Exhibit R-2, RDT&E Budget Item Justification					February 2006		
Appropriation/Budget Activity RDT&E.DW/BA3	R-1 Item Nomenclature: SO/LIC Advanced Development - PE 0603121D8Z						
Cost ($ in millions)	FY2005	FY2006	FY2007	FY2008	FY2009	FY2010	FY2011
Total PE Cost	34.921	45.689	30.575	31.589	32.514	33.152	33.998
Explosive Ordnance Disposal/Low-Intensity Conflict/P206	9.235	12.557	7.786	7.526	7.996	7.938	8.156
Special Reconnaissance Capabilities /P207	22.746	29.246	18.773	19.775	20.061	20.411	20.942
Information Dissemination Concepts /P208	2.940	3.886	3.516	3.538	3.707	3.803	3.900
Irregular Warfare Support (IWS)/P209	0	0	.500	.750	.750	1.000	1.000

A. Mission Description and Budget Item Justification:

P206, Explosive Ordnance Disposal/Low-Intensity Conflict (EOD/LIC). The EOD/LIC Program provides advanced technology and equipment solutions for military EOD operators and Special Operations Forces (SOF) to meet the challenges of Improvised Explosive Devices (IEDs), force protection, and the war on terrorism. EOD/LIC efforts focus primarily on the access, detection, identification, and neutralization of all types of conventional explosive ordnance and IEDs. Requirements submitted by the Joint Service EOD and Service Special Operations communities are prioritized and approved by OASD (SO/LIC).

P207, Special Reconnaissance Capabilities (SRC). The SRC Program exploits, leverages, and integrates DoD's service and agency efforts to improve surveillance and reconnaissance tools (unattended sensors, tagging devices, data infiltration/exfiltration, remote delivery, and mobility/delivery of sensors), while providing risk reduction for DoD and other agency technology and development programs. The SRC Program identifies, integrates, and operationalizes the technical tools for the collection of actionable information against a variety of targets and mission requirements, including Global War on Terrorism (GWOT), and maintains DoD's on-line catalog of tools in order to minimize crisis response time for special reconnaissance and surveillance.

P208, Information Dissemination Concepts (IDC). The IDC Program addresses technology capabilities necessary to enable sustained information dissemination campaigns in denied areas. The IDC program, working as necessary with DoD and the interagency, develops, modifies, and demonstrates concepts, mechanisms, platforms and payloads to propagate themes and messages that convince target audiences to take action favorable to the United States and its allies.

P209, Irregular Warfare Support (IWS). The IWS Program is a new project within this Program Element, having transitioned from within SO/LIC's Combating Terrorism Technology Support (PE 0603122D8Z); internal resources are being reallocated to support this effort. The IWSP develops cross-domain blended capabilities necessary to enable sustained counterterrorism and counterinsurgency operations. This program leverages ongoing research efforts of US Special Operations Command (USSOCOM), the military departments, Defense agencies, and other federal agencies to analyze, modify, design, and demonstrate enduring counterinsurgency technical and operational

capabilities. Projects support efforts to: conduct counter organization warfare, develop counter motivation capabilities, coordinate infrastructure and sanctuary denial options, and provide counter enterprise and counter financing capability to the tactical counterinsurgent warfighter. The program blends several disciplines including surveillance, operations, policy, information, training and technology.

B. Program Change Summary:

	FY2005	FY2006	FY2007
Previous President's Budget	35.586	34.529	35.021
Current President's Budget	34.921	45.689	30.575
Total Adjustments	-.665	11.160	-4.446
Congressional program reductions			
Congressional rescissions			
Congressional increases		11.900	
Reprogrammings			
SBIR/STTR Transfer	-.617		
Other Program Adjustments	-.048	-.740	-4.446

C. Other Program Funding Summary: NA

D. Acquisition Strategy: NA

E. Performance Metrics:

SO/LIC Advanced Development - PE 0603121D8Z; Explosive Ordnance Disposal & Low-Intensity Conflict/P206; Special Reconnaissance Capabilities/P207; Information Dissemination Concepts/P208; Irregular Warfare Support/P209	
Long Term Strategies: Obtain adequate funding to support critical shortfalls; prioritize proposals that are deemed acceptable and allocate funding accordingly; and establish outreach to leverage institutional knowledge and expertise.	
Performance Indicator and Rating:	
FY 2005 Target	• 70% of currently funded research projects completed on time and within budget • 5% increase in the number of research projects accepted • Complete 90% of scheduled R&D tasks
FY 2005 Rating	ON TARGET
FY 2006 Target	• 70% of currently funded research projects are completed on time and within budget • 5% increase in the number of research projects accepted

	• Transition scheduled projects to user communities
FY 2007 Target	• 70% of currently funded research projects are completed on time and within budget • 5% increase in the number of research projects accepted
Basis of FY 2005 to Date Performance Rating	Currently the number of funded research projects are on track to be completed per the target
Verification	The SO/LIC Advanced Development Program projects each track the status of their efforts. Reviews are conducted to assess project status. Oversight of the entire effort is undertaken by ASD SO/LIC.
Validation	Completed research products increase the capabilities of the DoD to effectively detect, deter and defend against terrorist attacks; defeat improvised explosive devices and unexploded ordinance; enable sustained information operations in denied areas; and contribute to resolution of hostile, unconventional conflicts.

Exhibit R-2a, RDT&E Project Justification				February 2006			
Appropriation/Budget Activity RDT&E.DW/BA3	Project Name and Number SO/LIC Advanced Development 0603121D8Z						
Cost ($ in millions)	FY2005	FY2006	FY2007	FY2008	FY2009	FY2010	FY2011
Explosive Ordnance Disposal/Low-Intensity Conflict/P206	9.235	12.557	7.286	7.026	7.246	6.938	7.156

A. Mission Description and Budget Item Justification: P206, Explosive Ordnance Disposal/Low-Intensity Conflict (EOD/LIC). The EOD/LIC program provides advanced technology and equipment solutions for military EOD operators and SOF to meet the challenges of improvised explosive devices (IEDs), force protection and the war on terrorism. EOD/LIC efforts focus primarily on the access, detection, identification, and neutralization of all types of conventional explosive ordnance and improvised explosive devices. Requirements submitted by the Joint Service EOD and Service Special Operations communities are prioritized and approved by OASD (SO/LIC).

B. Plans/Planned Program

	FY 2005	FY 2006	FY 2007
Accomplishment/Effort/Subtotal Cost	9.235	12.557	7.286

FY 2005 Accomplishments: Transitioned low-cost unmanned ground vehicle Bombot into production with approximately 2300 vehicles ordered for the Joint Service EOD. Fielded tactical decision aids for Special Operations Forces. Transitioned into operational use the Joint Digital Information Gathering System (JDIGS) that captures all EOD incident reports worldwide to identify threat trends and equipment and manpower utilization. Demonstrated the Combatant Diver Display Mask (CDDM) and received Naval Sea Systems Command approval for operational use by Navy/Marine Corps diving commands. Evaluated a first generation boat ramp installed on an 11meter Zodiac inflatable boat and used by Navy Special Clearance Team One (NSCT-1) for recovery of smaller vessels and mammal systems. Tested an Electric Firing Pin for the percussion actuated non-electricpercus (PAN) disruptor which allows for use of the PAN with all available initiation methods.

FY 2006 Plans: Demonstrate a Laser Aiming Device for the Mk 40 Mod 0 and PAN Stand-Off Disrupters. Transition a low-cost tactical/training projectile for the Mk 40 Mod 0 Disrupter into production. Conduct comparative test and evaluation of candidate Active Thermal Protective garments for Joint Service EOD. Transition an improved Lift Balloon System for Navy EOD into production. Field a Portable X-ray System to Air Force EOD units tasked with port mortuary operations. Transition to an acquisition program a Digital Camera/X-Ray Combination to provide EOD Operators an enhanced targeting capability for the currently fielded portable x-ray systems. Field demonstrate a prototype Remote Firing System for the Joint Service EOD community. Transition to production a rugged Universal Shock Tube Initiator (USTI) that allows for the initiation of standard military and commercial shock tubes from currently available

Remote Firing Devices and robotic platforms. Demonstrate a second generation improved Launch Platform Boat Ramp, installed on an 11-meter Zodiac inflatable boat to be used by NSCT-1 for recovery of current and future assets to include smaller vessels and mammal systems.

FY 2007 Plans: Demonstrate an Improved Underwater Demolition Charge. Conduct field evaluation and transition to commercialization a Special Operations Forces (SOF) specific, low-cost unmanned ground vehicle (Special Operations Forces Robot (SOFBOT)). Demonstrate a High Power IED Standoff Laser Disruption System. Conduct field evaluation of an IED Detection System. Demonstrate a Navy Ship Hull Database for use in underwater hull searches. Field a Special Operations Explosive Methods of Entry Planning software package. Conduct operational test and evaluation of the Augmented Reality Visualization of the Common Operational Picture (ARVCOP) navigational aid on Naval Special Clearance Teams crafts. Commercialize Advanced Robotic Vehicle technologies. Transition to an acquisition program a suite of Modular Integrated Displays for Full Face Masks for use with various EOD Chemical Protective masks and the EOD Bomb Suit. Transition to an acquisition program an Improved Linear Shape Charge Container used in EOD operations, effective against a variety of target materials in multiple environments. Transition to production a second generation improved Launch Platform Boat Ramp, installed on an 11meter Zodiac inflatable boat to be used by NSCT-1 for recovery of current and future assets to include smaller vessels and mammal systems.

C. Other Program Funding Summary: NA

D. Acquisition Strategy: NA

Exhibit R-2a, RDT&E Project Justification				February 2006			
Appropriation/Budget Activity RDT&E.DW/BA3	Project Name and Number SO/LIC Advanced Development 0603121D8Z						
Cost ($ in millions)	FY2005	FY2006	FY2007	FY2008	FY2009	FY2010	FY2011
Special Reconnaissance Capabilities /P207	22.746	29.246	18.773	19.755	20.061	20.411	20.942

A. Mission Description and Budget Item Justification: P207, Special Reconnaissance Capabilities (SRC). The SRC program exploits, leverages, and integrates DoD's service and agency efforts to improve surveillance and reconnaissance tools (unattended sensors, tagging devices, data infiltration/exfiltration, remote delivery, and mobility/delivery of sensors), while providing risk reduction for DoD and other agency technology and development programs. The SRC Program identifies, integrates, and operationalizes the technical tools for the collection of actionable information against a variety of targets and mission requirements, including Global War on Terrorism (GWOT). SRC also maintains DoD's on-line catalog of tools in order to minimize crisis response time for special reconnaissance and persistent surveillance.

B. Accomplishments/Planned Program

	FY2005	FY2006	FY2007
Accomplishment/Effort/Subtotal Cost	22.746	29.246	18.773

FY 2005 Accomplishments: The SRC Program provided technology support to GWOT to include variants of unattended ground sensor prototypes for maritime and ground persistent surveillance missions with associated technology training. Assessed, evaluated, and initiated the integration of various tag capabilities for end-to-end operations in concert with user CONOPS. Initiated a multi-access tag program in order to combine several devices into one form factor. Developed and tested extremely small beacon devices capable of communicating low-duty factor, short-burst, low-rate data messages over very long ranges using a very small/low power devices. Enhanced and evaluated the capabilities of optical and radio frequency tags exploitation by National and Theater Sensor platforms. Enhanced the previous signal system to result in an improved end-to-end global capability by exploiting communications infrastructures. Studied the feasibility to design, develop and fabricate an integrated vehicle tracking device with advanced capabilities and operational security features. Initiated the program to reduce the form factor and improve the power management of the remote sensor controller. Began to integrate air droppable capabilities to the remote sensor camera controller and unattended ground sensors. Assessed and began integration of an improved day and night optics capabilities into unattended operations. Continued to develop a standoff capability through the use of inherent signature. Continued to improve upon communication by obtaining more robust communication links and improve antenna designs. Integrated improved camera aiming capabilities. Enhanced functionality and expanded access of on-line information to supporting commands, DoD activities and OGAs. Assessed 74 reconnaissance capabilities and conducted 31 technology evaluations to assess operational capabilities. Leveraged advanced sensing, tracking, communications and power technologies with DoD and OGA to accelerate the transition of advanced special reconnaissance (SR) and persistent surveillance technologies to operational community.

FY 2006 Plans: Integrate new micro sensors into prototype remote, unattended capabilities. Conduct end-to-end testing of extremely small, power efficient, beacon device. Continue to provide technology support to the Global War on Terrorism to include, technology training and variants of unattended ground sensor prototypes for maritime and ground persistence surveillance. Continue to identify, evaluate and operationalize sensor and tagging, tracking, and locating technologies to enhance the technical performance of reconnaissance and surveillance missions. Insert operational capable prototypes into operator training exercises to vet tactics, techniques and procedures for employment. Continue development of an operational prototype of a radar tag system. Continue integration of command and control computer for display of tag and aircraft location as well as GIS overlays. Produce a prototype multi-access tag system. Initiate a program to develop a sensor-less visible camera system. Improve data infiltration and exfiltration capabilities through the integration of advanced technology and new communications links. Continue to improve SR optic capabilities through the integration of advanced optic technology and processing. Improve SR power capabilities through the integration of advanced power technologies and device redesign. Exploit remote control capabilities by reducing form factors, improving power management, and integrating air droppable and maritime capabilities. Perform field evaluations of selected SR technologies and document results in the on-line SRC knowledgebase. Support cooperative projects and evaluate technology maturity for new capabilities with the DoD and OGA that accelerates the transition of advanced SR and TTL technology to operational the community.

FY 2007 Plans: Provide technology support to DoD with emerging SR precise location prototype technologies. Develop micro sensor controller for hand emplacement, and air and maritime employment. Continue to: provide technology support to the Global War on Terrorism to include, technology training and variants of TTL and unattended ground sensor prototypes for maritime and ground persistence surveillance; engage the research and development community for technical solutions and candidate technologies to improve DoD SR mission capabilities; evaluate and operationalize sensor and tagging, tracking, and locating capabilities through insertion of maturing mini and micro technologies to enhance the technical performance of SR missions; insert operationally capable prototypes into operator training exercises to vet technologies and to develop tactics, techniques and procedures for employment; research, evaluate and integrate enhanced tagging and sensing capabilities to enable remote and standoff emplacement; research, evaluate and integrate emerging netted sensor technologies into remoted capabilities; integrate improved SR data infiltration and exfiltration capabilities though the development and integration of advanced technology and new communications links; perform field evaluations of selected SR technologies and document results in on-line SRC knowledgebase; and support cooperative projects with DoD and OGA to accelerate the transition of advanced SR technologies to operational community.

C. Other Program Funding Summary: NA

D. Acquisition Strategy: NA

Exhibit R-2a, RDT&E Project Justification					February 2006		
Appropriation/Budget Activity RDT&E.DW/BA3	Project Name and Number SO/LIC Advanced Development 0603121D8Z						
Cost ($ in millions)	FY2005	FY2006	FY2007	FY2008	FY2009	FY2010	FY2011
Information Dissemination Concepts/P208	2.940	3.886	3.516	3.583	3.707	3.803	3.900

A. Mission Description and Budget Item Justification: The Information Dissemination Concepts (IDC) program addresses technology shortfalls necessary to enable sustained information dissemination campaigns in denied areas. The IDC program, working as necessary with DoD and the interagency, develops, modifies, and demonstrates concepts, mechanisms, platforms, and payloads to propagate themes and messages that convince target audiences to take action favorable to the United States and its allies. IDC also includes other aspects of information operations to include advanced analysis and planning techniques.

B. Accomplishments/Planned Program

	FY 2005	FY 2006	FY 2007
Accomplishment/Effort/Subtotal Cost	2.996	3.972	4.033

FY 2005 Accomplishments: The Multimedia Alert Processing Systems (MAPS) prototype was installed at CENTCOM and at USSOCOM. An additional MAPS system was purchased and deployed to test and provide support to Task Force XIV in Iraq. A Ku-band satellite antenna was installed on the EC-130J Commando Solo aircraft to have video/audio receive capability. This capability will enable the EC-130J to receive PSYOP products while on station increasing the responsiveness of providing distribution of products into denied areas.

FY 2006 Plans: Continue to add operator requested enhancements to MAPS. These enhancements will include the addition of FARSI language, network configuration for data sharing, develop the capability to monitor local radio broadcast, increase data storage, error reduction, web page translation, and integrate a foreign text import function. Continue testing and support MAPS deployment in Iraq. Other efforts include examining technologies, which will specifically address information dissemination techniques into physically denied areas that possess mature information infrastructures.

FY 2007 Plans: Begin the process to transition MAPS to Services for procurement and support. Support counter-terrorism and combating terrorism operations by continuing information operations tools and technologies, and expanding translation capabilities and monitoring of local radio and Internet dissemination of foreign news services. Develop information dissemination requirements in support of instability and counter- narcotic operations. Start new projects defined through collaboration efforts to address technology shortfalls.

C. Other Program Funding Summary: NA

D. Acquisition Strategy: NA

Exhibit R-2a, RDT&E Project Justification						February 2006	
Appropriation/Budget Activity RDT&E.DW/BA3		Project Name and Number SO/LIC Advanced Development 0603121D8Z					
Cost ($ in millions)		FY2005	FY2006	FY2007	FY2008	FY2009	FY2010	FY2011
Irregular Warfare Support (IWS) /P209		0	0	.500	.750	.750	1.000	1.000

A. Mission Description and Budget Item Justification: The IWS is a new project within the SO/LIC Advanced Development Program. The IWS develops cross-domain blended capabilities necessary to enable sustained counterterrorism and counterinsurgency operations. This program leverages ongoing research efforts of US Special Operations Command (USSOCOM), the military departments, Defense agencies, and other federal agencies to analyze, modify, design, and demonstrate enduring counterinsurgency technical and operational capabilities. Projects support efforts to: conduct counter organization warfare, develop counter motivation capabilities, coordinate infrastructure and sanctuary denial options, and provide counter enterprise and counter financing capability to the tactical counterinsurgent warfighter. The Program blends several disciplines including surveillance, operations, policy, information, training and technology.

B. Accomplishments/Planned Program

	FY 2005	FY 2006	FY 2007
Accomplishment/Effort/Subtotal Cost	0	0	.500

FY 2005 Accomplishments: Not Applicable

FY 2006 Plans: Not Applicable

FY 2007 Plans: This is the first year of this Project. The IWS Program will collaborate with the US counterinsurgency (COIN) user community to further define technology gaps and incorporate the defined R&D into plans. The IWSP will: coordinate development of a data aggregation system that overlays green data (friendly indigenous demographic data) on a common Geographic Information System (GIS); integrate Clandestine Close Access Surveillance (CCAS) modular training support capabilities; develop indigenous police force informant-network software for host nation applications; research and design a cyber anonymity and denial capability; and research insurgent prevention and disengagement strategies.

C. Other Program Funding Summary: NA

D. Acquisition Strategy: NA