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

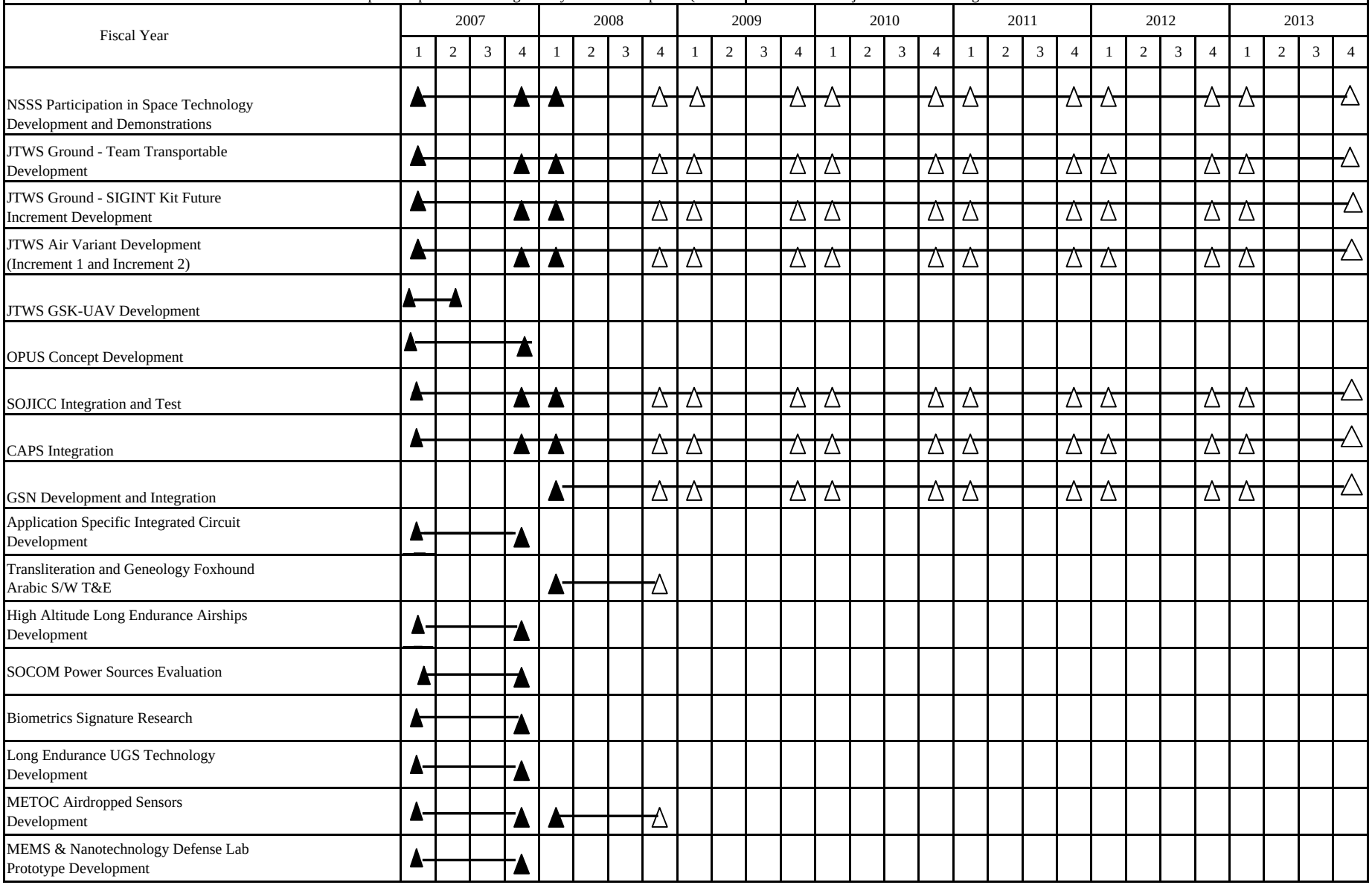

Exhibit R-4, RDT&E Program Schedule Profile		Date: FEBRUARY 2008
Appropriation/Budget Activity	Program Element and Name	Project Number and Name
RDT&E/7	PE1160405BB/Special Operations Intelligence Systems Development (MIP	Project S400/SO Intelligence

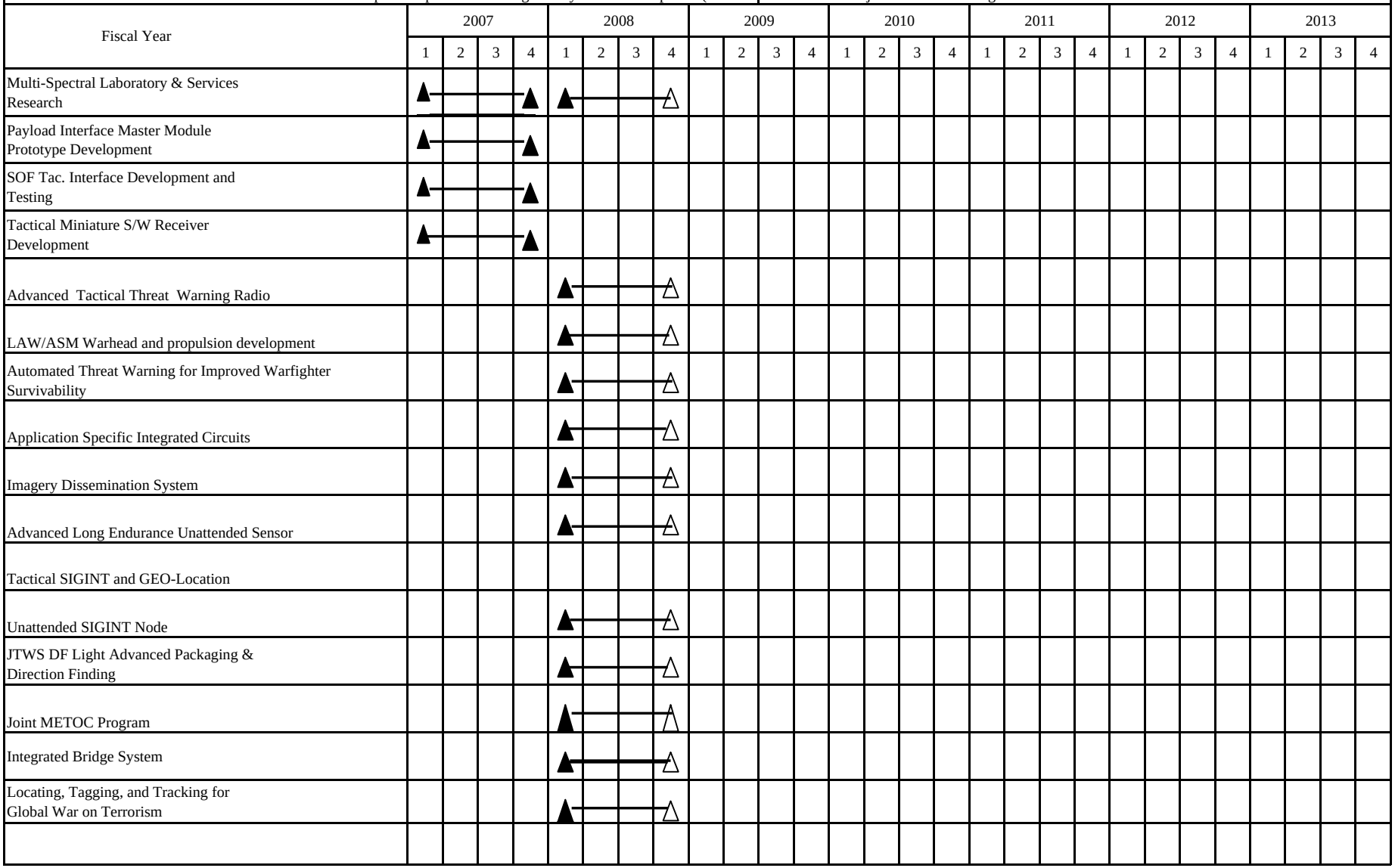

Exhibit R-4a, RDT&E Program Schedule Detail			Date: FEBRUARY 2008				
Appropriation/Budget Activity RDT&E/7			Project Number and Name Project S400/SO Intelligence				
Schedule Profile	FY2007	FY2008	FY2009	FY2010	FY2011	FY2012	FY2013
NSSS Participation in Space Technology Development and Demonstrations	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					