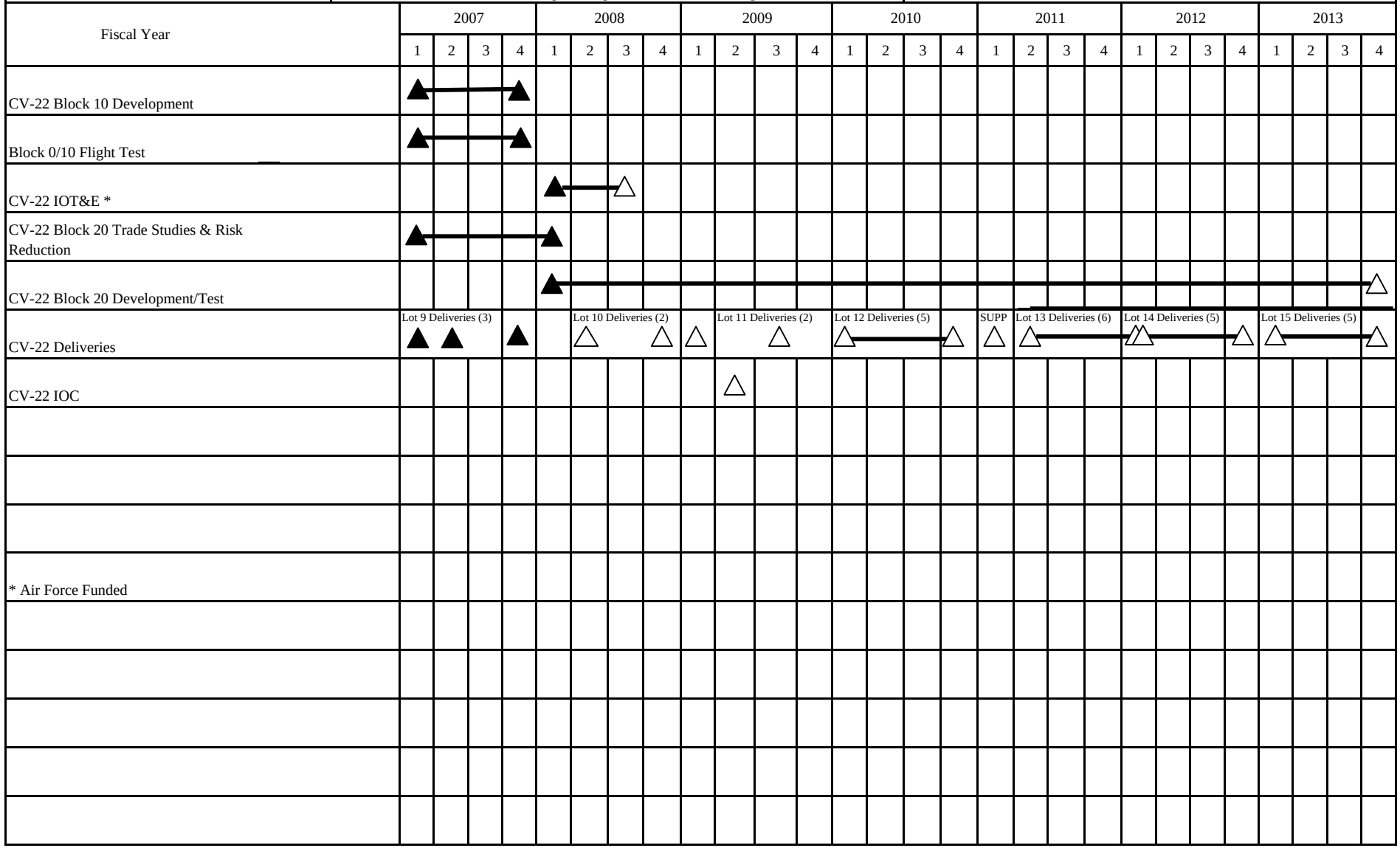


Exhibit R-4a, Schedule Detail		Date: SEPTEMBER 2007						
Appropriation/Budget Activity RDT&E/7	Program Element Number and Name PE1160421BB/Special Operations CV-22 Development	Project Number and Name Project SF200/CV-22						
Schedule Profile	FY2007	FY2008	FY2009	FY2010	FY2011	FY2012	FY2013	
CV-22 Block 10 Development	1-4Q							
Block 0/10 Flight Test	1-4Q							
CV-22 IOT&E *		1-3Q						
CV-22 Block 20 Trade Studies & Risk Reduction	1-4Q	1Q						
CV-22 Block 20 Development/Test		1-4Q	1-4Q	1-4Q	1-4Q	1-4Q	1-4Q	
CV-22 Deliveries	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 2008
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)	FY07	FY08	FY09	FY10	FY11	FY12	FY13	Cost to Complete	Total Cost
PE1160425BB	3.760	5.062							
3284, Special Operations Aircraft Defensive Systems	3.760	5.062							

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. In FY07, the IR jamming system Directional Infrared Countermeasures transitioned from development to sustainment. The development of the IR software updates is scheduled for FY08. Support for SOF-unique portions of the Electronic Warfare Avionics Integrated Systems Facility concludes in FY08.

B. Program Change Summary:

	FY07	FY08	FY09
Previous President's Budget	4.726	5.195	5.272
Current President's Budget	3.760	5.062	
Total Adjustments	-0.966	-0.133	-5.272
Congressional Program Reductions		0.033	
Congressional Increases			
Reprogrammings	-0.966		
Other Program Adjustments			-5.272
SBIR Transfer		-0.100	

Funding:

FY07: Net decrease (-$0.966 million) due to funds being reprogrammed to support higher command priorities.
FY08: Congressional reduction includes (-$0.008 million) Section 8097 and Section 8104 (-$0.025 million). Other program adjustments include transfer to Small Business Innovative Research account (-$0.100 million).
FY09: Developmental program for EWAISF and DIRCM completed; $2.141 million realigned from EWAISF to support higher command priorities; $3.131 million realigned to support DIRCM sustainment requirements.

Schedule: None.

Technical: None.

RDT&E BUDGET ITEM JUSTIFICATION SHEET (R-2 Exhibit)	DATE FBRRUARY 2008
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)	FY07	FY08	FY09	FY10	FY11	FY12	FY13	Cost to Complete	Total Cost
PE1160426BB	31.616	19.772	7.090	1.488	1.487				84.118
S0418, Advanced SEAL Delivery System Dev	31.616	19.772	7.090	1.488	1.487				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:

	FY07	FY08	FY09
Previous President Budget	31.616	20.292	7.100
Current President's Budget	31.616	19.772	7.090
Total Adjustments	0.000	-0.520	-0.010
Congressional Program Reductions		-0.129	
Congressional Increases			
Reprogrammings			
Other Program Adjustments			-0.010
SBIR Transfer		-0.391	

Funding:

FY07: No change.

FY08: Congressional reductions include Section 8097 (-$0.033 million) and Section 8104 (-$0.096 million). Other program adjustments include transfer to Small Business Innovative Research account (-$0.387).

FY09: Decrease of (-$0.10 million) is due to economic inflation adjustments.

Schedule: Updates Critical Systems Review (CSR) Phase II initiation to 1st Qtr FY08 vs 4th FY07 and extends CSR completion to 1st Qtr FY09 vs 2nd Qtr FY08.

Technical: None.

	Exhibit R-2a, RDT&E Project Justification	Date: FEBRUARY 2008
Appropriation/Budget Activity RDT&E BA # 7	Advanced SEAL Delivery System Development(ASDS)/Project S0418	

Cost ($ in millions)	FY07	FY08	FY09	FY10	FY11	FY12	FY13
ASDS Development	31.616	19.772	7.090	1.488	1.487		
RDT&E Articles Quantity							

A. Mission Description and Budget Item Justification: This project 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 project 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. Accomplishments/Planned Program

	FY07	FY08	FY09
ASDS Development	31.616	19.772	7.090

FY07 Conducted concept studies, critical system reviews, technical peer reviews, and an Analysis of Alternatives. Developed and integrated reliability improvements (Engineering Change Proposals, obsolescence, technical insertion, builds) based on reviews.
FY08 Continues Improvement Program.
FY09 Address emergent Reliability and Safety Issues.

C. Other Program Funding Summary:

	FY07	FY08	FY09	FY10	FY11	FY12	FY13	To Complete	Total Cost
ASDS PROC	12.578	10.549	5.760	5.911	6.117				494.831

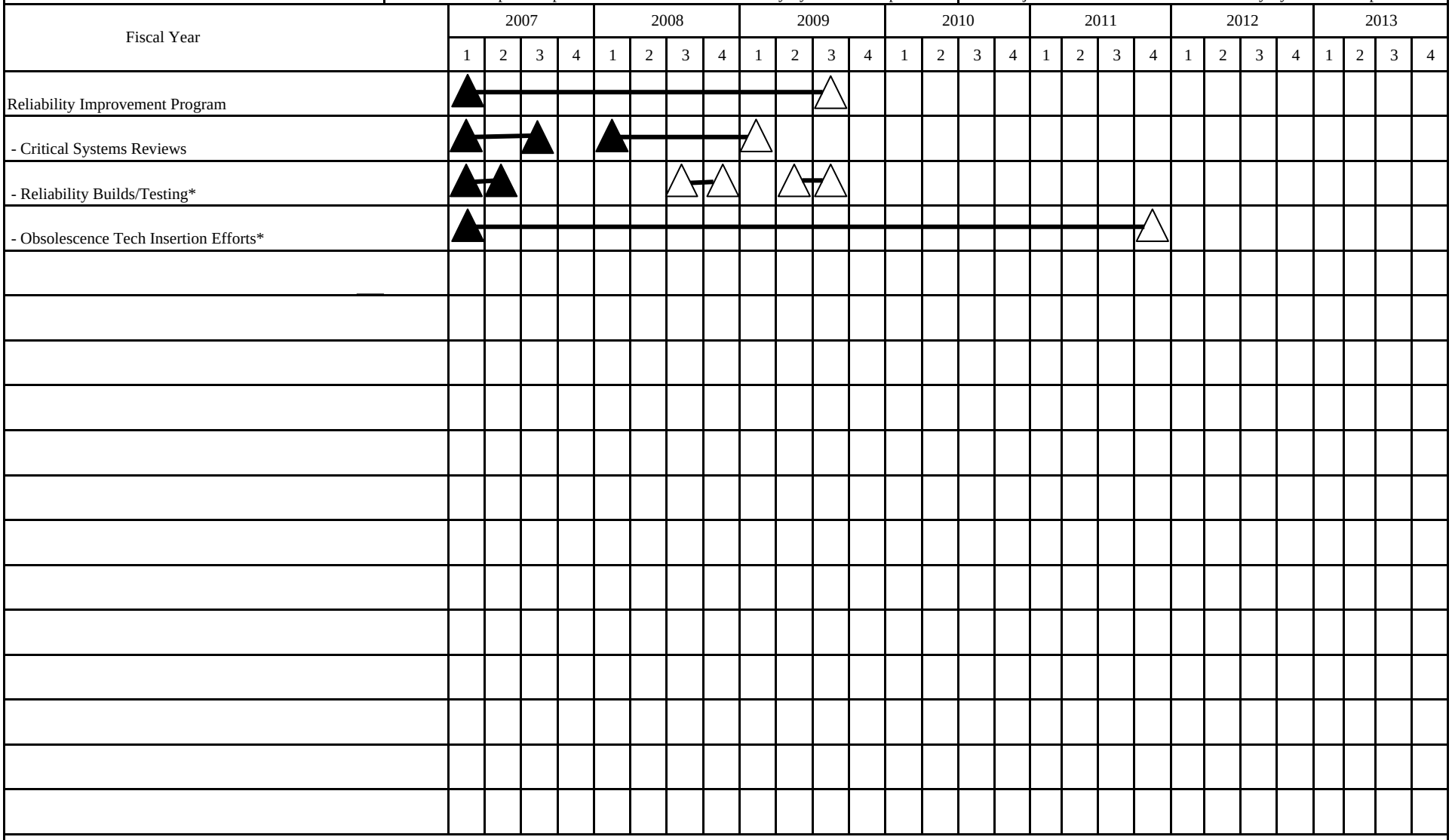
D. Acquisition Strategy:

- Under Secretary of Defense, Acquisition, Technology and Logistics Acquisition Decision Memorandum (ADM) dated 06 April 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.
- ADM signed on 22 June 2007 approved conduct of an Alternate Materiel Solutions Analysis in accordance with the Office for Program Analysis and Evaluation guidance dated 10 April 2007.

The ASDS Improvement Program is managed by Naval Sea Systems Command, PMS-399, SOF Undersea Mobility office. The Program Executive Officer Maritime at USSOCOM provides oversight. One system has been built to date. The program has been restructured to focus on improving the reliability of ASDS. In July 2007, after ASDS-1 had demonstrated the effectiveness of a number of significant reliability improvements, USSOCOM reissued its Fielding and Deployment Release.

Exhibit R-3 RDT&E Project Cost Analysis						DATE: FEBRUARY 2008					
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	19.772	Various	7.090	Various		80.588
Subtotal Product Dev			378.021	31.616		19.772		7.090			436.499
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
Subtotal Management			14.085	0.000							14.085
Remarks:											
Total Cost			432.895	31.616		19.772		7.090		0.000	491.373
Remarks:											

Exhibit R-4, RDT&E Program Schedule Profile			Date: FEBRUARY 2008
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 install 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 2008			
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	FY2007	2008	2009	2010	2011	2012	2013
Advanced SEAL Delivery System							
Reliability Improvement Program	1-4Q	1-4Q	1-3Q				
- Critical Systems Reviews	1-3Q	1-4Q	1Q				
- Reliability Builds/Testing (1-4)	1-2Q	3-4Q	2-3Q				
Obsolescence Tech Insertion Efforts	1-4Q	1-4Q	1-4Q	1-4Q	1-4Q		

RDT&E BUDGET ITEM JUSTIFICATION SHEET (R-2 Exhibit)	DATE FEBRUARY 2008
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)	FY07	FY08	FY09	FY10	FY11	FY12	FY13	Cost to Complete	Total Cost
PE1160427BB	3.684	6.241	4.052	4.064	4.104	4.145	9.227	Cont.	Cont.
S750, MTPS	3.684	6.241	4.052	4.064	4.104	4.145	9.227	Cont.	Cont.

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

B. Program Change Summary:

	FY07	FY08	FY09
Previous President's Budget	1.736	6.405	4.058
Current President's Budget	3.684	6.241	4.052
Total Adjustments	1.948	-0.164	-0.006
Congressional Program Reductions		-0.041	
Congressional Increases			
Reprogrammings	2.348		
Other Program Adjustments			-0.006
SBIR Transfer		-0.123	

Funding:

FY07: Increase of $1.948 million is due to reprogramming of Congressional adds C2 Mission Manager Spiral 4 Development ($0.974 million) and Warrior Reach ($0.974 million) to the correct program element (PE) for execution.

FY08: Congressional reductions include Section 8097 (-$0.010 million) and Section 8104 (-$0.031 million). Other program adjustments include transfer to Small Business Innovative Research account (-$0.123 million).

FY09: Decrease is due to economic inflation adjustments (-$0.005 million).

Schedule: None.

Technical: None.

Cost ($ in millions)	FY07	FY08	FY09	FY10	FY11	FY12	FY13
MTPS	3.684	6.241	4.052	4.064	4.104	4.145	9.227
RDT&E Articles Quantity							

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

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.

- Special Operations Mission Planning Environment (SOMPE): The SOMPE project develops, integrates, tests, and validates enhancements required to meet SOF unique requirements for, and correct deficiencies to, 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, but not limited to Precision Strike Software, Digital Navigation, and Unmanned Aerial Systems 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.

- Warrior Reach: Develops and transitions a capability for rapid range instrumentation and Blue Force Tracking (BFT) training.

- Command and Control (C2) Mission Manager Spiral 4 Development: Automation of operational level planning process and interfaces with command and control.

B. Accomplishments/Planned Program

USSOCOM Simulator Block Update	FY07	FY08	FY09
Combat Mission Simulator	1.536		
RDT&E Articles Quantity			

FY07 Updated USSOCOM simulators to overcome obsolescence and concurrency issues and enhanced mission planning and rehearsal capabilities.

Distributed Mission Training Rehearsal System	FY07	FY08	FY09
Common Environment/Common Database		2.223	
RDT&E Articles Quantity			

FY08 Develop SOF Common Database/Common Environment solution and integrate into all MTPS systems.

	FY07	FY08	FY09
Special Operations Mission Planning Environment (SOMPE)	*	4.018	4.052
RDT&E Articles Quantity			

*FY07 Reported under PE 1160404BB, project S350.
FY08 Develop software for mission data loading software to interface with mission planning system. Seamless data sharing for time sensitive collaborative and intelligence planning, situational awareness and mapping/visualization systems.
FY09 Continues software development for mission for mission data loading software to interface with mission planning system.

C2 Mission Manager Spiral 4 Development	.974		
RDT&E Articles Quantity			

FY07 This initiative was a Congressional add. Developed automated operational level planning tools that interface with command and control systems to manage Special Operations Forces air support requests.

	FY07	FY08	FY09
Warrior Reach	.974		
RDT&E Articles Quantity			

FY07 This initiative was a Congressional add. Set up "Range Set" of Blue Force Tracking (BFT) systems and developed BFT desk top training capability.

C. Other Program Funding Summary:

	FY07	FY08	FY09	FY10	FY11	FY12	FY13	To Complete	Total Cost
MTPS PROC	22.201	69.541	34.151	20.424	19.703	49.576	18.527	Cont.	Cont.

D. Acquisition Strategy:

- USSOCOM Simulator Block Updates (SBUD): Program activities are managed by various Program Management Offices (PMOs). The Simulator Block Update funding is sent from USSOCOM to the PMO to be placed on contract with selected contractors under each program, respectively. Individual acquisition strategies, including contract types, are developed for each major update.

- Distributed Mission Training Rehearsal System (DMTRS): The program is managed by the Program Manager for Simulation and Training Systems (PM STS) at the Program Executive Office for Simulation, Training and Instrumentation (PEO STRI), Orlando, Florida. The DMTRS funding is sent from USSOCOM to the PMO to be placed on contract with competitively selected contractors.

- Special Operations Mission Planning Environment (SOMPE): The program is managed by the Special Operations Mission Planning Office at Fort Eustis, VA. Funding is sent from USSOCOM to the PMO to be awarded via competition or sole source with various contractors under each project. Individual acquisition strategies are developed as projects are identified.

- Warrior Reach: Program activities are managed by Naval Aviation Systems (NAVAIR) through developmental contracts with multiple contractors.

- Command and Control (C2) Mission Manager Spiral 4: The program is managed by the Special Operations Mission Planning Office at Fort Eustis, VA. Funding is sent from USSOCOM to the PMO to be awarded sole source to Science Application International Corporation, Morgantown, WV, for this project.

Exhibit R-3 RDT&E Project Cost Analysis						DATE: FEBRUARY 2008					
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
Product Development											
USSOCOM Simulator Block Update	Various	PEO STRI, Orlando, FL		1.336	Nov-06						1.336
Distributed Mission Training Rehearsal System (DMTRS)	TBD	PEO STRI, Orlando, FL		0.400	Sep-07	1.700	Jul-08				2.100
Special Operations Mission Planning Environment (SOMPE) Software Development											
	CPFF	CAS, Huntsville, AL				0.500	Oct-07	0.475	Dec-08	Cont.	Cont.
	T&M	Tybrin, Ft., Walton Beach, FL				0.640	Jun-08	1.179	Nov-08	Cont.	Cont.
	CPFF	TIS, Alameda, CA				0.300	May-08	0.150	Nov-08	Cont.	Cont.
	CPFF	FTI/BAI, San Diego, CA				1.180	Mar-08	0.815	Mar-09	Cont.	Cont.
	CPFF	LM, Dallas, TX				0.750	Jan-08	0.771	Nov-08	Cont.	Cont.
Command and Control (C2) Mission Manager	CPFF	SAIC, Morgantown, WV		0.974	Dec-07						0.974
Warrior Reach	Various	NAVAIR, Orlando, FL		0.974	Sep-07						0.974
Subtotal Product Dev			0.000	3.684		5.070		3.390		Cont.	Cont.
Remarks:											
Support Cost											
SOMPE Development Support	Gov't	Special Operations Mission Planning Office, Ft Eustis, VA				0.230	Dec-07	0.234	Dec-08	Cont.	Cont.
DMTRS	TBD	PEO STRI, Orlando, FL				0.523	Jul-08				0.523
Subtotal Support						0.753		0.234		Cont.	Cont.
Remarks											
Test and Evaluation (T&E)											
SOMPE and C2 Mission Manger											
DT&E/ OT&E	C/CPFF	CAS, Huntsville, AL				0.418	Jun-08	0.428	Dec-08	Cont.	Cont.
Subtotal T&E						0.418		0.428		Cont.	Cont.
Remarks											
Total Cost			0.000	3.684		6.241		4.052		Cont.	Cont.
Remarks:											

Exhibit R-4, RDT&E Program Schedule Profile																														
													Date: FEBRUARY 2008																		
Appropriation/Budget Activity RDT&E/					Program Element Number and Name PE1160427BB/Mission Training and Preparation Systems (MTPS)																Project Number and Name Project S750/MTPS								
Fiscal Year	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
USSOCOM Simulator Block Update																												
Distributed Mission Training Rehearsal System																												
Contract Award																												
Development and Integration																												
Special Operations Mission Planning Environment (SOMPE) - Software Development Contract																												
Command and Control Mission Manager																												
Warrior Reach																												
SOMPE Development Support																												
SOMPE and C2 Mission Manager Test and Evaluation																												
Developmental Test & Evaluation																												

Exhibit R-4a, RDT&E Program Schedule Detail							
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	FY2007	FY2008	FY2009	FY2010	FY2011	FY2012	FY2013
USSOCOM Simulator Block Update	1-4Q						
Distributed Mission Training and Rehearsal System							
Contract Award		1Q					
Development and Integration		1-4Q	1-4Q				
Special Operations Mission Planning Environment (SOMPE) - Software Development Contract		1-4Q	1-4Q	1-4Q	1-4Q	1-4Q	1-4Q
Command and Control Mission Manager	1-4Q	1-4Q					
Warrior Reach		1-4Q					
SOMPE Development Support	1-4Q	1-4Q	1-4Q	1-4Q	1-4Q	1-4Q	1-4Q
SOMPE and C2 Mission Manager Test and Evaluation	2-4Q	1-4Q	1-4Q	1-4Q	1-4Q	1-4Q	1-2Q
Developmental Test &Evaluation	3-4Q	1-4Q	1-4Q	1-4Q	1-4Q	1-4Q	1-3Q

RDT&E BUDGET ITEM JUSTIFICATION SHEET (R-2 Exhibit)	DATE FEBRUARY 2008
APPROPRIATION / BUDGET ACTIVITY RDT&E, DEFENSE-WIDE / 7	R-1 ITEM NOMENCLATURE / PROJECT NO. PE 1160428BB Unmanned Vehicles/S850

COST (Dollars in Millions)	FY07	FY08	FY09	FY10	FY11	FY12	FY13	Cost to Complete	Total Cost
PE1160428BB	10.040	6.334	1.527	1.547	1.577	1.606	1.636	Cont.	Cont.
S850, Unmanned Vehicles	10.040	6.334	1.527	1.547	1.577	1.606	1.636	Cont.	Cont.

A. Mission Description and Budget Item Justification: This program element addresses spiral development efforts validated in requirements documents; supports development testing; and integrates system upgrades 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 Special Operations Forces (SOF) mission requirements.

B. Program Change Summary:

	FY07	FY08	FY09
Previous President's Budget	3.040	1.500	1.530
Current President's Budget	10.040	6.334	1.527
Total Adjustments	7.000	4.834	-0.003
Congressional Program Reductions		-0.041	
Congressional Increases		5.000	
Reprogrammings	7.000		
Other Program Adjustments			-0.003
SBIR Transfer		-0.125	

Funding:

FY07: Increase ($7.000 million) is due to FY 2007 OMNIBUS Reprogramming No. FY07-28R PA for Global Observer Joint Capability Technology Demonstration.

FY08: Net increase is due to congressional reductions for Section 8097 (-$0.010 million) and Section 8104 (-$0.031 million) and congressional add for Trident Reach ($5.000 million). Other program adjustments include transfer to Small Business Innovative Research account (-$0.125 million).

FY09: Decrease is due to economic inflation adjustments (-$0.003 million).

Schedule: None.

Technical: None.

	Exhibit R-2a, RDT&E Project Justification	Date: FEBRUARY 2008
Appropriation/Budget Activity RDT&E BA # 7	Unmanned Vehicles/Project S850	

Cost ($ in millions)	FY07	FY08	FY09	FY10	FY11	FY12	FY13
UV	10.040	6.334	1.527	1.547	1.577	1.606	1.636
RDT&E Articles Quantity							

A. Mission Description and Budget Item Justification: This project addresses spiral development efforts validated in requirements documents; supports development testing; integrates system upgrades under an evolutionary acquisition strategy to obtain objective SOF mission requirements; and develops upgrades which include payload integration, platform improvements, targeting capabilities and digital datalink for the Rucksack Portable Unmanned Aircraft System (RPUAS); and heavy fuel engine, increased endurance, reduced signature, increased telemetry range, and increased payload capacity for the Vehicle Craft Unmanned Aircraft System (VCUAS); and develops a Logistics Support Vehicle (LSV); and the high-altitude, long-endurance unmanned aircraft system development with the Global Observer (GO) Joint Capability Technology Demonstration.

B. Accomplishments/Planned Program

	FY07	FY08	FY09
RPUAS	1.481		
RDT&E Articles Quantity			

FY07 Completed payload integration, platform improvements, targeting capabilities and digital datalinks.

	FY07	FY08	FY09
VCUAS		1.462	1.527
RDT&E Articles Quantity			

FY08 Develop, test, and integrate VCUAS aircraft, payload, and ground control station improvements.
FY09 Develops, tests, and integrates VCUAS aircraft, payload, and ground control station improvements.

	FY07	FY08	FY09
LSV	1.559		
RDT&E Articles Quantity			

FY07 This initiative was a Congressional add. Evaluated unmanned logistic support vehicle technologies.

	FY07	FY08	FY09
Global Observer	7.000		
RDT&E Articles Quantity			

FY07: This initiative was a reprogramming from the U.S. Air Force for the Global Observer Joint Capability Technology Demonstration. Designs, develops, tests, and evaluates high-altitude, long-endurance unmanned aircraft system technologies.

	FY07	FY08	FY09
Trident Reach		4.872	
RDT&E Articles Quantity			

FY08: This is a Congressional add to test the system for the MQ-9 Reaper Unmanned Vehicle.

C. Other Program Funding Summary:

	FY07	FY08	FY09	FY10	FY11	FY12	FY13	To Complete	Total Cost
Unmanned Vehicles PROC	189.634	52.609	27.194	17.553	13.027	16.055	16.419	Cont.	Cont.

D. Acquisition Strategy: Preplanned product improvements to be implemented as evolutionary upgrades to Vehicle Craft Unmanned Aircraft System.

Exhibit R-3 RDT&E Project Cost Analysis						DATE: FEBRUARY 2008					
APPROPRIATION / BUDGET ACTIVITY RDT&E DEFENSE-WIDE / 7						Program Element 1160428BB/Unmanned Vehicles 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
Product Development											
Vehicle Craft Unmanned Aircraft System (VCUAS) Primary Hardware Improvement	Various	USSOCOM, MacDill AFB, FL				0.762	Mar-08	0.818	Dec-08	Cont.	Cont.
VCUAS Ancillary Hardware Development	Various	USSOCOM, MacDill AFB, FL				0.250	Mar-08	0.253	Dec-08		
Subtotal Product Development			0.000	0.000		1.012		1.071		Cont.	Cont.
Remarks:											
Test & Evaluation (T&E)											
Rucksack Portable Unmanned Aircraft System Developmental (T&E)	Various	NATICK		1.481	Nov-06						1.481
	Various	NAVQIR				0.100	Apr-08	0.101	Feb-09	Cont.	Cont.
VCUAS Developmental T&E											
Logistical Support Vehicle Development T&E	Various			1.559	Jan-07						1.559
Trident Reach Development T&E	Various	645 AESS, Wright Patterson, AFB, OH				4.872	Feb-08				
Subtotal T&E			0.000	3.040		4.972		0.101		Cont.	Cont.
Remarks:											
Contractor Engineering Support											
VCUAS Contractor Engineering Support	TBD	USSOCOM, MacDill AFB, FL				0.350	Mar-08	0.355	Dec-08	Cont.	Cont.
Subtotal Management			0.000	0.000		0.350		0.355		Cont.	Cont.
Remarks:											
Design & Development (D&D)											
Global Observer Joint Capability Technology Demonstration D&D	Various	USSOCOM, MacDill AFB, FL		7.000	Sep-07						
Subtotal D&D			0.000	7.000		0.000		0.000			
Total Cost			0.000	10.040		6.334		1.527		Cont.	Cont.
Remarks:											

Exhibit R-4, RDT&E Program Schedule Profile																														
Date: FEBRUARY 2008																														
Appropriation/Budget Activity RDT&E, Defense-Wide/7					Program Element Number and Name PE1160428BB/Unmanned Vehicles																Project Number and Name S850/UV								
Fiscal Year	2007				2008				2009				2010				2011				2012				2013					
	1	2	3	4	1	2	3	4	1	2	3	4	1	2		4	1	2	3	4	1	2	3	4	1	2	3	4		
Vehicle Craft Unmanned Aircraft System (VCUAS) Block I																														
Design																														
Development																														
Integration																														
Testing																														
VCUAS Block II																														
Design																														
Development																														
Integration																														
Testing																														
VCUAS Block III																														
Design																														
Development																														
Integration																														
Testing																														
Rucksack Portable Unmanned Aircraft System																														
Development																														
Integration																														

Exhibit R-4, RDT&E Program Schedule Profile | Date: FEBRUARY 2008

Appropriation/Budget Activity	Program Element Number and Name	Project Number and Name
RDT&E, Defense-Wide/7	PE1160428BB/Unmanned Vehicles	S850/UV

Fiscal Year	2007				2008				2009				2010				2011				2012				2013			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2		4	1	2	3	4	1	2	3	4	1	2	3	4
Testing				▲	▲																							
Unmanned Logistics Support Vehicle																												
Development		▲		▲	▲																							
Integration			▲	▲	▲																							
Testing				▲	▲																							
Global Observer Joint Capability Technology Demonstration																												
Development				▲	▲			△	△			△																
Integration								△	△			△	△															
Testing											△	△	△			△												
Trident Reach																												
Testing						▲																						

Exhibit R-4a, RDT&E Program Schedule Detail			Date: FEBRUARY 2008				
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	FY2007	FY2008	FY2009	FY2010	FY2011	FY2012	FY2013
Vehicle Craft Unmanned Aircraft System (VCUAS) Block I							
Design		1-2Q					
Development		2-4Q					
Integration			1-2Q				
Testing			3-4Q				
VCUAS Block II							
Design				1-2Q			
Development				3-4Q			
Integration					1-2Q		
Testing					3-4Q		
VCUAS Block III							
Design						1-2Q	
Development						3-4Q	
Integration							1-2Q
Testing							3-4Q
Rucksack Portable Unmanned Aircraft System							
Development	1Q - 4Q						
Integration	3Q - 4Q	1Q					
Testing	4Q	1Q					
Unmanned Logistic Support Vehicle							
Development	2Q - 4Q	1Q					
Integration	3Q - 4Q	1Q					
Testing	4Q	1Q					
Global Observer Joint Capability Technology Demonstration							
Development	4Q	1Q - 4Q	1Q - 4Q				
Integration		4Q	1Q - 4Q	1Q			
Testing			3Q - 4Q	1Q - 4Q			
Trident Reach							
Testing		2Q-4Q					

RDT&E BUDGET ITEM JUSTIFICATION SHEET (R-2 Exhibit)	DATE FEBUARY 2008
APPROPRIATION / BUDGET ACTIVITY RDT&E, DEFENSE-WIDE / 7	R-1 ITEM NOMENCLATURE / PROJECT NO. PE 1160429BB SOF Tanker Recapitalization/S875

COST (Dollars in Millions)	FY07	FY08	FY09	FY10	FY11	FY12	FY13	Cost to Complete	Total Cost
PE 1160429BB		12.375	4.659	4.211	2.748	3.031			27.024
S875, SOF Tanker Recapitalization		12.375	4.659	4.211	2.748	3.031			27.024

A. Mission Description and Budget Item Justification:

The Special Operations Forces (SOF) Tanker line funds the recapitalization of aging MC-130E Combat Talon I and MC-130P Combat Shadow 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 and CV-22 aircraft. 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 (Block 1), common support equipment, and trainers for USSOCOM. A block upgrade approach will be used to incorporate SOF capabilities onto the aircraft.

Block 2: Integrate and test core mission capabilities such as minor software enhancements for integration with the special mission processor, improved navigation, and situational awareness capabilities.

Block 3: Initiate development, integration, testing, and validation of enhancements to meet SOF-unique requirements for a special mission processor, enhanced defensive systems, secure digital map enhanced situational awareness, enhanced vision system, improved refueling performance, and SOF communications. Capabilities developed under Block 3 will result in post-production modifications.

B. Program Change Summary:

	FY07	FY08	FY09
Previous President's Budget		12.701	4.666
Current President's Budget		12.375	4.659
Total Adjustments		-0.326	-0.007
Congressional Program Reductions		-0.081	
Congressional Increases			
Reprogrammings			
Other Program Adjustments			-0.007
SBIR Transfer		-0.245	

Funding:

FY08: Congressional reductions include Section 8097 (-$0.020 million) and Section 8104 (-$0.061 million). Other program adjustments include transfer to Small Business Innovative Research account (-$0.245 million).

FY09: Decrease (-$0.007 million) is due to economic inflation adjustments.

Schedule: None.

Technical: Refinement of SOF-unique capabilities completed upon establishment of service-common Block 1 baseline.

Exhibit R-2a, RDT&E Project Justification	Date: FEBRUARY 2008
Appropriation/Budget Activity RDT&E BA # 7	SOF Tanker Recapitalization/S875

Cost ($ in millions)	FY07	FY08	FY09	FY10	FY11	FY12	FY13
SOF Tanker Recapitalization		12.375	4.659	4.211	2.748	3.031	
RDT&E Articles Quantity							

A. Mission Description and Budget Item Justification: The Special Operations Forces (SOF) Tanker line funds the recapitalization of aging MC-130E Combat Talon I and MC-130P Combat Shadow 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 (Block 1), common support equipment, and trainers for USSOCOM. A block upgrade approach will be used to incorporate SOF capabilities on to the aircraft.

Block 2: Develop, integrate, test and validate enhancements to meet SOF-unique mission requirements for variable drag drogue upgrades to the common refueling system.

Block 3: Initiate development, integration, testing, and validation of enhancements to meet SOF-unique requirements for a special mission processor, enhanced defensive systems, secure digital map enhanced situational awareness, enhanced vision system, improved refueling performance, and SOF communications. Capabilities developed under Block 3 will result in post-production modifications.

B. Accomplishments/Planned Program

	FY07	FY08	FY09
Block 2		6.551	1.913
RDT&E Articles Quantity			

FY08 Start integration of Block 2 equipment into service-common tanker.
FY09 Continue integration of Block 2 equipment into service-common tanker.

	FY07	FY08	FY09
Block 3		5.824	2.746
RDT&E Articles Quantity			

FY08 Start development of enhancements for SOF-unique requirements.
FY09 Continue development and start integration of Block-3 improvements.

C. Other Program Funding Summary.

	FY07	FY08	FY09	FY10	FY11	FY12	FY13	To Complete	Total Cost
SOF Tanker Recap PROC		18.439	36.286	44.687	54.439	95.439	78.792	118.465	446.547

D. Acquisition Strategy. The Acquisition Strategy will be developed prior to the Milestone B in 3rd Quarter FY08 and approved by the Special Operations Acquisition Executive. Given the technological maturity of the United States Air Force service-common aircraft, USSOCOM is pursuing parallel System Development and Design and production block upgrade phases.

Exhibit R-3 RDT&E Project Cost Analysis						DATE: FEBRUARY 2008					
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
Variable Drag Drogue Development Block 2	TBD	TBD				6.551	Apr-08	1.913	Dec-08		8.464
Subtotal Product Development			0.000	0.000		6.551		1.913		0.000	8.464
Remarks:											
Software & Integration Block 3	TBD	TBD				5.374	May-08	1.946	Dec-08	6.640	13.960
Subtotal Support			0.000	0.000		5.374		1.946		6.640	13.960
Remarks:											
Developmental Test & Evaluation (T&E) Block 3	TBD	TBD						0.300	Dec-08	1.850	2.150
Subtotal T&E			0.000	0.000		0.000		0.300		1.850	2.150
Remarks:											
Contractor Engineering Support Block 1	TBD	TBD				0.450	Dec-07	0.500	Dec-08	1.500	2.450
Subtotal Management			0.000	0.000		0.450		0.500		1.500	2.450
Remarks:											
Total Cost			0.000	0.000		12.375		4.659		9.990	27.024
Remarks:											

Exhibit R-4, RDT&E Program Schedule Profile													Date: FEBRUARY 2008															
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	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
Block 2 Development					▲							△																
Variable Drag Drogue (VDD) Milestone (MS) B							△																					
Integration and Test							△					△																
VDD MS C													△															
Block 3 Development					▲																			△				
MS B							△																					
Integration and Test					▲																			△				
Block 3 MS C																									△			

Exhibit R-4a, RDT&E Program Schedule Detail			Date: FEBRUARY 2008				
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	FY2007	FY2008	FY2009	FY2010	FY2011	FY2012	FY2013
Block 2 Development		1-4Q	1-4Q				
Variable Drag Drogue (VDD) Milestone (MS) B		1-3Q					
Integration and Test		3-4Q	1-4Q				
VDD MS C				1Q			
Block 3 Development		1-4Q	1-4Q	1-4Q	1-4Q	1-4Q	
MS B		3Q					
Integration and Test		1-4Q	1-4Q	1-4Q	1-4Q	1-4Q	
Block 3 MS C							1Q

RDT&E BUDGET ITEM JUSTIFICATION SHEET (R-2 Exhibit)	DATE FEBRUARY 2008
APPROPRIATION / BUDGET ACTIVITY RDT&E, DEFENSE-WIDE / 7	R-1 ITEM NOMENCLATURE / PROJECT NO. PE 1160474BB SOF Communications Equipment and Electronics Systems/S700

COST (Dollars in Millions)	FY07	FY08	FY09	FY10	FY11	FY12	FY13	Cost to Complete	Total Cost
PE1160474B				1.295	3.028	1.907	1.081	Cont.	Cont.
S700 SO Communications Advanced Development				1.295	3.028	1.907	1.081	Cont.	Cont.

A new program element (PE)(1160474BB) was established beginning in FY 2009 for SOF Communications Equipment and Electronics Systems. FY 2009-2013 resources were moved from PE 1160404BB, Special Operations Tactical Systems Development.

A. Mission Description and Budget Item Justification: This program element 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.

B. Program Change Summary: No change.

Funding: No change.

Schedule: None.

Technical: None

RDT&E BUDGET ITEM JUSTIFICATION SHEET (R-2 Exhibit)	DATE FEBRUARY 2008
APPROPRIATION / BUDGET ACTIVITY RDT&E, DEFENSE-WIDE / 7	R-1 ITEM NOMENCLATURE / PROJECT NO. PE 1160476BB SOF Tactical Radio Systems/S725

COST (Dollars in Millions)	FY06	FY07	FY08	FY09	FY10	FY11	FY12	FY13	Cost to Complete	Total Cost
PE1160476B						3.201	3.261		Cont.	Cont.
S725 SOF Tactical Radio Systems						3.201	3.261		Cont.	Cont.

A new program element (PE)(1160476BB) was established beginning in FY 2009 for SOF Tactical Radio Systems. FY 2009-2013 resources were moved from PE 1160404BB, Special Operations Tactical Systems Development.

A. Mission Description and Budget Item Justification: The Tactical Radio Systems is a new line item that identifies all SOF radio programs. Tactical radios were a part of the Communications Equipment and Electronics line item which 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 radio communication equipment that improves their warfighting capability without degrading their mobility. Therefore, SOF Tactical Radio Systems communications equipment and electronics will be a continuing effort to procure lightweight, efficient and interoperable SOF radios.

United States Special Operations Command (USSOCOM) has developed an overall strategy to ensure that Tactical Radio Systems continue to provide SOF with the required capabilities throughout the 21st century. The Tactical Radios provide the critical Command, Control, and Communication link between SOF Commanders and SOF Teams involved in Global War On Terrorism operations and training exercises. They also provide interoperability with all Services, various agencies of the US Government, Air Traffic Control (ATC), commercial agencies, and allied foreign forces. Tactical Radios rapidly and seamlessly establish and maintain mobile and fixed Command and Control communications between infiltrated/operational elements and higher echelon headquarters allowing SOF to operate with any force combination in multiple environments.

B. Program Change Summary:

RDT&E BUDGET ITEM JUSTIFICATION SHEET (R-2 Exhibit)	DATE FEBRUARY 2008
APPROPRIATION / BUDGET ACTIVITY RDT&E, DEFENSE-WIDE / 7	R-1 ITEM NOMENCLATURE / PROJECT NO. PE 1160476BB SOF Tactical Radio Systems/S725

Funding: No change.

Schedule: None

Technical: None

RDT&E BUDGET ITEM JUSTIFICATION SHEET (R-2 Exhibit)	DATE FEBRUARY 2008
APPROPRIATION / BUDGET ACTIVITY RDT&E, DEFENSE-WIDE / 7	R-1 ITEM NOMENCLATURE / PROJECT NO. PE 1160477BB SOF Weapon Systems/S375

COST (Dollars in Millions)	FY07	FY08	FY09	FY10	FY11	FY12	FY12	Cost to Complete	Total Cost
PE1160477B			2.759	1.290	.298	.298	.298	Cont.	Cont.
S375 Weapon Systems Advanced Development			2.759	1.290	.298	.298	.298	Cont.	Cont.

A new Program Element (PE)(1160477BB) was established beginning in FY 2009 for SOF Weapon Systems. FY 2009-2013 resources were moved from PE 1160404BB Special Operations Tactical Systems Development.

A. Mission Description and Budget Item Justification: This program element provides for development, testing, and integration of specialized weapon systems, weapon accessories and ammunition to meet the unique requirements of Special Operations Forces (SOF). This 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:

	FY07	FY08	FY09
Previous President's Budget			
Current President's Budget			2.759
Total Adjustments			2.759
Congressional Program Reductions			
Congressional Increases			
Reprogrammings			
Other Program Adjustments			2.759
SBIR Transfer			

Funding:

FY07: No change.

FY08: No change.

FY09: Increase of $2.759 million is the result of establishing a new PE. Funds were moved from PE 1160404BB Special Operations Tactical Systems Development.

Schedule: None.

Technical: None

Exhibit R-2a, RDT&E Project Justification	Date: FEBRUARY 2008
Appropriation/Budget Activity RDT&E.A BA # 7	Weapons and Support Systems Advanced Development /Project S375

Cost ($ in millions)	FY07	FY08	FY09	FY10	FY11	FY12	FY13
Weapons and Support Sys Adv Dev	24.768	16.540	2.759	1.290	.298	.298	.298
RDT&E Articles Quantity							

A new program element 1160477BB, SOF Weapons Systems was established for this project beginning in FY 2009. FY 2009-2013 resources were moved from program element 1160404BB, Special Operations Tactical Systems Development.

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.

- Family of Sniper Weapons (FSW) formerly 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.

- Lightweight Anti-Armor Weapon (LAW) Confined Space. 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.

- Weapons Accessories formerly M4A1 SOF Carbine Accessory Kit (M4MOD). The Weapons Accessories program, 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, FY 2006, and FY 2007 Congressional adds.

- Weapons Shot Counter. This was a FY 2007 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.

- SOF Laser Range Finder and Designator (SOFLRD). 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.

- SOF Visual Augmentation Systems Binocular/Monocular (SOVAS B/M). The SOVAS B/M program is developing the next generation SOF night vision goggle. This goggle will incorporate a fusion sensor that includes both image intensification and thermal imagery. This capability will allow the SOF operator to conduct mission in the full spectrum of ambient light levels.

- 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. The objective design of SCAR is a single upper receiver assembly that is capable of accepting 5.56 NATO, 7.62 NATO and any other caliber ammunition developed and will be the primary focus. 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 ammunition for both SCAR and EGLM will be developed. This program was increased by a FY 2007 Congressional add.

- 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 FY 2006 and FY 2007 Congressional add to conduct market surveys for Commercial-off-the-shelf (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.

- Combat Boot-Polyurethane. This was a FY 2007 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 Tactical Boot Suite Development. This was a FY 2007 Congressional add to develop a family of boots for use by the SOF operator in various mission sets and environments.

- Tactical Combat Casualty Care Equipment – Kit (TCCCEKIT). The TCCCEKIT 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.

- Multi-User Panoramic Synthetic Vision System. This initiative is a FY 2008 Congressional add. Provides for the evaluation of panoramic synthetic vision systems technology. Supports development of enhancements for perimeter protection and situational awareness.

- Nickel 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.

- Holographic Close Combat Optic. This initiative was funded by a FY 2007 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.

- Special Operations Forces Advanced Mission Planning Tools. This initiative was funded by a FY 2008 Congressional add.

Provides modernization to flight performance modules used to quickly calculate aircraft performance in preparation for SOF missions.

- SOF Special Purpose Tagging, Tracking and Locating Tool Kit. This initiative is a FY 2008 Congressional add. Provides for the development of tools for the operators to locate, identify, and defeat enemy forces in the Global War on Terror (GWOT).

- Expendable AirDrop Delivery Systems: Demonstrate utility of low-cost guided and unguided small cargo payload system for SOF resupply operations.

B. Accomplishments/Planned Program

	FY07	FY08	FY09
Family of Sniper Detection Systems (FSDS) (formerly HSR)	1.170		
RDT&E Articles Quantity			
FY07 This initiative was a Congressional add. Developed a version of the FSDS to integrate onto combatant craft.			
	FY07	FY08	FY09
Family of Sniper Weapons (FSW)		.487	.497
RDT&E Articles Quantity			
FY08 Pursue a Precision Sniper Rifle capability. Conduct market research, industry conferences, and developmental testing. FY09 Conducts both developmental and operational test on the Anti-Materiel Rifle (AMR) capability.			
	FY07	FY08	FY09
Lightweight Anti-Armor Weapon (LAW) Confined Space (CS)	5.271		
RDT&E Articles Quantity			
FY07 Continued development of the LAW M72 variants. Continued development of the M72E8 with the Anti-Armor (AA) warhead and the Fire From Enclosure (FFE) propulsion, and the M72E10 with the Anti-Structural Munition (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 FY08.			
	FY07	FY08	FY09
Weapons Accessories (Formerly M4MOD)	.237	.249	.261
RDT&E Articles Quantity			
FY07 Tested and evaluated Mini Day/Night Sight (MDNS) project improvements. FY08 Pursue fused clip-on imaging device through market research, industry conference, and solicitation to replace two systems: Image			

Intensified Clip-on Night Vision Device (CVND- I2) and Thermal Clip-on Night Vision Device (CNVD-T).
FY09 Conducts user assessments, test and evaluation and source selection of CNVD-F (Fused), and begins efforts on Family of Muzzle Brake Suppressors.

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

FY07 This initiative was a Congressional add. Developed a shot counter capability for machine guns and heavy weapons.

	FY07	FY08	FY09
SOF Laser Range Finder and Designator (SOFLRD)		3.411	
RDT&E Articles Quantity			

FY08 Develop the next generation laser range finder and designator to support the delivery of laser guided and Global Positioning System (GPS) guided missiles and munitions.

	FY07	FY08	FY09
Special Operations Visual Augmentation Systems Binocular/Modular (SOVAS B/M)		1.463	
RDT&E Articles Quantity			

FY08 Develop an advanced Night Vision Goggle system (i.e., sensor fusion), increasing the capabilities of the existing goggles.

	FY07	FY08	FY09
Precision Laser Target Device (PLTD)	3.300	.973	
RDT&E Articles Quantity			

FY07 Procured long lead items for the development of four Low Rate Initial Production (LRIP) PLTDs.
FY08 Continues weight reduction and miniaturization of the inertial navigation system.

	FY07	FY08	FY09
SOF Combat Rifle (SCAR)	4.904		2.001
RDT&E Articles Quantity			

FY07 Continued development of the SCAR Sniper Support Rifle (SSR) and the Fire Control Unit (FCU) on the Enhanced Grenade Launcher Module (EGLM). The Initial Operational Test and Evaluation of the SCAR was funded by a FY 2007 Congressional add.
FY09 Completes development of SCAR SSR and FCU on the EGLM. Conduct user assessment, test and evaluation of objective SCAR SSR.

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

FY07 This initiative was a Congressional add. Developed United States manufacturing capability for polyurethane direct injection and conducted early user assessment.

	FY07	FY08	FY09
SOF Personal Equipment Advanced Requirement (SPEAR)	3.543	2.048	
RDT&E Articles Quantity			

FY07 Completed development of ballistic eyewear, body armor, eye protection, and backpacks.
FY08 Initiate development of the next generation headset for the Modular Integrated Communication Helmet (MICH) and environmental protection for extremities and maritime.

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

FY07 This initiative was a Congressional add. Research, develop, test and evaluate an extreme cold weather boot for SOF operators.

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

FY07 This initiative was a Congressional add. Researched, developed, tested and evaluated a SOF peculiar boot suite.

	FY07	FY08	FY09
Tactical Combat Casualty Care Equipment Kit (TCCCEKIT)	.499	.698	
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. Conduct operational assessment of SKOs in preparation for procurement and fielding.
FY08 Initiates evaluation and qualification of SOF Surgeon and Casualty Evacuation (CASEVAC) kits.

	FY07	FY08	FY09
Multi_User Panoramic Synthetic Vision System		2.339	
RDT&E Articles Quantity			
FY08 This initiative was a Congressional add. Developed technology associated panoramic vision systems.			

	FY07	FY08	FY09
Nickel Boron Coating	.974		
RDT&E Articles Quantity			
FY07 This initiative was a Congressional add. Continued the effort to test and evaluate a nickel boron coating on SOF machine guns.			

	FY07	FY08	FY09
Holographic Close Combat Optic	.974		
RDT&E Articles Quantity			
FY07 This initiative was a Congressional add. Developed a Holographic Close Combat Optic application to be utilized on low velocity 40mm weapons and heavy machine guns.			

	FY07	FY08	FY09
Special Operations Forces Advanced Mission Planning Tools		3.118	
RDT&E Articles Quantity			
FY08 This initiative is a Congressional add. Develops software tools that enable management flight performance modules in preparation for SOF missions.			

	FY07	FY08	FY09
Special Operations Forces Special Purpose Tagging, Tracking, and Locating Took Kit		.974	
RDT&E Articles Quantity			
FY08 This initiative is a Congressional add. Provides for the development of tools for operators to locate, identify and defeat enemy forces.			

	FY07	FY08	FY09
Expendable AirDrop Delivery System		.780	
RDT&E Article Quantity			
FY08 This initiative is a Congressional add. Provides for the evaluation of technology associated with expendable airdrop delivery systems.			

C. Other Program Funding Summary:

	FY07	FY08	FY09	FY10	FY11	FY12	FY13	To Complete	Total Cost
PROC, Small Arms and Weapons	192.184	201.397	15.689	30.089	29.501	4.341	12.839	Cont.	Cont.

D. Acquisition Strategy.

- FSW (formerly 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.

- SCAR. SCAR program develops a weapon system to replace current M4A1, MK18 Close Quarters Battle Rifle (CQBR), MK11 and MK12 Sniper Support Rifles, the M14 Assault Rifle, and the M203 Grenade Launcher. SCAR in its threshold design is a 5.56mm (SCAR-L) and a 7.62mm (SCAR-H) weapon that will have modular barrel lengths to ensure versatility to mission requirement. Spiral development within the program seeks the objective of a single weapon capable of complete caliber modularity. Additionally, the Enhanced Grenade Launcher Module (EGLM) will provide SOF with a 40mm shoulder fired capability. EGLM is compatible with both SCAR-H and SCAR-L and has spiral developments within 40mm ammunition as well as Fire Control capability furthering the combat effectiveness of SOF.

- Weapons Accessories (formerly M4MOD). The Weapons accessories program funds efforts to optimize the effectiveness of 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. This program will leverage and then drive the advancement of accessories within this program. All SOF weapons programs leverage the weapons accessories program to increase operational effectiveness. Blocks include family of muzzle brake suppressors, Clip-On Night Vision Devices (CNVD)–Image Intensified, CNVD-Thermal, and CNVD-Fused, as well as numerous other components designed to enhance the capabilities of the weapon while at the same time combining capabilities into single, smaller devices.

Exhibit R-3 RDT&E Project Cost Analysis						DATE: FEBRUARY 2008					
APPROPRIATION / BUDGET ACTIVITY RDT&E DEFENSE-WIDE / 7			SOF Weapons Systems/PE1160477BB 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											
Family Sniper Detection System (FSDS) - CP	FFP/T&M	PM-CCS, Picatinny, NJ	1.687	0.845	Dec-06						2.532
Light Weight Anti-Armor Weapon (LAW)	Various	NSWC-Crane, Crane, IN	1.664	1.881	Dec-06						3.545
Weapons Accessories (formerly M4MOD)	Various	NSWC-Crane, Crane, IN	5.213	0.163	Jan-07						5.376
Nickle Boron Coating - CP	ALLOT	NSWC-Crane, Crane, IN		0.259	Jun-07						0.259
M4MOD Shot Counter -SOF Machine Gun (SMG) - CP	ALLOT	NSWC-Crane, Crane, IN		0.269	Dec-07						0.269
SOF Laser Rangefinder (SOFLRD)	ALLOT	TBD				3.411	Jun-08				3.411
SOF VAS Bino/Mono	ALLOT	Various				1.463	Jun-08				1.463
Precision Laser Targeting Device	CPFF	PM Sensors & Lasers, Ft. Belvoir, VA	2.870	3.300	Sep-07	0.973	Jan-08				7.143
SOF Combat Assault Rifle (SCAR) - Sniper Support Rifle (SSR)	ALLOT	NSWC-Crane, Crane, IN		1.294	Jan-07					Cont.	Cont.
SCAR - Enhanced Grenade Launcher Module (EGLM) - Fire Control Unit	ALLOT	NSWC-Crane, Crane, IN		1.200							1.200
SOF Personal Equipment Advanced Requirements (SPEAR)	Various	PM Spear, Natick, MA	3.507	1.202	Jun-07						4.709
Tactical Combat Casualty Care Equipment Kit (TCCCE) Kit	Various	Various	0.051	0.499	Mar-07	0.200	Mar-08				0.750
Holographic Close Combat Optic-CP	TBD	TBD		0.974	TBD						0.974
Advanced Planning Tools-CP	CPFF	SAIC Morgantown WV				3.118	Feb-08				3.118
Subtotal Product Dev			14.992	11.886		9.165		0.000		Cont.	Cont.
Remarks:											
Development Spt											
Lightweight Anti-Armor Weapon (LAW	Various	NSWC-Crane, Crane, IN	1.314	1.397	Dec-06						2.711
Weapons Accessories	ALLOT	NSWC-Crane, Crane, IN	0.413	0.042	Various						0.455
Nickle Boron Coating -CP	ALLOT	NSWC-Crane, Crane, IN		0.245	May-07						0.245
Shot Counter -SMG CP	ALLOT	NSWC-Crane, Crane, IN		0.199	Dec-07						0.199
PLTD	CPFF	PM Sensors & Lasers, Ft. Belvoir, VA	0.250	0.200	Sep-07		Feb-08				0.450

Exhibit R-3 RDT&E Project Cost Analysis						DATE: FEBRUARY 2008					
APPROPRIATION / BUDGET ACTIVITY RDT&E DEFENSE-WIDE / 7			SOF Weapons Systems/PE1160477BB 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	0.443	0.240	Jan-07						0.683
SPEAR	Various	PM Spear, Natick, MA	2.414	0.589	Various		Various				3.003
SPEAR Combat boot-CP	ALLOT	PM Spear, Natick, MA	0.000	0.374	May-07						0.374
SPEAR Arctic boot-CP	ALLOT	PM Spear, Natick, MA	0.000	0.350	May-07						0.350
SPEAR Tactical Boot Suite-CP	ALLOT	PM Spear, Natick, MA	0.000	0.454	Jul-07						0.454
Integrated Logistics Spt											
SCAR	ALLOT	NSWC-Crane, Crane, IN		0.112	Jan-07					Cont.	Cont.
Configuration Mgmt											0.000
SPEAR	ALLOT	PM Spear, Natick, MA	0.000	0.066	Various						0.066
Subtotal Spt			4.834	4.268		0.000				Cont.	Cont.
Remarks:											
Developmental Test											
Family of Sniper Weapons (FSW) Anti-Materiel Rifle (AMR)	ALLOT	NSWC-Crane, Crane IN						0.497	TBD	Cont.	Cont.
FSW Precision Sniper Rifle (PSR)	ALLOT	NSWC-Crane, Crane IN				0.487	Feb-08			Cont.	Cont.
Shot Counter -SMG CP	ALLOT	NSWC-Crane, Crane, IN		0.139	Apr-07						0.139
Nickle Boron Coating -CP	ALLOT	NSWC-Crane, Crane, IN		0.220	Various						0.220
Weapons Accessories-Enhanced Combat Optical Sight (ECOS) - Close quarter	Various	NSWC-Crane, Crane, IN				0.038	Mar-08			Cont.	Cont.
Weapons Accessories-CNVD-Fused Image	Various	NSWC-Crane, Crane, IN				0.092		0.099	Jan-09	Cont.	Cont.
Weapons Accessories-Image Intensified	Various	NSWC-Crane, Crane, IN				0.050		0.025	Jan-09	Cont.	Cont.
Weapons Accessories-CNVD-Thermal	Various	NSWC-Crane, Crane, IN				0.050		0.025	Jan-09	Cont.	Cont.
Weapons Accessories-ECOS	Various	NSWC-Crane, Crane, IN						0.010	Feb-09	Cont.	Cont.
Weapons Accessories-ECOS- Close quarter	Various	NSWC-Crane, Crane, IN						0.010	Feb-09	Cont.	Cont.
Family of Muzzle Breaks and Suppressors Carbine (FMBS-C)	Various	NSWC-Crane, Crane, IN				0.014	Jan-08	0.010	Jan-09	Cont.	Cont.
Family of Muzzle Breaks and Suppressors Heavy (FMBS-H)	Various	NSWC-Crane, Crane, IN						0.005	Jan-09	Cont.	Cont.

Exhibit R-3 RDT&E Project Cost Analysis						DATE: FEBRUARY 2008					
APPROPRIATION / BUDGET ACTIVITY RDT&E DEFENSE-WIDE / 7						SOF Weapons Systems/PE1160477BB 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
Family of Muzzle Breaks and Suppressors Pistol (FMBS-P)	Various	NSWC-Crane, Crane, IN						0.005	Apr-09	Cont.	Cont.
Family of Muzzle Breaks and Suppressors Sniper (FMBS-S)	Various	NSWC-Crane, Crane, IN						0.010	Apr-09	Cont.	Cont.
Visible Bright Light Illuminator	Various	NSWC-Crane, Crane, IN				0.005	Jan-08	0.005	Jan-09	Cont.	Cont.
SCAR - Light	ALLOT	NSWC-Crane, Crane, IN	0.654	0.010	Jan-07			2.001	Jan-09	Cont.	Cont.
SPEAR	ALLOT	NSWC-Crane, Crane, IN									
SPEAR Body Armor P3I	ALLOT	PM Spear, Natick, MA	1.719	0.200	Various	0.300	Various			Cont.	Cont.
SPEAR Modular Side Armor Protection (MSAP)	ALLOT	PM Spear, Natick, MA		0.189	Various						0.189
SPEAR Backpacks	ALLOT	PM Spear, Natick, MA		0.030	Various						0.030
SPEAR Eye Protection	ALLOT	PM Spear, Natick, MA		0.015	Various						0.015
SPEAR MICH Helmet	ALLOT	PM Spear, Natick, MA		0.246	Nov-08	1.251	Various				1.497
SPEAR Environmental Protection	ALLOT	PM Spear, Natick, MA				0.398	Various				0.398
SPEAR Maritime	ALLOT	PM Spear, Natick, MA				0.099	Various				0.099
Operational Test											
FSDS - CP	ALLOT	PM-CCS, Picatinny, NJ	0.075	0.245	Dec-06						0.320
Weapons Accessories	ALLOT	NSWC-Crane, Crane, IN	2.982							Cont.	Cont.
Shot Counter -SMG- CP	ALLOT	NSWC-Crane, Crane, IN		0.367	Various						0.367
Nickle Boron Coating - CP	ALLOT	NSWC-Crane, Crane, IN		0.250	Various						0.250
SPEAR											
SPEAR MSAP	ALLOT	PM Spear, Natick, MA		0.060	Various						0.060
SPEAR Backpacks	ALLOT	PM Spear, Natick, MA		0.030	Nov-07						0.030
SPEAR Eye Protection	ALLOT	PM Spear, Natick, MA		0.051	Nov-07						0.051
SPEAR Combat boot-CP	ALLOT	PM Spear, Natick, MA		0.350	May-07						0.350
SPEAR Artic boot-CP	ALLOT	PM Spear, Natick, MA		0.474	May-07						0.474
SPEAR Tactical Boot Suite-CP	ALLOT	PM Spear, Natick, MA		0.520	Various						0.520
SCAR -SSR	ALLOT	NSWC-Crane, Crane, IN	1.592	1.194	Jan-07				Dec-08	Cont.	Cont.
SCAR - EGLM - FCU	ALLOT	NSWC-Crane, Crane, IN		0.350	Nov-07						0.350
SOF Special Purpose Tagging, Tracking, and Locating Tool	ALLOT	TBD				0.974	TBD				0.974

Exhibit R-3 RDT&E Project Cost Analysis						DATE: FEBRUARY 2008					
APPROPRIATION / BUDGET ACTIVITY RDT&E DEFENSE-WIDE / 7						SOF Weapons Systems/PE1160477BB 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
Tactical Combat Casualty Care Equipment TCCCE-Kits	ALLOT	USAMMA-Medical Material				0.498	Jan-08				0.498
Subtotal T & E			7.022	4.940		4.256		2.702		Cont.	Cont.
Remarks:											
Government Eng Spt											
SPEAR	ALLOT	PM Spear, Natick, MA	0.447	0.717	Various						1.164
Engineering Support											
LAW	ALLOT	NSWC-Crane, Crane, IN	0.200	1.993	Dec-06						2.193
SCAR	ALLOT	NSWC-Crane, Crane, IN	0.300	0.144	Jan-07					Cont.	Cont.
SPEAR Combat boot-CP	ALLOT	PM Spear, Natick, MA		0.250	May-07						0.250
SPEAR Artic boot-CP	ALLOT	PM Spear, Natick, MA		0.150	May-07						0.150
Multi-Panoramic Vision Sys-CP	ALLOT	TBD				2.339	Various				2.339
Expendable Airdrop Del-CP	ALLOT	TBD				0.780	Various				0.780
Weapons Accessories-Sustain Eng	ALLOT	TBD						0.057	Jan-09	Cont.	Cont.
Travel											
FSDS	ALLOT	PM-CCS, Picatinny, NJ	0.125	0.080	Dec-06						0.205
M4MOD	ALLOT	NSWC-Crane, Crane, IN	0.384	0.032	Various						0.416
SCAR	ALLOT	NSWC-Crane, Crane, IN	0.070	0.160	Various					Cont.	Cont.
SPEAR	ALLOT	PM Spear, Natick, MA	0.323	0.148	Various						0.471
Subtotal Management			1.849	3.674		3.119		0.057		Cont.	Cont.
Systems Engineering											
Subtotal Sytems Engineering										Cont.	
Remarks:											
Total Cost			28.697	24.768		16.540		2.759		Cont.	0.000
Remarks											

Exhibit R-4, RDT&E Program Schedule Profile									Date: FEBRUARY 2008																			
Appropriation/Budget Activity RDT&E/7					Program Element Number and Name PE1160477BB/Special Operations Forces Weapons Systems																				Project Number and Name Project S375/Weapons Systems Advanced Development						
Fiscal Year	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
SOF Advanced Planning Tools-CP																												
Hardware Development						△	———	△																				
Expendable Airdrop Delivery System-CP																												
Developmental Support						△	———	△																				
Family of Sniper Detection Systems (FSDS) - CP																												
FSDS Block I Variant Hardware Development	▲	———			▲																							
FSDS OT					▲																							
Family of Sniper Weapons (FSW) - (formerly HSR)																												
FSW-PSR DT/OT						△	———	△			△		△															
FSW Anti Materiel Rifle Development									△	———	———	△																
SOF Special Purpose Tagging Tracking Locating Tool-CP																												
Developmental Test						△	———	△																				
Lightweight Anti-Armor Weapon (LAW) M72																												
LAW Confined Space Development			▲	———	△																							
LAW-CS MS C							△																					
Weapons Accessories (Formerly M4MOD)				▲																								
Weapon Shot Counter LRIP - CP				▲																								
Weapon Shot Counter SMG Development -CP				▲	———	△																						
Weapon Nickel Boron Coating Lube-free M-4 - CP	▲	———		▲																								
Weapon Nickel Boron Coating Development SMG- CP				▲	———	———	———	△																				
Mini Day/Night Sight (MDNS) Development		▲	———	▲																								

Exhibit R-4, RDT&E Program Schedule Profile																														
					Date: FEBRUARY 2008																									
Appropriation/Budget Activity					Program Element Number and Name																				Project Number and Name					
RDT&E/7					PE1160477BB/Special Operations Forces Weapons Systems																				Project S375/Weapons Systems Advanced Development					
Fiscal Year	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		
MDNS DT				▲																										
Clip-On Night Vision Device - Fused (CNVD-F) - Development (Formerly under MDNS)					▲	—	—	△		△	—	△		△	—	△	△	—	—	△		△	—	△		△	—	△		
CNVD-F DT											△																			
CNVD - Image Intensified (I2) Development					▲	—	—	△		△	—	△		△	—	△		△	—	△		△	—	△		△	—	△		
CNVD-I2 DTMDNS Image Intensified DT												△																		
CNVD-Thermal Development					▲	—	—	△		△	—	△		△	—	△		△	—	△		△	—	△		△	—	△		
CNVD-T DT												△																		
Enhanced Combat Optical Sight (ECOS) Close Quarter DT							△																							
ECOS Close Quarter OT										△	—	△																		
Family of Muzzle Break and Surpressors (FMBS) - Carbine System Engineering					▲	—	—	△		△	—	△		△	—	△		△	—	△		△	—	△		△	—			
FMBS-H (Heavy) Systems Engineering										△	—	—	—	△												△	—	△		
FMBS - P(Pistol) Systems Engineering											△				△				△				△							
FMBS-S (Sniper) Systems Engineering											△	—	—	—	△				△	—	—	—	△							
Visible Bright Light Illuminator Systems Engineering					△	—	—	△		△	—	—	—	△	—	—	△	—	—	—	△									
SOF Laser Rangefinder and Designator (SOFLRD)																														
Prototype Development						△	—	△																						
Special Operations Visual Aug Sys Bino/Mono																														
Prototype Development							△	—	△																					
Multi-User Panoramic Synthetic Vision System-CP																														
Engineering Support						△	—	△																						
Precision Laser Targeting Device (PLTD)																														
PLTD Block I MS C				▲																										

Exhibit R-4, RDT&E Program Schedule Profile																	Date: FEBRUARY 2008											
Appropriation/Budget Activity RDT&E/7					Program Element Number and Name PE1160477BB/Special Operations Forces Weapons Systems												Project Number and Name Project S375/Weapons Systems Advanced Development											
Fiscal Year	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
PLTD BLK II Inertial Navigational System Minaturization, P3I					▲	—	—	△																				
SOF Combat Assault Rifle - Light																												
Initial Operation Test and Evaluation (IOT&E)		▲	—	—	▲																							
MS-C Full Rate Product (FRP)						△																						
First Unit and Equipment (FUE)										△																		
SCAR - EGLM System Engineering											△	— △			△	— △												
SCAR - SSR System Engineering									△	— △			△	— △														
SOF Personnel Eequipment Advanced Requirements (SPEAR)																												
SPEAR Body Armor P3I																												
DT	▲	—	—	▲																								
OT	▲	—	—	▲																								
MS C			▲																									
IOC	▲																											
SPEAR Body Armor Modular Side Armor (MSAP) P3I																												
DT/OT	▲																											
MS C		▲																										
IOC				▲																								
SPEAR Backpacks																												
DT		▲																										
OT		▲	— ▲																									
MS C					▲																							
SPEAR Eye Protection																												
MS A/B	▲																											
DT		▲	— ▲																									

Exhibit R-4, RDT&E Program Schedule Profile | Date: FEBRUARY 2008

Appropriation/Budget Activity	Program Element Number and Name	Project Number and Name
RDT&E/7	PE1160477BB/Special Operations Forces Weapons Systems	Project S375/Weapons Systems Advanced Development

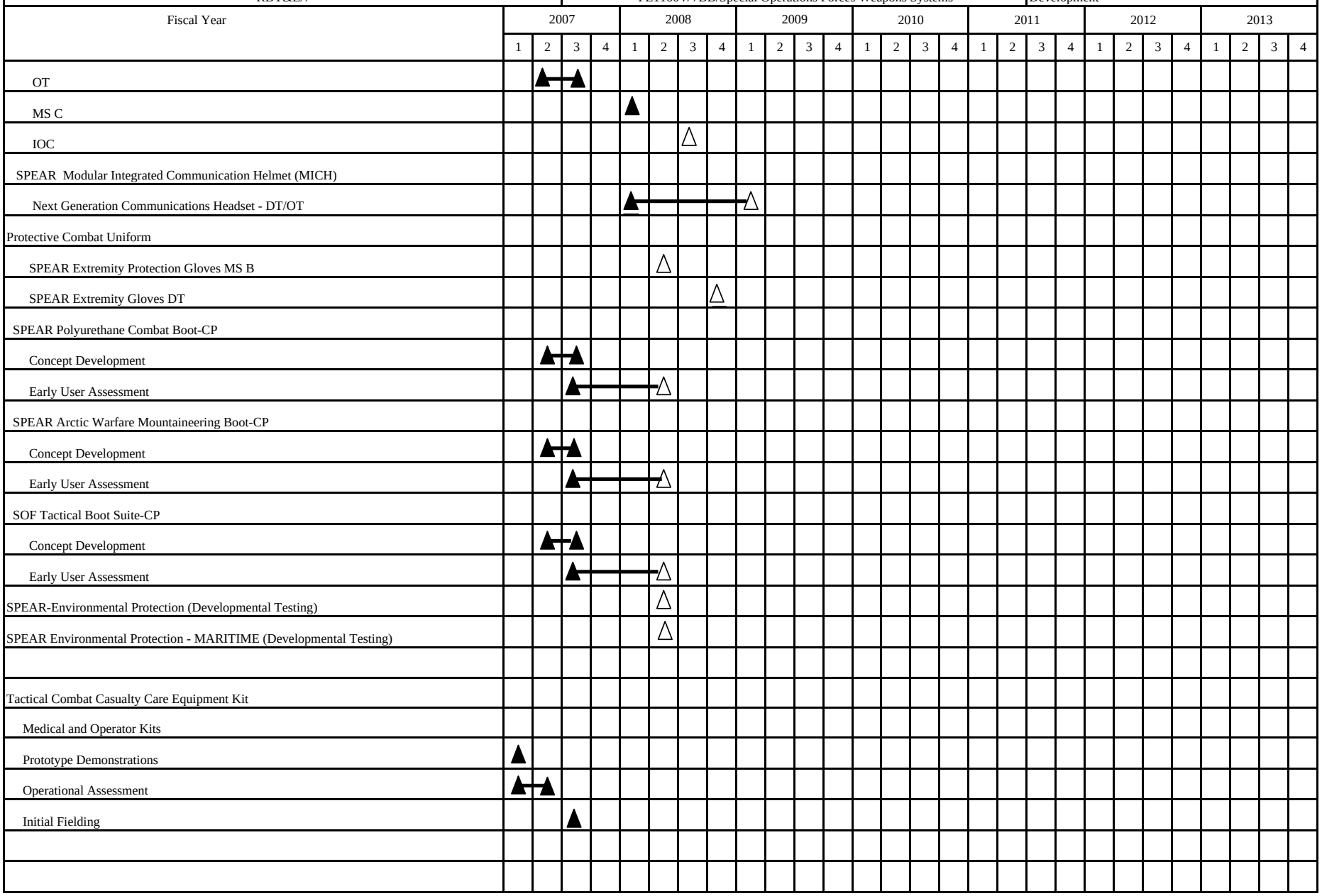


Exhibit R-4, RDT&E Program Schedule Profile Date: FEBRUARY 2008

Appropriation/Budget Activity	Program Element Number and Name	Project Number and Name
RDT&E/7	PE1160477BB/Special Operations Forces Weapons Systems	Project S375/Weapons Systems Advanced Development

Fiscal Year	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
Tactical Combat Casualty Care Kit																												
SOF Surgeon Kits Development (test articles)						△																						
Developmental Testing							△	△																				
Tactical Combat Casualty Evacuation (CASEVAC) Kits																												
Concept Development CASEVAC Kits	▲				▲																							
Prototype Demonstrations CASEVAC Kits						△		△																				
Holographic Close Combat Optic Development - CP		▲			▲																							

Exhibit R-4a, RDT&E Program Schedule Detail			Date: FEBRUARY 2008				
Appropriation/Budget Activity RDT&E/7	Program Element Number and Name PE1160404BB/Special Operations Tactical Systems Development (FY06-08)/PE1160477BB/SOF Weapon Systems (FY09-13)		Project Number and Name Project 375/Weapons Systems Advanced Development				
Schedule Profile	FY2007	FY2008	FY2009	FY2010	FY2011	FY2012	FY2013
SOF Advanced Planning Tools-CP							
Hardware Development		2-4Q					
Expendable Airdrop Delivery System-CP							
Developmental Support		2-4Q					
Family of Sniper Detection Systems (FSDS) - CP							
FSDS Block I Variant - Hardware Development & Fabrication	1 - 4Q	1Q					
FSDS OT		1Q					
Family of Sniper Weapon (FSW) - (Formerly HSR)							
DT/OT		2 - 3Q	3Q	1Q			
Anti-Materiel Rifle Development			1 - 4Q				
SOF Special Purpose Tagging Tracking Locating Tool-CP							
Developmental Test		2-3Q					
Lightweight Anti-Armor Weapon (LAW) M72							
Develop LAW Confined Space	3-4Q	1-2Q					
LAW - CS MS C		4Q					
Weapons Accessories (formerly M4MOD)							
Weapon Shot Counter LRIP-CP	4Q						
SOF Machine Gun (SMG) Shot Counter Development-CP	4Q	1-2Q					
Nickel Boron Coating Lube-free M-4-CP	1 - 4Q						
Nickel Boron Coating Development SMG-CP	4Q	1-4Q					
Mini Day/Night Sight (MDNS) Development	2 -4Q						
MDNS DT	4Q						
Clip-on Night Vision Device - Fused Image Development		1-4Q	2-4Q	2-4Q	2-4Q	2-4Q	2-4Q
Clip-on Night Vision Device - Fused Image DT			3 Q				
Clip-on Night Vision Device - I2 Development		1-4Q	2-4Q	2-4Q	2-4Q	2-4Q	2-4Q
Clip-on Night Vision Device - I2 DT			4Q				
Clip-on Night Vision Device - T Development		1-4Q	2-4Q	2-4Q	2-4Q	2-4Q	2-4Q
Clip-on Night Vision Device Thermal DT			4Q				
Enhanced Combat Optical Sight (ECOS) DT		3Q	2-4Q				
ECOS Close Quarter OT			2-4Q				
Family of Muzzle Break and Surpressors (FMBS)-Carbine System Engineering		1-4Q	2-4Q	2-4Q	2-4Q	2-4Q	1-2Q

Exhibit R-4a, RDT&E Program Schedule Detail			Date: FEBRUARY 2008				
Appropriation/Budget Activity RDT&E/7	Program Element Number and Name PE1160404BB/Special Operations Tactical Systems Development (FY06-08)/PE1160477BB/SOF Weapon Systems (FY09-13)		Project Number and Name Project 375/Weapons Systems Advanced Development				
Schedule Profile	FY2007	FY2008	FY2009	FY2010	FY2011	FY2012	FY2013
FMBS- H (Heavy) Systems Engineering			2-4Q	2-4Q		2Q	1-2Q
FMBS-P (Pistol) Systems Engineering			3Q	3Q	3Q	3Q	3Q
FMBS-S (Sniper Rifle) Systems Engineering			2-4Q	1-2Q	3-4Q	1-2Q	
Visible Bright Light Illuminator Systems Engineering		1-4Q	2-4Q	1-2Q	2-4Q	1-2Q	
SOF Laser RangeFinder and Designator							
Prototype Development		3-4Q					
Special Operations Visual Augmentation System Binocular/Monocular							
Prototype Development		2-4Q					
Multi-Use Panoramic Synthetic Vision System							
Engineering Support		2 - 4Q					
Precision Laser Target Device (PLTD)							
Block I PLTD - MS C	4Q						
Block II PLTD Inertial Navigation System (INS) Minaturization, P3I		1-4Q					
SOF Combat Assault Rifle - Light							
Initial Operational Test and Evaluation (IOT&E)	2 - 4Q	1Q					
MS C Full Rate Production (FRP)		2Q					
First Unit and Equipped (FUE)			2Q				
SCAR - EGLM Systems Engineering			3-4Q	3-4Q			
SCAR - SSR Systems Engineering			1-2Q	1-2Q			
SOF Personal Equipment Advanced Requirements (SPEAR)							
SPEAR Body Armor P3I							
DT	1 - 4Q						
OT	1 - 4Q						
MS C	3Q						
IOC	1Q						
SPEAR Body Armor P3I Modular Side Armor (MSAP)							
DT/OT	1Q						
MS C	2Q						
IOC	4Q						
SPEAR Backpacks							
DT	2Q						

Exhibit R-4a, RDT&E Program Schedule Detail			Date: FEBRUARY 2008				
Appropriation/Budget Activity RDT&E/7	Program Element Number and Name PE1160404BB/Special Operations Tactical Systems Development (FY06-08)/PE1160477BB/SOF Weapon Systems (FY09-13)		Project Number and Name Project 375/Weapons Systems Advanced Development				
Schedule Profile	FY2007	FY2008	FY2009	FY2010	FY2011	FY2012	FY2013
SPEAR Backpacks (Cont'd)							
OT	2 - 3Q						
MS C		1Q					
SPEAR Eye Protection							
MS A/B	1Q						
DT	2 - 3Q						
OT	2 - 3Q						
MS C		1Q					
IOC		3Q					
SPEAR Modular Integrated Communications Helmet							
Next Generation Communications Headsets DT/OT		1 - 4Q	1Q				
SPEAR Protective Combat Uniform (PCU)							
SPEAR-Environmental Protection (Developmental Testing)		2Q					
SPEAR-Maritime (Developmental Testing)		2Q					
Extremity Protection Gloves - MS B		2Q					
Extremity Protection - Gloves - DT		4Q					
SPEAR Polyurethance Combat Boot-CP							
Concept Development	2 - 3Q						
Early User Assessment	3 - 4Q	1 - 2Q					
SPEAR Arctic Warfare Mountaineering Boot-CP							
Concept Development	2 - 3Q						
Early User Assessment	3 - 4Q	1 - 2Q					
SPEAR SOF Tactical Boot Suite Development-CP							
Concept Development	2 - 3Q						
Early User Assessment	3 - 4Q	1 - 2Q					
Tactical Combat Casualty Care Equipment Kit							
Medical and Operator Kits							
Prototype Demonstrations	1Q						
Operational Assessment	1 - 2Q						
Initial Fielding	3Q						
Tactical Combat Casualty Evacualtion (CASEVAC) Kits							
CASEVAC - Concept Development	1-4Q	1Q					
CASEVAC - Prototype Demonstrations		2 - 4Q					
Tactical-Combat Casualty Care Equipment Kit							
SOF Surgeon Kits Development (test articles)		2Q					
Developmental Testing		3-4Q					

Exhibit R-4a, RDT&E Program Schedule Detail			Date: FEBRUARY 2008				
Appropriation/Budget Activity RDT&E/7	Program Element Number and Name PE1160404BB/Special Operations Tactical Systems Development (FY06-08)/PE1160477BB/SOF Weapon Systems (FY09-13)		Project Number and Name Project 375/Weapons Systems Advanced Development				
Schedule Profile	FY2007	FY2008	FY2009	FY2010	FY2011	FY2012	FY2013
Holographic Close Combat Optic Development -CP	2-4Q	1Q					

RDT&E BUDGET ITEM JUSTIFICATION SHEET (R-2 Exhibit)	DATE FEBRUARY 2008
APPROPRIATION / BUDGET ACTIVITY RDT&E, DEFENSE-WIDE / 7	R-1 ITEM NOMENCLATURE / PROJECT NO. PE 1160478BB SOF Soldier Protection and Survival Systems/S385

COST (Dollars in Millions)	FY07	FY08	FY09	FY10	FY11	FY12	FY12	Cost to Complete	Total Cost
PE1160478BB			3.190	1.467	1.488	1.524	1.923	Cont.	Cont.
S385 SOF Soldier Protection and Survival Systems			3.190	1.467	1.488	1.524	1.923	Cont.	Cont.

A new program element (PE)(1160478BB) was established beginning in FY 2009 for SOF Soldier Protection and Survival Systems. FY 2009-2013 resources were moved from PE 1160404BB, Special Operations Tactical Systems Development.

A. Mission Description and Budget Item Justification: This program element provides for development, testing, and integration of specialized equipment to meet the unique soldier protection and survival requirements of Special Operations Forces (SOF). Specialized equipment will improve survivability and mobility of Special Operations Forces (SOF) while conducting varied missions. These missions are generally conducted in harsh environments, for unspecified periods and in locations requiring small unit autonomy.

B. Program Change Summary:

	FY07	FY08	FY09
Previous President's Budget			
Current President's Budget			3.190
Total Adjustments			3.190
Congressional Program Reductions			
Congressional Increases			
Reprogrammings			
Other Program Adjustments			3.190
SBIR Transfer			

RDT&E BUDGET ITEM JUSTIFICATION SHEET (R-2 Exhibit)	DATE FEBRUARY 2008
APPROPRIATION / BUDGET ACTIVITY RDT&E, DEFENSE-WIDE / 7	R-1 ITEM NOMENCLATURE / PROJECT NO. PE 1160478BB SOF Soldier Protection and Survival Systems/S385

Funding:

FY07: No change.

FY08: No change.

FY09: A new PE (1160478BB) and Project (S385) were established beginning in FY 2009 for SOF Soldier Protection and Survival Systems. FY 2009-2013 resources were moved from PE 1160404BB, Special Operations Tactical Systems Development and Project S375, Weapon Systems Advanced Development.

Schedule: None.

Technical: None

	Exhibit R-2a, RDT&E Project Justification	Date: FEBRUARY 2008
Appropriation/Budget Activity RDT&E BA # 7	SOF Soldier Protection and Survival Systems/Project S385	

Cost ($ in million)	FY07	FY08	FY09	FY10	FY11	FY12	FY13
SOF Soldier Protection and Survival Systems			3.190	1.467	1.488	1.524	1.923
RDT&E Articles Quantity							

A new project S385 was established for SOF Soldier Protection and Survival Systems beginning in FY 2009. FY 2009-2013 resources were moved from project S375, Weapons Systems Advanced Development. .

A. Mission Description and Budget Item Justification: This project provides for development, testing, and integration of specialized equipment to meet the unique soldier protection and survival requirements of Special Operations Forces (SOF). Specialized equipment will improve survivability and mobility of SOF while conducting varied missions. These missions are generally conducted in harsh environments, for unspecified periods and in locations requiring small unit autonomy. Sub-projects include:

- SOF Personal Equipment Advanced Requirements (SPEAR).

- SPEAR Body Armor/Load Carriage Systems (BALCS). BALCS improves the survivability and mobility of SOF while conducting their varied missions. The BALCS will maximize ballistic protection, buoyancy compensation and load carrying capacity while minimizing the burden of weight, bulk and heat stress. Body armor efforts address the emerging ballistics threats, and the Load Carriage System efforts continue to provide the ability to modularize the load carriage systems for specific missions.

- SPEAR Environmental Protection. SPEAR Environmental Protection allows the SOF operator to maintain effectiveness while operating in all environmental conditions (cold weather, jungle, alpine, maritime, etc). It allows the operator to tailor the environmental protection necessary to operate in extreme environmental conditions, while allowing for seamless transition between conditions.

- SPEAR Next Generation Helmet Communications. The SPEAR Next Generation Helmet Communications effort will provide reliable helmet headset communications across multiple networks. The system will allow the operator to communicate using a variety of SOF-unique and Service Common communication systems and platform Internal Communication Systems (ICS) throughout a mission from insertion to extraction.

- SOF Tactical Combat Casualty Care Equipment (TCCCE). SOF TCCCE will reduce preventable battle deaths and minimize the effects of injuries by providing SOF-unique equipment for tactical trauma care.

B. Accomplishments/Planned Program

Cost ($ in million)	FY07	FY08	FY09
SOF Personal Equipment Advanced Requirements (SPEAR) Body Armor/Load Carriage Systems Development			0.305
RDT&E Articles Quantity			

FY09 Continues development of the next generation body armor. Completes development of SOF Backpack System.

Cost ($ in million)	FY07	FY08	FY09
SPEAR Environmental Protection			0.407
RDT&E Articles Quantity			

FY09 Continues development of Environment Protective Combat Uniform by beginning technology insertion and Developmental Testing of the SOF Modular Glove System.

Cost ($ in million)	FY07	FY08	FY09
SPEAR Next Generation Helmet Communications			1.744
RDT&E Articles Quantity			

FY09 Initiates development of Next Generation Helmet Communications Headsets.

Cost ($ in million)	FY07	FY08	FY09
SOF Tactical Combat Casualty Care Equipment			0.734
RDT&E Articles Quantity			

FY09 Initiates evaluation and qualification of new variations of SOF Surgeon and Casualty Evacuation kits.

C. Other Program Funding Summary:

	FY07	FY08	FY09	FY10	FY11	FY12	FY13	To Complete	Total Cost
PROC, SOF Soldier Protection and Survival Systems			15.455	41.980	22.835	21.052	11.641	Cont.	Cont.
PROC, Small Arms and Weapons	51.367	86.709							
RDTE, S375 Weapons Systems Advanced Development	6.964	2.746							

D. Acquisition Strategy:

- SOF Personal Equipment Advanced Requirements (SPEAR) Body Armor/Load Carriage Systems Development. SPEAR is an evolutionary acquisition program that utilizes a variety of acquisition methods, including Commercial Off the Shelf (COTS), Modified COTS (MCOTS), Non Developmental Items 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 (NISH)) will be used.

- Environmental Protection. SOF environmental protection will be acquired using a Competitive Demonstration Model (CDM). The CDM teams commercial vendors with NISH production facilities to combine the strengths of the commercial garment industry with the domestic fabrication capabilities of NISH.

- Next Generation Helmet Communications. The Next Generation Helmet Communications will be acquired using full and open competitive procedures to acquire COTS or MCOTS items.

- SOF Tactical Combat Casualty Care Equipment (TCCCE). TCCCE 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 2008					
APPROPRIATION / BUDGET ACTIVITY RDT&E DEFENSE-WIDE / 7			SOF Soldier Protection and Survival Systems/PE1160478BB SOF Soldier Protection and Survival Systems/S385								
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
System Test and Evaluation											
SOF Personal Equipment Advanced Requirements (SPEAR) Body Armor Load Carriage Systems	Various	PM SOF Soldier Systems, Natick, MA						0.305	Various	Cont.	Cont.
SPEAR Environmental Protection	Various	PM SOF Soldier Systems, Natick, MA						0.407	Various	Cont	Cont.
SPEAR Next Generation Helmet Communications	Various	PM SOF Soldier Systems, Natick, MA						1.190	Various	Cont	Cont.
Tactical Combat Casualty Care Kits	Various	PM TCCC Ft. Detrick, MD						0.734	Various	Cont	Cont.
Subtotal Product Dev			0.000	0.000		0.000	0.000	2.636		Cont	Cont.
Remarks:											
Program Management											
Next Generation Helmet Comunications	Various	PM SOF Soldier Systems, Natick, MA						0.554	Various	Cont.	Cont.
Subtotal Spt			0.000	0.000		0.000		0.554		Cont.	Cont.
Total Cost			0.000	0.000		0.000		3.190		Cont.	Cont.
Remarks:											

Exhibit R-4, RDT&E Program Schedule Profile																												
Date: FEBRUARY 2008																												
Appropriation/Budget Activity RDT&E/7	Program Element Number and Name PE1160478BB/Special Operations Forces (SOF) Soldier Protection and Survival Systems																Project Number and Name Project S385/SOF Soldier Protection and Survival System											
Fiscal Year	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
SOF Personal Equipment Advanced Requirements (SPEAR) Body Armor/Load Carriage Systems																												
Body Armor P3I																												
Spiral Technology Insertion										△	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	△
SPEAR Next Generation Helmet Communications																												
Development Test (DT)/Operational Test (OT)									△	—	△																	
Milestone C														△														
Initial Operational Capability																		△										
SPEAR Environmental Protection																												
Protective Combat Uniform Extremity Protection																												
Modular Glove System Technology Insertion									△	—	△																	
Milestone B														△														
DT															△													
OT															△	—	△											
Milestone C																		△										
Protective Combat Uniform Product Improvement																												
Spiral Technology Insertion for Flame Resistance																			△	—	—	—	—	—	—	—	—	△
Spiral Technology Insertion to Reduce Weight & Bulk																			△	—	—	—	—	—	—	—	—	△
Tactical Combat Casualty Care Equipment Kit																												
Casualty Evacuation Kits																												
Evaluation and Qualification									△	—	△	_																
Surgeon Kits																												

Exhibit R-4, RDT&E Program Schedule Profile																															
														Date: FEBRUARY 2008																		
Appropriation/Budget Activity	Program Element Number and Name													Project Number and Name																	
RDT&E/7	PE1160478BB/Special Operations Forces (SOF) Soldier Protection and Survival Systems													Project S385/SOF Soldier Protection and Survival System																	
Fiscal Year	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		
Concept Development														△	—	—	—	△												
Prototype Demonstrations																						△	—	△						
Operational Assessment																									△	—	△			
Initial Fielding																											△			

Exhibit R-4a, RDT&E Program Schedule Detail			Date: FEBRUARY 2008				
Appropriation/Budget Activity RDT&E/7	Program Element Number and Name PE1160478BB/SOF Soldier Protection and Survival Systems		Project Number and Name Project S385/SOF Soldier Protection and Survival Systems				
Schedule Profile	FY2007	FY2008	FY2009	FY2010	FY2011	FY2012	FY2013
SOF Personal Equipment Advanced Requirements (SPEAR) Body Armor P3I							
Spiral Technology Insertion			2-4Q	1-4Q	1-4Q	1-4Q	1-4Q
SPEAR Next Generartion Helmet Communications							
Development Test (DT)/Operational Test (OT)			1-3Q				
Milestone (MS) C				2Q			
Initial Operational Capability					2Q		
SPEAR Envrionment Protection							
Protective Combat Uniform Extremity Protection							
Modular Glove System Technology Insertion			1- 3Q				
MS B				2Q			
DT				3Q			
OT				3-4Q			
MS C					2Q		
Protective Combat Uniform Product Improvement							
Spiral Technology Insertion for Flame Resistance					3-4Q	1-4Q	1-4Q
Spiral Technology Insertion to Reduce Weight & Bulk					3-4Q	1-4Q	1-4Q
Tactical Combat Casualty Care Equipment							
Casualty Evacuation Kits							
Evaluation and Qualification			1-2 Q				
Initial Fielding				3Q			
Surgeon Kits							
Concept Development				2-4Q	1-4Q		
Prototype Demonstrations						2-4 Q	
Operational Assessment							1-2Q
Initial Fielding							3Q

RDT&E BUDGET ITEM JUSTIFICATION SHEET (R-2 Exhibit)	DATE FEBRUARY 2008
APPROPRIATION / BUDGET ACTIVITY RDT&E, DEFENSE-WIDE / 7	R-1 ITEM NOMENCLATURE / PROJECT NO. PE 1160479BB SOF Visual Augmentation, Lasers and Sensor Systems/S395

COST (Dollars in Millions)	FY07	FY08	FY09	FY10	FY11	FY12	FY12	Cost to Complete	Total Cost
PE1160479BB			3.495	.496				Cont.	Cont.
S395, SOF Visual Augmentation, Lasers and Sensor Systems			3.495	.496				Cont.	Cont.

A new program element (PE)(1160479BB) was established beginning in FY 2009 for SOF Visual Augmentation, Lasers and Sensor Systems. FY 2009-2013 resources were moved from PE 1160404BB, Special Operations Tactical Systems Development.

A. Mission Description and Budget Item Justification: This program element provides for development, testing, and integration of specialized visual augmentation, laser and sensor systems 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 enemy threats to ensure mission success.

B. Program Change Summary:

	FY07	FY08	FY09
Previous President's Budget			
Current President's Budget			3.495
Total Adjustments			3.495
Congressional Program Reductions			
Congressional Increases			
Reprogrammings			
Other Program Adjustments			3.495
SBIR Transfer			

Funding:

FY09: A new PE (1160479BB) and project (S395), were established beginning in FY 2009 for SOF Visual Augmentation, Laser and Sensor Systems. FY 2009-2013 resources were moved from PE 1160404BB, Special Operations Tactical Systems Development and Project S375, Weapons Systems Advanced Development.

Schedule: None.

Technical: None

	Exhibit R-2a, RDT&E Project Justification	Date: FEBRUARY 2008
Appropriation/Budget Activity RDT&E BA # 7	SOF Visual Augmentation, Lasers and Sensor Systems/Project 395	

Cost ($ in million)	FY07	FY08	FY09	FY10	FY11	FY12	FY13
SOF Visual Augmentation, Lasers and Sensor Systems			3.495	.496			
RDT&E Articles Quantity							

A new project, S395, was established for SOF Visual Augmentation, Lasers and Sensor Systems beginning in FY 2009. FY 2009-2013 resources were moved from project S375, Weapons Systems Advanced Development. .

A. Mission Description and Budget Item Justification: This project provides for development, testing, and integration of specialized visual augmentation, laser and sensor systems 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 enemy threats to ensure mission success.

- Precision Laser Targeting Device (PLTD) - PLTD Block II is a combined day/night optical system with a laser range finder to allow the detection and observation of targets. The range finder calculates the Global Positioning System (GPS) location of the target for identification and targeting purposes. The PLTD provides precision accuracy in the geo-location of targets for the precision delivery of GPS-guided munitions. The system will greatly reduce fratricide incidents and reduce collateral damage during close air support missions.

- SOF Laser Rangefinder and Designator (SOFLRD) – The SOFLRD is a combined laser rangefinder and designator to support the combat air controller mission for the precise delivery of both GPS and laser guided munitions. The SOFLRD will employ both day/night optical systems to allow the detection and observation of targets. The range finder calculates the GPS location of the target for identification and targeting purposes. The laser designator will provide an encoded laser spot for the missile seeker head to track. The system will greatly reduce fratricide incidents and reduce collateral damage during close air support and air interdiction missions.

- SOF Visual Augmentation Systems Binocular/Monocular (SOVAS B/M) - The SOVAS B/M program procures head/helmet mounted night vision goggle systems. The current SOF standard goggle is the AN/PVS-15A binocular goggle. These goggles provide the SOF operator the ability to maneuver, conduct fire control operations, and perform surveillance and reconnaissance. Research and development

of increased capability and performance goggles are essential to the SOF operator. Such improvements include fusion, wide field of view, and color night vision goggles.

B. Accomplishments/Planned Program

Cost ($ in million)	FY07	FY08	FY09
Precision Laser Targeting Device			.993
RDT&E Articles Quantity			

FY09 Continues the size, weight and power reduction of the overall system and miniaturization of the inertial navigation system.

Cost ($ in million)	FY07	FY08	FY09
SOF Laser Rangefinder Designator			1.509
RDT&E Articles Quantity			

FY09 Continues the development of the next generation laser range finder and designator to support the delivery of laser guided and GPS-guided missiles and munitions.

Cost ($ in million)	FY07	FY08	FY09
SOF Visual Augmentation Systems Binocular/Monocular			.993
RDT&E Articles Quantity			

FY09 Develops an advanced night vision goggle (e.g., sensor fusion, wide field of view, color), providing the SOF operator an increased capability over existing goggles.

C. Other Program Funding Summary:

	FY07	FY08	FY09	FY10	FY11	FY12	FY13	To Complete	Total Cost
PROC SOF Visual Augmentation, Laser and Sensor Systems			30.201	32.136	31.721	30.824	17.820	Cont.	Cont.
PROC Small Arms and Weapons	48.466	45.191							
RDTE S375, Weapons Systems and Advanced Development	3.300	.973							

D. Acquisition Strategy:

- Precision Laser Targeting Device (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 reduce the possibility of fratricide incidents.

- SOF Laser Rangefinder and Designator (SOFLRD). The SOFLRD program will use an evolutionary acquisition and block approach to achieve user requirements. The program will develop a SOF version of a laser targeting device capable of providing geo-location of a target for the delivery of GPS guided munitions combined with the ability to laser designate targets for the delivery of laser guided munitions.

- SOF Visual Augmentation Systems Binocular/Monocular (SOVAS B/M). Develops the SOF next generation night vision goggle. Program will use an evolutionary acquisition approach.

Exhibit R-3 RDT&E Project Cost Analysis											DATE: FEBRUARY 2008
APPROPRIATION / BUDGET ACTIVITY RDT&E DEFENSE-WIDE / 7			SOF Visual Augmentation, Lasers and Sensor Systems/PE1160479BB SOF Visual Augmentation, Lasers and Sensor Systems/S395								
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											
Precision Laser Targeting Device (PLTD)	CPFF	PM Sensors & Lasers, Ft. Belvoir, VA						0.900	Jan-09		0.900
SOF Laser Rangefinder and Designator (SOFLRD)	CPFF	NSWC-Crane, Crane, IN						1.300	Jan-09		1.300
Special Operations Visual Augmentation System Binocular/Monocular (SOVAS B/M)	CPFF	GAPO, Ft Belvoir, VA						0.900	Jan-09	0.496	1.396
Subtotal Product Dev			0.000	0.000		0.000	0.000	3.100		0.496	3.596
Remarks:											
Developmental Test & Eval											
PLTD		PM Sensors & Lasers, Ft. Belvoir, VA						0.093	Jan-09		0.093
SOFLRD		NSWC-Crane, Crane, IN						0.209	Mar-08		0.209
SOVAS B/M		GAPO, Ft Belvoir, VA						0.093	Jan-09		0.093
Subtotal T&E			0.000	0.000		0.000		0.395		0.000	0.395
Remarks:											
Contractor Engineering Spt											
Subtotal Management											
Remarks:											
Total Cost			0.000	0.000		0.000		3.495		0.496	3.991
Remarks:											

Exhibit R-4, RDT&E Program Schedule Profile		Date: FEBRUARY 2008
Appropriation/Budget Activity	Program Element and Name	Project Number and Name
RDT&E/7	PE1160479BB/Special Operations Forces Visual Augmentation, Lasers and Sensor Systems	Project S395/SOF Visual Augmentation, Lasers and Sensor Systems

	2007				2008				2009				2010				2011				2012				2013			
Fiscal Year	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
Precision Laser Targeting Device																												
Inertial Navigation System Minaturization, P3I development										△	—	△																
Development test												△																
SOF Laser Range Finder Designator																												
Prototype Development										△	—	△																
Prototype Development Test												△																
Special Operations Visual Augmentation System Binocular/Monocular																												
Prototype Development										△	—	△																
Prototype Development Test													△															

Exhibit R-4a, RDT&E Program Schedule Detail			Date: FEBRUARY 2008				
Appropriation/Budget Activity	Program Element Number and Name		Project Number and Name				
RDT&E/7	PE1160479BB/SOF Visual Augmentation, Lasers and Sensor Systems		Project S395/SOF Visual Augmentation, Lasers and Sensor Systems				
Schedule Profile	FY2007	FY2008	FY2009	FY2010	FY2011	FY2012	FY2013
Precision Laser Targeting Device							
Inertial Navigation System Minaturization, P3I			2 - 4Q				
Developmental Test			4Q				
SOF Laser Range Finder Designator							
Prototype Development			2Q				
Developmental Test			4Q				
Special Operations Visual Augmentation System Binocular/Monocular							
Prototype Development			2 - 4Q				
Developmental Test				1Q			

RDT&E BUDGET ITEM JUSTIFICATION SHEET (R-2 Exhibit)	DATE FEBRUARY 2008
APPROPRIATION / BUDGET ACTIVITY RDT&E, DEFENSE-WIDE / 7	R-1 ITEM NOMENCLATURE / PROJECT NO. PE 1160480BB SOF Tactical Vehicles/S910

COST (Dollars in Millions)	FY07	FY08	FY09	FY10	FY11	FY12	FY13	Cost to Complete	Total Cost
PE1160480BB				1.490	2.952			Cont.	Cont.
S910, SOF Tactical Vehicles				1.490	2.952			Cont.	Cont.

A new program element (PE)(1160480BB) was established beginning in FY 2009 for SOF Tactical Vehicles. FY 2009-2013 resources were moved from PE 1160404BB Special Operations Tactical Systems Development.

A. Mission Description and Budget Item Justification: This program element provides for the development and testing of a variety of spiral upgrades to Family of Special Operations Vehicles and ancillary equipment. The current Special Operations Forces (SOF) tactical vehicles include: Lightweight All Terrain Vehicles, four configurations of Ground Mobility tactical vehicles, Non-Standard Commercial Vehicles for use in tactical mission and Mine Resistant Ambush Protected vehicles. The SOF mission mandates that SOF vehicles remain technologically superior, operate in multiple environments and be able to meet any threat to provide a maximum degree of survivability.

B. Program Change Summary:

Funding: No change.

Schedule: None.

Technical: None

RDT&E BUDGET ITEM JUSTIFICATION SHEET (R-2 Exhibit)	DATE FEBRUARY 2008
APPROPRIATION / BUDGET ACTIVITY RDT&E, DEFENSE-WIDE / 7	R-1 ITEM NOMENCLATURE / PROJECT NO. PE 1160482BB SOF Rotary Wing Aviation/D615

COST (Dollars in Millions)	FY07	FY08	FY09	FY10	FY11	FY12	FY13	Cost to Complete	Total Cost
PE1160482BB			3.822	15.294	12.428	3.493		Cont.	Cont.
D615, SOF Rotary Wing Aviation			3.822	15.294	12.428	3.493		Cont.	Cont.

A new program element (PE)(1160482BB) was established beginning in FY 2009 for SOF Rotary Wing Aviation. FY 2009-2013 resources were moved from PE 1160404BB Special Operations Tactical Systems Development.

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

B. Program Change Summary:

	FY07	FY08	FY09
Previous President's Budget			
Current President's Budget			3.822
Total Adjustments			3.822
Congressional Program Reductions			
Congressional Increases			
Reprogrammings			
Other Program Adjustments			3.822
SBIR Transfer			

Funding:

FY09: A new PE (1160483BB) was established beginning in FY 2009 for SOF Rotary Wing Aviation. FY 2009-2013 resources were moved from PE 1160404BB, Special Operations Tactical Systems Development.

Schedule: None.

Technical: None.

Cost ($ in millions)	FY07	FY08	FY09	FY10	FY11	FY12	FY13
SOF Aviation	2.959*	5.230*	3.822	15.294	12.428	3.493	
RDT&E Articles Quantity							

**** A new program element 1160482BB, SOF Rotary Wing Aviation was established for this project beginning in FY 2009. FY 2009-2013 resources were moved from program element 1160404BB, Special Operations Tactical Systems Development.***

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

	FY07	FY08	FY09
MH-47/MH-60/A/MH-6M - Aircraft	2.959	4.320	2.175
RDT&E Articles Quantity			

FY07 Completed the development qualification and testing of the weapons modernization program.
FY08 Begin development of the infrared exhaust suppressor for the A/MH-6M.
FY09 Completes the qualification and testing of the infrared exhaust suppressor for the A/MH-6M.

	FY07	FY08	FY09
MH-47/MH-60 – Passive Rotary Wing Survivability		0.910	1.647
RDT&E Articles Quantity			

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

C. Other Program Funding Summary:

	FY07	FY08	FY09	FY10	FY11	FY12	FY13	To Complete	Total Cost
Rotary Wing Upgs & Sust PROC	104.057	72.996	51.629	65.781	55.143	74.287	77.978	Cont.	Cont.

D. 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 develops and qualifies a replacement for the M-134 machine gun, a 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 - Develops next-generation improvements, enhancements, and upgrades to avionics and 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 2008					
APPROPRIATION / BUDGET ACTIVITY RDT&E DEFENSE-WIDE / 7			SOF Rotary Wing Aviation/PE1160482BB							SOF 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 Development											
MH-47/60 Weapons Modernization	Various	PM TAPO/Ft Eustis, VA	16.918	2.959	Various						19.877
MH-47/60 Passive RW Survivability Aircraft Occupant Ballistic Protection System	Various	PM TAPO/Ft Eustis, VA	60.200			0.910	Various	1.647	Various	5.033	67.790
A/MH-6M	Various	PM MELB, Ft. Eustis, VA	11.611			4.320	Various	2.175	Various		18.106
Subtotal Product Development			88.729	2.959		5.230		3.822		5.033	105.773
Remarks:											
Management											0.000
Subtotal Spt											0.000
Remarks:											
Developmental Test & Eval											
Remarks:											
Subtotal Management											
Remarks:											
Total Cost			88.729	2.959		5.230		3.822		5.033	105.773
Remarks:											

Exhibit R-4, RDT&E Program Schedule Profile													Date: FEBRUARY 2008															
Appropriation/Budget Activity RDT&E/7					Program Element and Name PE1160482BB/Special Operations Forces (SOF) Rotary Wing Aviation								Project Number and Name Project D615/SOF Aviation															
Fiscal Year	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
Next Generation Forward Looking Infrared Development/Qualification Testing																												
Machine Gun Replacement Development/Qualification Testing																												
A/MH-6M Infrared Exhaust Suppressor Development/Qualification Testing																												
Aircraft Occupant Ballistic Protection System Development/Qualification/Test																												
Secure Real Time Video Development/Qualification/Test																												
Reduced Optical Signature Emissions Solution Development/Qualification/Test																												

Exhibit R-4a, RDT&E Program Schedule Detail			Date: FEBRUARY 2008				
Appropriation/Budget Activity	Program Element Number and Name		Project Number and Name				
RDT&E/7	PE1160404BB/Special Operations Tactical Systems Dev (FY06-08)/PE1160482BB SOF Rotary Wing Aviation (FY09-13)		Project D615/SOF Aviation				
Schedule Profile	FY2007	FY2008	FY2009	FY2010	FY2011	FY2012	FY2013
Next Generation Forward Looking Infrared Development/Qualification Testing				2-4Q	1-4Q		
Machine Gun Replacement Development/Qualification Testing	1-4Q						
A/MH-6M Infrared Exhaust Suppressor Development/Qualification Testing		2-4Q	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	

RDT&E BUDGET ITEM JUSTIFICATION SHEET (R-2 Exhibit)	DATE FEBRUARY 2008
APPROPRIATION / BUDGET ACTIVITY RDT&E, DEFENSE-WIDE / 7	R-1 ITEM NOMENCLATURE / PROJECT NO. PE 1160483BB SOF Underwater Systems/S0417

COST (Dollars in Millions)	FY07	FY08	FY09	FY10	FY11	FY12	FY13	Cost to Complete	Total Cost
PE1160483BB			3.142	.992	.991	.496	.496	Cont.	Cont.
S0417, Underwater Systems Advanced Development			3.142	.992	.991	.496	.496	Cont.	Cont.

A new program element (PE)(1160483BB) was established beginning in FY 2009 for SOF Underwater Systems. FY 2009-2013 resources were moved from PE 1160404BB, Special Operations Tactical Systems Development.

A. Mission Description and Budget Item Justification: This PE provides for development of Naval Special Warfare Underwater Systems support items used during infiltration/extractions, hydrographic/inland reconnaissance, beach obstacle clearance, underwater ship attack, and other direct action missions of Special Operations Forces (SOF). The 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.

B. Program Change Summary:

	FY07	FY08	FY09
Previous President's Budget			
Current President's Budget			3.142
Total Adjustments			3.142
Congressional Program Reductions			
Congressional Increases			
Reprogrammings			
Other Program Adjustments			3.142
SBIR Transfer			

Funding:

FY07: No change.

FY08: No change.

FY09: A new PE (1160483BB) was established beginning in FY 2009 for SOF Underwater Systems. FY 2009-2013 resources were moved from PE 1160404BB, Special Operations Tactical Systems Development.

Schedule: None.

Technical: None

	Exhibit R-2a, RDT&E Project Justification	Date: FEBRUARY 2008
Appropriation/Budget Activity RDT&E BA # 7	Underwater Systems Advanced Development/Project S0417	

Cost ($ in millions)	FY07	FY08	FY09	FY10	FY11	FY12	FY13
Underwater Systems	.614	1.753	3.142	.992	.991	.496	.496
RDT&E Articles Quantity	1						

A new program element (PE)(1160483BB) was established for this project beginning in FY 2009. FY 2009-2013 resources were moved from PE 1160404BB, Special Operations Tactical Systems Development.

A. Mission Description and Budget Item Justification: This project funds the development of Naval Special Warfare 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.

- 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 (SDV Next Generation.)

B. Accomplishments/Planned Program

	FY07	FY08	FY09
NBOE	.614		
RDT&E Articles Quantity			
FY07 Evaluated submersible alternative outboard engines.			
	FY07	FY08	FY09
SEAL Delivery Vehicle (SDV)		1.753	3.142
RDT&E Articles Quantity			
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:

	FY07	FY08	FY09	FY10	FY11	FY12	FY13	To Complete	Total Cost
PROC, SOF Maritime Equip		1.245	.198	.099	.099	.099	.099	TBD	TBD
PROC, MK8 MOD1 SDV	2.463	8.682	7.061	1.487	2.825	9.913	2.974	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 FY08.

Exhibit R-3 RDT&E Project Cost Analysis						DATE: FEBRUARY 2008					
APPROPRIATION / BUDGET ACTIVITY RDT&E DEFENSE-WIDE / 7			SOF Underwater Systems/PE1160483BB 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		NSWC									
SEAL Delivery Vehicle (SDV)	WR	NSWC, 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		NSWC									
SDV	WR	NSWC, Panama City, FL				1.253	Various	3.142	Dec-08	Cont.	Cont.
Subtotal T&E			0.000	0.000		1.253		3.142		Cont.	Cont.
Remarks											
Primary Hardware											
Subtotal Performance Testing				0.000							0.000
Performance Testing											
Non-Gasoline Burning Outboard Engine	WR	NSWC Panama City FL		0.614	Feb-07						0.614
Subtotal Performance Testing				0.614							0.614
Total Cost			0.201	0.614		1.753		3.142		Cont.	Cont.
Remarks:											

Exhibit R-4, RDT&E Program Schedule Profile																															
Date: FEBRUARY 2008																															
Appropriation/Budget Activity RDT&E/7					Program Element Number and Name PE1160483BB/Special Operations Forces Underwater Systems																Project Number and Name Project S0417/Underwater System Advanced Development											
Fiscal Year	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
SEAL Delivery Vehicle (SDV)																												
Develop and Test Improved Electronics						△		△																				
SDV Next Generation																												
Technology Development						△					△																	
Technology Demonstration											△									△								
Management, Support FOT&E						△																						△
MS B											△																	
Non-Gasoline Burning Outboard Engine		▲				△																						

Exhibit R-4a, Schedule Profile		Date: FEBRUARY 2008					
Appropriation/Budget Activity RDT&E/7	Program Element Number and Name PE1160483BB/SOF Underwater Systems	Project Number and Name Project S0417/Underwater Systems Advanced Development					
Schedule Profile	FY2007	FY2008	FY2009	FY2010	FY2011	FY2012	FY2013
SEAL Delivery Vehicle (SDV)							
Develop and Test Improved Electronics		2Q-4Q					
SDV Next Generation							
Technology Development		2Q-4Q	1Q-3Q				
Technology Demonstration			3Q-4Q	1Q-4Q	1Q-3Q		
Management, Support & FOT&E		2Q-4Q	1Q-4Q	1Q-4Q	1Q-4Q	1Q-4Q	1Q-4Q
Milestone B			3Q				
Non-Gasoline Burning Outboard Engine	2Q-4Q	1Q-2Q					

RDT&E BUDGET ITEM JUSTIFICATION SHEET (R-2 Exhibit)	DATE FEBRUARY 2008
APPROPRIATION / BUDGET ACTIVITY RDT&E, DEFENSE-WIDE / 7	R-1 ITEM NOMENCLATURE / PROJECT NO. PE 1160484BB SOF Surface Craft/S1684

COST (Dollars in Millions)	FY07	FY08	FY09	FY10	FY11	FY12	FY12	Cost to Complete	Total Cost
PE1160484BB			5.206	1.984				Cont.	Cont.
S1684, SOF Surface Craft Advance Systems			5.206	1.984				Cont.	Cont.

A new program element (PE)(1160484BB) was established beginning in FY 2009 for SOF Surface Craft. FY 2009-2013 resources were moved from PE 1160404BB, Special Operations Tactical Systems Development .

A. Mission Description and Budget Item Justification: This PE provides for development and testing of small to medium 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.

B. Program Change Summary:

	FY07	FY08	FY09
Previous President's Budget			
Current President's Budget			5.206
Total Adjustments			5.206
Congressional Program Reductions			
Congressional Increases			
Reprogrammings			
Other Program Adjustments			5.206
SBIR Transfer			

Funding:
FY07: No change.
FY08: No change.
FY09: A new PE (1160484BB) was established beginning in FY 2009 for SOF Surface Craft. FY 2009-2013 resources were moved from PE 1160404BB, Special Operations Tactical Systems Development.

Schedule: None.

Technical: None

	Exhibit R-2a, RDT&E Project Justification	Date: FEBRUARY 2008
Appropriation/Budget Activity RDT&E BA # 7	SOF Surface Craft Advance Systems S1684	

Cost ($ in million)	FY07	FY08	FY09	FY10	FY11	FY12	FY13
SOF Surface Craft Advance Systems	3,118	6.715	5.206	1.984			
RDT&E Articles Quantity	2	1	1				

A new program element 1160484BB, SOF Surface Craft was established for this project beginning in FY 2009. FY 2009-2013 resources were moved from program element 1160404BB, Special Operations Tactical Systems Development.

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 Integrated Bridge System (IBS) and Integrated Combat System (ICS).

- NSW RIB Program: This program provides engineering support, for design and specification development of 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. Requirements include being air transportable, air droppable, and increased reliability and maintainability.

- Combatant Craft Forward 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)	FY07	FY08	FY09
NSW RIB Program		1.949	4.001
RDT&E Articles Quantity			

FY08 Conduct technology risk reduction activities for NSW RIB replacement craft.
FY09 Continue risk reduction activities and release Request for Proposal (RFP) for design and fabrication of prototypes.

Cost ($ in million)	FY07	FY08	FY09
CCFLIR Program		1.161	1.205
RDT&E Articles Quantity		1	1

FY08 Conduct engineering and development efforts, integration, and begins Development and Test (DT).
FY09 Completes DT and conducts Operational Test (OT).

Cost ($ in million)	FY07	FY08	FY09
Integrated Bridge System (IBS)	.974		
RDT&E Articles Quantity	1		

FY07 Congressional Add. Integrated and tested IBS test article.

Cost ($ in million)	FY07	FY08	FY09
Integrated Combat System (ICS)	2.144	1.558	
RDT&E Articles Quantity	1		

FY07 Congressional Add. Developed, integrated and tested ICS Prototype.
FY08 Congressional Add. Continues development, integration and testing of ICS.

Cost ($ in million)	FY07	FY08	FY09
NSW RIB Payload Capacity Project		2.047	
RDT&E Articles Quantity			

FY08 Congressional Add. Conduct engineering and development efforts to increase the payload on the NSW RIB.

C. Other Program Funding Summary:

	FY07	FY08	FY09	FY10	FY11	FY12	FY13	To Complete	Total Cost
PROC, NSW RIB	11.069	10.316	12.132	9.616	12.537	12.813	13.094	Cont.	Cont.
PROC, CCFLIR	16.900	2.481	2.474	2.486	2.499	2.633	2.680	Cont.	Cont.
PROC, ICS	.996								

D. Acquisition Strategy:

- CCFLIR – Spiral development improvements thru existing contract with FLIR Systems, Inc.

Rigid Inflatable Boat – Prepare for Milestone B approval, release Request For Approval. Conduct Source Selection for prototype development and manufacturing.

Exhibit R-3 RDT&E Project Cost Analysis						DATE: FEBRUARY 2008					
APPROPRIATION / BUDGET ACTIVITY RDT&E DEFENSE-WIDE / 7			SOF Surface Craft/PE1160484BB						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											
Integrated Bridge System (IBS)	CPFF	Azimuth Inc., Morgantown, W. Va	0.964	0.974	Jul-07						1.938
Combatant Craft Forward Looking Infrared (CCFLIR)	CPFF	FSI, Boston, MA				0.700	Mar-08	0.735	Mar-09	Cont.	Cont.
Integrated Combat System (ICS)	CPFF	Trident Inc., Fairfax, VA		2.094	Jul-07	1.374	Jul-08				3.468
Subtotal Product Dev			0.964	3.068		2.074		0.735		Cont.	Cont.
Remarks:											
Support and Management Organizations											
Rigid Inflatable Boat Next Gen	Various	Various				1.949	Various	4.001	Nov-08	Cont.	Cont.
CCFLIR	CPFF	FSI, Boston, MA				0.161	Various	0.210	Jan-09	Cont.	Cont.
ICS	CPFF	Trident Inc., Fairfax, VA		0.050	Mar-07	0.184	Apr-08				0.234
NSW RIB Payload Capacity Eng	Various	Various				0.215	Mar-08				0.215
Subtotal Spt			0.000	0.050		2.509		4.211		Cont.	Cont.
Remarks:											
Developmental Test & Eval											
CCFLIR	CPFF	FSI, Boston, MA				0.100	Jul-08			Cont.	0.100
Subtotal T&E			0.000			0.100				Cont.	0.100
Remarks:											
Contractor Engineering Spt											
CCFLIR	CPFF	FSI, Boston, MA				0.200	Mar-08	0.260	Mar-09	Cont.	Cont.
NSW RIB Payload Capacity Eng	TBD					1.832	Apr-08				1.832
Subtotal Engineering Spt			0.000			2.032		0.260		Cont.	Cont.
Remarks:											
Total Cost			0.964	3.118		6.715		5.206		Cont.	Cont.
Remarks:											

Exhibit R-4, RDT&E Program Schedule Profile													Date: FEBRUARY 2008															
Appropriation/Budget Activity RDT&E/7					Program Element Number and Name PE1160484BB/SOF Surface Craft																Project Number and Name Project S1684 SOF Surface Craft Adv Dev									
Fiscal Year	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
Next Gen Rigid Inflatable Boat (RIB)																												
Risk Reduction Activities																												
Milestone (MS) B																												
Release RFP																												
Design Contract Award																												
Prototype Delivery																												
Combined Development and Test (DT)/Operational Test (OT)-A)																												
MS C																												
LRIP Contract Award																												
Operational Evaluation Production Readiness Review																												
Full Rate Production Decision Review																												
Initial Operational Capability																												
Combatant Craft Forward Looking Infrared																												
P3I Development Program																												
Engineering & Development																												
Engineering Change Proposal Testing																												
Production Verification																												
Congressional Adds																												
Special Operations Craft Riverine Integrated Combat System Development, Integration and Testing																												
Integrated Bridge System Integration and Testing																												
Rib Payload Capacity Project																												

Exhibit R-4a, RDT&E Program Schedule Detail				Date: FEBRUARY 2008				
Appropriation/Budget Activity RDT&E/7	Program Element Number and Name PE1160484BB/SOF Surface Craft			Project Number and Name Project S1684/SOF Surface Craft Advance Development				
	FY2007	FY2008	FY2009	FY2010	FY2011	FY2012	FY2013
Next Gen Rigid Inflatable Boat							
Risk Reduction Activities		2Q-4Q					
Milestone (MS) B			2Q				
Release Request For Proposal			2Q				
Design Contract Award				1Q			
Prototype Delivery					1Q		
Combined Development and Test (DT)/Operational Test (OT)-A)					2Q-4Q		
MS C						2Q	
LRIP Contract Award						2Q	
Operational Evaluation Production Readiness Review							1Q
Full Rate Production Readiness							2Q
Initial Operational Capability							4Q
Combatant Craft Forward Looking Infrared							
P3I Development Program		3Q-4Q	1Q-4Q	1Q-4Q	1Q		
Engineering & Development		3Q-4Q	1Q-2Q				
Engineering Change Proposal Testing			3Q-4Q				
Production Verification			4Q	1Q			
Congressional Adds							
Special Operations Craft Riverine Integrated Combat System Development, Integration and Testing	3Q-4Q	1Q-4Q	1Q-4Q				
Integrated Bridge System Integration and Testing	1Q-4Q	1Q-4Q					
RIB Payload Capacity Project		3Q-4Q	1Q-3Q				

RDT&E BUDGET ITEM JUSTIFICATION SHEET (R-2 Exhibit)	DATE FEBRUARY 2008
APPROPRIATION / BUDGET ACTIVITY RDT&E, DEFENSE-WIDE / 7	R-1 ITEM NOMENCLATURE / PROJECT NO. PE 1160488BB SOF PSYOP/D476

COST (Dollars in Millions)	FY07	FY08	FY09	FY10	FY11	FY12	FY12	Cost to Complete	Total Cost
PE1160488BB			15.554	9.174	.697			Cont.	Cont.
D476, PSYOPS Advanced Development			15.554	9.174	.697			Cont.	Cont.

A new program element (PE)(1160488BB) was established beginning in FY 2009 for SOF Psychological Operations (PSYOP). FY 2009-2013 resources were moved from PE 1160404BB, Special Operations Tactical Systems Development.

A. Mission Description and Budget Item Justification: This program element provides for the development, test and integration of Psychological Operations (PSYOP) equipment. PSYOP are planned operations to convey selected information and indicators to foreign audiences to influence their emotions, motives, objective reasoning, and ultimately, the behavior of foreign governments, organizations, groups, and individuals. This program element funds transformational systems and equipment to conduct PSYOP in support of combatant commanders.

B. Program Change Summary:

	FY07	FY08	FY09
Previous President's Budget			
Current President's Budget			15.554
Total Adjustments			15.554
Congressional Program Reductions			
Congressional Increases			
Reprogrammings			
Other Program Adjustments			15.554
SBIR Transfer			

Funding:

FY07: No change.

FY08: No change.

FY09: A new PE (1160488BB) was established beginning in FY 2009 for SOF PSYOP. FY 2009-2013 resources were moved from PE 1160404BB, Special Operations Tactical Systems Development.

Schedule: None.

Technical: None

Exhibit R-2a, RDT&E Project Justification	Date: FEBRUARY 2008
Appropriation/Budget Activity RDT&E BA # 7	PSYOP Advanced Development/Project D476

Cost ($ in millions)	FY07	FY08	FY09	FY10	FY11	FY12	FY13
	9.402	6.754	15.554	9.174	.697		
RDT&E Articles Quantity							

A new program element (PE) 1160488BB was established for this project beginning in FY 2009. FY 2009-2013 resources were moved from PE 1160404BB, Special Operations Tactical Systems Development.

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) 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 PSYOP product distribution link to POBS systems worldwide; the Special Operations Media System (SOMS), and the transit case Fly-Away Broadcast Systems (FABS) both consisting of any combination of Amplitude Modulation (AM), Frequency Modulation (FM), Shortwave (SW), and Television (TV) transmitters and radio/TV production systems; and Long Range Broadcast System (LRBS). LRBS subsystems will include unmanned aerial vehicle (UAV) payloads, scatterable media, telephony, and Internet broadcast. PSYOP Media Displays (POMD) will consist of easily transportable, state of the art, electronic media displays designed to disseminate and direct broadcast electronic messages, which will influence foreign Target Audiences (TA), and will support the PSYOP direct broadcast mission requirements.

- Family of Loudspeakers (FOL). The FOL consists of modular amplifiers and speakers that can be interconnected to form sets of loudspeakers that will provide high quality recorded audio, live dissemination, and acoustic deception capability. FOL is transported, operated, and mounted in ground vehicles, watercraft, and rotary wing aircraft, and dismounted for ground operations (tripod/manpack). FOL replaced current AN/UIH-6 (250 watt) Public Address Systems, and AN/UIH-6A (450 watt), AEM-1492 (900 watt), and LSS-40 (AN/PIH-1) portable loudspeakers. 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 the Family of Loudspeakers (FOL) is the Next Generation Loudspeaker System (NGLS) consisting of 7 variants: NGLS - Manpack variant; NGLS - Vehicle / Watercraft variant; NGLS - Unmanned Air Vehicle (UAV) variant; NGLS -Unmanned Ground Vehicle (UGV) variant; NGLS - Scatterable Media Long Duration (SMLD) variant; NGLS - Scatterable Media Short Duration (SMSD) variant; and NGLS -Sonic Projection (focused sound) variant. The NGLS provides capability improvements to include wireless networking, improved acoustic performance, unmanned ground and air vehicle transportability, scatterable speaker, long distance sonic projection sound and solid state modular amplifiers/speakers that can be interconnected using secure wireless technology to form sets of loudspeakers that provides high quality recorded audio, live dissemination, and acoustic deception capability.

- Next Generation Leaflet Delivery System (NGLDS). The NGLDS will provide PSYOP forces a family of systems consisting of UAVs, drones, missiles, and leaflet boxes that safely and accurately disseminates variable size and weight paper and electronic leaflets to large area targets, at short (10-750 miles) and long (>750 miles) ranges. These systems can be utilized in peacetime and all threat environments across the spectrum of conflict, and are compatible with current and future U.S. aircraft.

B. Accomplishments/Planned Program

	FY07	FY08	FY09
Psychological Operations (PSYOP) Broadcast System (POBS)	9.402	6.024	8.328
RDT&E Articles Quantity			

FY07 Continued primary hardware development, system engineering, and Developmental, Test and Evaluation (DT&E) on the Long Range Broadcast System (LRBS), POBS modernization efforts, and PSYOP planning and analysis system.
FY08 Continue primary hardware development, system engineering, and DT&E on the LRBS, POBS modernization efforts, and PSYOP planning and analysis system. Commence 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.

	FY07	FY08	FY09
Family of Loudspeakers (FOL)		0.730	4.966
RDT&E Articles Quantity			

FY08 Operational Test and Evaluation (OT&E) on Next Generation Loudspeaker System (NGLS) manpack and vehicle watercraft variants.
FY09 Primary hardware and software development, systems engineering, and Developmental, Test and Evaluation (DT&E) on the sonic projection variant; and OT&E on NGLS Unmanned Ground Vehicle, NGLS Unmanned Aerial Vehicle, NGLS Scatterable Media Long Duration, and NGLS Scatterable Media Short Duration variants.

	FY07	FY08	FY09
Next Generation Leaflet Delivery System (NGLDS)			2.260
RDT&E Articles Quantity			

FY09 Develops NGLDS variants identified by the FY08 Analysis of Alternatives and market analysis.

C. Other Program Funding Summary:

	FY07	FY08	FY09	FY10	FY11	FY12	FY13	To Complete	Total Cost
Proc, PSYOP Equipment	57.358	58.183	64.778	51.087	42.257	0.000	28.917	Cont.	Cont.

D. Acquisition Strategy:

- Psychological Operations (PSYOP) Broadcast System (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. These various sub-programs are in a post-Milestone C or various stages of milestone decisions. PSYOP Media Displays consists of Electronic Media Displays, Modular Systems, Electronic Paper, and Electronic Games. The program acquires and modifies, as necessary, commercial-off-the-shelf and governmental-off-the-shelf systems and equipment to provide the system capabilities.

- Next Generation Leaflet Delivery System (NGLDS) - The NGLDS system consists of four variants: Unmanned Aerial Vehicle (UAV) System, Drone, Missile, and Leaflet Box. The program will conduct an Alternative of Analysis; acquire and modify, as necessary, commercial-off –the-shelf and governmental-off-the-shelf (COTS/GOTS) systems and equipment to replace the legacy Leaflet Delivery System; and facilitate the additional NGLDS requirements.

The Family of Loudspeakers replacement is the Next Generation Loudspeaker System that consists of seven variants: Manpack System; Vehicle/Watercraft System; UAV System; Unmanned Ground Vehicle System; Scatterable Media Long Duration System; Scatterable Media Short Duration System; and Sonic Projection System. 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 2008					
APPROPRIATION / BUDGET ACTIVITY RDT&E DEFENSE-WIDE / 7			SOF PSYOP/PE1160488BB						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	Various	Various	9.674								9.674
POBS - POMD Dev & Design	REQN	TBD						2.000	Dec-08		
POBS- Wireless Ntwkg, Media Predictors	MIPR	NAVSEA, Washington, D.C.		1.168	Jan-07	1.265	Jan-08	3.300	Dec-08		Cont.
POBS - NGLS Dev/Design	REQN	TEAMCOR, Warner Robbins, GA		2.400	Nov-07	0.964	Jan-08				
POBS- PDS Lite Dev/Design	MIPR	CERDAC, Ft Monmouth, NJ		0.951	Mar-07	0.724	Jan-08				Cont.
Systems Engineering	Various	Various	3.537								3.537
NGLDS	TBD	TBD						2.260	Dec-08		
	MIPR	NAVAIR, St. Inigoes, MD	3.500	0.451	Jul 07						3.951
Subtotal Product Dev			16.711	4.970		2.953		7.560			Cont.
Remarks:											
Development Spt											
Subtotal Spt			0.000	0.000		0.000		0.000			
Developmental Test & Eval	Various	Various	0.955								Cont.
	MIPR	Army ATC, Aberdeen Prov Gd, MD	0.758	0.766	Nov-06						Cont.
POBS - Rotary Generator	REQN	Chenega, Tampa, FL		0.120		0.487	Feb-08				
POBS- POMD Dev Test	REQN	TBD				0.566	Apr-08				
	MIPR	JITC, Ft Huachuca, AZ	1.844	0.500	Feb-07						Cont.
POBS	MIPR	NAVAIR, St. Inigoes, MD	0.140	0.651	Aug-07	0.729	Dec-07				1.520
POBS	MIPR	SPAWAR, Charleston, SC	0.446	2.395	Mar-07	0.295	Dec-07				Cont.
POBS-Payload Dev & Test	REQN	Chenega, Tampa, FL				0.994	Feb-08	3.028	Dec-08		
FOL Operational Test & Evaluation	REQN	TEAMCOR, Warner Robbins, GA				0.730	Dec-07	4.966	Dec-08		
Subtotal T&E			4.143	4.432		3.801		7.994			Cont.
Contractor Engineering Spt											
Subtotal Management											
Remarks:											
Total Cost			20.854	9.402		6.754		15.554		0.000	Cont
Remarks:											

Exhibit R-4, RDT&E Program Schedule Profile	Date: FEBRUARY 2008	
Appropriation/Budget Activity RDT&E/7	Program Element Number and Name PE1160488BB/SOF PSYOP	Project Number and Name Project D476/PSYOP Advanced Development

Fiscal Year	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
Psychological Operations (PSYOP) Broadcast System Long Range Broadcast System (LRBS) UAV-P HW Dev &Testing																												
POBS LRBS Scatterable Media Testing																												
POBS Fly-Away Broadcast System (FABS) Testing (FM & TV)																												
Family of Loudspeakers Next Generation Loudspeaker																												
PSYOP Distribution System Light Architecture Support																												
FABS/Special Operations Media System B Antenna Testing																												
Next Generation Leaflet Delivery System																												
PSYOP Media Displays																												

Exhibit R-4a, RDT&E Program Schedule Detail			Date: FEBRUARY 2008				
Appropriation/Budget Activity RDT&E/7	Program Element Number and Name PE1160404BB/Special Operations Tactical Systems Dev (FY06-08)/PE1160488BB/SOF PSYOP (FY09-13)		Project Number and Name Project D476/PSYOP Advanced Development				
Schedule Profile	FY2007	FY2008	FY2009	FY2010	FY2011	FY2012	FY2013
Psychological Operations (PSYOP) Broadcast System Long Range Broadcast System (LRBS) UAV-P HW Dev &Testing	1-2Q	3-4Q	1-4Q	1-4Q	1-3Q		
POBS LRBS Scatterable Media Testing	2Q	2Q					
POBS Fly-Away Broadcast System (FABS) Testing (FM & TV)	1-2Q						
Family of Loudspeakers Next Generation Loudspeaker		1-4Q	1-4Q	1-4Q			
PSYOP Distribution System Light Architecture Support	3-4Q	1-2Q					
FABS/Special Operations Media System B Antenna Testing	4Q	1-3Q					
Next Generation Leaflet Delivery System			1-4Q				
PSYOP Media Displays		1-4Q	1-4Q				