

RDT&E BUDGET ITEM JUSTIFICATION SHEET (R-2 Exhibit)						DATE FEBRUARY 2000			
APPROPRIATION / BUDGET ACTIVITY RDT&E, DEFENSE-WIDE / 7			R-1 ITEM NOMENCLATURE PE1160405BB Spec Operations Intelligence Systems Development						
COST (Dollars in Millions)	FY99	FY00	FY01	FY02	FY03	FY04	FY05	Cost to Complete	Total Cost
PE1160405BB	8.417	5.138	3.022	1.574	1.659	1.432	1.460	Cont.	Cont.
S400 SO INTELLIGENCE	8.417	5.138	3.022	1.574	1.659	1.432	1.460	Cont.	Cont.
<p>A. Mission Description and Budget Item Justification</p> <p>This program element provides for the identification, development, and testing of Special Operations Forces (SOF) intelligence equipment to identify and eliminate deficiencies in providing timely intelligence to deployed forces. The following distinct 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 will employ the latest standards and technology by transitioning from separate systems to full integration with the infosphere. The infosphere will allow SOF elements to operate with any force combination in multiple environments. The C4I programs funded in this project are grouped by the level of organizational element they support: Operational Element (Team), Above Operational Element (Deployed), and Above Operational Element (Garrison).</p> <p>Change Summary Explanation:</p> <p>Funding:</p> <p>FY 2000 increase is a net result of funds appropriated by Congress for the Joint Threat Warning System (\$2.7M) and the Special Operations Tactical Video System (SOTVS) (\$1.3M), as well as reductions for project cost share of the Small Business Innovative Research program, Congressionally-mandated rescission of \$118K, and revised Administration inflation assumptions.</p> <p>FY 2001 increase is a net result of funds added for development/operational test and evaluation of the SOTVS (version SV2) and project cost share of revised Administration inflation assumptions.</p>									

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Schedule: None.			
Technical: None.			
B. Program Change Summary	FY 1999	FY 2000	FY 2001
Previous President's Budget	8.793	1.407	2.899
Appropriated Value	8.805	5.407	
Adjustments to Appropriated Value / President's Budget	(.388)	(.269)	.123
Current Budget Submit	8.417	5.138	3.022

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APPROPRIATION / BUDGET ACTIVITY RDT&E, DEFENSE-WIDE / 7			R-1 ITEM NOMENCLATURE / PROJECT NO. PE 1160405BB Special Operations Intelligence Systems Development / Project S400						

COST (Dollars in Millions)	FY99	FY00	FY01	FY02	FY03	FY04	FY05	Cost to Complete	Total Cost
S400, SOF Intelligence R&D	8.417	5.138	3.022	1.574	1.659	1.432	1.460	Cont.	Cont.

A. Mission Description and Budget Item Justification

This project provides for the identification, development, and testing of Special Operations Forces (SOF) intelligence equipment to identify and eliminate deficiencies in providing timely intelligence to deployed forces. The following distinct 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 will employ the latest standards and technology by transitioning from separate systems to full integration with the infosphere. The infosphere will allow SOF elements to operate with any force combination in multiple environments. The C4I programs funded in this project are grouped by the level of organizational element they support: Operational Element (Team), Above Operational Element (Deployed), and Above Operational Element (Garrison). Sub-projects include:

OPERATIONAL ELEMENT (TEAM)

- PRIVATEER. PRIVATEER is part of an evolutionary signal intelligence system migration and acquisition program that provides a permanent full spectrum radar and communications early warning capability aboard Cyclone-class Patrol Coastal (PC) and the MK V Special Operations Craft (SOC). The PC configuration is confined to the electronic surveillance mission area, while the MK V SOC configuration has been expanded to include an electronic attack capability for self-defense. A subset of the Joint Threat Warning System, PRIVATEER hosts a common software architecture that controls a variety of hardware modules designed to satisfy the unique platform requirements of each ship class. System configuration

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<p>provides the equipment necessary to monitor and provide direction finding on radar and communications signals of interest. Also provides broadcast threat warning capability. Architecture is Joint Deployable Intelligence Support System/Joint Maritime Communications and Intelligence Support System compliant with UNIX-based software.</p> <ul style="list-style-type: none"> • SILENT SHIELD. The SILENT SHIELD is part of an evolutionary Joint Threat Warning System (JTWS) migration being developed to support SOF-wide operations. System development emphasizes a rapid prototyping effort to develop, test and field systems that provide direct threat warning and enhanced situational awareness data to SOF aircrews at the collateral SECRET level. • National Systems Support to SOF (NSSS). NSSS is a project to introduce and integrate national systems capabilities into the SOF force structure and operations. NSSS activities include increasing national systems awareness, demonstrating the tactical utility of national system data, testing technology and evaluating operational concepts in biennial Joint Staff Special Projects, and transitioning promising concepts and technologies into the SOF materiel inventory. • SOF SIGINT Manpack System (SSMS)/Joint Threat Warning System (JTWS). JTWS develops a modular, scaleable system that consists of user defined, integrated common hardware modules driven by an interoperable software architecture and configurable for use in manpack, unattended, and platform versions (ground, aircraft, and maritime). JTWS functional requirements include communications monitoring and direction finding, and receipt and correlation of near-real-time tactical intelligence broadcasts. <p>ABOVE OPERATIONAL ELEMENT (DEPLOYED)</p> <ul style="list-style-type: none"> • SOF Intelligence Vehicle (SOF IV). The SOF IV is a deployable, automated, multi-source intelligence processing and dissemination system. The SOF IV extends the Joint Deployable Intelligence Support System/Special Operations Command Research, Analysis and Threat Evaluation System architecture to the Joint Special Operations Task Force level permitting automated interface to all theater-level intelligence data handling systems. SOF IV provides for the receipt, processing, and manipulation of near-real-time intelligence data in order to produce highly tailored, accurate and 	

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<p>timely intelligence products to support deployed SOF. The system employs a high mobility multi-purpose wheeled vehicle configured with a rigid wall, standard integrated command post shelter to house computer servers, mass storage devices, and communications equipment, and a tent extension for the remote operation of analyst workstations. It incorporates DOD Intelligence Information System and Joint Deployable Intelligence Support System standards and products in accordance with JCS direction. A second configuration of the system also exists with identical performance capabilities using a modular, transit case design. SOF Intelligence Vehicle is an Evolutionary Acquisition Program. The acquisition strategy includes a block upgrade process that will occur over the life of the system.</p> <ul style="list-style-type: none"> • Special Operations Tactical Video System (SOTVS). SOTVS will provide the capability to forward digital/video imagery near-real-time via current and planned future organic SOF tactical communication systems in support of surveillance and reconnaissance missions. This manpackable tactical system will consist of three versions: standard version using still digital cameras (SV1A); standard version using video cameras (SV1B); and a waterproof version using still digital cameras (SV2). <p>FY 1999 ACCOMPLISHMENTS:</p> <ul style="list-style-type: none"> • (1.825) National Systems Support to SOF (NSSS). Participated in JCS and theater CINC advanced concepts technology demonstrations which continue to evaluate National Technical Means support to amphibious operations, overall interoperability and support of combined SOF and conventional operations. Assess technology and operational utility of HAMLET's FOREST and HAMLET's TRACK. Provided systems engineering and technical assistance. (1QTR99-4QTR99) • (0.782) SILENT SHIELD. Completed Development, Test and Evaluation of Engineering Development Model (EDM). Conducted Operational Test and Evaluation of EDM. MS III granted for system integration on TALON II Aircraft. Conducted integration and testing on other air platforms (HH53, CV22, H130, 130, etc.). (1QTR99-4QTR99) 		

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<ul style="list-style-type: none"> • (3.724) SOF IV. Developed and tested block upgrades to include test, analysis and discovery of future technologies for implementation within the SOF IV Evolutionary Acquisition strategy. (2QTR99-4QTR99) • (2.086) SOF SIGINT Manpack System (SSMS)/ Joint Threat Warning System (JTWS). Conducted software development for the SSMS and JTWS. (2QTR99-4QTR99) <p>FY 2000 PLAN:</p> <ul style="list-style-type: none"> • (2.568) Joint Threat Warning System (JTWS). Continue software development/migration of the JTWS. (2QTR00-4QTR00) • (1.106) National Systems Support to SOF (NSSS). Continue to participate in JCS and theater CINC advanced concepts technology demonstrations which continue to evaluate National Technical Means support to amphibious operations, overall interoperability and support of combined SOF and conventional operations. Continue to assess technology and operational utility of HAMLET's FOREST and HAMLET's TRACK. Provide systems engineering and technical assistance. (1QTR00-4QTR00) • (1.464) Special Operations Tactical Video System (SOTVS). Conduct systems integration of SOTVS test articles. Conduct concurrent developmental and operational test & evaluation. (2QTR00-4QTR00) <p>FY 2001 PLAN:</p> <ul style="list-style-type: none"> • (1.355) NSSS. Continue to participate in JCS and theater CINC advanced concepts technology demonstrations which continue to evaluate national technical means support to amphibious operations, overall interoperability and support of combined SOF and conventional operations. Continue to 	

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assess technology and operational utility of HAMLET's FOREST and HAMLET's TRACK. Provide systems engineering and technical assistance. (1QTR01-4QTR01)

- (1.568) PRIVATEER. Develop, integrate and test the Block 3 evolutionary technology insertion. (1QTR01-4QTR01)
- (0.099) SOTVS. Conduct development and operational test and evaluation on version SV2. (1QTR01-2QTR01)

B. Other Program Funding Summary

	<u>FY99</u>	<u>FY00</u>	<u>FY01</u>	<u>FY02</u>	<u>FY03</u>	<u>FY04</u>	<u>FY05</u>	<u>To Complete</u>	<u>Total Cost</u>
PROC, SOF Intel Systems	23.000	19.982	32.309	7.678	8.757	11.430	15.961	Cont.	Cont.

C. Acquisition Strategy:

- PRIVATEER is an evolutionary acquisition program that uses a modular, commercial off-the-shelf (COTS) and an Open Systems Environment. As an evolutionary acquisition program, PRIVATEER will continue to introduce systems improvements via evolutionary technology insertions tailored to satisfy specific platform requirements. PRIVATEER will migrate to the Joint Threat Warning System.
- Special Operations Tactical Video System (SOTVS) is predominantly a COTS/non-developmental item acquisition program. Certain subcomponents may require some developmental effort.

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					<u>FY99</u>				<u>FY00</u>				<u>FY01</u>			
<u>D. Schedule Profile</u>					1	2	3	4	1	2	3	4	1	2	3	4
National Systems Support to SOF Participation in Advanced Concepts Technology Demonstrations					x	x	x	x	x	x	x	x	x	x	x	x
SILENT SHIELD																
Integration and Test					x	x	x	x								
Milestone III – Talon II Aircraft								x								
 PRIVATEER Evolutionary Technology Insertion																
Software Development, Integration and Testing													x	x	x	x
 SOF SIGINT Manpack System/Joint Threat Warning System (JTWS)																
JTWS Software Development						x	x	x	x	x	x	x				
SOF Intelligence Vehicle Integration and Test						x	x	x								
 Special Operations Tactical Video Sys Integration and Test										x	x	x	x	x		

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Exhibit R-3 COST ANALYSIS						DATE: FEBRUARY 2000					
APPROPRIATION / BUDGET ACTIVITY				PE 1160405BB SPECIAL OPERATIONS INTELLIGENCE SYSTEMS DEVELOPMENT / PROJECT S400							
RDT&E DEFENSE-WIDE / 7											
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 FY99	Award Date FY99	Budget Cost FY00	Award Date FY00	Budget Cost FY01	Award Date FY01	To Complete	Total Program
Primary Hardware Dev	MIPR	SPAWAR, Charleston, SC	2.306								2.306
	FFP/SS	Qual-Tron, Inc., Tulsa, OK	0.050								0.050
	VARIOUS	VARIOUS	40.076	1.953	MAY 99	1.237	FEB00				43.266
Ancillary Hardware Dev											
Systems Engineering	FP/SS	Wave Science, Inc, E Rochester, NY	0.005								0.005
	MIPR	Naval Undersea Warfare, Kpt, WA	0.090								0.090
Materiel/Equipment	MIPR	Naval Air Warfare, St Inigoes, MD	0.282	0.949	FEB 99						1.231
	VARIOUS	VARIOUS		0.677	JUN 99	0.624	DEC 99	0.859	DEC 00	Cont.	Cont.
	MIPR	SPAWAR, Charleston, SC	0.813								0.813
Subtotal Product Dev			43.622	3.579		1.861		0.859		Cont.	Cont.
Development Spt	MIPR	ESC, Hanscom AFB, MA	0.089	0.255	MAR 99						0.344
Software Dev/Integ	MIPR	SPAWAR, Charleston, SC		0.145	AUG 99						0.145
	MIPR	Naval Systems Mgt. Activity, VA		1.180	JUL 99						1.180
	MIPR	SPAWAR, Charleston, SC	1.822			2.568	JAN00	1.568	DEC 00	Cont.	Cont.
	MIPR	Pt. Mugu, CA	0.050								0.050
	FFP/C	Delfin Systems, Santa Clara, CA		0.133	FEB 99						0.133
Software Spt	MIPR	BTG, Inc., Fairfax, VA	1.205								1.205
	MIPR	GSA, Kansas City, MO	0.130								0.130
Training Development	MIPR	GSA, Kansas City, MO	0.080								0.080
	MIPR	Naval Air Warfare, St Inigoes, MD	0.030								0.030
Integrated Logistics Spt											
Configuration Management	MIPR	SPAWAR, San Diego, CA	0.025								0.025
Technical Data	MIPR	Naval Air Warfare, St Inigoes, MD	0.090								0.090
Subtotal Spt			3.521	1.713		2.568		1.568		Cont.	Cont.

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APPROPRIATION / BUDGET ACTIVITY				PE 1160405BB SPECIAL OPERATIONS INTELLIGENCE SYSTEMS DEVELOPMENT / PROJECT S400							
RDT&E DEFENSE-WIDE / 7											
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 FY99	Award Date FY99	Budget Cost FY00	Award Date FY00	Budget Cost FY01	Award Date FY01	To Complete	Total Program
Devel Test & Eval	MIPR	SPAWAR, Charleston, SC	0.258	0.372	MAR99						0.630
	MIPR	JTIC, Ft Huachuca, AZ	0.172								0.172
OT&E	MIPR	SPAWAR, Charleston, SC	0.350	1.387	FEB 99						1.737
	MIPR	DESA, Kirtland, NM	0.217								0.217
	MIPR	18 FLTS, Hurlburt Field, FL		0.027	NOV 98						0.027
GFE	MIPR	Naval Air Warfare, St Inigoes, MD	0.564	0.591	MAY 99						1.155
	TBD	TBD				0.060	JUN 00	0.090	NOV00		0.150
	MIPR	Naval Air Warfare, St Inigoes, MD	0.398								0.398
Subtotal T&E			1.959	2.377		0.060		0.090		0.000	4.486
Government Engineering Spt	MIPR	SPAWAR, Charleston, SC									
Program Management Spt	CPFF/C	Booz-Allen & Hamilton, McLean, VA	2.162	0.601	OCT 98	0.158	OCT 99				Cont.
	MIPR	TBD				0.417	OCT99	0.424	OCT00	Cont.	Cont.
Travel	MIPR	SPAWAR, Charleston, SC	0.394	0.093	MAR 99						0.487
	N/A	USSOCOM, MacDill AFB, FL	0.043	0.054	FY99	0.074	FY00	0.081	FY01	Cont.	Cont.
Subtotal Management			2.599	0.748		0.649		0.505		Cont.	Cont.
Remarks:											
Total Cost			51.701	8.417		5.138		3.022		Cont.	Cont.
Remarks:											