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CBDP BUDGET ITEM JUSTIFICATION SHEET (R-2 Exhibit)	DATE May 2009
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BUDGET ACTIVITY RDT&E DEFENSE-WIDE/ BA5 - System Development and Demonstration (SDD)	PE NUMBER AND TITLE 0604384BP CHEMICAL/BIOLOGICAL DEFENSE (SDD)
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	FY 2008	FY 2009	FY 2010		
COST (In Thousands)	Actual	Estimate	Estimate		
Total Program Element (PE) Cost	277699	300149	332895		
CA5 CONTAMINATION AVOIDANCE (SDD)	45754	51924	98120		
CM5 HOMELAND DEFENSE (SDD)	0	2475	8674		
CO5 COLLECTIVE PROTECTION (SDD)	11410	11355	12821		
DE5 DECONTAMINATION SYSTEMS (SDD)	9408	13130	33704		
IP5 INDIVIDUAL PROTECTION (SDD)	29631	22492	18782		
IS5 INFORMATION SYSTEMS (SDD)	49878	42325	32453		
MB5 MEDICAL BIOLOGICAL DEFENSE (SDD)	69231	89424	64478		
MC5 MEDICAL CHEMICAL DEFENSE (SDD)	14149	22068	14086		
MR5 MEDICAL RADIOLOGICAL DEFENSE	0	2936	8311		
TE5 TEST & EVALUATION (SDD)	48238	42020	41466		

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<p>A. <u>Mission Description and Budget Item Justification:</u> Operational forces have an immediate need to survive, safely operate, and sustain operations in a chemical and biological agent threat environment across the continuum of global, contingency, special operations/low-intensity conflict, counter-narcotics, and other high risk missions. Operating forces have a critical need for defense against worldwide proliferation of Chemical and Biological (CB) warfare capabilities and for medical treatment of casualties in medical treatment facilities. Congress has directed centralized management of Department of Defense (DoD) CB Defense initiatives, both medical and non-medical. This program element supports the System Development and Demonstration (SDD) of CB defensive equipment, both medical and non-medical. These projects have been restructured to consolidate Joint and Service-unique tasks within four commodity areas: contamination avoidance, force protection (individual and collective), decontamination, and medical countermeasures. The consolidation will provide for development and operational testing of equipment for Joint Service as well as Service-unique requirements.</p> <p>Contamination avoidance efforts under this system development program will provide U.S. forces with real-time hazard assessment capabilities. They include advanced multi-agent point and remote chemical detection systems for ground, aircraft, and shipboard applications; automated warning and reporting systems; integrated radiation detection and monitoring equipment; and enhanced battlefield reconnaissance capabilities. Force protection efforts will increase protection levels while decreasing physical and psychological burdens imposed by protective equipment. They include improved aircrew respiratory protection, lightweight integrated suit technology, and shipboard collective protection equipment.</p> <p>Weapons of Mass Destruction Civil Support Team (WMD CST) efforts provide for testing and development of a Unified Command Suite (UCS) and an Analytical Laboratory Platform (ALS) for these teams.</p> <p>The medical chemical defense system development program funds improved medical equipment and drugs essential to counteracting lethal and performance-degrading effects of chemical threats and medical equipment essential to meeting medical requirements on the integrated battlefield with emphasis on decreased size/weight and high mobility, yet supporting large numbers of combat casualties. Additionally, foreign medical materiel may be procured for exploitation of advanced technology and development to meet medical defense goals. This program element supports the development of prophylactic and therapeutic drugs and rapid identification and diagnostic systems. This program also funds development of a Transformational Rapid Drug Discovery and Development Capability (TRDDDC). Transformational Medical Technology Initiatives (TMTI) efforts in this area will include the continual build out of both a genomic sequencing and a bio-chemical informatics capability for the DoD.</p>		
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<p>DoD Biological Defense mission requires the detection of validated biological threat agents to provide early warning capabilities on mobile and fixed platforms. This program element will provide theater protection through the development of point and stand-off detection systems. The detection system concept will provide detection, identification, warning, and sample collection for verification that a biological agent attack has occurred. This program element also provides for the development of biological defense medical programs. DoD Biological Defense medical mission will address: (1) protective vaccines - vaccination capability against the most probable biological threat agents; (2) identification - clinical identification of biological threat agents through medical evaluation and laboratory analysis to augment early warning capabilities.</p> <p>The projects in this program element support efforts in the system development phases of the acquisition strategy and are therefore correctly placed in Budget Activity 5.</p>		
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B. <u>Program Change Summary:</u>	<u>FY 2008</u>	<u>FY 2009</u>	<u>FY 2010</u>	
Previous President's Budget (FY 2009 PB)	251526	299373	212815	
Current Biennial Budget (FY 2010 PB)	277699	300149	332895	
Total Adjustments	26173	776	120080	
a. Congressional Program Reductions	0	-824	0	
b. Congressional Increases	0	1600	0	
c. Reprogrammings	29281	0	0	
d. SBIR/STTR Transfer	-3108	0	0	
e. Other Adjustments	0	0	120080	

Change Summary Explanation:

Funding: FY10 - Baseline program realignments to support RDT&E program initiatives (+\$56,335K CA5; +\$5,891K CM5; +\$10,400K CO5; +\$12,891K DE5; +\$19,196K IOP5; +\$5,800K IS5; +\$8,851K MB5); Adjustments to align T&E program initiatives (+\$5,115K TE5); Adjustments for inflation assumption changes (-\$2,181K CA5; -\$191K CM5; -\$283K CO5; -\$743K DE5; -\$414K IP5; -\$715K IS5; -\$1,425K MB5; -349K MC5; - \$129K MR5; -\$919K TE5); NTA Adjustments (+\$2,200 CA5; +\$750K MC5).

Schedule: N/A

Technical: N/A

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BUDGET ACTIVITY RDT&E DEFENSE-WIDE/ BA5 - System Development and Demonstration (SDD)	PE NUMBER AND TITLE 0604384BP CHEMICAL/BIOLOGICAL DEFENSE (SDD)	PROJECT CA5
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COST (In Thousands)	FY 2008 Actual	FY 2009 Estimate	FY 2010 Estimate		
CA5 CONTAMINATION AVOIDANCE (SDD)	45754	51924	98120		

A. Mission Description and Budget Item Justification:

Project CA5 CONTAMINATION AVOIDANCE (SDD): This funding supports Engineering and Manufacturing Development and Low Rate Initial Production (EMD/LRIP) of an array of reconnaissance, detection and identification equipment, and warning systems.

Efforts funded in this project are: (1) Chemical, Biological, Radiological, and Nuclear CBRN Dismounted Reconnaissance Systems (formerly JNBCRS Increment 2); (2) Joint Biological Point Detection System (JBPDS); (3) Joint Biological Stand-off Detection System (JBSDS); (4) Joint Biological Tactical Detection System (JBTDS); (5) Joint Chemical Agent Detector (JCAD); (6) Joint Chemical Biological Radiological Agent Water Monitor (JCBRAWM); (7) Joint Service Chemical Biological and Chemical Reconnaissance Systems Increment 3 (JNBCRS 3); (8) Major Defense Acquisition Program (MDAP) Support; (9) Next Generation Chemical Standoff Detection (NGCSD); (10) Non-Traditional Agent Detection Support; and (11) Non-Traditional Agent Detection Sensor Suite Integration for NBC Reconnaissance Systems (SSI NBCRS) (formerly JNBCRS Increment 3).

The CBRN Dismounted Reconnaissance Systems program fills a mission critical need to enhance CBRN reconnaissance platoon capabilities. The program consists of two Phases. Phase I is the dismounted reconnaissance (DR) sets, kits and outfits (SKO) configuration which provides an immediate critical need consisting of COTS and GOTS integrated into a modular, transportable container for dismounted operations. It will form the basis for Phase II which is the Monitoring and Survey (MS) SKO. The MS SKO will feature technology insertion, the addition of net-centric capability, and tailoring to focus on the service-specific needs, to include NTA detection. JNBCRS Increment 2 is replaced by CBRN Dismounted Reconnaissance Systems for FY10.

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<p>JBPDS is a Joint Service biological detector system for the Services. The Army platforms include the JBPDS on the Biological Integrated Detection System (BIDS). The Air Force will employ the JBPDS trailer and fixed site variant to support air bases and expeditionary and forward operating forces. The Navy has identified the Aegis class ships for installation of the JBPDS. The JBPDS is a fully automated system that increases the number of agents that can be identified by the current BIDS P3I and IBADS, and provides first-time point biological detection capability to the Air Force. An evolutionary component/suite upgrade acquisition approach will be used to take advantage of emerging technologies and to provide the services with enhanced detection performance at lower life cycle costs.</p> <p>JBSDS is the first standoff early warning biological detection (BD) system for the Joint Services. The system will be capable of providing near real time detection of biological attacks/incidents and standoff early detection/warning (Detect to Warn) of biological warfare (BW) agents at fixed sites or when mounted on vehicles. It will be capable of providing standoff detection, ranging, tracking, discrimination (man-made vs. natural occurring aerosols) of BW aerosol clouds for advanced warning, reporting, and protection. The JBSDS will augment and integrate with existing BD systems to provide a BD network capable of near real time detection and warning theater-wide to limit the effects of biological agent hazards against U.S. forces at the tactical and operational levels of war. The JBSDS can be employed in support of various areas (e.g., fixed sites, Air Ports of Debarkation/Sea Ports of Debarkation (APODs/SPODs), amphibious landing sites, etc.), or on platforms (ships, aircraft or ground vehicles). The JBSDS is employing an incremental acquisition strategy.</p> <p>The JBSDS Increment 2 will use a development cycle that builds on the capabilities demonstrated during the development of JBSDS Increment 1. The JBSDS Increment 2 system will focus on decreasing size, weight and power requirements, improving the false alarm rate and detection sensitivity. JBSDS Increment 2 will focus on the development of a system that can be used at fixed site installations. JBSDS Increment 3 will focus on the development of a system that will operate on mobile platforms as determined by the warfighter. The JBSDS Increment 2 will also integrate with the global information network to provide near real time detection and warning theater wide to limit the effect of biological agent hazards against U.S. forces at the tactical and operational levels of war.</p>		
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<p>The Joint Biological Tactical Detection System (JBTDSD) program will be a lightweight biological agent system that will detect, warn, provide presumptive identification and samples for follow-on confirmatory analysis. JBTDSD will provide a local alarm and when networked provide cooperative capability with reduced probability of false alarms. The JBTDSD will be one man portable and capable of being battery operated. The JBTDSD will be employed organically at the wing, battalion, squadron and lower levels by non-CBRN personnel in tactical environments across multiple operational locations (e.g. forward operating bases, operationally engaged units, amphibious landing sites, air base operations, etc) to provide near real time detection of biological attacks and notification to personnel in the potential hazard area. JBTDSD will ultimately support force protection and maximize combat effectiveness by providing situational awareness and surveillance and enhancing medical response decision making. When networked, JBTDSD will augment existing biological detection systems to provide a theater-wide seamless array capable of biological detection and warning.</p> <p>The JCAD program employs an incremental acquisition strategy to develop a miniaturized, rugged, and portable point chemical agent detector that automatically and simultaneously detects, identifies, quantifies, and alerts in the presence of nerve, blister, and blood chemical warfare agents. JCAD will provide warfighter and simple platform mounted systems. The Enhanced JCAD will add low concentration detection, low volatility chemicals and expand platform utility will be added. JCAD will be used for aircraft, shipboard, wheeled vehicles, stand alone, and individual soldier applications. JCAD will replace the Automatic Chemical Agent Detector and Alarm (ACADA), Chemical Agent Monitor (CAM), Improved Chemical Agent Monitor (ICAM), and other legacy systems currently used by the individual Services.</p> <p>The JCBRAWM will provide the ability to detect, identify, and quantify chemical, biological, and radiological (CBR) contamination during three water-monitoring missions: source site selection/reconnaissance; treatment verification; and quality assurance of stored and distributed product water. The JCBRAWM program employs an evolutionary acquisition approach structured to provide four increments of capability. Increment 1 will provide the capability to detect two biological agents using immunoassays and to detect alpha and beta radiation using components of the fielded AN/PDR-77 system and accessory package. Increment 2 will provide capability to detect eight additional biological agents using a sample concentrator. Increment 3 will provide a new detection system to replace the M272 Water Test Kit capable of batch sampling and detection of chemical warfare agents to include Non-Traditional Agents (NTAs) and Toxic Industrial Chemicals (TICs). Increment 4 will provide a capability for in-line monitoring of water to detect chemical, biological, and radiological agents. Increment 4 will replace the three previous increments for most applications.</p>		
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<p>The JNBCRS Increment 2 (which has been renamed to CBRN Dismounted Reconnaissance Systems for FY10) fills a mission critical need to enhance CBRN reconnaissance platoon capabilities. The program consists of two Phases. Phase I is the dismounted reconnaissance (DR) sets, kits and outfits (SKO) configuration which provides an immediate critical need consisting of COTS and GOTS integrated into a modular, transportable container for dismounted operations. It will form the basis for Phase II which is the Monitoring and Survey (MS) SKO. The MS SKO will feature technology insertion, the addition of net-centric capability, and tailoring to focus on the service-specific needs, to include NTA detection.</p> <p>The JNBCRS Increment 3 will provide Chemical Biological Mass Spectrometer (CBMS) Bio and Joint Contaminated Surface Detector (JCSD) capability to the Stryker Product Improvement Program and Future Mounted Armored Reconnaissance Platforms. The CBMS II Bio effort will add the biological weapon detection and identification capability to the existing chemical liquid, chemical vapor, and developmental toxic industrial chemical capabilities. The integration of liquid chemical and biological aerosol detection, within a single sensor; saves size, weight, and power on the platform. The JCSD will provide an improved mobile reconnaissance capability and on-the-move, non-contact, detection and identification of Chemical Warfare Agents (CWAs), Toxic Industrial Chemicals (TICs), and other Non-Traditional Agents (NTAs) using laser induced Raman Spectroscopy. Target surfaces are illuminated by laser light, and contaminants in the field of view are identified through analysis of their Raman backscatter signal against a wide library of Raman spectra. The JNBCRS Increment 3 is renamed to SSI NBCRS starting in FY10.</p> <p>Major Defense Acquisition Program (MDAP) Support - The MDAP Support program will integrate System of Systems (SoS) solutions across the Armed Services for Major Defense Acquisition Programs (MDAP) having Chemical and Biological Radiological and Nuclear (CBRN) survivability requirements. The program will demonstrate modular, net-centric, "plug-n-play" capabilities for mounted and dismounted CBRN reconnaissance that will establish a common CBRN reconnaissance architecture across the services.</p> <p>Non-Traditional Agent Detection (NTA) Support - The NTA Detection support program is a new start which will provide a family of broad spectrum detection systems, through spiral evolution, that will enhance the Warfighter's ability to attain situational awareness and respond to unknown and emerging hazards. The program will provide a near term capability to detect priority emerging threat materials in addition to affording a common core technology that can be exploited to serve a broad spectrum detection system for lab deployable, fixed site, and handheld applications.</p>		
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The JSLSCAD effort initiated the component improvements and the Technology Readiness Assessment (TRA) for the System of Systems (SoS) approach to address the CB early warning mission within the Next Generation Chemical Standoff Detection (NGCSD) program. The NGCSD SoS approach will increase the range of standoff detection and decrease detection time.

The NGCSD effort will provide early warning for both traditional and non-traditional chemical agent attacks at fixed sites, forward operating bases and on Service designated vehicles and ships. This effort will develop and integrate new standoff sensor technologies for future standoff systems. The detector will interoperate with the Services and Joint Command, Control, Communications, Computers, Intelligence, Surveillance and Reconnaissance (C4ISR) architectures.

The SSI NBCRS will provide Chemical Biological Mass Spectrometer Block (CBMS) Bio and Joint Contaminated Surface Detector (JCSD) capability to the Stryker Nuclear, Biological and Chemical Reconnaissance Vehicle (NBCRV) and Joint Nuclear, Biological, Chemical Reconnaissance System (JNBCRS) Light Armored Vehicle (LAV). The CBMS Bio effort will add the biological weapon detection and identification capability to the existing chemical, liquid, chemical vapor, toxic industrial chemical capabilities. The integration of liquid chemical and biological aerosol detection, within a single sensor; saves size, weight, and power on the platform. The JCSD will provide an improved mobile reconnaissance capability and on-the-move, non-contact, detection and identification of Chemical Warfare Agents (CWAs), Toxic Industrial Chemicals (TICs), and other Non-Traditional Agents (NTAs) using laser induced Raman Spectroscopy. Target surfaces are illuminated by laser light, and contaminants in the field of view are identified through analysis of their Raman backscatter signal against a wide library of Raman spectra. The SSI NBCRS was named JNBCRS Increment 3 prior to FY10.

B. Accomplishments/Planned Program

	<u>FY 2008</u>	<u>FY 2009</u>	<u>FY 2010</u>
CBRN DISMOUNTED RECONNAISSANCE SYSTEMS	0	0	14118
RDT&E Articles (Quantity)	0	0	0

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Accomplishments/Planned Program	FY 2008	FY 2009	FY 2010
CBRN DRS - FY10 - Conduct engineering support (Govt).	0	0	718
CBRN DRS - FY10 - Conduct Low Rate Initial Production Test & Evaluation.	0	0	4500
CBRN DRS - FY10 - Initiate Operational Assessment.	0	0	4300
CBRN DRS - FY10 - Initiate development of sensor interface compliance.	0	0	2400
CBRN DRS - FY10 - Initiate, design and develop NTA capability.	0	0	2200
Total	0	0	14118

	<u>FY 2008</u>	<u>FY 2009</u>	<u>FY 2010</u>
JOINT BIO POINT DETECTION SYSTEM (JBPDS)	0	5281	18715
RDT&E Articles (Quantity)	0	0	0

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Accomplishments/Planned Program				
JBPDS - FY09/10 - Initiate and continue strategic and tactical planning, government system engineering, program/financial management, costing, contracting, scheduling, acquisition oversight and technical support.		0	600	806
JBPDS - FY10 - Initiate integration of the new Identifier Line Replaceable Unit (LRU) into the JBPDS Build II system.		0	0	5078
JBPDS - FY09 - Conduct engineering development, integration and testing of the JBPDS onto a new trailer platform with a 5kW generator.		0	2950	0
JBPDS - FY10 - Initiate the development and testing of new consumables for the JBPDS Build II Identifier LRU (transition from lateral flow assay to electro chemical luminescence (ECL) assay).		0	0	2000
JBPDS - FY09 - Initiate development of the new Detector Line Replaceable Unit (LRU) for the JBPDS Build II system. FY10 - Continue development and modification of new Detector LRU, conduct component level testing and initiate system level integration.		0	1731	5331
JBPDS - FY10 - Initiate and complete development, component level testing and integration of the new Collector Line Replaceable Unit (LRU) for the JBPDS Build II system.		0	0	5500
Total		0	5281	18715

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	<u>FY 2008</u>	<u>FY 2009</u>	<u>FY 2010</u>
JOINT BIO STANDOFF DETECTOR SYSTEM (JBSDS)	5085	10170	0
RDT&E Articles (Quantity)	0	0	0

Accomplishments/Planned Program	FY 2008	FY 2009	FY 2010
JBSDS INC 2 - FY08/09 - Conduct Fluorescence System Development for Technology Demonstration V.	1850	1150	0
JBSDS INC 2 - FY09 - Conduct Agent Performance Assessment.	0	1787	0
JBSDS INC 2 - FY08/09 - Continue Modeling and Simulation.	325	1543	0
JBSDS INC 2 - FY08 - Completed Technology Demonstration Analysis and Reporting.	750	0	0
JBSDS INC 2 - FY08/09 - Provide strategic and tactical planning, government system engineering, program/financial management, costing, contracting, scheduling, acquisition oversight and technical support.	1035	2977	0
JBSDS INC 2 - FY09 - Develop Test Equipment for Technology Demonstration V.	0	2338	0

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Accomplishments/Planned Program (Cont):	FY 2008	FY 2009	FY 2010
JBSDS INC 1 - FY08 - Conducted Production Verification Testing-3B.	1125	0	0
JBSDS INC 1 - FY09 - Provide Test Support.	0	375	0
Total	5085	10170	0

	<u>FY 2008</u>	<u>FY 2009</u>	<u>FY 2010</u>
JOINT BIO TACTICAL DETECTION SYSTEM (JBTDS)	0	262	0
RDT&E Articles (Quantity)	0	0	0

Accomplishments/Planned Program	FY 2008	FY 2009	FY 2010
JBTDS - FY09 - Conduct strategic/tactical planning, government systems engineering, program/financial management, costing, technology assessment, contracting, scheduling, acquisition oversight and technical support.	0	262	0
Total	0	262	0

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	<u>FY 2008</u>	<u>FY 2009</u>	<u>FY 2010</u>
JOINT CHEMICAL AGENT DETECTOR (JCAD)	11572	13617	8216
RDT&E Articles (Quantity)	44	0	0

Accomplishments/Planned Program	FY 2008	FY 2009	FY 2010
JCAD - FY08 - Completed JCAD Multi-Service Operational Test and Evaluation (MOT&E).	250	0	0
JCAD - FY08/09 - Purchase and support Enhanced JCAD systems.	880	608	0
JCAD - FY08/09/10 - Continue Enhanced JCAD Production Verification Testing (PVT).	8962	6500	7045
JCAD - FY08/09/10 - Provide systems engineering support.	1480	6509	1171
Total	11572	13617	8216

	<u>FY 2008</u>	<u>FY 2009</u>	<u>FY 2010</u>
JS CHEM/BIO/RAD AGENT WATER MONITOR (JCBRAWM)	2249	2550	0
RDT&E Articles (Quantity)	20	0	0

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Accomplishments/Planned Program	FY 2008	FY 2009	FY 2010
JCBRAWM - FY08 - Procured Increment 1 systems (20 systems with consumables).	444	0	0
JCBRAWM - FY08/09 - Provide government systems engineering support.	815	2550	0
JCBRAWM - FY08 - Conducted Increment 1 Multi-Service Operational Test and Evaluation (MOT&E).	720	0	0
JCBRAWM - FY08 - Corrected technical deficiencies identified during Multi-Service Operational Test and Evaluation (MOT&E) and conduct follow on test to validate.	270	0	0
Total	2249	2550	0

	<u>FY 2008</u>	<u>FY 2009</u>	<u>FY 2010</u>
JOINT NBC RECONNAISSANCE SYSTEM (JNBCRS) INC 2	5394	6959	0
RDT&E Articles (Quantity)	0	0	0

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Accomplishments/Planned Program	FY 2008	FY 2009	FY 2010
JNBCRS INC 2 - FY08/09 - Initiate and continue program, develop program documentation, award contract for Integrated Logistics Support (ILS), design and test.	3000	4000	0
JNBCRS INC 2 - FY08 - Performed Developmental Test and Evaluation for Urgent Needs.	1500	0	0
JNBCRS INC 2 - FY08/09 - Initiate and continue DT/OT planning and other test agency support.	450	2500	0
JNBCRS INC 2 - FY08/09 - Initiate and continue Systems Engineering Support (Gov't).	444	459	0
Total	5394	6959	0

	<u>FY 2008</u>	<u>FY 2009</u>	<u>FY 2010</u>
JOINT NBC RECONNAISSANCE SYSTEM (JNBCRS) INC 3	8033	3896	0
RDT&E Articles (Quantity)	0	0	0

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Accomplishments/Planned Program		FY 2008	FY 2009	FY 2010
JNBCRS INC 3 - FY08 - (CBMS II) Conducted Inter-agency agreement close out.		217	0	0
JNBCRS INC 3 - FY08 - (JCSD) Completed hardware maturation effort.		2419	0	0
JNBCRS INC 3 - FY08 - (JCSD) Completed software analysis and documentation support.		535	0	0
JNBCRS INC 3 - FY08 - (JCSD) Initiated and completed hardware development.		150	0	0
JNBCRS INC 3 - FY08/09 - (CBMS) Initiate and continue full and open competition for Chemical/Biological sensor capability.		3113	2397	0
JNBCRS INC 3 - FY08 - (JCSD/CBMS) Completed engineering support (Gov't).		850	0	0
JNBCRS INC 3 - FY08 - (CBMS) Completed developmental testing for Toxic Industrial Chemical (TIC) capability.		749	0	0
JNBCRS INC 3 - FY09 - Conduct and complete Design and Development Testing of Joint Warning and Reporting Network (JWARN) and Common CBRN Sensor Interface (CCSI) compliant detectors.		0	1499	0
Total		8033	3896	0

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BUDGET ACTIVITY RDT&E DEFENSE-WIDE/ BA5 - System Development and Demonstration (SDD)	PE NUMBER AND TITLE 0604384BP CHEMICAL/BIOLOGICAL DEFENSE (SDD)	PROJECT CA5
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	<u>FY 2008</u>	<u>FY 2009</u>	<u>FY 2010</u>
JS LIGHTWEIGHT STANDOFF CHEM AGENT DET (JSLSCAD)	8832	1815	0
RDT&E Articles (Quantity)	0	0	0

Accomplishments/Planned Program	FY 2008	FY 2009	FY 2010
JSLSCAD - FY09 - Provide Test Site Support for Future Standoff Detection.	0	400	0
JSLSCAD - FY08 - Provided Test and Evaluation Support for Future Standoff Detection Operational Demo.	387	0	0
JSLSCAD - FY08 - Conducted Modeling and Analysis for Future Standoff Detection.	337	0	0
JSLSCAD - FY08/09 - Conduct Sensor Hardware Development to Support Future Standoff Detection Operational Demo.	2390	389	0
JSLSCAD - FY08/09 - Conduct Integrated Sensor Development and Testing from multiple vendors to support Future Standoff Detection Operational Demo.	2886	1026	0

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Accomplishments/Planned Program (Cont):		FY 2008	FY 2009	FY 2010
JSLSCAD - FY08 - Conducted Design and Development Testing of Joint Warning and Reporting Network (JWARN) and Common CBRN Sensor Interface (CCSI) compliant detectors.		2832	0	0
Total		8832	1815	0
		<u>FY 2008</u>	<u>FY 2009</u>	<u>FY 2010</u>
MDAP SUPPORT		4589	6771	9370
RDT&E Articles (Quantity)		0	0	0
Accomplishments/Planned Program		FY 2008	FY 2009	FY 2010
MDAP SPRT - FY08/09 - Continue analysis and development of SoS architecture that supports MDAP operational architectures and provides Chemical Biological Radiological Nuclear (CBRN) defense capabilities.		2000	2125	0
MDAP SPRT - FY08/09 - Initiate and continue Developmental Test (DT) to validate and verify SoS concept prior to MDAP integration.		2000	3945	0
MDAP SPRT - FY08/09 - Provide strategic/tactical planning, government systems engineering, financial management, technology assessment, contracting, scheduling, acquisition oversight and technical support.		589	701	0
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Accomplishments/Planned Program (Cont):		FY 2008	FY 2009	FY 2010
MDAP SPRT- FY10 - Initiate development of MDAP Support Decision Support Networks and Software. This will enable CBRN information to be disseminated across the battle space in a more timely manner increasing command capability and Warfighter safety.		0	0	1084
MDAP SPRT - FY10 - Initiate development of modular CBRN sensing capabilities that will enable commander's to tailor their CBRN (Chemical, Biological, Radiological and Nuclear) detection efforts, while decreasing false positive readings.		0	0	1187
MDAP SPRT - FY10 - Initiate development of Advanced Technology Collective Protection Demonstrator to increase CBRN defensive capability and reduce logistical costs.		0	0	1070
MDAP SPRT - FY10 - Initiate development of reactive, removable decontamination coatings that will enable Warfighters to expeditiously decontaminate equipment in the field.		0	0	1235
MDAP SPRT- FY10 - Perform Decision Support Software modeling and simulation and trade-off analysis.		0	0	1683
MDAP SPRT - FY10 - Initiate Collective Protection Advanced Technology Demonstrator/Reactive Coating and Removal Coating Development Testing (DT).		0	0	800
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Accomplishments/Planned Program (Cont):	FY 2008	FY 2009	FY 2010
MDAP SPRT - FY10 - Provide strategic/tactical planning, government systems engineering, program/financial management, costing, technology assessment, contracting, scheduling, acquisition oversight, and technical support.	0	0	2311
Total	4589	6771	9370

	<u>FY 2008</u>	<u>FY 2009</u>	<u>FY 2010</u>
NEXT GENERATION CHEMICAL STANDOFF DETECTION (NGCSD)	0	0	15579
RDT&E Articles (Quantity)	0	0	4

Accomplishments/Planned Program	FY 2008	FY 2009	FY 2010
NGCSD - FY10 - Develop and procure prototype systems (4 sets of GFE components at a cost of \$600 each).	0	0	4000
NGCSD - FY10 - Initiate system integration contract to support multi-sensors data fusion.	0	0	5000
NGCSD - FY10 - Initiate service support for capability document development, CONOPS, Tactic, Techniques and Procedures (TTPs), etc..	0	0	450

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Accomplishments/Planned Program (Cont):	FY 2008	FY 2009	FY 2010
NGCSD - FY10 - Provide engineering support.	0	0	2479
NGCSD - FY10 - Initiate Developmental Test (DT) for next generation standoff detection.	0	0	2750
NGCSD - FY10 - Initiate logistics efforts for manuals, maintenance, sparing, etc.	0	0	600
NGCSD - FY10 - Initiate planning for Early Operational Assessment (EOA).	0	0	300
Total	0	0	15579

	<u>FY 2008</u>	<u>FY 2009</u>	<u>FY 2010</u>
NON TRADITIONAL AGENT DETECTION	0	0	14608
RDT&E Articles (Quantity)	0	0	0

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Accomplishments/Planned Program	FY 2008	FY 2009	FY 2010
NTA DETECT - FY10 - Initiate Commercial Off the Shelf (COTS)/Government Off the Shelf (GOTS) evaluation for Installation Force Protection Mission Areas.	0	0	1350
NTA DETECT - FY10 - Initiate integration of COTS components and library build for the Lab Deployable Mass Spectrometer.	0	0	1683
NTA DETECT - FY10 - Initiate engineering to support reduced form factor for the Man Portable Mass Spectrometer.	0	0	3075
NTA DETECT - FY10 - Initiate Development Testing (DT) and Operational Assessment (OA) to support initial capability and development testing of the mass spectrometer.	0	0	8500
Total	0	0	14608

	<u>FY 2008</u>	<u>FY 2009</u>	<u>FY 2010</u>
SENSOR SUITE AND INTEGRATION FOR NBC RECON SYSTEMS (SSI)	0	0	17514
RDT&E Articles (Quantity)	0	0	0

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Accomplishments/Planned Program		FY 2008	FY 2009	FY 2010
SSI NBCRS - FY10 - (CBMS) Initiate engineering support.		0	0	704
SSI NBCRS - FY10 - (CBMS) Initiate biological capability sensor development.		0	0	3500
SSI NBCRS - FY10 - (CBMS) Conduct biological capability sensor developmental test and evaluation.		0	0	2000
SSI NBCRS - FY10 - (JCSD) Initiate engineering support.		0	0	580
SSI NBCRS - FY10 - (JCSD) Initiate sensor system development and demonstration.		0	0	6930
SSI NBCRS - FY10 - (JCSD) Initiate sensor developmental testing and evaluation.		0	0	1300
SSI NBCRS - FY10 - (NBCRS SSI) Initiate platform integration of improved chemical and biological capable sensors.		0	0	2500
Total		0	0	17514

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	<u>FY 2008</u>	<u>FY 2009</u>	<u>FY 2010</u>
SBIR/STTR	0	603	0
RDT&E Articles (Quantity)	0	0	0

Accomplishments/Planned Program	FY 2008	FY 2009	FY 2010
SBIR - FY09 - Small Business Innovative Research.	0	603	0
Total	0	603	0

C. <u>Other Program Funding Summary:</u>	<u>FY 2008</u>	<u>FY 2009</u>	<u>FY 2010</u>		
JC0100 JOINT BIO POINT DETECTION SYSTEM (JBPDS)	77604	75545	45106		
JC0101 JS CHEM/BIO/RAD AGENT WATER MONITOR (JCBRAWM)	3416	6000	3194		
JC0250 JOINT BIO STANDOFF DETECTOR SYSTEM (JBSDS)	3200	4000	0		
JC1500 NBC RECON VEHICLE (NBCRV)	7764	0	0		
JF0100 JOINT CHEMICAL AGENT DETECTOR (JCAD)	44838	53306	27780		

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D. Acquisition Strategy:

CBRN DRS	The CBRN DRS program uses spiral development with an evolutionary component/suite upgrade acquisition approach. FY10 funding finalizes the design and development of holistic, net-centric systems architecture to take advantage of emerging technologies and to provide the Services with enhanced full spectrum CBRN detection capability to support strategic, operational, and tactical objectives at lower life cycle costs. CBRN DRS will enhance the Situation Awareness (SA) by providing a dismounted ability to detect chemical, biological and radiological hazards across the Range of Military Operations (ROMO) and employ contamination avoidance activities to prevent disruption to operations and organizations.
JBPDS	The Joint Biological Point Detection System (JBPDS) utilizes an open systems approach to insert maturing and validated technologies as part of the overall acquisition strategy to expedite fielding of a credible force protection. Through the course of Low Rate Initial Production (LRIP), the system was technically and operationally tested in phases to ensure that the system is suitable and effective. The program will utilize results from testing to upgrade the system's line replaceable units (LRUs) to improve system performance, availability, and lower ownership cost. Per Director, Operational Test and Evaluation (DOT&E) Memorandum dated July 9, 2002, the program will continue to support the development of a Whole System Live Agent Test (WSLAT) capability.
JBSDS	INCREMENT 1 The JBSDS will use an evolutionary acquisition strategy with phased developments for the JBSDS program supporting time-phased JORD requirements. The JBSDS will provide an operationally useful and supportable capability in as short a time as possible. Increment 1 JBSDS will incorporate an accelerated development cycle relying on the modification of existing GOTS and COTS technologies. A down-select of existing systems via a competitive test fly-off resulted in a selection of a single system to enter Low Rate Initial Production (LRIP) to support the Government testing program.

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INCREMENT 2

The JBSDS Increment 2 program will pursue an evolutionary approach to provide capability to the warfighter in the shortest possible timeframe. The JBSDS Increment 2 program was separated into two efforts based on feedback from combat developers regarding Concept of Operations (CONOPS), future requirements needs and current technology readiness. JBSDS Increment 2 addresses the need for a 24 hour operational fixed site system. Increment 3 will address the need for a mobile system.

The JBSDS Increment 2 program has investigated, monitored and developed promising technology areas for biological standoff since 2004. The technology development phase has involved several partners within JSTO, ECBC, academia, national laboratories and several members of private industry. Technologies have been demonstrated in varying environments with numerous biological and interferent sources. The development work to date has focused on hardware maturation, algorithm development and agent signature measurements. Technology Demonstration V (Tech Demo V) for the Increment 2 JBSDS is scheduled for 3QFY09. Technology areas will be demonstrated at Tech Demo V and assessed based on preliminary CDD KPPs, KSAs and other requirements. A Technology Readiness Assessment (TRA) will also be completed for each technology area in the categories of hardware and system. Results from Tech Demo V, supporting signature efforts and modeling and simulation will be used to ensure a higher confidence for a majority of technologies that will be discussed in proposals submitted for the JBSDS Increment 2 EMD contract.

A competitively awarded contract is planned for the JBSDS Increment 2 EMD phase to develop and/or integrate prototypes for DT and complete an Operational Assessment (OA) prior to MS C. The justification for the type contract (Fixed Price or Cost Plus) will be completed prior to this decision in accordance with the latest Defense Acquisition and the Office of Management and Budget (OMB) guidelines. The appropriate system requirements reviews, test readiness reviews, software reviews and audits will be scheduled as needed within the EMD phase.

Upon approval at MS C, the JBSDS System Manager will initiate acquisition of production representative systems to conduct a Multi-Service Operational Test and Evaluation (MOT&E).

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	<p>Each future increment defined via a separate CDD and CPD and will follow a similar path/process from MS B or C through FRP and will leverage preceding efforts to the greatest extent possible, maintaining commonality and synergy across all increments. It is intended to continue to use M&S tools in order to lower the program risks and reduce costs and ensure a higher confidence in selected technologies.</p>	
JBTDS	<p>The Joint Biological Tactical Detection (JBTDS) program will pursue an evolutionary incremental approach to provide capability to the warfighter. The JBTDS program will develop, integrate, test, procure and field systems that improve biological aerosol detection and sampling capabilities. The JBTDS program will also reduce size, weight, power consumption, and logistic footprint over current systems. Test Readiness Evaluations (TRE) will support the JBTDS EMD phase by identifying mature technologies. Modeling and simulation tools will be used in order to lower program risks, reduce costs and ensure a higher confidence in selected technologies.</p>	
JCAD	<p>A new Joint Chemical Agent Detector (JCAD) Acquisition Program Baseline and Single Acquisition Management Plan was approved in Sep 05. The new strategy employs an incremental acquisition approach to provide a military significant capability in the shortest time with subsequent improvements to that capability. JCAD will provide simultaneous and automatic detection and identification of chemical warfare agents by class (nerve, blister and blood) to the warfighter and be platform mountable. The Enhanced JCAD will add low concentration detection and expanded platform utility will be added. Four commercial systems were initially tested, with one selected for Low Rate Initial Production (LRIP). A Sole Source Firm Fixed Price (SS/FFP) contract was awarded in Jun 07 for LRIP. Options for Full Rate Production (FRP) were added by modification, Jul 08. To add capability, a competitive solicitation was issued that includes FFP options for test articles, LRIP and FRP.</p>	
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JCBRAWM	<p>JCBRAWM will provide an enhanced detection capability for waterborne CBR agents using an incremental acquisition strategy. Increment 1 will provide the first biological and radiological detection capability in water based on technologies transitioned from S&T. A combined Technology Development and System Development and Demonstration phase was approved at MS A based on the maturity of the technologies coming from S&T. The JCBRAWM system leverages commercial technologies and GOTS systems to the greatest extent possible. Developmental testing was initiated with these technologies in 2QFY07 and concluded in 1QFY08. In addition, items were procured and tested from the Critical Reagents Program (CRP) to assess the possibility of using the fielded CRP products as-is in support of Increment 1. The results from the CRP items were promising but additional development was required to optimize the items for use in water. MS C LRIP was approved 3QFY08. The JPM has initiated production of LRIP systems in partnership with Tobyhanna Army Depot. MOT&E was conducted in 4QFY08; FRP is planned for 3QFY09. JCBRAWM Increment 2 will improve on the Increment 1 biological detection capability. In the outyears, Increment 3 will replace the M272 Water Test Kit chemical agent detection capability with new technology and Increment 4 will provide a capability for in-line and continuous sampling for CBR contamination.</p>	
JNBCRS 2	<p>The CBRN DR (formally JNBCRS Inc 2) fills a mission critical need to enhance Chemical, Biological, Radiological and Nuclear (CBRN) dismounted reconnaissance platoon capabilities. The program consists of two Phases. Phase I is the dismounted reconnaissance (DR) sets kis and outfits (SKO) configuration which provides an immediate critical need consisting of COTS and GOTS integrated into a modular, transportable container for dismounted operations. It will form the basis for Phase II which is the Monitoring and Survey (MS) SKO. The MS SKO will feature technology insertion, the addition of net-centric capability, and tailoring to focus on the service-specific needs, to include NTA detection. JNBCRS Increment 2 is replaced by CBRN DR for FY10.</p>	
JNBCRS 3	<p>The JNBCRS Increment 3 program will develop and test system improvements to increase the military utility of the Stryker Product Improvement Program and Future Mounted Armored Reconnaissance Platforms. Separate Full & Open contracts will be awarded for both the CBMS Chem/BIO sensor and JCSD capabilities. Competitively awarding these contracts will reduce the acquisition life cycle costs, weight, power requirements, and size for the Reconnaissance platforms. The JCSD program will transition from the CBRN Unmanned Ground Reconnaissance (CUGR) Advanced Concept Technology Demonstration (ACTD) into the Engineering and Manufacturing Development & Demonstration phase in FY09. The JNBCRS Increment 3 program will be renamed to SSI NBCRS starting in FY10.</p>	
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JSLSCAD	<p>The acquisition strategy for the JSLSCAD production phase focused upon a dual path to procure required systems and concurrently develop and test system improvements to increase the military utility. The Milestone Decision Authority (MDA) approved procurement of additional JSLSCAD LRIP systems in February 2008. The Government awarded a Fixed Price Incentive contract to GD-ATP in July 2008 for production of systems to fulfill the NBCRV Extended LRIP requirements and additional delivery orders will be exercised for full rate production of systems to fulfill the remaining NBCRV requirements. The JSLSCAD program office awarded multiple contracts to support system engineering, software development, test & evaluation, and system support efforts to increase standoff detection capabilities to rapidly respond to evolving system integration requirements with minimal contractual lead time. All these efforts are being integrated into the Next Generation Chemical Standoff Detection (NGCSD) program.</p>	
MDAP SPRT	<p>Major Defense Acquisition Program (MDAP) Support program will integrate System of Systems (SoS) solutions across the Armed Service's for Major Defense Acquisition Programs (MDAP) having Chemical and Biological Radiological and Nuclear (CBRN) survivability requirements. The MDAP program will achieve these SoS solutions by: (1) leading CBRN architecture development and System Engineering efforts that result in SoS concepts that address requirements; (2) establishing agreements with the MDAPs on roles and responsibilities with respect to funding deliverables and integration; (3) demonstrating modular, net-centric, "plug-n-play" capabilities for mounted and dismounted CBRN reconnaissance requirements; (4) developing master schedules which synchronize support for CBRN capability integration with MDAPs' schedules; and (5) providing integrated program management across the CBRN commodity areas to deliver capabilities on time that support MDAP goals.</p>	
NGCSD	<p>The NGCSD program, which was initiated under the JSLSCAD program, will award Indefinite Delivery/Indefinite Quantity contract(s) to support system engineering, software development, test and evaluation, and system support efforts to increase standoff detection capabilities. This contract type will allow the program office to rapidly respond to evolving system integration requirements and emerging test results with minimal contractual lead time. This will optimize the program goal of inserting the latest software and standoff detection technology into the host platforms in the shortest possible time.</p>	
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NTA DETECT	<p>The NTA program will pursue an evolutionary approach to provide capability to the warfighter in the shortest possible time. The NTA program will incrementally integrate, test, procure, and field systems that afford situational awareness and the ability to respond to unknown and emerging hazards to the Warfighter. Leveraging COTS/GOTS assessments will be used in order to lower program risks, reduce costs, and ensure a higher confidence in selected technologies.</p>	
SSI NBCRS	<p>The SSI NBCRS program, previously named JNBCRS Increment 3 prior to FY10, will develop and test platform specific prototype CBMS Biological capability and JCSD. System development will be performed by separate full and open contract solicitations for CBMS and JCSD respectively, and will demonstrate a technology readiness level (TRL) of six in laboratory and field testing. The contract efforts will finalize the technical approach and produce at least three prototypes of each system. Extensive laboratory and early user testing will be conducted prior to integration, test and evaluation into the JNBCRS LAV. Upon successful completion of the JNBCRS LAV integration, test and evaluation, a Milestone C In-Process Review (IPR) will be held to approve low-rate initial production of the CBMS Bio and JCSD. The CBMS Bio and JCSD will be introduced to the Stryker Fleets via Sensor Suite Improvements in FY14.</p>	
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I. Product Development	Contract Method & Type	Performing Activity & Location	US NF CC	Total PYs Cost	FY 2009 Cost	FY 2009 Award Date	FY 2010 Cost	FY 2010 Award Date					
CBRN DRS													
DRMS SKO Program Development	C/CPIF	TBD	C	0	0	NONE	1000	2Q FY10					
DRMS SKO Program Development	C/CPIF	TBD	C	0	0	NONE	1400	2Q FY10					
NTA Detection	C/CPIF	TBD	C	0	0	NONE	2200	2Q FY10					
JBPDS													
HW S - Trailer Development	MIPR	ECBC, APG, MD	U	0	600	1Q FY09	0	NONE					
HW SB - New Identifier development, modification and integration	C/CPFF	General Dynamics-Armament and Technical, Charlotte, NC	C	0	0	NONE	2774	2Q FY10					
HW SB - New Collector development, modification and integration	C/CPFF	General Dynamics-Armament and Technical, Charlotte, NC	C	0	0	NONE	4719	2Q FY10					
HW SB - New Detector (RAAD) development, modification and integration	MIPR	MIT-LL, Boston, MA	C	0	1731	2Q FY09	3358	2Q FY10					
HW C - Development of new consumables for new Identifier	MIPR	JPM CBMS, Ft. Detrick, MD	U	0	0	NONE	1450	1Q FY10					
HW SB - New Detector (RAAD) development, modification and integration	C/CPFF	General Dynamics - Armament & Technical, Charlotte, NC	C	0	0	NONE	1670	2Q FY10					

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I. Product Development - Cont.	Contract Method & Type	Performing Activity & Location	US NF CC	Total PYs Cost	FY 2009 Cost	FY 2009 Award Date	FY 2010 Cost	FY 2010 Award Date					
JBDS													
SW SB - INC 2 Design & develop prototypes	MIPR	Sandia National Lab/ITT, Albuquerque, NM	F	1850	900	2Q FY09	0	NONE					
SW SB - INC 2 Agent performance analysis	MIPR	Johns Hopkins - APL, Baltimore, MD, MIT-LL, Boston, MA	F	0	700	2Q FY09	0	NONE					
JCAD													
HW S - Purchase Commercial Detectors	C/FFP	Smiths Detection	C	0	608	3Q FY09	0	NONE					
JNBCRS 2													
JNBCRS INC 2 - System design and development of Monitoring and Survey SKO	C/CPFF	ICX, Pittsburgh, PA	C	1000	3000	2Q FY09	0	NONE					
JNBCRS INC 2 - System design and development of Monitoring and Survey SKO	C/CPFF	ICX, Pittsburgh, PA	C	1500	1000	2Q FY09	0	NONE					
JNBCRS 3													
CBMS - Chemical/Biological Sensor Capability	C/FPI	TBD	C	0	2397	4Q FY09	0	NONE					
JSLSCAD													
SW S - Integrated sensor Development and Testing	C/CPFF	TBD	U	0	1026	3Q FY09	0	NONE					

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I. Product Development - Cont.	Contract Method & Type	Performing Activity & Location	US NF CC	Total PYs Cost	FY 2009 Cost	FY 2009 Award Date	FY 2010 Cost	FY 2010 Award Date					
HW S - Sensor Hardware Development	MIPR	JHU-APL	U	0	389	3Q FY09	0	NONE					
MDAP SPRT													
SW SB - Integrate Commodity Area Hardware Systems to SoS Configuration	MIPR	ECBC, Edgewood, MD	C	2000	2125	2Q FY09	0	NONE					
SW S - Decision Support Software	C/CPAF	TBD	C	0	0	NONE	1084	2Q FY10					
SW S - Develop Modular CBRN Sensing Capability	C/CPAF	TBD	C	0	0	NONE	1187	2Q FY10					
HW S - Develop Advanced Technology Collective Protection Demonstrator	C/CPAF	TBD	C	0	0	NONE	1070	2Q FY10					
HW S - Develop Reactive/Removal Coatings	C/CPAF	TBD	C	0	0	NONE	1235	2Q FY10					
SW S - Decision Support Software Modeling and Simulation and Trade-Off Analysis	C/CPAF	TBD	C	0	0	NONE	1683	2Q FY10					
NGCSD													
HW SB - Prototype System Development and Procurement (4 GFE components)	C/CPFF	TBD	C	0	0	NONE	4000	3Q FY10					
SW C - System Integration Contract	C/CPFF	TBD	C	0	0	NONE	5000	3Q FY10					

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I. Product Development - Cont.	Contract Method & Type	Performing Activity & Location	US NF CC	Total PYs Cost	FY 2009 Cost	FY 2009 Award Date	FY 2010 Cost	FY 2010 Award Date					
NTA DETECT													
HW S - DESI Mass Spec	C/CPAF	ICX, Arlington, VA	C	0	0	NONE	2475	2Q FY10					
HW S - GOTS/ COTS Dual Use Assessment	C/CPAF	BATTELLE, Crystal City, VA	C	0	0	NONE	1104	2Q FY10					
SW S - DESI Mass Spec Library Development	MIPR	RDECOM, Aberdeen Proving Ground, MD	U	0	0	NONE	950	1Q FY10					
SSI NBCRS													
HW C - (CBMS) Biological Sensor Capability Development	C/CPIF	TBD	C	0	0	NONE	3500	2Q FY10					
HW C - (JSCD) Sensor System Development and Demonstration	C/FPI	TBD	C	0	0	NONE	6930	2Q FY10					
HW S - (SSI NBCRS) Platform Integration - JNBCRS LAV	C/FPI	TBD	C	0	0	NONE	2500	3Q FY10					
Subtotal I. Product Development:					14476		51289						

Remarks: JCBRAWM - FY08 - Increment 1 - 20 systems with consumables

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CBDP PROJECT COST ANALYSIS (R-3 Exhibit)	DATE May 2009
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BUDGET ACTIVITY RDT&E DEFENSE-WIDE/ BA5 - System Development and Demonstration (SDD)	PE NUMBER AND TITLE 0604384BP CHEMICAL/BIOLOGICAL DEFENSE (SDD)	PROJECT CA5
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II. Support Costs	Contract Method & Type	Performing Activity & Location	US NF CC	Total PYs Cost	FY 2009 Cost	FY 2009 Award Date	FY 2010 Cost	FY 2010 Award Date					
JBPDS													
ILS S - Trailer logistics and support documentation	C/FFP	General Dynamics - Armament and Technical, Charlotte, NC	C	0	1350	3Q FY09	0	NONE					
ILS SB - New Identifier/Collector/Detector logistics and support documentation	C/CPFF	General Dynamics - Armament and Technical, Charlotte, NC	C	0	0	NONE	1018	2Q FY10					
ILS SB - New Detector logistics and support documentation	MIPR	MIT-LL, Boston, MA	C	0	0	NONE	217	2Q FY10					
JBSDS													
ES S - INC 2 Modeling & simulation, test support	C/FFP	Bricks, Sigal & Miller, Inc, Kennett Square, PA	C	664	362	2Q FY09	0	NONE					
ES S - INC 2 Modeling & simulation, test support	C/CPFF	NAVSEA, Johns Hopkins-Applied Physics Lab, Baltimore, MD	C	4118	975	2Q FY09	0	NONE					
ES S - INC 2 Modeling & simulation, test support	MIPR	Sandia National Lab, Albuquerque, NM	F	0	1838	2Q FY09	0	NONE					
ILS SB - INC 2 Logistics support	MIPR	ECBC, Aberdeen Proving Ground, MD	U	0	100	2Q FY09	0	NONE					
ES SB - INC 2 Tech Demo V Test Equipment Support	MIPR	ECBC, Aberdeen Proving Ground, MD	U	0	500	3Q FY09	0	NONE					

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CBDP PROJECT COST ANALYSIS (R-3 Exhibit)	DATE May 2009
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BUDGET ACTIVITY RDT&E DEFENSE-WIDE/ BA5 - System Development and Demonstration (SDD)	PE NUMBER AND TITLE 0604384BP CHEMICAL/BIOLOGICAL DEFENSE (SDD)	PROJECT CA5
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II. Support Costs - Cont.	Contract Method & Type	Performing Activity & Location	US NF CC	Total PYs Cost	FY 2009 Cost	FY 2009 Award Date	FY 2010 Cost	FY 2010 Award Date					
ES S - INC 2 Modeling & simulation test support	C/FFP	Affero Resources, LLC, Edgewood, MD	C	0	326	3Q FY09	0	NONE					
NGCSD													
TD/D S - Logistics Development and Management	MIPR	Various	U	0	0	NONE	600	2Q FY10					
NTA DETECT													
ES SB - Mass Spectrometer Analysis and Evaluation	PO	TBD	U	0	0	NONE	675	1Q FY10					
Subtotal II. Support Costs:					5451		2510						

Remarks: JBPDS - JBPDS - FY11 - Build II LRIP - 22 systems @ \$413.6K each.

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CBDP PROJECT COST ANALYSIS (R-3 Exhibit)	DATE May 2009
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BUDGET ACTIVITY RDT&E DEFENSE-WIDE/ BA5 - System Development and Demonstration (SDD)	PE NUMBER AND TITLE 0604384BP CHEMICAL/BIOLOGICAL DEFENSE (SDD)	PROJECT CA5
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III. Test and Evaluation	Contract Method & Type	Performing Activity & Location	US NF CC	Total PYs Cost	FY 2009 Cost	FY 2009 Award Date	FY 2010 Cost	FY 2010 Award Date					
CBRN DRS													
DTE S - DR SKO LRIP	MIPR	ATEC, Alexandria, VA	U	0	0	NONE	4500	2Q FY10					
DTE S - MS SKO Developmental Testing	MIPR	ATEC, Alexandria, VA	U	0	0	NONE	4300	2Q FY10					
JBPDS													
DTE S - Trailer developmental testing	MIPR	ATEC, Aberdeen Proving Ground, MD	U	0	1000	2Q FY09	0	NONE					
DTE SB - New Identifier/Collector/Detector developmental testing	C/CPFF	General Dynamics - Armament and Technical, Charlotte, NC	C	0	0	NONE	2253	2Q FY10					
OTE C - Identifier consumable testing	MIPR	JPM CBMS, Ft Detrick, MD	U	0	0	NONE	450	1Q FY10					
JBSDS													
OTHT SB - INC 2 Networking algorithm development	MIPR	MA Institute of Technology-Lincoln Labs, Boston, MA	F	325	568	2Q FY09	0	NONE					
DTE SB - INC 2 Pre-Tech Demo V testing	MIPR	ITT, Albuquerque, NM	C	0	250	2Q FY09	0	NONE					
OTHT SB - INC 2 Agent performance analysis support	MIPR	DPG, Dugway, UT	U	0	399	2Q FY09	0	NONE					
OTHT SB - INC 1 Test Support	MIPR	DPG, Dugway, UT	U	0	375	3Q FY09	0	NONE					
JCAD													
DTE S - Enhanced JCAD Developmental Test	MIPR	Various	U	25272	6500	4Q FY09	7045	2Q FY10					

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CBDP PROJECT COST ANALYSIS (R-3 Exhibit)	DATE May 2009
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BUDGET ACTIVITY RDT&E DEFENSE-WIDE/ BA5 - System Development and Demonstration (SDD)	PE NUMBER AND TITLE 0604384BP CHEMICAL/BIOLOGICAL DEFENSE (SDD)	PROJECT CA5
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III. Test and Evaluation - Cont.	Contract Method & Type	Performing Activity & Location	US NF CC	Total PYs Cost	FY 2009 Cost	FY 2009 Award Date	FY 2010 Cost	FY 2010 Award Date					
JNBCRS 2													
OTE S - Initiate testing evaluation	MIPR	ATEC, Alexandria, VA	U	0	2500	2Q FY09	0	NONE					
JNBCRS 3													
DTE C - Design and Development Testing of JWARN/CCSI compliant detector	SS/CPFF	Smiths Detection, Edgewood, MD	U	0	1499	3Q FY09	0	NONE					
JSLSCAD													
OTHT S - Test Site Support	MIPR	Dugway Proving Ground, UT	U	0	400	2Q FY09	0	NONE					
MDAP SPRT													
DTE S - Demonstration and Technology (DT) Testing to Validate SoS Concept	MIPR	TBD	U	2000	3945	2Q FY09	0	NONE					
DTE S - Collective Protection, Reactive/Removable Coating DT	MIPR	ECBC, Edgewood, MD	U	0	0	NONE	800	1Q FY10					
NGCSD													
DTE S - Developmental Test Planning and Execution	MIPR	Various	U	0	0	NONE	2750	2Q FY10					
OTE S - Plan/Conduct Early Operational Assessment	MIPR	Various	U	0	0	NONE	472	2Q FY10					
NTA DETECT													
DTE S - Developmental Test Mass Spectrometer	MIPR	ECBC, APG, MD	U	0	0	NONE	8500	1Q FY10					

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BUDGET ACTIVITY RDT&E DEFENSE-WIDE/ BA5 - System Development and Demonstration (SDD)	PE NUMBER AND TITLE 0604384BP CHEMICAL/BIOLOGICAL DEFENSE (SDD)	PROJECT CA5
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IV. Management Services	Contract Method & Type	Performing Activity & Location	US NF CC	Total PYs Cost	FY 2009 Cost	FY 2009 Award Date	FY 2010 Cost	FY 2010 Award Date					
CBRN DRS													
PM/MS-S - Program Management and System Engineering Support	PO	JPM NBC CA, APG, MD	U	0	0	NONE	718	1Q FY10					
JBPDS													
PM/MS S - Project Management	MIPR	JPM BD, APG, MD	U	1846	600	1Q FY09	806	1Q FY10					
JBSDS													
PM/MS S - JPM BD, APG, MD	MIPR	JPM BD, APG, MD	U	6284	1318	2Q FY09	0	NONE					
PM/MS S - PM/MS other services (USN, USMC, USAF, US Army)	MIPR	Various	U	2727	100	2Q FY09	0	NONE					
JPEO Management Support	Allot	JPEO, Falls Church, VA	U	1000	1359	2Q FY09	0	NONE					
PM/MS SB - ECBC	MIPR	ECBC, Aberdeen Proving Ground, MD	U	0	100	2Q FY09	0	NONE					
JBTDS													
PM/MS SB - JPM BD	MIPR	APG, MD	C	0	262	2Q FY09	0	NONE					
JCAD													
PM/MS S - Joint Service Support	MIPR	Various	U	1480	6509	2Q FY09	1171	2Q FY10					
JCBRAWM													
PM/MS S - Joint Service Support	MIPR	JPM NBC CA, APG, MD	U	1175	2350	1Q FY09	0	NONE					
PM/MS S - Joint Service Integrated Product Support	MIPR	Various	U	200	200	2Q FY09	0	NONE					
JNBCRS 2													
PM/MS S - Program Management and Systems Engineering Support	MIPR	JPM NBC CA, APG, MD	U	444	459	1Q FY09	0	NONE					

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CBDP PROJECT COST ANALYSIS (R-3 Exhibit)	DATE May 2009
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BUDGET ACTIVITY RDT&E DEFENSE-WIDE/ BA5 - System Development and Demonstration (SDD)	PE NUMBER AND TITLE 0604384BP CHEMICAL/BIOLOGICAL DEFENSE (SDD)	PROJECT CA5
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IV. Management Services - Cont.	Contract Method & Type	Performing Activity & Location	US NF CC	Total PYs Cost	FY 2009 Cost	FY 2009 Award Date	FY 2010 Cost	FY 2010 Award Date					
MDAP SPRT													
PM/MS S - MDAP SPRT Cell Planning and Management Support	Allot	MDAP SPRT Cell, Falls Church, VA	U	589	701	1Q FY09	0	NONE					
PM/MS S - JPEO-CBD	Allot	Falls Church, VA	U	0	0	NONE	2311	2Q FY10					
NGCSD													
PM/MS S - Program Management and Systems Engineering Support	MIPR	JPM NBC CA, APG, MD	U	0	0	NONE	1907	2Q FY10					
PM/MS S - Joint Service Support	MIPR	Various	U	0	0	NONE	400	2Q FY10					
PM/MS S - Service Combat Developer Support	MIPR	Various	U	0	0	NONE	450	2Q FY10					
NTA DETECT													
PM/MS S - Program Management support	PO	JPEO, Falls Church, VA	U	0	0	NONE	904	4Q FY10					
SSI NBCRS													
PM/MS S - (CBMS) Program Management and Systems Engineering Support	MIPR	JPM NBC CA, APG, MD	U	0	0	NONE	704	1Q FY10					
PM/MS S - (JCSD) Program Management and Systems Engineering Support	MIPR	JPM NBC CA, APG, MD	U	0	0	NONE	580	1Q FY10					
ZSBIR													
SBIR/STTR - Aggregated from ZSBIR-SBIR/STTR	PO	HQ, AMC, Alexandria, VA		0	603	NONE	0	NONE					

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CBDP PROJECT COST ANALYSIS (R-3 Exhibit)	DATE May 2009
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BUDGET ACTIVITY RDT&E DEFENSE-WIDE/ BA5 - System Development and Demonstration (SDD)	PE NUMBER AND TITLE 0604384BP CHEMICAL/BIOLOGICAL DEFENSE (SDD)	PROJECT CA5
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IV. Management Services - Cont.	Contract Method & Type	Performing Activity & Location	US NF CC	Total PYs Cost	FY 2009 Cost	FY 2009 Award Date	FY 2010 Cost	FY 2010 Award Date					
Subtotal IV. Management Services:					14561		9951						

Remarks:

TOTAL PROJECT COST:		51924		98120									
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Exhibit R-4a, Schedule Profile	DATE May 2009
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BUDGET ACTIVITY RDT&E DEFENSE-WIDE/ BA5 - System Development and Demonstration (SDD)	PE NUMBER AND TITLE 0604384BP CHEMICAL/BIOLOGICAL DEFENSE (SDD)	PROJECT CA5
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D. <u>Schedule Profile:</u>	FY 2008				FY 2009				FY 2010			
	1	2	3	4	1	2	3	4	1	2	3	4
CBRN DRS												
Conduct Production Verification Test/Operational Test & Evaluation (DR SKO)										2Q	_____	>>
Conduct Production Qualification Test/Operational Assessment (MSSKO)									1Q	_____	4Q	
Program Initiation (DR MSSKO)	1Q											
Combined Developmental Operational Assessment			3Q	4Q								
Milestone B (MSSKO)									1Q	_____	>>	
Milestone C LRIP (DR SKO)									1Q	_____	>>	
NTA Detection Capability Development										2Q	_____	>>
JBPDS												
Design and Validate Selected Upgrades	>>	_____	3Q									
Whole System Live Agent Test	>>	_____	3Q									

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Exhibit R-4a, Schedule Profile	DATE May 2009
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BUDGET ACTIVITY RDT&E DEFENSE-WIDE/ BA5 - System Development and Demonstration (SDD)	PE NUMBER AND TITLE 0604384BP CHEMICAL/BIOLOGICAL DEFENSE (SDD)	PROJECT CA5
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D. <u>Schedule Profile (cont):</u>	FY 2008				FY 2009				FY 2010			
	1	2	3	4	1	2	3	4	1	2	3	4
JBPDS (Cont)												
Follow-On Operational Test and Evaluation (FOT&E)	1Q											
MS C Full Rate Production Decision (FRP)							3Q					
FRP Contract Award							3Q					
Full Rate Production (First Full Contract Award)										2Q	————	>>
Build II - Development and Integration						2Q	————	————	————	————	————	>>
JBSDS												
Increment 1 JBSDS Production Verification Test	1Q											
Increment 1 JBSDS Multi-Service Operational Test & Evaluation (MOT&E)	1Q											
Increment I JBSDS LRIP 2		2Q	————	————	————	2Q						
Increment 1 JBSDS Full Material Release							3Q	4Q				

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Exhibit R-4a, Schedule Profile	DATE May 2009
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BUDGET ACTIVITY RDT&E DEFENSE-WIDE/ BA5 - System Development and Demonstration (SDD)	PE NUMBER AND TITLE 0604384BP CHEMICAL/BIOLOGICAL DEFENSE (SDD)	PROJECT CA5
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D. <u>Schedule Profile (cont):</u>	FY 2008				FY 2009				FY 2010			
	1	2	3	4	1	2	3	4	1	2	3	4
JBSDS (Cont)												
Increment 1 JBSDS First Unit Equipped (FUE)							3Q	4Q				
Increment 2 - Requirements Trade-Off	1Q											
Increment 2 - Science & Technology	>>	—————						4Q				
Increment 2 - Pre-Milestone B	1Q	—————								2Q		
Increment 2 - Milestone B										2Q		
Increment 2 - Engineering & Manufacturing Development & Demonstration											3Q	>>
JCAD												
JCAD Enhanced - Gate 2 Decision (Down-select)							3Q					
JCAD Enhanced - LRIP Contract Award												4Q
JCBRAWM												
Operational Test Increment 1				4Q								

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Exhibit R-4a, Schedule Profile	DATE May 2009
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BUDGET ACTIVITY RDT&E DEFENSE-WIDE/ BA5 - System Development and Demonstration (SDD)	PE NUMBER AND TITLE 0604384BP CHEMICAL/BIOLOGICAL DEFENSE (SDD)	PROJECT CA5
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D. <u>Schedule Profile (cont):</u>	FY 2008				FY 2009				FY 2010			
	1	2	3	4	1	2	3	4	1	2	3	4
JCBRAWM (Cont)												
Development Test Increment 1	1Q											
MS C Increment 1 Low Rate Initial Production (LRIP)			3Q									
Multi-Service Operational Test & Evaluation				4Q								
MS C Increment 1 Full Rate Production (FRP) Decision							3Q					
IOC Increment 1								4Q	1Q			
Development Test Increment 2			3Q				3Q					
JNBCRS 2												
JNBCRS Inc 2 - Program Initiation	1Q											
JNBCRS INC 2 - Combined Developmental/Operational Assessment			3Q	4Q								
JNBCRS INC 2 - MBSKO Milestone B - Low Rate Initial Production (LRIP)							3Q					
JNBCRS 3												

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BUDGET ACTIVITY RDT&E DEFENSE-WIDE/ BA5 - System Development and Demonstration (SDD)	PE NUMBER AND TITLE 0604384BP CHEMICAL/BIOLOGICAL DEFENSE (SDD)	PROJECT CA5
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D. <u>Schedule Profile (cont):</u>	FY 2008				FY 2009				FY 2010				
	1	2	3	4	1	2	3	4	1	2	3	4	
JNBCRS 3 (Cont)													
JNBCRS INC 3 (JCSD) - Hardware Maturation Effort	1Q	—————							2Q				
JNBCRS INC 3 (CBMS) - Chemical/Biological Full & Open Competition								4Q	—————				3Q
JSLSCAD													
SoS Technology Demo				4Q	1Q								
SoS Program				4Q	—————				4Q				
SoS Operational Demo							3Q	4Q					
MDAP SPRT													
System of Systems (SoS) Component Development	>>	—————							2Q				
Data Fusion Algorithm Development	>>	—————							—————				2Q
Collective Protection Advanced Technology Demonstrator Developmental Test (DT)											3Q	4Q	

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BUDGET ACTIVITY RDT&E DEFENSE-WIDE/ BA5 - System Development and Demonstration (SDD)	PE NUMBER AND TITLE 0604384BP CHEMICAL/BIOLOGICAL DEFENSE (SDD)	PROJECT CA5
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D. <u>Schedule Profile (cont):</u>	FY 2008				FY 2009				FY 2010			
	1	2	3	4	1	2	3	4	1	2	3	4
MDAP SPRT (Cont)												
Reactive/Removable Coating Developmental Test (DT)												4Q
NGCSD												
Material Development Decision (MDD)											3Q	
Development Test Planning									2Q	3Q		
Development Testing												4Q
NTA DETECT												
COTS/GOTS DT/MUA									1Q	—	3Q	
COTS/GOTS Field Expanded Capability									2Q	3Q		
Lab Deployable Mass Spec DT/OA											3Q	>>

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CBDP BUDGET ITEM JUSTIFICATION SHEET (R-2a Exhibit)	DATE May 2009
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BUDGET ACTIVITY RDT&E DEFENSE-WIDE/ BA5 - System Development and Demonstration (SDD)	PE NUMBER AND TITLE 0604384BP CHEMICAL/BIOLOGICAL DEFENSE (SDD)	PROJECT CM5
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	FY 2008	FY 2009	FY 2010		
COST (In Thousands)	Actual	Estimate	Estimate		
CM5 HOMELAND DEFENSE (SDD)	0	2475	8674		

A. Mission Description and Budget Item Justification:

Project CM5 HOMELAND DEFENSE (SDD): The FY10-11 PM Consequence Management program supports the development of a Common Analytical Laboratory System capability (CALs) that will be modular, scalable and adaptable to a variety of CONOPS and environmental conditions. Currently, fielded systems have been designed independently by various agencies with the intent of meeting a specific units requirements. As a result, multiple mobile lab configurations exist with differing sustainment tails and lacking in commonality. The system under development will incorporate an open architecture that can accommodate quick installation or removal of equipment as mission requirements dictate. As well, it will provide the ability to rapidly develop a common operating picture allowing first responders and DoD officials to determine the appropriate course of action. The analytical detection package fielded will be fitted to the specific mission and CONOPS of the gaining unit and be able to detect and identify Chemical Warfare Agents (CWAs), Toxic Industrial Chemicals (TICs), Toxic Industrial Materials (TIMs), Biological Warfare Agents (BWAs), Lower Explosive Limits (LEL), and radioactive particles in all sample types.

The FY09 CB Installation Protection program supports the development of analytical methodologies to expand/enhance the operational capabilities of currently fielded CBRN detection, identification and protection technologies against emerging threats to include Toxic Industrial Chemicals (TICs), Chemical Warfare Agents (CWAs), and Biological Warfare Agents (BWAs). Detection and identification of these substances is currently difficult and time-consuming. Current systems lack extensive libraries to support rapid identification. Identification may also involve multiple, expensive technologies. The ability to rapidly detect and identify a TIC is essential to effectively control and mitigate its effects, thus protecting personnel. This program also supports the evaluation of emerging CBRN detection, identification, information management and decision support technologies to DoD response units to maintain required state of the art capabilities.

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BUDGET ACTIVITY RDT&E DEFENSE-WIDE/ BA5 - System Development and Demonstration (SDD)	PE NUMBER AND TITLE 0604384BP CHEMICAL/BIOLOGICAL DEFENSE (SDD)	PROJECT CM5
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B. Accomplishments/Planned Program

	<u>FY 2008</u>	<u>FY 2009</u>	<u>FY 2010</u>
COMMON ANALYTICAL LABORATORY SYSTEM (CALs)	0	0	5764
RDT&E Articles (Quantity)	0	0	0

Accomplishments/Planned Program	FY 2008	FY 2009	FY 2010
FY10 - Initiate Program Office Planning and Programming.	0	0	499
FY10 - Initiate System Engineering and Logistics Support.	0	0	971
FY10 - Subsystem Design and Development - Open Architecture Design Analytics and Laboratory Information Management.	0	0	3562
FY10 - Developmental Testing.	0	0	732
Total	0	0	5764

	<u>FY 2008</u>	<u>FY 2009</u>	<u>FY 2010</u>
CB INSTALLATION/FORCE PROTECTION PROGRAM (FORCE PROT)	0	2447	2910
RDT&E Articles (Quantity)	0	0	0

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CBDP BUDGET ITEM JUSTIFICATION SHEET (R-2a Exhibit)	DATE May 2009
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BUDGET ACTIVITY RDT&E DEFENSE-WIDE/ BA5 - System Development and Demonstration (SDD)	PE NUMBER AND TITLE 0604384BP CHEMICAL/BIOLOGICAL DEFENSE (SDD)	PROJECT CM5
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Accomplishments/Planned Program	FY 2008	FY 2009	FY 2010
CBIPP - System Methodologies Development FY09 - Supports development of analytical methodologies to expand CBRN detection, identification, and protection capabilities.	0	750	0
CBIPP - Technology Evaluation - FY09 - Supports the evaluation of CBRN detection, identification, information management, and decision support technologies.	0	1697	0
SPU CBE - Technology Evaluation - FY10 - Supports the evaluation of CBRN detection , identification, information management and decision support technologies.	0	0	1770
SPU CBE - System Protocols Development - FY10 - Supports the development of methodologies used to perform CBRN detection and evaluation under various environmental conditions.	0	0	1140
Total	0	2447	2910

	<u>FY 2008</u>	<u>FY 2009</u>	<u>FY 2010</u>
SBIR/STTR	0	28	0
RDT&E Articles (Quantity)	0	0	0

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CBDP BUDGET ITEM JUSTIFICATION SHEET (R-2a Exhibit)	DATE May 2009
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BUDGET ACTIVITY RDT&E DEFENSE-WIDE/ BA5 - System Development and Demonstration (SDD)	PE NUMBER AND TITLE 0604384BP CHEMICAL/BIOLOGICAL DEFENSE (SDD)	PROJECT CM5
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Accomplishments/Planned Program	FY 2008	FY 2009	FY 2010
SBIR - FY09 - Small Business Innovative Research.	0	28	0
Total	0	28	0

<u>C. Other Program Funding Summary:</u>	<u>FY 2008</u>	<u>FY 2009</u>	<u>FY 2010</u>		
JS0004 WMD - CIVIL SUPPORT TEAMS (WMD CST)	9729	8300	11801		
JS0500 CB INSTALLATION/FORCE PROTECTION PROGRAM (FORCE PROT)	83200	80004	53789		

CBDP BUDGET ITEM JUSTIFICATION SHEET (R-2a Exhibit)		DATE May 2009
BUDGET ACTIVITY RDTE&E DEFENSE-WIDE/ BA5 - System Development and Demonstration (SDD)	PE NUMBER AND TITLE 0604384BP CHEMICAL/BIOLOGICAL DEFENSE (SDD)	PROJECT CM5

D. Acquisition Strategy:

CALS The Common Analytical Laboratory System (CALS) will follow an incremental approach designed to address known joint force capability requirements for Chemical, Biological, Radiological and Nuclear (CBRN) detection which includes Toxic Industrial Chemicals (TICs), Toxic Industrial Materials (TIMs), Chemical Warfare Agents (CWAs), Biological Warfare Agents (BWAs). As well, it will address situational awareness by leveraging efforts underway with JPEO CBD to the extent possible. And it will accommodate these component requirements within a modular and scalable concept framework.

FORCE PROT Special Study for System Methodology Development: Will support the development of analytical methodologies to expand/enhance the operational capabilities of currently fielded CBRN detection, identification and protection technologies against emerging threats to include TIC, CWA, and BWA threats.

Special Study for CBRN Defense Technology Evaluation: Will support the evaluation of emerging CBRN detection, identification, information management and decision support technologies to DoD response units to maintain required state-of-the-art capabilities.

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BUDGET ACTIVITY RDT&E DEFENSE-WIDE/ BA5 - System Development and Demonstration (SDD)	PE NUMBER AND TITLE 0604384BP CHEMICAL/BIOLOGICAL DEFENSE (SDD)	PROJECT CM5
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II. Support Costs	Contract Method & Type	Performing Activity & Location	US NF CC	Total PYs Cost	FY 2009 Cost	FY 2009 Award Date	FY 2010 Cost	FY 2010 Award Date					
CALS													
ES S - Engineering Support	MIPR	Edgewood Chemical and Biological Center, Edgewood. MD	U	0	0	NONE	499	1Q FY10					
Subtotal II. Support Costs:					0		499						

Remarks:

III. Test and Evaluation	Contract Method & Type	Performing Activity & Location	US NF CC	Total PYs Cost	FY 2009 Cost	FY 2009 Award Date	FY 2010 Cost	FY 2010 Award Date					
CALS													
DTE SB - Analytical System Developmental Testing	MIPR	TBD	U	0	0	NONE	732	3Q FY10					
FORCE PROT													
OTHT C - System Component Testing	C/FP	TBD	C	0	0	NONE	1770	1Q FY10					
Subtotal III. Test and Evaluation:					0		2502						

Remarks:

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CBDP PROJECT COST ANALYSIS (R-3 Exhibit)	DATE May 2009
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BUDGET ACTIVITY RDT&E DEFENSE-WIDE/ BA5 - System Development and Demonstration (SDD)	PE NUMBER AND TITLE 0604384BP CHEMICAL/BIOLOGICAL DEFENSE (SDD)	PROJECT CM5
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IV. Management Services	Contract Method & Type	Performing Activity & Location	US NF CC	Total PYs Cost	FY 2009 Cost	FY 2009 Award Date	FY 2010 Cost	FY 2010 Award Date					
CALS													
PM/MS HW - Program Office - Planning and Programming	MIPR	Edgewood Chemical Biological Center, Edgewood, MD	U	0	0	NONE	971	1Q FY10					
FORCE PROT													
Limited Objective Experiment	MIPR		N	0	450	2Q FY09	0	NONE					
ZSBIR													
SBIR/STTR - Aggregated from ZSBIR-SBIR/STTR	PO	HQ, AMC, Alexandria, VA		0	28	NONE	0	NONE					
Subtotal IV. Management Services:					478		971						

Remarks: FORCE PROT - To Be Determined

TOTAL PROJECT COST:		2475		8674									
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Exhibit R-4a, Schedule Profile	DATE May 2009
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BUDGET ACTIVITY RDT&E DEFENSE-WIDE/ BA5 - System Development and Demonstration (SDD)	PE NUMBER AND TITLE 0604384BP CHEMICAL/BIOLOGICAL DEFENSE (SDD)	PROJECT CM5
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D. <u>Schedule Profile:</u>	FY 2008				FY 2009				FY 2010			
	1	2	3	4	1	2	3	4	1	2	3	4
CALS												
CALS Program Initiation										2Q		
CALS Design, Development and Integration										2Q	———	>>
FORCE PROT												
System Methodologies Development					1Q	———	4Q					
Technology Evaluation					1Q	———	4Q					
System Architecture Development									1Q	———	4Q	
Bio-Collection/Detection Evaluation									1Q	———	4Q	

Project CM5/Line No: 111	Page 59 of 175 Pages	Exhibit R-4a (PE 0604384BP)
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CBDP BUDGET ITEM JUSTIFICATION SHEET (R-2a Exhibit)	DATE May 2009
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BUDGET ACTIVITY RDT&E DEFENSE-WIDE/ BA5 - System Development and Demonstration (SDD)	PE NUMBER AND TITLE 0604384BP CHEMICAL/BIOLOGICAL DEFENSE (SDD)	PROJECT CO5
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COST (In Thousands)	FY 2008 Actual	FY 2009 Estimate	FY 2010 Estimate		
CO5 COLLECTIVE PROTECTION (SDD)	11410	11355	12821		

A. Mission Description and Budget Item Justification:

Project CO5 COLLECTIVE PROTECTION (SDD): Funding supports System Development and Demonstration and Low Rate Initial Production (SDD/LRIP) of Joint Service Chemical, Biological, and Radiological (CBR) Collective Protection (CP) systems that are smaller, lighter, less costly to produce and maintain, and more logistically supportable enabling mission accomplishment in CBR environments. CP systems can be installed on any type of platform, such as, hard and soft shelters, vehicles, ships, aircraft, and buildings. CP systems provide spaces safe from the effects of CBR contamination.

Systems funded under this project are: Joint Expeditionary Collective Protection (JECP).

JECP provides the Joint Expeditionary Forces a CP capability which is lightweight, compact, modular, and affordable. A family of systems is planned that will allow the application of CP to transportable soft-side shelters, enclosed spaces of opportunity, and in remote austere locations as a stand alone resource. JECP will be capable of protecting personnel groups of varying size, unencumbered by Individual Protective Equipment (IPE), from the effects of CB agents, Toxic Industrial Materials (TIMs), radiological particles, heat, dust, and sand. The employment of JECP is a strategic deterrence against enemy use of CBR agents or TIMs, and will reduce the need for personnel and equipment decontamination.

B. Accomplishments/Planned Program

	<u>FY 2008</u>	<u>FY 2009</u>	<u>FY 2010</u>
JOINT EXPEDITIONARY COLLECTIVE PROTECTION (JECP)	11410	11223	12821
RDT&E Articles (Quantity)	54	0	0

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CBDP BUDGET ITEM JUSTIFICATION SHEET (R-2a Exhibit)		DATE May 2009		
BUDGET ACTIVITY RDT&E DEFENSE-WIDE/ BA5 - System Development and Demonstration (SDD)		PE NUMBER AND TITLE 0604384BP CHEMICAL/BIOLOGICAL DEFENSE (SDD)		PROJECT CO5
Accomplishments/Planned Program		FY 2008	FY 2009	FY 2010
<p>JECP -</p> <p>FY08 - Awarded SDD contract for prototype development and testing including an Early Operational Assessment (EOA).</p> <p>FY09/10 - Develop and test prototypes consisting of 24 tent kits at an estimated unit cost of \$75K each, 12 structure kits at an estimated unit cost of \$56K each, and 6 of each configuration of stand alone system (man-portable-\$7K, small-\$22K, medium-\$67K, and large-\$167K), 9 single person airlock at an estimated unit cost of \$5K each and 9 multi-person airlocks at an estimated unit cost of \$30K each with an estimated total cost of all prototypes of \$4365K. Integrate contractor into the Joint IPT structure, build contractor Work Breakdown Structure (WBS), participate in technical reviews Systems Requirements Review (SRR), System Functional Review (SFR) and Preliminary Design Review (PDR) and Critical Design Reviews (CDR). Develop and integrate prototypes and conduct configuration management, risk management, logistics planning and contractor developmental testing.</p>		4847	3978	1647
<p>JECP -</p> <p>FY08 - Initiated development of Agent Simulant Relations (ASR) and select candidate simulants for system and component testing.</p> <p>FY09/10 - Conduct Performance Specification Testing (PST) on prototype components and subsystems. PST will include Barrier Materials Swatch Testing, Air-Purification System Testing, Closures Testing, and NBC Contamination Survivability Testing.</p> <p>FY10 - Conduct Production Qualification Testing (PQT) on prototype systems. PQT will include Reliability and Maintainability Analysis, System Verification (Static), System Verification (Dynamic), System Field Challenge Combined DT/OT (OA-1), post-field swatch testing, post field closures testing, and post field static challenge testing.</p>		1000	2012	6238
<p>Project CO5/Line No: 111</p> <p align="center">Page 62 of 175 Pages</p> <p align="right">Exhibit R-2a (PE 0604384BP)</p>				

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CBDP BUDGET ITEM JUSTIFICATION SHEET (R-2a Exhibit)		DATE May 2009		
BUDGET ACTIVITY RDT&E DEFENSE-WIDE/ BA5 - System Development and Demonstration (SDD)		PE NUMBER AND TITLE 0604384BP CHEMICAL/BIOLOGICAL DEFENSE (SDD)		PROJECT CO5
Accomplishments/Planned Program (Cont):		FY 2008	FY 2009	FY 2010
<p>JECF -</p> <p>FY08/09/10 - Conduct Systems Engineering Integrated Product Team (IPT). Provide systems engineering acquisition documentation for MS B and MS C. Finalize system architecture, and system Work Breakdown Structure (WBS). Develop and maintain a Requirements Traceability Matrix (RTM). Provide technical oversight of the SDD contractor. Plan and conduct technical reviews including a SRR, SFR, PDR, and CDR. Provide Subject Matter Expertise (SME) support to the Joint Requirements Office (JRO) for Capabilities Production Document (CPD) development. Validate and verify system configuration.</p>		1092	950	745
<p>JECF -</p> <p>FY08/09/10 - Conduct Test and Evaluation (T&E) IPT. Provide T&E acquisition documentation for MS B and MS C. Integrate the Joint test threat support package into the TEMP. Identify requirements for a system performance model. Coordinate model development, verification, and validation. Conduct integrated test planning, coordination, and test readiness reviews associated with all developmental testing and operational testing test events.</p>		1314	1126	1000
<p>JECF -</p> <p>FY08/09/10 - Initiate a supportability analysis to address logistics support elements, including: maintenance philosophy; manpower and personnel; supply support; Tech Data; support and test equipment; training and training support through the Integrated Logistics Support Integrated Product Team (IPT).</p> <p>FY08/09 - Initiate development of a Post-Production Support Plan and a Joint Logistics Support Plan. Finalize Joint Support Strategy. Conduct a Performance Based Logistics Assessment. Conduct an Independent Logistics Assessment. Develop JECF Family of Systems (FoS) documentation and support strategy for New Equipment Training (NET) program. Initiate NET program for JECF FoS.</p>		195	500	500
Project CO5/Line No: 111		Page 63 of 175 Pages		Exhibit R-2a (PE 0604384BP)

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CBDP BUDGET ITEM JUSTIFICATION SHEET (R-2a Exhibit)	DATE May 2009
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BUDGET ACTIVITY RDT&E DEFENSE-WIDE/ BA5 - System Development and Demonstration (SDD)	PE NUMBER AND TITLE 0604384BP CHEMICAL/BIOLOGICAL DEFENSE (SDD)	PROJECT CO5
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Accomplishments/Planned Program (Cont):	FY 2008	FY 2009	FY 2010
JECF - FY08/09/10 - Provide program management and contractor support, including: financial tracking to include earned value management; schedule monitoring; System Design Development (SDD) contract management; and JPEO/JPM reporting requirements. Finalize acquisition documentation for MS B and MS C including the Single Acquisition Management Plan (SAMP), Acquisition Program Baseline (APB), Security Classification Guide (SCG), etc.). Conduct source selection planning and support award of System Development and Demonstration contract.	846	1657	1801
JECF - FY08/09/10 - Provide strategic tactical planning, government systems engineering, program/financial management, costing, technology assessment, contracting, scheduling, acquisition oversight and technical support.	2116	1000	890
Total	11410	11223	12821

	<u>FY 2008</u>	<u>FY 2009</u>	<u>FY 2010</u>
SBIR/STTR	0	132	0
RDT&E Articles (Quantity)	0	0	0

Accomplishments/Planned Program	FY 2008	FY 2009	FY 2010
SBIR - FY09 - Small Business Innovative Research.	0	132	0
Total	0	132	0

CBDP BUDGET ITEM JUSTIFICATION SHEET (R-2a Exhibit)	DATE May 2009
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BUDGET ACTIVITY RDT&E DEFENSE-WIDE/ BA5 - System Development and Demonstration (SDD)	PE NUMBER AND TITLE 0604384BP CHEMICAL/BIOLOGICAL DEFENSE (SDD)	PROJECT CO5
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C. Other Program Funding Summary:

	<u>FY 2008</u>	<u>FY 2009</u>	<u>FY 2010</u>		
JN0014 COLLECTIVE PROT SYS AMPHIB BACKFIT (CPS BKFT)	11592	15819	12000		
JP0911 CP FIELD HOSPITALS (CPFH)	3496	5333	3446		
R12301 CB PROTECTIVE SHELTER (CBPS)	24500	16521	12492		

D. Acquisition Strategy:

JECP Strategy based on evolutionary development in consonance with the JRO/User developed capability documents. During the Pre-MS A Concept Refinement Phase, conduct a tailored Analysis of Alternatives (AoA) leveraging the market survey, test results and lessons learned from the FY05 ColPro Technology Readiness Evaluation (TRE). During the Technology Development Phase following MS A, technology demonstrations were conducted to mitigate risk and identify affordable mature technologies that individually or together meet the warfighters needs. Following MS B, a Statement of Work (SOW) and System Performance Specification (SPS) were used to award competitive cost plus incentive fee contract to build prototypes that will be subjected to robust engineering developmental testing and Operational Assessment during the System Development & Demonstration phase. Following MS C, award a Fixed Price Incentive Successive Target (FPIS) option for Low Rate Initial Production (LRIP) to support formal Developmental Testing (DT) and Multi-Service Operational Test & Evaluation (MOT&E). Following a successful Full Rate Production (FRP) decision, award a FPIS option with five one-year ordering periods. Full and open competition will be used with an updated SPS to award follow-on production contracts. Following JECP achieving Full Operational Capability, the Expeditionary Collective Protection-Enhanced Program will provide solutions to meet emerging and evolving User needs.

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CBDP PROJECT COST ANALYSIS (R-3 Exhibit)	DATE May 2009
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BUDGET ACTIVITY RDT&E DEFENSE-WIDE/ BA5 - System Development and Demonstration (SDD)	PE NUMBER AND TITLE 0604384BP CHEMICAL/BIOLOGICAL DEFENSE (SDD)	PROJECT CO5
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I. Product Development	Contract Method & Type	Performing Activity & Location	US NF CC	Total PYs Cost	FY 2009 Cost	FY 2009 Award Date	FY 2010 Cost	FY 2010 Award Date					
JECP													
HW S - Prototype Development	C/CPIF	Science Applications International Corporation, San Diego, CA	C	4847	3978	2Q FY09	1647	2Q FY10					
Subtotal I. Product Development:					3978		1647						

Remarks:

II. Support Costs	Contract Method & Type	Performing Activity & Location	US NF CC	Total PYs Cost	FY 2009 Cost	FY 2009 Award Date	FY 2010 Cost	FY 2010 Award Date					
JECP													
ES S - Systems Engineering IPT	MIPR	Various	U	2292	950	1Q FY09	745	1Q FY10					
ILS S - Product Support IPT	MIPR	Various	U	391	500	1Q FY09	500	1Q FY10					
Subtotal II. Support Costs:					1450		1245						

Remarks:

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CBDP PROJECT COST ANALYSIS (R-3 Exhibit)	DATE May 2009
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BUDGET ACTIVITY RDT&E DEFENSE-WIDE/ BA5 - System Development and Demonstration (SDD)	PE NUMBER AND TITLE 0604384BP CHEMICAL/BIOLOGICAL DEFENSE (SDD)	PROJECT CO5
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IV. Management Services	Contract Method & Type	Performing Activity & Location	US NF CC	Total PYs Cost	FY 2009 Cost	FY 2009 Award Date	FY 2010 Cost	FY 2010 Award Date					
JECP													
PM/MS S - APMO Support	MIPR	NSWC Dahlgren, Dahlgren, VA	U	1619	712	1Q FY09	620	1Q FY10					
PM/MS S - APMO Contractor Support	C/FP	Solutions Development Corporation, Dahlgren, VA	C	323	271	2Q FY09	330	2Q FY10					
PM/MS S - JPM-ColPro Support	MIPR	NSWC Dahlgren, Dahlgren, VA	U	0	674	1Q FY09	851	1Q FY10					
PM/MS S - JPEO-CBD Support	MIPR	JPEO CBD, Falls Church, VA	U	2116	1000	1Q FY09	890	1Q FY10					
ZSBIR													
SBIR/STTR - Aggregated from ZSBIR-SBIR/STTR	PO	HQ, AMC, Alexandria, VA		0	132	NONE	0	NONE					
Subtotal IV. Management Services:					2789		2691						

Remarks:

TOTAL PROJECT COST:					11355		12821						
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Exhibit R-4a, Schedule Profile	DATE May 2009
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BUDGET ACTIVITY RDT&E DEFENSE-WIDE/ BA5 - System Development and Demonstration (SDD)	PE NUMBER AND TITLE 0604384BP CHEMICAL/BIOLOGICAL DEFENSE (SDD)	PROJECT CO5
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D. <u>Schedule Profile:</u>	FY 2008				FY 2009				FY 2010			
	1	2	3	4	1	2	3	4	1	2	3	4
JECP												
Complete CDD				4Q								
Request for Proposal (RFP)	1Q	2Q										
MS B Decision		2Q										
System Development Demonstration Contract Award				4Q								
Prototype System Development & Testing				4Q	————— >>							
Production Qualification Testing (PQT)												4Q

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BUDGET ACTIVITY RDT&E DEFENSE-WIDE/ BA5 - System Development and Demonstration (SDD)	PE NUMBER AND TITLE 0604384BP CHEMICAL/BIOLOGICAL DEFENSE (SDD)	PROJECT DE5
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COST (In Thousands)	FY 2008 Actual	FY 2009 Estimate	FY 2010 Estimate		
DE5 DECONTAMINATION SYSTEMS (SDD)	9408	13130	33704		

A. Mission Description and Budget Item Justification:

Project DE5 DECONTAMINATION SYSTEMS (SDD): This project funds System Development and Demonstration (SDD) for: (1) Decontamination Competitive Prototype; (2) the Decontamination Family of Systems (DFoS); (3) the Human Remains Decontamination System (HRDS); (4) Joint Platform Interior Decon (JPID); (5) the Joint Service Sensitive Equipment Decontamination (JSSED); and (6) the Joint Service Transportable Decontamination System - Small Scale (JSTDS-SS).

The Decontamination Competitive Prototype (DC PROTO) Program will reduce performance risks to the JSSED and JPID programs and identify a solution for the Joint Strike Fighter (JSF) peculiar interior/exterior decontamination requirement to support their Live Fire testing in FY13. DC PROTO will obtain prototypes and conduct a prototype shoot-off that will demonstrate the best decontamination technology for the JSF Live Fire test and increase sensitive equipment and platform interior decontamination data set. DC PROTO will evaluate other technologies that can be inserted into the JSSED/JPID programs to increase the capability of the selected JSSED/JPID technology while supporting the JSF test requirements. The DC PROTO effort will run parallel with the JSSED/JPID Engineering Manufacturing and Demonstration contract as a separate program to maintain independent of the evaluation for JSF and to prevent interference with the JSSED/JPID schedule.

The Decontamination Family of Systems (DFoS) program is a new start which will facilitate the rapid transition of mature S&T Research developments to existing JPM-Decon Programs of Record and guide S&T community efforts toward meeting the needs of the warfighter. DFoS will develop a Family of Systems to include equipment to improve decontamination processes, and decontaminant solutions, to meet the capability gaps for decontaminating chemical and biological warfare agents from personnel, equipment, vehicle interiors/exterior, terrain, and fixed facilities.

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BUDGET ACTIVITY RDT&E DEFENSE-WIDE/ BA5 - System Development and Demonstration (SDD)	PE NUMBER AND TITLE 0604384BP CHEMICAL/BIOLOGICAL DEFENSE (SDD)	PROJECT DE5
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The HRDS, Increment 1, will utilize mature technologies to provide the capability for safe intra-theater handling and storage of Contaminated Human Remains (CHR) associated with a Chemical Warfare Agent (CWA) event. HRDS will be a Family-of-Systems (FoS) designed to leverage differing technology and requirements readiness across the three systems: (1) a Contaminated Human Remains Pouch (CHRP) to support the initial recovery of CHR from Point of Fatality to a Mortuary Affairs Decontamination Collection Point (MADCP); (2) a Contaminated Remains Transfer Case System (CHRTS) capability to store or transport CHR post MADCP operations; and (3) a Remains Decontamination System (RDS) to support the capability to store or transport CHR post MADCP operations.

The JSSED and JPID programs are based on the same technology and are being executed together by the Joint Material Decontamination System (JMDS) program office. These systems will fill the capability to decontaminate chemical and biological warfare agents from individual sensitive equipment, vehicle/aircraft/building interiors and the sensitive equipment within and the associated cargo. The JSSED will fill the capability to decontaminate chemical and biological warfare agents from individual sensitive equipment. Sensitive equipment includes high value or critical sensitive individual electronics and optics that cannot be decontaminated using existing methods without damage. The JPID will fill the capability to decontaminate chemical and biological warfare agents from vehicle/aircraft/building interiors and the sensitive equipment within and the associated cargo. Platform interiors are the interiors of aircraft, vehicles, ships, maintenance facilities and buildings. Neither of these capabilities currently exists in DoD.

The JSTDS Small Scale program will be transported by existing platforms in close proximity to combat operations and will be used in support of operational and thorough decontamination of non-sensitive military materiel, limited facility decontamination at logistics bases, airfields (and critical airfield assets), naval ships, ports, key command and control centers, and other fixed facilities that have been exposed to CBRN warfare agents/contamination.

B. Accomplishments/Planned Program

	<u>FY 2008</u>	<u>FY 2009</u>	<u>FY 2010</u>
DECONTAMINATION COMPETITIVE PROTOTYPE	0	0	8912
RDT&E Articles (Quantity)	0	0	0

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BUDGET ACTIVITY RDT&E DEFENSE-WIDE/ BA5 - System Development and Demonstration (SDD)	PE NUMBER AND TITLE 0604384BP CHEMICAL/BIOLOGICAL DEFENSE (SDD)	PROJECT DE5
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Accomplishments/Planned Program	FY 2008	FY 2009	FY 2010
DC PROTO - FY10 - Conduct market survey/Industry Day/Sources Sought.	0	0	104
DC PROTO - FY10 - Select mature technologies capable of meeting Large Frame Aircraft and Platform Interior Decontamination requirements. Evaluate and test these technologies as compared to the JSSED and JPID requirements. Conduct live agent efficacy tests, material compatibility test, conduct early operational assessment and system integration evaluations on selected technologies for multiple airframes, tactical vehicles and sensitive equipment.	0	0	8808
Total	0	0	8912

	<u>FY 2008</u>	<u>FY 2009</u>	<u>FY 2010</u>
DECONTAMINATION FAMILY OF SYSTEMS (DFS)	0	0	6164
RDT&E Articles (Quantity)	0	0	0

Accomplishments/Planned Program	FY 2008	FY 2009	FY 2010
DFoS - FY10 - Initiate evaluation and developmental test efforts of Sprayable Powders for Surface Decon, Electro-Chemically generated Chlorine Dioxide (eClO2), Portable Electro-Chemically generated Chlorine Dioxide (eClO2) Surface Decon, MIL-PRF-87937 (Super Soap), Portable Decon Vehicle Interiors, and Decon Wipes.	0	0	3034

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BUDGET ACTIVITY RDT&E DEFENSE-WIDE/ BA5 - System Development and Demonstration (SDD)	PE NUMBER AND TITLE 0604384BP CHEMICAL/BIOLOGICAL DEFENSE (SDD)	PROJECT DE5
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Accomplishments/Planned Program (Cont):	FY 2008	FY 2009	FY 2010
DFoS - FY10 - Initiate efficacy and material compatibility testing for Decon Assurance/Agent Disclosure, Dry Decon/No Rinse and a scalable system that applies a decontaminant that is adaptable to multiple agents dependent on the decon scenario (Dial-a-Decon), developmental test efforts.	0	0	3130
Total	0	0	6164

	<u>FY 2008</u>	<u>FY 2009</u>	<u>FY 2010</u>
HUMAN REMAINS DECON SYSTEM (HRDS)	0	0	5757
RDT&E Articles (Quantity)	0	0	0

Accomplishments/Planned Program	FY 2008	FY 2009	FY 2010
HRDS - FY10 - Conduct developmental testing and analysis of the Contaminated Human Remains Transfer Case (CHRT).	0	0	5757
Total	0	0	5757

	<u>FY 2008</u>	<u>FY 2009</u>	<u>FY 2010</u>
JOINT PLATFORM INTERIOR DECON (JPID)	0	0	6387
RDT&E Articles (Quantity)	0	0	5

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Accomplishments/Planned Program	FY 2008	FY 2009	FY 2010
JPID - FY10 - Design and Development of prototypes and logistics planning.	0	0	4887
JPID - FY10 - Fabrication of 5 JPID prototypes (at \$300K each) for agent testing.	0	0	1500
Total	0	0	6387

	<u>FY 2008</u>	<u>FY 2009</u>	<u>FY 2010</u>
JS SENSITIVE EQUIP DECON (JSSED)	8727	12979	6484
RDT&E Articles (Quantity)	0	0	9

Accomplishments/Planned Program	FY 2008	FY 2009	FY 2010
JSSED - FY08 - Completed preliminary design and baseline test.	7880	0	0
JSSED - FY08/09 - Assessed the efficacy of HPV as a technology risk reduction.	847	375	0
JSSED - FY09 - Initiate Prototype design and development.	0	12604	0

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Accomplishments/Planned Program (Cont):	FY 2008	FY 2009	FY 2010
JSSSED - FY10 - Conduct Developmental Testing and supportability demonstration.	0	0	3784
JSSSED - FY10 - Fabricate 9 JSSSED Prototypes (at \$300K each) for Developmental Testing.	0	0	2700
Total	8727	12979	6484

	<u>FY 2008</u>	<u>FY 2009</u>	<u>FY 2010</u>
JS TRANS DECON SYSTEM - SMALL SCALE (JSTDS-SS)	681	0	0
RDT&E Articles (Quantity)	0	0	0

Accomplishments/Planned Program	FY 2008	FY 2009	FY 2010
JSTDS-SS - FY08 - Completed Operational Test and Evaluation.	681	0	0
Total	681	0	0

	<u>FY 2008</u>	<u>FY 2009</u>	<u>FY 2010</u>
SBIR/STTR	0	151	0
RDT&E Articles (Quantity)	0	0	0

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Accomplishments/Planned Program	FY 2008	FY 2009	FY 2010
SBIR - FY09 - Small Business Innovative Research.	0	151	0
Total	0	151	0

<u>C. Other Program Funding Summary:</u>	<u>FY 2008</u>	<u>FY 2009</u>	<u>FY 2010</u>		
JD0055 JOINT SERVICE PERSONNEL/SKIN DECON SYSTEM (JSPDS)	18487	8280	0		
JD0056 JS TRANS DECON SYSTEM - SMALL SCALE (JSTDS-SS)	18275	17224	22008		

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D. Acquisition Strategy:

- DC PROTO** DC PROTO will conduct a Sources Sought for a prototype suitable for sensitive equipment and platform interior decontamination prototypes. The competitive prototype results will be integrated into the JSSED and JPID programs for program risk reduction.
- DFS** The DFoS program will utilize an incremental acquisition strategy to transition various developmental technology efforts (i.e. COTS, JSTO/DTRA efforts, etc.) to meet the needs current and future capability gaps. DFoS will support MDAP and Program of Record (POR) capability gaps by transitioning mature technologies.
- HRDS** The HRDS, Increment 1, will utilize mature technologies to provide the capability for safe intra-theater handling and storage of Contaminated Human Remains (CHR) associated with a Chemical Warfare Agent (CWA) event. HRDS will be a Family-of-Systems (FoS) designed to leverage differing technology and requirements readiness across the three systems: (1) a Contaminated Human Remains Pouch (CHRP) to support the initial recovery of CHR from Point of Fatality to a Mortuary Affairs Decontamination Collection Point (MADCP); (2) a Contaminated Remains Transfer Case System (CHRTS) capability to store or transport CHR post MADCP operations; and (3) a Remains Decontamination System (RDS) to support the capability to store or transport CHR post MADCP operations.
- JPID** The Joint Platform Interior Decontamination (JPID) and the Joint Service Sensitive Equipment Decontamination (JSSED) programs will be acquired as part of the overarching Joint Material Decontamination System (JMDS) evolutionary acquisition strategy that covers both the JPID and the JSSED programs. This strategy will use a single technology to meet the individual sensitive equipment and platform requirements through incremental development. The JPID and JSSED contracting strategies is under the JMDS contracting strategy that awarded one single base System Development and Demonstration contract (Cost Plus Incentive Fee) with Low Rate Initial Production and Full Rate Production options (Fixed Price Successive Target) in open competition for both JSSED and JPID. The JMDS program will integrate the competitive prototype effort into the JMDS Milestone C/LRIP Decision.

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BUDGET ACTIVITY RD&E DEFENSE-WIDE/ BA5 - System Development and Demonstration (SDD)	PE NUMBER AND TITLE 0604384BP CHEMICAL/BIOLOGICAL DEFENSE (SDD)	PROJECT DE5
JSSSED	DC PROTO will conduct sources sought for a prototype of suitable sensitive equipment and platform interior decontamination prototypes. The Competitive Prototype results will be integrated into the JSSSED and JPID programs for program risk reduction. Will coordinate Test and Evaluation with JMDS test plan and Service CONOPS.	
JSTDS SS	The JSTDS SS program implements an evolutionary acquisition strategy using incremental development. Increment 1 will focus largely upon fielding hardware systems that improve upon the capability of the M17 Lightweight Decontamination System.	
<p>Project DE5/Line No: 111</p> <p align="center">Page 79 of 175 Pages</p> <p align="right">Exhibit R-2a (PE 0604384BP)</p>		

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BUDGET ACTIVITY RDT&E DEFENSE-WIDE/ BA5 - System Development and Demonstration (SDD)	PE NUMBER AND TITLE 0604384BP CHEMICAL/BIOLOGICAL DEFENSE (SDD)	PROJECT DE5
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I. Product Development	Contract Method & Type	Performing Activity & Location	US NF CC	Total PYs Cost	FY 2009 Cost	FY 2009 Award Date	FY 2010 Cost	FY 2010 Award Date					
DFS													
HW C - Electro-Chemically generated eClO2	MIPR	RDECOM/Natick, Natick, MA	U	0	0	NONE	973	1Q FY10					
HW C - Portable Decon Vehicle Interiors (Decon wipes)	MIPR	RDECOM-Natick, MA	U	0	0	NONE	827	2Q FY10					
HW C - Disclosure Sprays	MIPR	RDECOM-Natick, MA	U	0	0	NONE	682	2Q FY10					
HRDS													
HW C - Contaminated HR Transfer Case (CHRT)	C/FFP	TBD	C	0	0	NONE	500	1Q FY10					
JPID													
HW C - SDD Contract, System development and fabrication	C/CPIF	Teledyne Brown Engineering, Huntsville, AL	C	0	0	NONE	3000	2Q FY10					
JSSD													
HW S - SDD Contract - System Development and Fabrication	C/CPIF	Teledyne Brown Engineering - Huntsville, AL	C	6081	8251	2Q FY09	3000	2Q FY10					
Subtotal I. Product Development:					8251		8982						

Remarks:

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CBDP PROJECT COST ANALYSIS (R-3 Exhibit)	DATE May 2009
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BUDGET ACTIVITY RDT&E DEFENSE-WIDE/ BA5 - System Development and Demonstration (SDD)	PE NUMBER AND TITLE 0604384BP CHEMICAL/BIOLOGICAL DEFENSE (SDD)	PROJECT DE5
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III. Test and Evaluation	Contract Method & Type	Performing Activity & Location	US NF CC	Total PYs Cost	FY 2009 Cost	FY 2009 Award Date	FY 2010 Cost	FY 2010 Award Date					
DC PROTO													
Competitive Prototype Testing	MIPR	TBD	U	0	0	NONE	8295	3Q FY10					
DFS													
DTE C - Dry Decon/No Rinse Decon	MIPR	TBD	U	0	0	NONE	975	1Q FY10					
DTE C - Electro-Chemically generated eClO2	MIPR	TBD	U	0	0	NONE	825	2Q FY10					
DTE C - Decon Wipes	MIPR	TBD	U	0	0	NONE	647	3Q FY10					
HRDS													
DTE S - CHRT Developmental Testing	MIPR	TBD	U	0	0	NONE	2375	1Q FY10					
JPID													
JPID Development Testing	MIPR	ATEC, Aberdeen Proving Ground, MD	U	0	0	NONE	2528	1Q FY10					
JSSSED													
OTHT SB - JSSSED/JMDS developmental test planning/execution	MIPR	ATEC, Aberdeen, MD	U	951	293	1Q FY09	1500	1Q FY10					
DTE C - Technology Readiness Assessment	C/FFP	CUBRC, Buffalo, NY	C	0	375	2Q FY09	0	NONE					
Subtotal III. Test and Evaluation:					668		17145						

Remarks:

Project DE5/Line No: 111

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CBDP PROJECT COST ANALYSIS (R-3 Exhibit)	DATE May 2009
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BUDGET ACTIVITY RDT&E DEFENSE-WIDE/ BA5 - System Development and Demonstration (SDD)	PE NUMBER AND TITLE 0604384BP CHEMICAL/BIOLOGICAL DEFENSE (SDD)	PROJECT DE5
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IV. Management Services	Contract Method & Type	Performing Activity & Location	US NF CC	Total PYs Cost	FY 2009 Cost	FY 2009 Award Date	FY 2010 Cost	FY 2010 Award Date					
DC PROTO													
Program Management Support	MIPR	ECBC, MD	U	0	0	NONE	513	1Q FY10					
DFS													
PM/MS S - DFoS Integrated Product Team Support	MIPR	RDECOM-Natick, MA	U	0	0	NONE	605	1Q FY10					
PM/MS C - Program Support	MIPR	Marine Corps Systems Command, Quantico, VA	U	0	0	NONE	630	1Q FY10					
HRDS													
PM/MS S - CHRT Program Office Support	MIPR	RDECOM-Natick, MA	C	0	0	NONE	1661	2Q FY10					
JPID													
JPID Service Integrated Product Team Support	MIPR	Various	U	0	0	NONE	859	1Q FY10					
JSSSED													
PM/MS S - JSSSED/JMDS Service Integrated Product Team Support	MIPR	Various	U	2613	4060	2Q FY09	1984	1Q FY10					
ZSBIR													
SBIR/STTR - Aggregated from ZSBIR-SBIR/STTR	PO	HQ, AMC, Alexandria, VA		0	151	NONE	0	NONE					
Subtotal IV. Management Services:					4211		6252						

Remarks:

Project DE5/Line No: 111

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Exhibit R-3 (PE 0604384BP)

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D. <u>Schedule Profile:</u>	FY 2008				FY 2009				FY 2010			
	1	2	3	4	1	2	3	4	1	2	3	4
DC PROTO												
Market Survey/Industry Day/Sources Sought									1Q	2Q		
Competitive Prototype Test											3Q	>>
DFS												
eCI02									1Q	_____ >>		
Portable Decon Vehicle Interiors (Decon wipes)						2Q	_____ >>					
Agent Disclosure Spray									1Q	_____ >>		
Self Decon Coatings											3Q	>>
Decon Assurance/Applicator Systems											3Q	>>
Dry Decon/No Rinse						2Q	_____ >>					
RSDL Reformulation/Decontaminate						2Q	_____ 4Q					
HRDS												
CHRT Market Survey					1Q							
CHRT MS B								4Q				
CHRT Development Testing									1Q	_____ 4Q		

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Exhibit R-4a, Schedule Profile	DATE May 2009
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BUDGET ACTIVITY RDT&E DEFENSE-WIDE/ BA5 - System Development and Demonstration (SDD)	PE NUMBER AND TITLE 0604384BP CHEMICAL/BIOLOGICAL DEFENSE (SDD)	PROJECT DE5
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D. Schedule Profile (cont):	FY 2008				FY 2009				FY 2010				
	1	2	3	4	1	2	3	4	1	2	3	4	
JPID													
JPID Systems Design and Development	1Q	—————							4Q				
JPID Developmental Test							3Q	————— >>					
JPID Early Operational Assessment												4Q	
JPID Competitive Prototype											3Q	>>	
JSSSED													
JSSSED/JMDS System Development	1Q	—————							4Q				
JSSSED/JMDS Developmental Test							3Q	————— 4Q					
JSSSED/JMDS Early Operational Assessment												4Q	
JSSSED/JMDS Competitive Prototype											3Q	>>	
JSSSED/JMDS Early Operational Assessment												4Q	
JSTDS SS													
IOT&E	1Q												
Full Rate Production							3Q	————— >>					

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CBDP BUDGET ITEM JUSTIFICATION SHEET (R-2a Exhibit)	DATE May 2009
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BUDGET ACTIVITY RDT&E DEFENSE-WIDE/ BA5 - System Development and Demonstration (SDD)	PE NUMBER AND TITLE 0604384BP CHEMICAL/BIOLOGICAL DEFENSE (SDD)	PROJECT IP5
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COST (In Thousands)	FY 2008 Actual	FY 2009 Estimate	FY 2010 Estimate		
IP5 INDIVIDUAL PROTECTION (SDD)	29631	22492	18782		

A. Mission Description and Budget Item Justification:

Project IP5 INDIVIDUAL PROTECTION (SDD): This project funds System Demonstration and Development (SDD) of individual protection equipment, the goal is to provide equipment that allows the individual soldier, sailor, airman, or marine to operate in a contaminated Nuclear, Biological and Chemical (NBC) environment with little or no degradation of his/her performance.

The three efforts listed below are funded in this program:

(1) The Joint Service Aircrew Mask (JSAM). JSAM is an Acquisition Category (ACAT) III Family of Systems (FOS) respiration system being incrementally developed. JSAM Type IA Apache is for use with the Integrated Helmet And Display Sighting System, JSAM Fixed Wing (FW) respirator and JSAM Type I Rotor Wing (RW) is being developed for use in the majority of the Department of Defense's (DoD's) Rotary Wing aircraft. The F-35 JSAM is being developed with the FW JSAM to meet the needs of the Major Defense Acquisition Program, the Joint Strike Fighter (JSF). The goal of overall JSAM project is to develop, manufacture, field and sustain an aircrew respirator system that, in conjunction with a below-the-neck (BTN) clothing ensemble, will provide the capability for all aircrew to fly throughout their full operating envelope in an actual or perceived Chemical and Biological (CB) warfare environment. JSAM will be a lightweight CB protective mask that will be worn as CB protection for most Army, Air Force, Navy and Marine rotary and fixed-wing aircrew members. The FW JSAM will be the first and only CB protective mask in the DoD inventory that can provide anti-G protection, up to 9 times the vertical force (Gz), for aircrew in high performance aircraft. All JSAM Increments will be compatible with most below-the-neck CB ensembles and existing aircrew life support equipment. They will include a protective hood assembly, CB filter, blower assembly, and an intercom for ground communication. They will provide flame and thermal protection, provide hypoxia protection to 60,000 feet, demist/emergency demist and anti-drown features. The Type I and Type IA variants are being designed to be capable of being donned/doffed in flight.

CBDP BUDGET ITEM JUSTIFICATION SHEET (R-2a Exhibit)	DATE May 2009
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BUDGET ACTIVITY RDT&E DEFENSE-WIDE/ BA5 - System Development and Demonstration (SDD)	PE NUMBER AND TITLE 0604384BP CHEMICAL/BIOLOGICAL DEFENSE (SDD)	PROJECT IP5
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(2) The Joint Service General Purpose Mask (JSGPM) funds System Demonstration and Development (SDD) of respiratory and ocular protection technologies aimed at providing incremental upgrades for the Joint Service General Purpose Mask (JSGPM). Additionally, this project funds the Technology Development (TD) phase of the Respiratory and Ocular Protection Equipment (ROPE) program for developing revolutionary materials, designs and concepts that may transitioned into future Chem/Bio ensemble (Joint Chemical Ensemble). Performance enhancements for all respiratory and ocular protection programs will be focused on increasing the protection levels of the systems from Chemical Warfare Agents (CWAs) and Toxic Industrial Chemicals (TICs) while reducing the physiological and logistical burdens.

(3) The Lightweight Chemical Biological Ensemble (LCBE), aimed at increasing individual protection levels while reducing physiological and logistical burdens.

B. Accomplishments/Planned Program

	<u>FY 2008</u>	<u>FY 2009</u>	<u>FY 2010</u>
JS AIRCREW MASK (JSAM)	29631	22230	14969
RDT&E Articles (Quantity)	0	0	544

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CBDP BUDGET ITEM JUSTIFICATION SHEET (R-2a Exhibit)		DATE May 2009		
BUDGET ACTIVITY RDT&E DEFENSE-WIDE/ BA5 - System Development and Demonstration (SDD)		PE NUMBER AND TITLE 0604384BP CHEMICAL/BIOLOGICAL DEFENSE (SDD)		PROJECT IP5
Accomplishments/Planned Program		FY 2008	FY 2009	FY 2010
<p>JSAM MPU-6 (Apache) -</p> <p>FY08 - Completed design and Government Development Test (DT). Initiated Operational Test (OT).</p> <p>FY09 - Complete OT.</p> <p>FY10 - Prepare and complete documentation for Full Rate Production Decision.</p>		15867	11104	8752
<p>JSAM MPU-5 (RW) -</p> <p>FY08 - Completed Down-selection designs; continued prototyping. Initiated DT (includes flight testing).</p> <p>FY09 - Continue DT.</p> <p>FY10 - Prepare specific mask tooling for prototypes. Complete DT. Produce MPU-5 prototypes (256 units at a cost of \$4,400 ea) for OT.</p>				
<p>JSAM Fixed Wing (FW) -</p> <p>FY08 - Initiated DT ground tests and flight clearance.</p> <p>FY09 - Initiate DT flight testing, Chem/Bio, environmental and continue integration testing for joint service aircraft platforms.</p> <p>FY10 - Continue and complete DT flight testing. Start and complete OT and prepare documentation for MS C. Produce prototypes (288 prototypes at a unit cost of \$4,130 ea) for OT.</p>		13764	11126	6217
Total		29631	22230	14969

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CBDP BUDGET ITEM JUSTIFICATION SHEET (R-2a Exhibit)	DATE May 2009
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BUDGET ACTIVITY RDT&E DEFENSE-WIDE/ BA5 - System Development and Demonstration (SDD)	PE NUMBER AND TITLE 0604384BP CHEMICAL/BIOLOGICAL DEFENSE (SDD)	PROJECT IP5
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	<u>FY 2008</u>	<u>FY 2009</u>	<u>FY 2010</u>
JS GENERAL PURPOSE MASK (JSGPM)	0	0	1468
RDT&E Articles (Quantity)	0	0	0

Accomplishments/Planned Program	FY 2008	FY 2009	FY 2010
PHASE 1 ROPE: M50 and M51 - Short-term TIC Capability Enhancement - FY10 - Conduct Government sorbent screening. Initiate filter qualification testing on potential candidates.	0	0	475
PHASE 2 ROPE: M50 and M51 - Long-term Future Filtration - FY10 - Conduct analysis of Market Survey results and conduct initial DT of possible respiratory and ocular protection candidates. Conduct further DT on possible candidates and provide recommendations on which material, concept and/or design that may be transitioned to the JCE program. Conduct method verification of enhanced TIC protection assessment.	0	0	993
Total	0	0	1468

	<u>FY 2008</u>	<u>FY 2009</u>	<u>FY 2010</u>
LIGHTWEIGHT CB ENSEMBLE (LCBE)	0	0	2345
RDT&E Articles (Quantity)	0	0	0

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CBDP BUDGET ITEM JUSTIFICATION SHEET (R-2a Exhibit)	DATE May 2009
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BUDGET ACTIVITY RDT&E DEFENSE-WIDE/ BA5 - System Development and Demonstration (SDD)	PE NUMBER AND TITLE 0604384BP CHEMICAL/BIOLOGICAL DEFENSE (SDD)	PROJECT IP5
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Accomplishments/Planned Program	FY 2008	FY 2009	FY 2010
LCBE - FY10 - Establish IPT to prepare RFI/RFP and review industry opportunities. Initiate DT efforts.	0	0	2345
Total	0	0	2345

	<u>FY 2008</u>	<u>FY 2009</u>	<u>FY 2010</u>
SBIR/STTR	0	262	0
RDT&E Articles (Quantity)	0	0	0

Accomplishments/Planned Program	FY 2008	FY 2009	FY 2010
SBIR - FY09 - Small Business Innovative Research.	0	262	0
Total	0	262	0

CBDP BUDGET ITEM JUSTIFICATION SHEET (R-2a Exhibit)	DATE May 2009
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BUDGET ACTIVITY RDT&E DEFENSE-WIDE/ BA5 - System Development and Demonstration (SDD)	PE NUMBER AND TITLE 0604384BP CHEMICAL/BIOLOGICAL DEFENSE (SDD)	PROJECT IP5
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<u>C. Other Program Funding Summary:</u>	<u>FY 2008</u>	<u>FY 2009</u>	<u>FY 2010</u>		
IP7 INDIVIDUAL PROTECTION OPERATIONAL SYS DEV	0	4614	0		
JI0002 JS AIRCREW MASK (JSAM)	4576	0	23116		
JI0003 JOINT SERVICE GENERAL PURPOSE MASK (JSGPM/JSCESM)	45533	42490	48432		
JI0015 JOINT PROTECTIVE AIRCREW ENSEMBLE (JPACE)	15890	0	0		
JSM001 JOINT SERVICE MASK LEAKAGE TESTER (JSMLTS)	9854	0	0		
MA0400 PROTECTIVE CLOTHING (JSLIST)	38745	37484	20456		

CBDP BUDGET ITEM JUSTIFICATION SHEET (R-2a Exhibit)	DATE May 2009
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BUDGET ACTIVITY RDT&E DEFENSE-WIDE/ BA5 - System Development and Demonstration (SDD)	PE NUMBER AND TITLE 0604384BP CHEMICAL/BIOLOGICAL DEFENSE (SDD)	PROJECT IP5
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D. Acquisition Strategy:

JSAM	<p>The JSAM Acquisition Program Baseline Agreement (APBA) identifies JSAM Type IA Apache (MPU-6) as the Rotary Wing (RW) Integrated Helmet and Display Sighting System (IHADSS) variant. The JSAM Type I RW (MPU-5) that is being developed for the majority of RW aircrew. JSAM Type IA Apache (MPU-6) will be fielded first. Appropriate production options will be exercised.</p> <p>The JSAM Type II Fixed Wing (FW) variant will meet the needs of the FW aircrew, and majority of the requirements for the JSF JSAM. The FW development contract (with production options) was awarded 13 April 2006.</p>
JSGPM	<p>JSGPM: All possible candidates will be identified through the Request For Information (RFI) published by the Filter Additional Source Qualification (FASQ) team in 2005. The candidates will be screened against CWAs and TICs at the sorbent level. Candidates that show an indication that it may provide a performance enhancement may be transitioned into filter qualification testing. The qualification of a new filtration media for JSGPM will be based on the current JSGPM filter specification.</p> <p>ROPE: The Respiratory and Ocular Protection Equipment program will be based on full and open competition. A Request For Information was released in July 2008 to evaluate what novel concepts, materials and designs that could be pursued for the next generation system. An analysis of the results of the market survey will be conducted and potential candidates will be pursued for further evaluation.</p>
LCBE	<p>The LCBE program strategy employs an evolutionary approach to provide a lightweight system that protects against emerging chemical, biological agents, across all mission areas and profiles. The LCBE acquisition strategy will use full and open competition.</p>

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CBDP PROJECT COST ANALYSIS (R-3 Exhibit)	DATE May 2009
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BUDGET ACTIVITY RDT&E DEFENSE-WIDE/ BA5 - System Development and Demonstration (SDD)	PE NUMBER AND TITLE 0604384BP CHEMICAL/BIOLOGICAL DEFENSE (SDD)	PROJECT IP5
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I. Product Development	Contract Method & Type	Performing Activity & Location	US NF CC	Total PYs Cost	FY 2009 Cost	FY 2009 Award Date	FY 2010 Cost	FY 2010 Award Date					
JSAM													
HW S - Contractor Development Types I/IA	C/CPAF	AVOX, Lancaster, NY	C	31428	5925	2Q FY09	795	1Q FY10					
SW SB - Contractor Development Type II	C/FPI	Gentex, Rancho Cucamonga, CA	C	8573	5085	1Q FY09	4626	1Q FY10					
Subtotal I. Product Development:					11010		5421						

Remarks:

II. Support Costs	Contract Method & Type	Performing Activity & Location	US NF CC	Total PYs Cost	FY 2009 Cost	FY 2009 Award Date	FY 2010 Cost	FY 2010 Award Date					
JSGPM													
ES C - JSGPM Filter	MIPR	ECBC, APG, MD	U	0	0	NONE	118	1Q FY10					
ES C - JSGPM Filter	MIPR	NRL, Washington, DC	U	0	0	NONE	100	1Q FY10					
LCBE													
ES S - Engineering IPT	MIPR	Various	U	0	0	NONE	349	1Q FY10					
Subtotal II. Support Costs:					0		567						

Remarks:

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IV. Management Services	Contract Method & Type	Performing Activity & Location	US NF CC	Total PYs Cost	FY 2009 Cost	FY 2009 Award Date	FY 2010 Cost	FY 2010 Award Date				
JSAM												
PM/MS C - Program Management/Management Support	MIPR	Various	U	14326	1074	3Q FY09	2700	1Q FY10				
JSGPM												
PM/MS C - Conduct Market Survey Analysis	MIPR	JPMO IP, Stafford, VA	U	0	0	NONE	200	1Q FY10				
LCBE												
PM/MS S - JPMO IP Program Management	MIPR	JPMO IP, Stafford, VA	U	0	0	NONE	396	1Q FY10				
ZSBIR												
SBIR/STTR - Aggregated from ZSBIR-SBIR/STTR	PO	HQ, AMC, Alexandria, VA		0	262	NONE	0	NONE				
Subtotal IV. Management Services:					1336		3296					

Remarks:

TOTAL PROJECT COST:					22492		18782					
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D. <u>Schedule Profile:</u>	FY 2008				FY 2009				FY 2010			
	1	2	3	4	1	2	3	4	1	2	3	4
JSAM												
DT Type IA Apache	>>	—————			1Q							
OT&E Type IA Apache		2Q	—————		—————				1Q			
MS C FRP Decision Type IA Apache							3Q					
IOC Type IA Apache										2Q		
DT Type I RW	>>	—————			—————				1Q			
DT Type II FW	1Q	—————			—————				1Q			
Milestone C (LRIP) Type II Fixed Wing											3Q	
JSGPM												
JSGPM Sorbent Testing									1Q	2Q		
JSGPM Filter Qualification Testing											3Q	>>
ROPE Market Survey Analysis									1Q	2Q		
ROPE Method Verification											3Q	4Q
ROPE Candidate Screening											3Q	>>
LCBE												
LCBE Start IPT									1Q			

Exhibit R-4a, Schedule Profile	DATE May 2009
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BUDGET ACTIVITY RDTE&E DEFENSE-WIDE/ BA5 - System Development and Demonstration (SDD)	PE NUMBER AND TITLE 0604384BP CHEMICAL/BIOLOGICAL DEFENSE (SDD)	PROJECT IP5
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D. <u>Schedule Profile (cont):</u>	FY 2008				FY 2009				FY 2010			
	1	2	3	4	1	2	3	4	1	2	3	4
LCBE (Cont)												
LCBE Start DT											3Q	>>

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BUDGET ACTIVITY RDT&E DEFENSE-WIDE/ BA5 - System Development and Demonstration (SDD)	PE NUMBER AND TITLE 0604384BP CHEMICAL/BIOLOGICAL DEFENSE (SDD)	PROJECT IS5
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COST (In Thousands)	FY 2008 Actual	FY 2009 Estimate	FY 2010 Estimate		
IS5 INFORMATION SYSTEMS (SDD)	49878	42325	32453		

A. Mission Description and Budget Item Justification:

Project IS5 INFORMATION SYSTEMS (SDD): This funding supports System Development and Demonstration and Low Rate Initial Production (SDD/LRIP).

Efforts funded in this project are: (1) Joint Effects Model (JEM); (2) Joint Operational Effects Federation (JOEF); (3) the Joint Warning and Reporting Network (JWARN); and (4) the JPEO-CBD Software Support Activity (SSA).

The JEM is DoD's only accredited model for predicting hazards associated with the release of contaminants into the environment. JEM is being developed in separate increments and is capable of modeling hazards in a variety of scenarios including: counterforce, passive defense, accident and/or incidents (Increment 1); high altitude releases, urban NBC environments (Increment 2); building interiors, and human performance degradation (Increment 3). Battle space commanders and first responders must have a CBRN hazard prediction capability in order to make decisions that will minimize risks of CBRN contamination and enable them to continue mission operations. JEM operates in an integrated fashion with operational and tactical Command, Control, Communications, Computers, Intelligence, Surveillance and Reconnaissance (C4ISR) systems, and in a standalone mode. JEM will interface and communicate with the other programs such as JWARN, JOEF, weather systems, intelligence systems, and various databases. At the time of this submission, JEM Increment 2 schedule events beyond FY12 are tentative, pending approval of the Increment 2 CDD.

JOEF will be a near real-time course of action analysis tool developed in three increments using a detailed NBC hazard prediction model. Each increment supports Aerial Ports of Debarkation (APODs), Sea Ports of Debarkation (SPODs), mobile forces, medical and automated Tactics, Techniques and Procedures (TTPs) in various levels of fidelity. Increment 1 will support deliberate planning for operational and strategic users in a C4ISR common operating environment (COE); Command and Control Personal Computers (C2PC); and crisis planning for the operational users in a COE.

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BUDGET ACTIVITY RDT&E DEFENSE-WIDE/ BA5 - System Development and Demonstration (SDD)	PE NUMBER AND TITLE 0604384BP CHEMICAL/BIOLOGICAL DEFENSE (SDD)	PROJECT IS5
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The Joint Warning and Reporting Network (JWARN) will provide, in the first of two increments, joint forces with a comprehensive analysis and response capability to minimize the effects of hostile Chemical, Biological, Radiological, Nuclear (CBRN) attacks, as well as, accidents and incidents. It will provide the capability to employ NBC warning technology which will collect, analyze, identify, locate, report, and disseminate NBC warnings. JWARN will be compatible and integrated with Joint and Service Common Operating Environment (COE) based operational and non-COE based tactical Command and Control (C2) systems. JWARN is transitioning from COE standards to Net-Centric Enterprise Service (NCES). JWARN Increment 2 will provide an expansion of sensors that will connect to JWARN, increased automation of message handling, improved false alarm filtering, integration of route-planning calculator, and interoperability with additional C2 systems. JWARN will be located in Command and Control Centers at the appropriate level and will be employed by CBRN defense specialists and other designated personnel. This employment will transfer data automatically from existing sensors and to and from the future sensors to provide commanders with the capability to support operational decision making in a CBRN environment. JWARN will provide additional data processing to support the production of plans and reports, and access to specific CBRN information to improve the efficiency of limited CBRN personnel assets. JWARN will integrate existing sensors into a sensor network or host C2 system, but does not provide the sensors that will be employed in the operating environment. At the time of this submission, no CDD or funding has been approved for Increment 2, and there are therefore no schedule events.

The JPEO-CBD SSA is a JPEO-CBD enterprise-wide, user developmental support and service organization focusing on development assistance and net-centric interoperability. The SSA provides the Chemical, Biological, Radiological, Nuclear (CBRN) Warfighter with Joint Service solutions for Integrated Architectures, Information Assurance, Verification, Validation and Accreditation (VV&A) and Data Management; interoperable and integrated net-centric, service-oriented, composable solutions for CBD; and infusion of latest technologies into programs of record. CBRN user community and related communities of interest have need for CBRN "plug and play" capability to allow interoperability and re-configurability across the enterprise. The requirement for net-centric, composable solutions provides the near term foundation for the Warfighter's ability to communicate his CBRN solutions and interoperate with other Service operational systems. It also supports a longer term ability to interoperate with related agencies and to reduce the Warfighter's CBRN footprint as technologies improve.

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B. Accomplishments/Planned Program

	<u>FY 2008</u>	<u>FY 2009</u>	<u>FY 2010</u>
JOINT EFFECTS MODEL (JEM)	14379	14553	18814
RDT&E Articles (Quantity)	0	0	0

Accomplishments/Planned Program	FY 2008	FY 2009	FY 2010
JEM - FY08/09/10 - Support operational demonstrations and exercises.	46	331	698
JEM - FY08/09/10 - Conduct independent verification, validation, and accreditation of JEM software and models.	590	979	1615
JEM - FY08/09/10 - Perform JEM Increment 2 Systems Engineering Tasks to include requirements analysis, architecture analysis, configuration management, human-system integration, security analysis, and DoD architecture artifact development.	981	1021	795
JEM - FY08/09/10 - Continue JEM program financial management, scheduling, planning and reporting.	1856	1912	1945

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Accomplishments/Planned Program (Cont):		FY 2008	FY 2009	FY 2010
JEM - FY08/09/10 - Perform software upgrades on fielded JEM baseline. Provide JEM updates in parallel with evolving C4I host system upgrades. Continue development of additional capabilities and upgrades to models within JEM. Support requests for special configurations of JEM (North American Aerospace Defense Command (NORAD), US Northern Command (NORTHCOM), US Strategic Command (STRATCOM), US Forces Korea (USFK) US Air Force Europe (USAFE), US National Guard Civil Support Teams (CST), (etc). Global Command and Control System (GCCS) - Joint/Army/Air Force/Maritime (J/A/AF/M), Maneuver Control System (MCS).		2172	2209	2229
JEM - FY08/10 - Prepare for and conduct Operational Assessments (OA) on target platforms with the Service Operational Test Agencies (OTAs). Prepared for independent Multi-Service Operational Test and Evaluation (funds for actual conduct in bullet above).		997	0	728
JEM - FY08/09/10 - Prepare for and conduct Multi-Service Operational Test and Evaluation (MOT&E) and Follow-on Test and Evaluation (FOT&E).		2216	1480	1491
JEM - FY08/09/10 - Provide Scientific Subject Matter Expertise (SME) and support to JEM Model IPT. Revalidate Increment 2 technology analysis from FY04 analysis, develop prototype options for down-select and prepare for Increment 2 Milestone B.		500	500	506
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Accomplishments/Planned Program (Cont):	FY 2008	FY 2009	FY 2010
JEM - FY08/09/10 - Conduct Science and Technology transition and development of JEM Increment 2 software. Analyze existing and future software architecture. Develop Increment 2 Risk Reduction Prototype. Migrate JEM software to next generation host platforms. Initiate and complete Increment 2 system development and demonstration, incorporating Urban Dispersion Modeling, Missile Intercept, Backtracking to Source, STRATCOM Support, and Human Effects.	4025	5174	6734
JEM - FY08/09/10 - Plan and perform Governmental DT. Verify that the JEM transitioned legacy S&T code and models correctly and conduct test in support of follow-on accreditation and operational test. Complete interoperability, network and system security certifications of multiple service C4I/host systems and three computer operating systems (Windows 2000, XP, and UNIX).	590	947	2073
JEM - FY08 - Updated Computer Based Training (CBT), instructor lead training and courseware. Updated infrastructure and software support capability. Updated deployment plan and other applicable supporting documentation for JEM.	406	0	0
Total	14379	14553	18814

	<u>FY 2008</u>	<u>FY 2009</u>	<u>FY 2010</u>
JOINT OPERATIONAL EFFECTS FEDERATION (JOEF)	6450	7880	2938
RDT&E Articles (Quantity)	0	0	0

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Accomplishments/Planned Program	FY 2008	FY 2009	FY 2010	
JOEF - FY08/09/10 - Provide Program Management Support, including Systems Engineering, Warfighter, Test and Evaluation, and Integrated Logistics Support Integrated Project Teams (Increment 1).	1090	2690	1802	
JOEF - FY08/09 - Develop software for deliberate and crisis planning for Seaports of Debarkation (SPOD), Aerial Ports of Debarkation (APOD) and automated Tactics, Techniques and Procedures (TTP), including Common Operating Environment (COE), Command and Control Personal Computer (C2PC) interfaces and MCS/GCCS-J (Increment 1).	1512	2500	0	
JOEF - FY08/09 - Develop mobile force capability to meet Service requirements (Increment 1).	742	1200	0	
JOEF - FY08/09/10 - Develop and test interoperability of JOEF software with required systems (Increment 1).	687	520	100	
JOEF - FY08/09/10 - Plan and conduct Developmental and Operational Testing (DT/OT).	726	50	436	
JOEF - FY08/09/10 - Plan and provide Integrated Logistics Support, including training, to the JOEF system (Increment 1).	183	320	400	
JOEF - FY08/09/10 - Plan and conduct software validation and verification (Increment 1).	177	300	200	
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Accomplishments/Planned Program (Cont):	FY 2008	FY 2009	FY 2010
JOEF - FY08/09 - Continue the integration with JEM, JWARN and database management systems (Increment 1).	333	300	0
JOEF - FY08 - Integrate existing COTS/GOTS incident management tools into the JPM IS web services framework to provide the JPEO Enterprise with a functional, requirements driven, incident response and management prototype and common operational picture.	1000	0	0
Total	6450	7880	2938

	<u>FY 2008</u>	<u>FY 2009</u>	<u>FY 2010</u>
JOINT WARNING & REPORTING NETWORK (JWARN)	23571	16191	7351
RDT&E Articles (Quantity)	150	80	0

Accomplishments/Planned Program	FY 2008	FY 2009	FY 2010
JWARN - FY08 - Conducted Increment 1 Multi-Service Operational Test & Evaluation (MOT&E) event planning.	850	0	0
JWARN - FY08 - Conducted Increment 1 Developmental Test (DT).	2100	0	0

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Accomplishments/Planned Program (Cont):				
JWARN - FY08 - Generated Increment 1 comprehensive DT test results reports.		375	0	0
JWARN - FY08/09/10 - Continue JWARN program management and oversight.		2051	2073	2100
JWARN - FY08/09 - Design, develop, integrate, and update software and hardware for a Functional Operational Test (FOT) Simulator demonstration system.		175	160	0
JWARN - FY08/09/10 - Complete Increment 1 development (FY08) and conduct Increment 2 planning and development (FY08/09/10).		7388	4500	3000
JWARN - FY08/09/10 - Conduct demonstrations and exercises.		50	70	50
JWARN - FY08/09/10 - Develop Network Centric Enterprise Services (NCES)/Net Ready (NR)/Key Performance Parameters (KPP) enhancements.		1400	1000	838
JWARN - FY08/09 - Develop the wireless JWARN Component Interface Device (JCID) as required by the Services' Urgent Needs Statement (UNS). Produce 70 Engineering Development Models of the JCID.		1030	2553	0
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RDT&E DEFENSE-WIDE/ BA5 - System Development and Demonstration (SDD)	0604384BP CHEMICAL/BIOLOGICAL DEFENSE (SDD)	IS5		
Accomplishments/Planned Program (Cont):		FY 2008	FY 2009	FY 2010
JWARN - FY08 - Conducted JCID First Article Test (FAT).		220	0	0
JWARN - FY08 - Conducted Increment 1 Milestone C reviews.		700	0	0
JWARN - FY08 - Coordinated JCID Low Rate Initial Production (LRIP). Produced 140 JCIDs.		660	0	0
JWARN - FY08 - Conducted Increment 1 Operational Assessment (OA) 1 & 2.		1400	0	0
JWARN - FY08 - Generated comprehensive Increment 1 OA 1 & 2 reports.		500	0	0
JWARN - FY08/09 - Conduct Increment 1 MOT&E.		4147	1094	0
JWARN - FY08/09 - Generate Increment 1 MOT&E test results and reports.		525	470	0
JWARN - FY09/10 - Conduct Increment 2 Functional Qualification Tests (FQT).		0	2893	613
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Accomplishments/Planned Program (Cont):	FY 2008	FY 2009	FY 2010
JWARN - FY09 - Generate FQT test results and reports.	0	525	0
JWARN - FY09/10 - Coordinate JCID Full Rate Production.	0	853	750
Total	23571	16191	7351

	<u>FY 2008</u>	<u>FY 2009</u>	<u>FY 2010</u>
SOFTWARE SUPPORT ACTIVITY (SSA)	5478	3208	3350
RDT&E Articles (Quantity)	0	0	0

Accomplishments/Planned Program	FY 2008	FY 2009	FY 2010
SSA - FY08/09/10 - Provide Policies, Standards & Guidelines for IT Systems Development (FISMA compliance and J6 Interoperability Certification).	419	205	233
SSA - FY08/09/10 - Develop and maintain a program Integrated Architecture for JPEO-CBD (Warfighter Enterprise Architecture).	875	371	422

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Accomplishments/Planned Program (Cont):		FY 2008	FY 2009	FY 2010
SSA - FY08/09/10 - Provide support processes and services for Architectures, Data, Information Assurance, Help Desk, Modeling and Simulation, Science and Technology, and Standards and Policy.		812	291	332
SSA - FY08/09/10 - Provide CBRN Data Model development for CBRN Community of Interest.		533	298	339
SSA - FY08/09 - Developed and maintained Enterprise IT Support Plan.		236	182	0
SSA - FY08/09/10 - Establish and provide Information Assurance certification and acceptance services for developing JPEO-CBD programs.		840	360	408
SSA - FY08/09/10 - Establish and maintain a repository for applicable Enterprise policies, standards, and guidelines.		708	297	340
SSA - FY08/09/10 - Establish and provide Technology Transition support services (common components and services).		316	152	172
SSA - FY08/09/10 - Establish and maintain Enterprise VV&A guidelines and processes, including M&S strategic support and Accreditation support.		739	267	303
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Accomplishments/Planned Program (Cont):	FY 2008	FY 2009	FY 2010
SSA - FY09/10 - Provide Net-Centric Assessment for programs.	0	351	399
SSA - FY09/10 - Develop and maintain Common CBRN Interface standards, including Common CBRN Sensor Interface (CCSI).	0	434	402
Total	5478	3208	3350

	<u>FY 2008</u>	<u>FY 2009</u>	<u>FY 2010</u>
SBIR/STTR	0	493	0
RDT&E Articles (Quantity)	0	0	0

Accomplishments/Planned Program	FY 2008	FY 2009	FY 2010
SBIR - FY09 - Small Business Innovative Research.	0	493	0
Total	0	493	0

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C. Other Program Funding Summary:

	<u>FY 2008</u>	<u>FY 2009</u>	<u>FY 2010</u>		
G47101 JOINT WARNING & REPORTING NETWORK (JWARN)	6702	4375	6571		
JC0208 JOINT EFFECTS MODEL (JEM)	3512	5546	3493		
JC0209 JOINT OPERATIONAL EFFECTS FEDERATION (JOEF)	3589	0	0		

D. Acquisition Strategy:

JEM The Joint Effects Model (JEM) is following an evolutionary acquisition approach that will allow rapid fielding of existing technologies while further research and development (R&D) continues in order to mature the technologies required for subsequent versions of JEM. It is now being fielded in increments of capabilities. Each increment will retain the functionality of the preceding increment. JEM is expected to develop three distinct increments of software. It will make full use of the JPM IS Initial Capability (JIC) to demonstrate and test the system. JEM will define and publish its web-services interface; the JEM interface will be the same on all systems, utilizing data definitions from the approved CBRN data model as appropriate. A cost plus award fee contract was awarded for the follow-on JEM contract for integration and development.

JOEF JOEF is a planning tool to support deliberate and crisis planning. JOEF will be a near real-time course of action analysis tool developed in three increments. It will use a detailed CBRN hazard prediction model. Each block supports Aerial Ports of Debarkation (APODs), Sea Ports of Debarkation (SPODs), mobile forces, medical and automated Tactics, Techniques and Procedures (TTPs) in various levels of fidelity.

Increment 1 will support deliberate planning for operational and strategic users in a Command, Control, Communications, Computers, Intelligence, Surveillance and Reconnaissance (C4ISR) common operating environment (COE)/Networked environment, Command and Control Personal Computers (C2PC), and crisis planning for the operational users in a COE/Networked environment.

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<p>Increment 2 will support deliberate and crisis planning for the tactical users in COE/Networked, and Non-Networked environments; deliberate planning for operational and strategic users in a Non-Networked environment; and crisis planning for the operational users in a COE Networked and Non-Networked environments. Increment 2 also supports planning for consequence management and development of consequence management for military capabilities.</p> <p>Increment 3 will extend consequence management capabilities to include hot/allied nation military operations and civilian facilities.</p> <p>JWARN The Joint Warning and Reporting Network (JWARN) revised Acquisition Strategy (AS) is based on the contract awarded on 15 July, 2003 to Northrop Grumman - Information Technology and updates key program milestones and events accordingly. The revised AS accelerated the development effort to provide a JWARN Initial Capability (JIC) providing a limited, end-to-end JWARN capability to the warfighter in 1QFY05. This acceleration was accomplished by leveraging the technology of an extant end-to-end JIC. Usage of this initial integrated capability by the warfighter generated operational feedback to the JWARN developer and provided a venue to validate and refine Measures of Performance (MOPs) and Measures of Effectiveness (MOEs). Further, it provided an opportunity to refine Service Concepts of Operations (CONOPS) and Tactics, Techniques, and Procedures (TTPs) for the system. The revised strategy further accelerates the delivery of the full system by developing the system in a single Block with two increments vice development in three separate Phases. This acceleration is achieved through the concurrent integration of sensor connectivity initially planned for the Pre-planned Product Improvement Phase. The revised strategy eliminates the Block II Phase 2 Milestone Decision process, as well as, the required Development Testing/Operational Assessment (DT/OA). This is expected to hasten the delivery schedule for the full capability of JWARN by approximately 12 months.</p> <p>SSA The JPEO-CBD Software Support Activity (SSA) is a JPEO-CBD user support organization spanning and supporting all Joint Project Managers (JPMs) and JPEO-CBD Directorates. The SSA provides enterprise-wide services and coordination across all JPEO-CBD Programs of Record (PORs) that contain data or software, or are capable of linking to the Global Information Grid (GIG). The SSA facilitates interoperability, integration, and supportability of existing and developing IT and National Security Systems (NSS) across the JPEO and all JPMs.</p>		
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Phase 1a identifies JPEO-CBD JPMs and programs that deal with data or software, and have an IT component. This will be followed by coordination with the JPMs and programs to facilitate the concepts of interoperability, integration and supportability of enterprise-wide services. Next follows work with user communities to develop and demonstrate enterprise-wide common architectures, products and services. [BA5 - System Development and Demonstration] .

Phase 1b established management and control measures for tracking and reporting progress of the various elements described in Phases 1 and 2. This includes establishing, tracking, and performing configuration management of inventories and databases of IT systems and their states of interoperability and information assurance compliance. [BA6 - RDT&E Management Support].

Phase 2 will support the application of the enterprise-wide architectures, products and services into the programs, with verification of compliance with the defined products and services. [BA7 - Operational Systems Development].

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CBDP PROJECT COST ANALYSIS (R-3 Exhibit)	DATE May 2009
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II. Support Costs	Contract Method & Type	Performing Activity & Location	US NF CC	Total PYs Cost	FY 2009 Cost	FY 2009 Award Date	FY 2010 Cost	FY 2010 Award Date					
JEM													
ES S - IPT - System Engineering, Logistics and Program Support	MIPR	Various	U	13251	1852	2Q FY09	1998	2Q FY10					
JOEF													
TD/D SB - System Engineering, Warfighter IPTs	MIPR	Various	U	3164	1140	2Q FY09	500	2Q FY10					
ILS S - ILS Planning and Oversight	MIPR	Various	U	707	200	1Q FY09	200	1Q FY10					
ILS S - JOEF ILS including Training	MIPR	Various	U	246	320	1Q FY09	400	1Q FY10					
SSA													
Support Costs	MIPR	SPAWAR Systems Center, San Diego, CA	U	3164	936	1Q FY09	1444	1Q FY10					
Subtotal II. Support Costs:					4448		4542						

Remarks:

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CBDP PROJECT COST ANALYSIS (R-3 Exhibit)	DATE May 2009
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BUDGET ACTIVITY RDT&E DEFENSE-WIDE/ BA5 - System Development and Demonstration (SDD)	PE NUMBER AND TITLE 0604384BP CHEMICAL/BIOLOGICAL DEFENSE (SDD)	PROJECT IS5
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III. Test and Evaluation	Contract Method & Type	Performing Activity & Location	US NF CC	Total PYs Cost	FY 2009 Cost	FY 2009 Award Date	FY 2010 Cost	FY 2010 Award Date					
JEM													
DTE SB - Hazard Prediction Model Development Test	MIPR	Various	U	4988	947	1Q FY09	2073	2Q FY10					
OTE S - Hazard Prediction Model Developmental Test	MIPR	Various	U	4076	1480	2Q FY09	2219	2Q FY10					
OTHT SB - Hazard Prediction Model - IV&V	MIPR	Various	U	2303	979	2Q FY09	1616	2Q FY10					
JOEF													
DTE S - Developmental Test Planning	MIPR	Various	U	3552	200	2Q FY09	68	2Q FY10					
OTHT S - JOEF Independent Verification and Validation	MIPR	Various	U	607	300	2Q FY09	200	2Q FY10					
OTE S - Operational Test Planning	MIPR	Various	U	303	50	1Q FY09	468	2Q FY10					
JWARN													
OTHT SB - JWARN Block II Development Test	MIPR	Various	U	25133	5127	2Q FY09	663	2Q FY10					
SSA													
Test and Evaluation	MIPR	SPAWAR Systems Center, San Diego, CA	U	2204	651	1Q FY09	485	1Q FY10					
Subtotal III. Test and Evaluation:					9734		7792						

Remarks:

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CBDP PROJECT COST ANALYSIS (R-3 Exhibit)	DATE May 2009
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TOTAL PROJECT COST:		42325		32453						
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Exhibit R-4a, Schedule Profile	DATE May 2009
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D. <u>Schedule Profile:</u>	FY 2008				FY 2009				FY 2010			
	1	2	3	4	1	2	3	4	1	2	3	4
JEM												
Increment 1 - Developmental Test (DT) (Contr and Government)	1Q											
Increment 1 - Software Maintenance	>>		———— 3Q									
Increment 1 - Pre-planned Product Improvement (P3I)			3Q	————	————	————	————	————	————	————	————	>>
Increment 1 - Multi-Service Operational Test and Evaluation (MOTE) I	1Q											
Increment 1 - Limited Deployment Phase	>>	2Q										
Increment 1 - Initial Operational Capability (IOC)		2Q	————		1Q							
Increment 1 - Full Rate Production			3Q	————	————	————	————	————	————	2Q		
Increment 1 - Multi-Service Operational Test and Evaluation (MOTE) II				4Q								
Increment 1 - Follow-on Test and Evaluation						3Q	————		1Q			

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Exhibit R-4a, Schedule Profile	DATE May 2009
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D. <u>Schedule Profile (cont):</u>	FY 2008				FY 2009				FY 2010			
	1	2	3	4	1	2	3	4	1	2	3	4
JEM (Cont)												
Increment 2 - Technology Development			3Q	_____	_____	_____	_____	_____	_____	2Q		
Increment 2 - Milestone B							4Q	_____	_____	_____	3Q	
Increment 2 - Engineering and Manufacturing Development									1Q	_____	>>	
Increment 2 - DT (Cont)						2Q	_____	_____	_____	_____	_____	>>
Increment 2 - DT Government							3Q	_____	_____	_____	_____	>>
JOEF												
Increment 1 - Tech Reviews	>>	_____	_____	_____	_____	2Q						
Increment 1 - DT Build 2						2Q						
Increment 1 - Operational Assessment									1Q			
Increment 1 - Multi-Service Operational Test & Evaluation (MOTE)												4Q
Increment 1 - Milestone C (Limited Deployment)												4Q
JWARN												

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D. <u>Schedule Profile (cont):</u>	FY 2008				FY 2009				FY 2010			
	1	2	3	4	1	2	3	4	1	2	3	4
JWARN (Cont)												
JWARN Inc 1 - Development Test 3	1Q	2Q										
JWARN Inc 1 - Limited Objective Experiment (LOE)/User Assessment (UA)		2Q	3Q									
JWARN Inc 1 - Milestone C		2Q	3Q									
JWARN Inc 1 - JCID Low Rate Initial Production (LRIP) Contract Award			3Q	4Q								
JWARN Inc 1 - First Article Test				4Q	1Q							
JWARN Inc 1 - Multi-Service Operational Test & Evaluation (Software)				4Q	————	2Q						
JWARN Inc 1 - Initial Operational Test and Evaluation (Hardware)								4Q				
JWARN Inc 1 - Initial Operational Capability (Software)						2Q	————	4Q				
JWARN Inc 1 - Initial Operational Capability (Hardware)								4Q	————	2Q		

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D. <u>Schedule Profile (cont):</u>	FY 2008				FY 2009				FY 2010			
	1	2	3	4	1	2	3	4	1	2	3	4
JWARN (Cont)												
JWARN Inc 1 - Full Rate Production Milestone Decision						2Q						
JWARN Inc 1 - Full Rate Production								4Q	_____ >>			
JWARN Inc 1 - Full Operational Capability										2Q		
SSA												
Establish CM Services for the Enterprise CBRND Products	>>			3Q								
Provide Data Model Implementation Guidance	1Q				_____ >>							
Demonstrate Technology Transition Capabilities	1Q				_____ >>							
Provide CM Services for Common User Products and Services	1Q				_____ >>							
Establish Common Services Management Guidance	1Q			3Q								

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D. <u>Schedule Profile (cont):</u>	FY 2008				FY 2009				FY 2010			
	1	2	3	4	1	2	3	4	1	2	3	4
SSA (Cont)												
Develop and provide CBRN Data Model implementation guidance, including reference implementations	1Q	_____ >>										
Architecture advisory services to support Warfighter Enterprise and Program Integrated Architectures	1Q	_____ >>										
Demonstrate, Verify, Test Technology Transition capabilities esp. for Common Components and Services	1Q	_____ >>										
Provide Information Assurance Certification/Acceptance products/services, including compliance testing	1Q	_____ >>										
Provide Modeling, Simulation, VV&A, Integration/Test support and interoperability demonstrations.	1Q	_____ >>										

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D. <u>Schedule Profile (cont):</u>	FY 2008				FY 2009				FY 2010			
	1	2	3	4	1	2	3	4	1	2	3	4
SSA (Cont)												
Provide FISMA and J6 Interoperability certification support	1Q	_____ >>										
Provide CBRN Interface Standards, incl. reference implementations, e.g. Common CBRN Sensor Interface	1Q	_____ >>										
Sustain CBRN Data Model	1Q	_____ >>										
Sustain CCSI, including investigation, as an industry standard	1Q	_____ >>										

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COST (In Thousands)	FY 2008 Actual	FY 2009 Estimate	FY 2010 Estimate		
MB5 MEDICAL BIOLOGICAL DEFENSE (SDD)	69231	89424	64478		

A. Mission Description and Budget Item Justification:

Project MB5 MEDICAL BIOLOGICAL DEFENSE (SDD): This project (MB5) contains System Development and Demonstration efforts (post Milestone B), which provide a rapid response capability from identification of pathogens to the delivery of medical countermeasures. Specifically, this project includes: the Critical Reagents Program (CRP), the Joint Biological Agent Identification and Diagnostics System (JBAIDS), vaccines for Botulinum Toxin and Plague, and The Transformational Medical Technology Initiative (TMTI) program. The Transformational Medical Technologies Initiative (TMTI) was launched in FY 2006 as a key Quadrennial Defense Review initiative to respond to the threat of emerging or intentionally bioengineered biological threats. TMTI's mission is to protect the Warfighter from genetically engineered biological threats by providing a rapid response capability from identification of pathogens to the delivery of medical countermeasures. This mission is accomplished by developing broad spectrum (multi-agent) therapeutics against biological warfare (BW) agents (e.g, one drug that treats multiple agents). The development of broad spectrum therapeutics involves developing a capability to treat exposure to hemorrhagic fever viruses (HFV's) (e.g. Ebola virus) and intracellular bacterial pathogens (ICB's) (e.g. Tularemia). Efforts are further classified as host-directed therapeutics (e.g, drugs that target common pathways within a human to prevent or treat a variety of diseases) or pathogen-directed therapeutics (e.g., drugs that attack a common pathway found in multiple threat agents). Attrition is high throughout the drug development process. Less than 10% of all preclinical compounds become a licensed drug. Causes for attrition include scientific failures, Food and Drug Administration (FDA) rejection at major milestone reviews, and loss through down-selection at DoD Milestone Decision points. Simply put, the development of medical countermeasures is an arduous process that requires extensive interaction with the FDA, from pre-clinical research to safety tests in human subjects (Phase I clinical studies), efficacy tests in humans/animals (Phase II clinical studies or pivotal animal efficacy studies), and expanded safety or efficacy studies (Phase III clinical studies), which culminate with a request to the FDA to license, market, and produce a drug. This interaction between the Department of Defense (DoD) and the FDA results in a coordinated, unified, and safe effort.

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B. Accomplishments/Planned Program

	<u>FY 2008</u>	<u>FY 2009</u>	<u>FY 2010</u>
CRITICAL REAGENTS PROGRAM (CRP)	10041	7435	4430
RDT&E Articles (Quantity)	0	0	0

Accomplishments/Planned Program	FY 2008	FY 2009	FY 2010
CRP - FY08/09/10 - Continue expansion of select biological threat agent reference materials.	1598	2217	1233
CRP - FY08/09/10 - Continue development of immunoassays and polymerase chain reaction (PCR) genomic assays.	2545	1127	679
CRP - FY08/09/10 - Implemented and continue improvement of a formal Quality Assurance/Quality Control (QA/QC) non-medical, systems engineering, validation, Developmental Testing (DT), and Operational Testing (OT) program to encompass the transition and fielding of biological detection assays.	5441	3568	2206
CRP - FY08/09/10 - Implemented, continue and achieve International Organization for Standardization (ISO) guidelines into select biological threat agent reference materials.	457	523	312
Total	10041	7435	4430

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	<u>FY 2008</u>	<u>FY 2009</u>	<u>FY 2010</u>
JOINT BIO AGENT IDENT AND DIAG SYSTEM (JBAIDS)	3162	0	0
RDT&E Articles (Quantity)	0	0	0

Accomplishments/Planned Program	FY 2008	FY 2009	FY 2010
JBAIDS #2 - Congressional Interest Item - FY08 - Rapid Identification of Biological Warfare Agents.	1581	0	0
JBAIDS #3 - Congressional Interest Item - FY08 - Joint Biological Agent Identification and Diagnostic System.	1581	0	0
Total	3162	0	0

	<u>FY 2008</u>	<u>FY 2009</u>	<u>FY 2010</u>
BOTULINUM VACCINE (VAC BOT)	15600	23364	31174
RDT&E Articles (Quantity)	0	0	0

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Accomplishments/Planned Program				
JVAP - Recombinant Botulinum Vaccine - FY08 - Provided strategic/tactical planning, government systems engineering, program/financial management, costing, technology assessment, contacting, scheduling, acquisition oversight and technical support.	3857	0	0	
JVAP - Recombinant Botulinum Vaccine - FY08 - Conducted Milestone B review and entered into Systems Development and Demonstration acquisition phase.	100	0	0	
JVAP - Recombinant Botulinum Vaccine - FY08/09 - Continued and complete execution of Phase 1b clinical trial.	2075	1050	0	
JVAP - Recombinant Botulinum Vaccine - FY08/09/10 - Continue and complete manufacturing process validation and validation of formulation, fill and finish process for serotypes A and B.	5298	10964	19442	
JVAP - Recombinant Botulinum Vaccine - FY08/09/10 - Continue non-clinical testing.	1900	3401	4982	
JVAP - Recombinant Botulinum Vaccine - FY08/09/10 - Initiated, continue, and complete Phase 2 clinical trial.	2370	7949	6750	
Total	15600	23364	31174	

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	<u>FY 2008</u>	<u>FY 2009</u>	<u>FY 2010</u>
PLAGUE VACCINE (VAC PLG)	38452	57577	28874
RDT&E Articles (Quantity)	0	0	0

Accomplishments/Planned Program	FY 2008	FY 2009	FY 2010
JVAP - Plague Vaccine - FY08 - Conducted resource allocation decision to single candidate.	508	0	0
JVAP - Plague Vaccine - FY08/09 - Continued and complete large scale manufacturing process development.	8153	7243	0
JVAP - Plague Vaccine - FY08/09/10 - Continue non-clinical studies, to include additional FDA required passive transfer studies.	7150	12061	4245
JVAP - Plague Vaccine - FY08/09/10 - Continue and complete Phase 2 clinical trial.	8100	9631	6385
JVAP - Plague Vaccine - FY08/09/10 - Continue and complete large scale manufacturing process validation.	14541	24535	15175
JVAP - Plague Vaccine - FY09/10 - Provide strategic/tactical planning, government systems engineering, program/financial management, costing, technology assessment, contacting, scheduling, acquisition oversight and technical support.	0	4107	3069
Total	38452	57577	28874

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	<u>FY 2008</u>	<u>FY 2009</u>	<u>FY 2010</u>
BIOLOGICAL VACCINES (VACCINES)	1976	0	0
RDT&E Articles (Quantity)	0	0	0

Accomplishments/Planned Program	FY 2008	FY 2009	FY 2010
TT Bio - Congressional Interest Item - FY08 - ParalellaVax Rapid Vaccine Testing Technology.	1976	0	0
Total	1976	0	0

	<u>FY 2008</u>	<u>FY 2009</u>	<u>FY 2010</u>
SBIR/STTR	0	1048	0
RDT&E Articles (Quantity)	0	0	0

Accomplishments/Planned Program	FY 2008	FY 2009	FY 2010
SBIR - FY09 - Small Business Innovative Research.	0	1048	0
Total	0	1048	0

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C. Other Program Funding Summary:

	<u>FY 2008</u>	<u>FY 2009</u>	<u>FY 2010</u>		
JM0001 JOINT BIO AGENT IDENT AND DIAG SYSTEM (JBAIDS)	4902	479	0		
JX0005 DOD BIOLOGICAL VACCINE PROCUREMENT	48298	38109	12740		
JX0210 CRITICAL REAGENTS PROGRAM (CRP)	2413	0	0		

D. Acquisition Strategy:

CRP	The Critical Reagents Program's (CRP) strategy establishes a core research and development capability to develop biological threat agent, genomic reference materials (antigens, nucleic acids, and antibodies) and detection and diagnostic assays for biothreat agent detection that shall be horizontally inserted across multiple detection and diagnostic platforms. In addition, this strategy will implement a formal, validated advanced development process to transition new assays into production and integration with the appropriate detection/diagnostic platform.
JBAIDS	JBAIDS is an evolutionary development program. Increment 1 will be a rapid development and fielding effort to deliver a critical capability to identify bacteria and viral agents to the field in the shortest time. Increment 1 development effort focuses on militarizing and hardening of critical identification technologies based on a Commercial off-the-shelf (COTS) item and on obtaining FDA clearance for the assays and hardware. Process controls were developed and tested during FY07 as a product enhancement. The JBAIDS FOT&E for shipboard applications were executed in 3QFY07.
VAC BOT	A prime systems contractor will function as the "responsible head" and license holder and will perform all ancillary, regulatory, quality assurance, and data management as required by the FDA. The current budget supports development through FDA licensure of a recombinant bivalent (A and B) botulinum vaccine. Other serotypes will be developed through an evolutionary approach, as funding becomes available.

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The management lead for the program shifted to JVAP at Milestone A. The Advanced Component Development and Prototypes (ACD&P) phase included the manufacture of candidate current Good Manufacturing Practices (cGMP) lots, animal safety testing, and initial clinical trials. During this phase, the vaccine was evaluated for safety and immunogenicity in a small human trial (Phase 1).

During the System Development and Demonstration phase (SDD), the JVAP prime systems contract (PSC) will stabilize the vaccine formulation, validate the manufacturing processes and testing protocols, optimize the delivery systems and manufacture consistency lots. Phase 2 clinical trials are performed during this phase to provide additional safety data and determine dose and schedule. The Phase 3 clinical trial also is conducted during this phase to demonstrate safety in an expanded volunteer population. To evaluate efficacy, pivotal animal studies will be conducted concurrently with the Phase 3 clinical trial to satisfy FDA requirements for the "Animal Rule." The Milestone C, also the Low Rate Initial Production (LRIP) decision, will be conducted after the manufacturing process has been validated and consistency lots have been produced. At the Milestone C, approval is granted to produce the Initial Operational Capability (IOC) of vaccine material. A Biologics Licensure Application is submitted to the FDA with all clinical, nonclinical, and manufacturing data. The FDA grants licensure to products that are determined to be safe and efficacious.

VAC PLG

Chemical Biological Medical Systems (CBMS) was mitigating technical program risk in the Plague Vaccine program by temporarily supporting development of both a US vaccine candidate and a United Kingdom vaccine candidate. During the 2008 Resource Allocation Decision, the US Plague Vaccine candidate was selected for development through licensure under JVAP's Prime Systems Contract. A Project Arrangement is currently under negotiation with the United Kingdom and Canada.

The management lead for the program shifted to JVAP at Milestone A. The Advanced Component Development and Prototypes (ACD&P) phase included the manufacture of candidate current Good Manufacturing Practices (cGMP) lots, animal safety testing, and initial clinical trials. During this phase, the vaccine was evaluated for safety and immunogenicity in a small human trial (Phase 1).

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<p>During the System Development and Demonstration phase (SDD), the vaccine developer will stabilize the vaccine formulation, validate the manufacturing processes and testing protocols, optimize the delivery systems, and manufacture consistency lots. Phase 2 clinical trials are performed during this phase to provide additional safety data and determine dose and schedule. The Phase 3 clinical trial is also conducted during this phase to demonstrate safety in an expanded volunteer population. To evaluate efficacy, pivotal animal studies will be conducted concurrently with the Phase 3 clinical trial to satisfy the requirements of the FDA's "Animal Rule." The Milestone C, also the Low Rate Initial Production (LRIP) decision, will be conducted after the manufacturing process has been validated and consistency lots have been produced. At the Milestone C, approval is granted to produce the Initial Operational Capability (IOC) of vaccine material. A Biologics License Application is submitted to the FDA with all clinical, nonclinical, and manufacturing data. The FDA grants licensure to products that are determined to be safe and efficacious.</p> <p>VACCINES Biological vaccines such as Anthrax Vaccine Absorbed (AVA) and Smallpox Vaccine are currently procured through an Interagency Agreement (IAA) with the Centers for Disease Control (CDC).</p>		
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I. Product Development	Contract Method & Type	Performing Activity & Location	US NF CC	Total PYs Cost	FY 2009 Cost	FY 2009 Award Date	FY 2010 Cost	FY 2010 Award Date				
CRP												
CRP - Scale-up of Select Biological Threat Agent Reference Materials	MIPR	USAMRIID, Fort Detrick, MD & Dugway Proving Ground, DPG, UT	U	6834	1267	2Q FY09	586	2Q FY10				
CRP - Development of Select Biological Threat Agent Reference Materials and Assays	MIPR	RDECOM, Edgewood, MD, NMRC, Silver Spring, MD	U	1088	450	2Q FY09	151	2Q FY10				
VAC BOT												
Manufacturing, Validation and Consistency Lot Production	C/CPAF	DynPort Vaccine Company, Frederick, MD	C	3842	9140	2Q FY09	12745	2Q FY10				
VAC PLG												
Manufacturing, Validation, and Consistency Lot Production	C/CPAF	DynPort Vaccine Company, Frederick, MD	C	43079	22668	2Q FY09	10330	2Q FY10				
Subtotal I. Product Development:					33525		23812					

Remarks: CRP - DTIC - Defense Technical Information Center
 NMRC - Naval Medical Research Center
 RDECOM - Research, Development & Engineering Command
 USAMRIID - US Army Medical Research Institute of Infectious Diseases

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II. Support Costs	Contract Method & Type	Performing Activity & Location	US NF CC	Total PYs Cost	FY 2009 Cost	FY 2009 Award Date	FY 2010 Cost	FY 2010 Award Date				
CRP												
CRP - Select Biological Threat Agent Reference Material Regulatory Support	MIPR	DTIC, Edgewood, MD	U	406	150	2Q FY09	90	2Q FY10				
CRP - Select Biological Threat Agent Reference Material Development	MIPR	USAMRIID, Fort Detrick, MD; RDECOM, Edgewood, MD	U	1802	488	2Q FY09	294	2Q FY10				
CRP - Select Biological Threat Agent Reference Material Regulatory/Quality Assurance (QA) Support	MIPR	Dugway Proving Ground, Dugway, UT	U	953	218	2Q FY09	131	2Q FY10				
VAC BOT												
Regulatory Integration (Environmental and FDA Documentation) and Delivery System	C/CPAF	DynPort Vaccine Company, Frederick, MD	C	854	1185	2Q FY09	1593	2Q FY10				
VAC PLG												
Regulatory Integration (Environmental and FDA Documentation) and Delivery System	C/CPAF	DynPort Vaccine Company, Frederick, MD	C	9773	2921	2Q FY09	1476	2Q FY10				
Subtotal II. Support Costs:					4962		3584					

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II. Support Costs - Cont.

Remarks: CRP - DTIC - Defense Technical Information Center
 NMRC - Naval Medical Research Center
 RDECOM - Research, Development & Engineering Command
 USAMRIID - US Army Medical Research Institute of Infectious Diseases

III. Test and Evaluation	Contract Method & Type	Performing Activity & Location	US NF CC	Total PYs Cost	FY 2009 Cost	FY 2009 Award Date	FY 2010 Cost	FY 2010 Award Date					
CRP													
CRP - Conformance Testing of Select Biological Threat Agent Reference Materials and Assays	MIPR	Naval Medical Research Center, Silver Spring, MD	U	2042	291	2Q FY09	162	2Q FY10					
CRP - Test & Evaluation of Select Biological Threat Agent Reference Materials and Assays	MIPR	USAMRIID, Frederick, MD	U	2744	399	2Q FY09	222	2Q FY10					
CRP - Validation Program	C/CPFF	TBD	C	3989	1442	3Q FY09	597	3Q FY10					
VAC BOT													
Testing, Evaluation, and Clinical Trials	C/CPAF	DynPort Vaccine Company, Frederick, MD	C	3842	9364	2Q FY09	11068	2Q FY10					

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III. Test and Evaluation - Cont.	Contract Method & Type	Performing Activity & Location	US NF CC	Total PYs Cost	FY 2009 Cost	FY 2009 Award Date	FY 2010 Cost	FY 2010 Award Date					
VAC PLG													
Testing, Evaluation, and Clinical Trials	C/CPAF	DynPort Vaccine Company, Frederick, MD	C	41279	19602	2Q FY09	9100	2Q FY10					
Subtotal III. Test and Evaluation:					31098		21149						

Remarks: CRP - DTIC - Defense Technical Information Center
 NMRC - Naval Medical Research Center
 RDECOM - Research, Development & Engineering Command
 USAMRIID - US Army Medical Research Institute of Infectious Diseases

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IV. Management Services	Contract Method & Type	Performing Activity & Location	US NF CC	Total PYs Cost	FY 2009 Cost	FY 2009 Award Date	FY 2010 Cost	FY 2010 Award Date					
CRP													
Product Management Support	Allot	CBMS, Frederick, MD	U	330	302	1Q FY09	302	1Q FY10					
Product Management Support	SS/FFP	Goldbelt Raven, LLC, Frederick, MD	C	1489	1590	2Q FY09	1493	2Q FY10					
Chem Bio Medical Systems Office	Allot	CBMS, Frederick, MD	U	1829	456	4Q FY09	171	4Q FY10					
Joint Program Executive Office	Allot	JPEO, Falls Church, VA	U	327	377	4Q FY09	226	4Q FY10					
IT and Security Support	MIPR	RDECOM, Edgewood, MD	U	104	5	2Q FY09	5	2Q FY10					
VAC BOT													
PM/MS S - Joint Vaccine Acquisition Program Management	Allot	CBMS, Frederick, MD	U	273	273	4Q FY09	900	4Q FY10					
PM/MS S - Contractor Systems Engineering/Program Management Support	SS/FFP	Goldbelt Raven, LLC, Frederick, MD	C	1930	1053	3Q FY09	1805	3Q FY10					
PM/MS S - Award Fee (Maximum 10.5%)	C/CPAF	DynPort Vaccine Company, Frederick, MD	C	1002	2349	2Q FY09	3063	2Q FY10					
VAC PLG													
PM/MS S - Program Management Support	Allot	JPEO, Falls Church, VA	U	1741	4107	4Q FY09	3069	4Q FY10					
PM/MS S - Contractor Systems Engineering/Program Management Support	SS/FFP	Goldbelt Raven, LLC, Frederick, MD	C	5064	2880	3Q FY09	2370	3Q FY10					

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IV. Management Services - Cont.	Contract Method & Type	Performing Activity & Location	US NF CC	Total PYs Cost	FY 2009 Cost	FY 2009 Award Date	FY 2010 Cost	FY 2010 Award Date					
PM/MS S - Award Fee (Maximum 10.5%)	C/CPAF	DynPort Vaccine Company, Frederick, MD	C	8713	5399	2Q FY09	2529	2Q FY10					
ZSBIR													
SBIR/STTR - Aggregated from ZSBIR-SBIR/STTR	PO	HQ, AMC, Alexandria, VA		0	1048	NONE	0	NONE					
Subtotal IV. Management Services:					19839		15933						

Remarks:

TOTAL PROJECT COST:		89424		64478									
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D. <u>Schedule Profile:</u>	FY 2008				FY 2009				FY 2010			
	1	2	3	4	1	2	3	4	1	2	3	4
CRP												
CRP - Implementation of ISO Guidelines into Select Biological Threat Agent Reference Materials	>>	—————							4Q			
VAC BOT												
rBV A/B - Process Validation - Large Scale	>>	—————							4Q			
rBV A/B - Phase 1 Clinical Trial (A/B)	>>	—————			1Q							
rBV A/B - Milestone B			3Q									
rBV A/B - Phase 2 Clinical Trial (A/B)				4Q	————— >>							
VAC PLG												
PLG - Process Development - Large Scale	>>	—————							4Q			
PLG - Resource Allocation Decision to Single Candidate			2Q									

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BUDGET ACTIVITY RDT&E DEFENSE-WIDE/ BA5 - System Development and Demonstration (SDD)	PE NUMBER AND TITLE 0604384BP CHEMICAL/BIOLOGICAL DEFENSE (SDD)	PROJECT MC5
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COST (In Thousands)	FY 2008 Actual	FY 2009 Estimate	FY 2010 Estimate		
MC5 MEDICAL CHEMICAL DEFENSE (SDD)	14149	22068	14086		

A. Mission Description and Budget Item Justification:

Project MC5 MEDICAL CHEMICAL DEFENSE (SDD): This project funds the development of medical materiel and other medical equipment items necessary to provide an effective capability for medical defense against chemical agent threats facing U.S. forces in the field. This project supports efforts in the System Development and Demonstration (SDD) phase of the acquisition strategy for prophylactic and therapeutic drugs, diagnostic equipment, and other life support equipment for protection against and management of chemical warfare agents. Project funds research and development of safety studies, manufacturing scale-up, process validation, drug interaction, performance test, and submission of the Food and Drug Administration (FDA) drug licensure application(s). This program currently funds: (1) Advanced Anticonvulsant System (AAS), which will be used as a treatment for seizures from exposure to nerve agents; (2) Bioscavenger Increment 2 (BSCAV Increment 2), which will be used as a prophylaxis against nerve agents; (3) Dry Powder Inhaler Atropine (DPIA), which will be used to treat continuing nerve agent- induced effects after the patient has been evacuated to a medical treatment facility; (4) Improved Nerve Agent Treatment System (INATS), which will be used as a treatment for nerve agent intoxication to include new indications for Pyridostigmine Bromide (PB) that will be integrated with current therapeutic regimens; and (5) Pharmaceutical Post Approval and Development Support (PPADS) - Skin Exposure Reduction Paste Against Warfare Agents (SERPACWA) used as a topical skin protectant, and Soman Nerve Agent Pyridostigmine Pretreatment (SNAPP) used as a pretreatment against nerve agent poisoning.

B. Accomplishments/Planned Program

	<u>FY 2008</u>	<u>FY 2009</u>	<u>FY 2010</u>
ADVANCED ANTICONVULSANT SYSTEM (AAS)	13483	10507	3447
RDT&E Articles (Quantity)	0	0	0

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CBDP BUDGET ITEM JUSTIFICATION SHEET (R-2a Exhibit)		DATE May 2009		
BUDGET ACTIVITY RDT&E DEFENSE-WIDE/ BA5 - System Development and Demonstration (SDD)		PE NUMBER AND TITLE 0604384BP CHEMICAL/BIOLOGICAL DEFENSE (SDD)		PROJECT MC5
Accomplishments/Planned Program		FY 2008	FY 2009	FY 2010
AAS - FY08/09/10- Continue and complete Phase 2 clinical safety studies.		4749	2855	176
AAS - FY08/09/10 - Continue process development and current Good Manufacturing Practices (cGMP) requirements.		4498	2550	675
AAS - FY08/09/10 - Continue and complete Good Laboratory Practices (GLP) animal efficacy studies.		852	3161	352
AAS - FY08/09 - Continued and complete formulation and toxicology studies.		611	774	0
AAS - FY08/09/10 - Initiated, continue and complete Developmental Testing/Operational Testing (DT/OT) of packaging.		267	273	281
AAS - FY09/10 - Initiate, continue and complete New Drug Application (NDA).		0	894	1963
AAS - FY08 - Provided strategic/tactical planning, government systems engineering, program/financial management, costing, technology assessment, contracting, scheduling, acquisition oversight and technical support.		2506	0	0
Total		13483	10507	3447
<p>Project MC5/Line No: 111</p> <p align="center">Page 142 of 175 Pages</p> <p align="right">Exhibit R-2a (PE 0604384BP)</p>				

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CBDP BUDGET ITEM JUSTIFICATION SHEET (R-2a Exhibit)	DATE May 2009
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BUDGET ACTIVITY RDT&E DEFENSE-WIDE/ BA5 - System Development and Demonstration (SDD)	PE NUMBER AND TITLE 0604384BP CHEMICAL/BIOLOGICAL DEFENSE (SDD)	PROJECT MC5
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	<u>FY 2008</u>	<u>FY 2009</u>	<u>FY 2010</u>
BIOSCAVENGER (BSCAV)	0	4790	7017
RDT&E Articles (Quantity)	0	0	0

Accomplishments/Planned Program	FY 2008	FY 2009	FY 2010
BSCAV Increment 2 - FY09/10 - Continue large scale manufacturing, process qualification, and validation.	0	2650	4680
BSCAV Increment 2 - FY09/10 - Initiate, continue and complete Good Laboratory Practices (GLP) animal efficacy studies.	0	790	1037
BSCAV Increment 2 - FY09/10 - Initiate and continue Phase 2 clinical safety studies.	0	1350	1300
Total	0	4790	7017

	<u>FY 2008</u>	<u>FY 2009</u>	<u>FY 2010</u>
IMPROVED NERVE AGENT TREATMENT SYSTEM (INATS)	0	6514	2872
RDT&E Articles (Quantity)	0	0	0

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CBDP BUDGET ITEM JUSTIFICATION SHEET (R-2a Exhibit)	DATE May 2009
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BUDGET ACTIVITY RDT&E DEFENSE-WIDE/ BA5 - System Development and Demonstration (SDD)	PE NUMBER AND TITLE 0604384BP CHEMICAL/BIOLOGICAL DEFENSE (SDD)	PROJECT MC5
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Accomplishments/Planned Program	FY 2008	FY 2009	FY 2010
INATS - FY09/10 - Initiate and complete Current Good Manufacturing Practice (cGMP) manufacturing requirements and stability in autoinjector.	0	3065	1880
INATS - FY09/10 - Initiate, continue, and complete formulation compatabilty/stabilty studies with autoinjectors.	0	1275	582
INATS - FY09 - Provide strategic/tactical planning, government systems engineering, program/financial management, costing, technology, assessment, contracting, scheduling, acquisition oversight and technology support.	0	2174	0
INATS - FY10 - Initiate Phase 2 clinical safety and Good Laboratory Practices (GLP) animal efficacy studies.	0	0	410
Total	0	6514	2872

	<u>FY 2008</u>	<u>FY 2009</u>	<u>FY 2010</u>
PHARMACEUTICAL POST APPROVAL & DEVELOPMENT SUPPORT	666	0	750
RDT&E Articles (Quantity)	0	0	0

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CBDP BUDGET ITEM JUSTIFICATION SHEET (R-2a Exhibit)	DATE May 2009
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BUDGET ACTIVITY RDT&E DEFENSE-WIDE/ BA5 - System Development and Demonstration (SDD)	PE NUMBER AND TITLE 0604384BP CHEMICAL/BIOLOGICAL DEFENSE (SDD)	PROJECT MC5
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Accomplishments/Planned Program	FY 2008	FY 2009	FY 2010
PPADS - FY08 - Completed FDA required post-marketing studies (including stability testing) for Skin Exposure Reduction Paste Against Chemical Warfare Agents (SERPACWA).	604	0	0
PPADS - FY08 - Completed FDA required regulatory studies for SERPACWA and Soman Nerve Agent Pyridostigmine Pretreatment (SNAPP).	62	0	0
PPADS - FY10 - Develop a Time Temperature Indicator (TTI) capability for Soman Nerve Agent Pre-Treatment Pyridostigmine to provide visual warning of product reliability.	0	0	750
Total	666	0	750

	<u>FY 2008</u>	<u>FY 2009</u>	<u>FY 2010</u>
SBIR/STTR	0	257	0
RDT&E Articles (Quantity)	0	0	0

Accomplishments/Planned Program	FY 2008	FY 2009	FY 2010
SBIR - FY09 - Small Business Innovative Research.	0	257	0
Total	0	257	0

CBDP BUDGET ITEM JUSTIFICATION SHEET (R-2a Exhibit)	DATE May 2009
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BUDGET ACTIVITY RDT&E DEFENSE-WIDE/ BA5 - System Development and Demonstration (SDD)	PE NUMBER AND TITLE 0604384BP CHEMICAL/BIOLOGICAL DEFENSE (SDD)	PROJECT MC5
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C. Other Program Funding Summary: N/A

D. Acquisition Strategy:

AAS The Advanced Anticonvulsant System (AAS) will consist of the drug midazolam in an autoinjector. Midazolam, injected intramuscularly, will treat against seizures and prevent subsequent neurological damage caused by exposure to nerve agents. Midazolam is more water-soluble than diazepam (the currently fielded medication to control nerve agent-induced seizures) and terminates nerve agent-induced seizures more quickly than diazepam. AAS will not eliminate the need for other protective and therapeutic systems. AAS will be a replacement for the currently-fielded Convulsant Antidote, Nerve Agent (CANA) autoinjector, which uses diazepam.

BSCAV The Bioscavenger acquisition strategy consists of a developmental program with three distinct increments.

CBDP BUDGET ITEM JUSTIFICATION SHEET (R-2a Exhibit)		DATE May 2009
BUDGET ACTIVITY RDT&E DEFENSE-WIDE/ BA5 - System Development and Demonstration (SDD)	PE NUMBER AND TITLE 0604384BP CHEMICAL/BIOLOGICAL DEFENSE (SDD)	PROJECT MC5
<p>Increment 1 is butyrylcholinesterase purified from human plasma (i.e., plasma-derived Bioscavenger or pBioscavenger). The Medical Identification and Treatment Systems (MITS) Joint Product Management Office exercises management oversight, and a commercial partner serves as the system integrator during the Technology Development Phase, which includes small scale manufacturing, pre-clinical animal studies, Investigational New Drug (IND) application, and Phase 1 human clinical safety studies.</p> <p>The Bioscavenger Increment 2 strategy includes a proof-of-concept study followed by an initial down-selection between two different technologies: Recombinant human butyrylcholinesterase (rHuBChE) and small synthetic molecule, awarded to two different contractors. The chosen technology, rHuBChE, will continue to a formal down-selection with the plasma-derived Bioscavenger at Milestone B prior to transition to the Systems Development and Demonstration (SDD) phase. Following Milestone B into SDD, MITS will continue to exercise management oversight with system integration support of a commercial partner to ensure manufacturing of the product is in accordance with Food and Drug Administration (FDA) regulations and guidelines. Prior to FDA licensure, the commercial partner will perform a Phase 2 human clinical safety study, definitive animal efficacy studies, and toxicology studies. The SDD phase will culminate in obtaining FDA licensure of the Bioscavenger. During the Production and Deployment phase, the MITS JPMO, in conjunction with a commercial partner, will pursue full rate and stockpile production and conduct any FDA-mandated post-marketing surveillance.</p> <p>Unlike Bioscavenger Increment 1 and 2 technology, where the bioscavenger is ineffective after binding with nerve agents, Increment 3 will include products that continuously degrade nerve agents while retaining their effectiveness (catalytic Bioscavenger).</p> <p>INATS Medical Identification and Treatment Systems (MITS) Joint Product Management Office will serve as the system integrator during the Technology Development Phase that includes pre-clinical animal studies and Phase 1 human clinical safety studies. After Milestone B, during the System Development and Demonstration Phase, MITS and/or a commercial partner (product dependent) will serve as the system integrator to ensure that products are manufactured in accordance with Food and Drug Administration (FDA) regulations and guidelines, appropriate Phase 2 human clinical safety and definitive animal efficacy studies are conducted, and required toxicology studies are performed. During the Production and Deployment Phase, FDA approval will be obtained and full rate and stockpile production will be pursued. Any FDA mandated post-marketing surveillance will be conducted.</p>		
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BUDGET ACTIVITY RDT&E DEFENSE-WIDE/ BA5 - System Development and Demonstration (SDD)	PE NUMBER AND TITLE 0604384BP CHEMICAL/BIOLOGICAL DEFENSE (SDD)	PROJECT MC5
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III. Test and Evaluation	Contract Method & Type	Performing Activity & Location	US NF CC	Total PYs Cost	FY 2009 Cost	FY 2009 Award Date	FY 2010 Cost	FY 2010 Award Date					
AAS													
AAS - GLP Animal Efficacy Studies	C/CPFF	Battelle Memorial Institute, Columbus, OH	C	1646	1066	2Q FY09	980	2Q FY10					
AAS - Phase 2 Clinical Safety Study	C/CPIF	Meridian Medical Technologies, Columbia, MD	C	2954	1066	2Q FY09	0	NONE					
AAS - Formulation and Toxicology Studies	C/CPIF	Meridian Medical Technologies, Columbia, MD	C	783	1066	2Q FY09	0	NONE					
BSCAV													
BSCAV Inc 2 - Phase 2 Clinical Safety and GLP Animal Efficacy Studies	C/CPIF	TBD	C	0	2140	3Q FY09	2153	2Q FY10					
INATS													
INATS - GLP Animal Efficacy & Phase 2 Clinical Safety Studies	C/CPIF	TBD	C	0	1696	3Q FY09	410	4Q FY10					
PPADS													
PPADS - Time Temperature Indicator (TTI) Capability	C/CPIF	TBD	C	0	0	NONE	750	2Q FY10					
Subtotal III. Test and Evaluation:					7034		4293						

Remarks:

Project MC5/Line No: 111

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CBDP PROJECT COST ANALYSIS (R-3 Exhibit)	DATE May 2009
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BUDGET ACTIVITY RDT&E DEFENSE-WIDE/ BA5 - System Development and Demonstration (SDD)	PE NUMBER AND TITLE 0604384BP CHEMICAL/BIOLOGICAL DEFENSE (SDD)	PROJECT MC5
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IV. Management Services	Contract Method & Type	Performing Activity & Location	US NF CC	Total PYs Cost	FY 2009 Cost	FY 2009 Award Date	FY 2010 Cost	FY 2010 Award Date					
AAS													
AAS - Product Management Support	MIPR	USAMMDA, Fort Detrick, MD	U	535	159	2Q FY09	165	2Q FY10					
AAS - Product Management Support	SS/FFP	Goldbelt Raven, LLC, Frederick, MD	C	851	827	2Q FY09	162	2Q FY10					
AAS - Joint Program Executive Office	Allot	JPEO, Falls Church, VA	U	4171	533	2Q FY09	176	2Q FY10					
AAS - Chem Bio Medical Systems	Allot	CBMS, Frederick, MD	U	987	80	3Q FY09	26	3Q FY10					
BSCAV													
BSCAV Inc 2 - Product Management Support	SS/FFP	Goldbelt Raven, LLC, Frederick, MD	C	0	0	NONE	502	2Q FY10					
BSCAV Inc 2 - Chem Bio Medical Systems	Allot	CBMS, Frederick, MD	U	0	0	NONE	54	2Q FY10					
BSCAV Inc 2 - Joint Program Executive Office	Allot	JPEO, Falls Church, VA	U	0	0	NONE	358	2Q FY10					
USAMMDA, Fort Detrick, MD	Allot	Fort Detrick, MD	U	0	0	NONE	161	2Q FY10					
INATS													
INATS - Joint Program Executive Office	Allot	JPEO, Falls Church, VA	U	0	2174	3Q FY09	273	2Q FY10					
ZSBIR													
SBIR/STTR - Aggregated from ZSBIR-SBIR/STTR	PO	HQ, AMC, Alexandria, VA		0	257	NONE	0	NONE					

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CBDP PROJECT COST ANALYSIS (R-3 Exhibit)	DATE May 2009
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BUDGET ACTIVITY RDT&E DEFENSE-WIDE/ BA5 - System Development and Demonstration (SDD)	PE NUMBER AND TITLE 0604384BP CHEMICAL/BIOLOGICAL DEFENSE (SDD)	PROJECT MC5
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IV. Management Services - Cont.	Contract Method & Type	Performing Activity & Location	US NF CC	Total PYs Cost	FY 2009 Cost	FY 2009 Award Date	FY 2010 Cost	FY 2010 Award Date					
Subtotal IV. Management Services:					4030		1877						

Remarks:

TOTAL PROJECT COST:					22068		14086						
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Exhibit R-4a, Schedule Profile	DATE May 2009
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BUDGET ACTIVITY RDT&E DEFENSE-WIDE/ BA5 - System Development and Demonstration (SDD)	PE NUMBER AND TITLE 0604384BP CHEMICAL/BIOLOGICAL DEFENSE (SDD)	PROJECT MC5
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D. <u>Schedule Profile:</u>	FY 2008				FY 2009				FY 2010			
	1	2	3	4	1	2	3	4	1	2	3	4
AAS												
AAS - Formulation and Toxicology Studies	>>	_____						2Q				
AAS - GLP Animal Efficacy Studies	>>	_____										2Q
AAS - Phase 2 Clinical Safety Studies	>>	_____										2Q
AAS - DT/OT for Packaging				4Q		_____			1Q			
AAS - New Drug Application (NDA) Preparation and Submittal							3Q	_____				>>
BSCAV												
BSCAV Inc. 2 - Large Scale Manufacturing, Process Development & Assay Validation	1Q	_____										>>
BSCAV Inc. 2 - Conduct GLP Animal Efficacy Studies								4Q	_____			>>
BSCAV Inc. 2 - Conduct Phase 2 Clinical Safety Studies								4Q	_____			>>
INATS												

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Exhibit R-4a, Schedule Profile	DATE May 2009
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BUDGET ACTIVITY RDT&E DEFENSE-WIDE/ BA5 - System Development and Demonstration (SDD)	PE NUMBER AND TITLE 0604384BP CHEMICAL/BIOLOGICAL DEFENSE (SDD)	PROJECT MC5
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D. <u>Schedule Profile (cont):</u>	FY 2008				FY 2009				FY 2010			
	1	2	3	4	1	2	3	4	1	2	3	4
INATS (Cont)												
INATS - Process Development and cGMP Manufacturing Requirements	>>	—————									2Q	
INATS - Phase 1 Clinical Safety Studies	>>	—————							3Q			
INATS - Formulation, Compatibility, & Stability Studies with Autoinjector	1Q	—————									3Q	
INATS - Milestone B						2Q	3Q					
INATS - Phase 2 Clinical Safety Studies												4Q
INATS - GLP Animal Efficacy Studies												4Q
PPADS												
SNAPP - FDA Required Regulatory reports	>>	—————							4Q			
SERPACWA - FDA Required Post-Marketing Studies	>>	—————							4Q			

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Exhibit R-4a, Schedule Profile	DATE May 2009
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BUDGET ACTIVITY RDT&E DEFENSE-WIDE/ BA5 - System Development and Demonstration (SDD)	PE NUMBER AND TITLE 0604384BP CHEMICAL/BIOLOGICAL DEFENSE (SDD)	PROJECT MC5
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D. <u>Schedule Profile (cont):</u>	FY 2008				FY 2009				FY 2010			
	1	2	3	4	1	2	3	4	1	2	3	4
PPADS (Cont)												
PPADS - Develop Time Temperature Indicator (TTI) Capability										2Q	—————	4Q

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CBDP BUDGET ITEM JUSTIFICATION SHEET (R-2a Exhibit)	DATE May 2009
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BUDGET ACTIVITY RDT&E DEFENSE-WIDE/ BA5 - System Development and Demonstration (SDD)	PE NUMBER AND TITLE 0604384BP CHEMICAL/BIOLOGICAL DEFENSE (SDD)	PROJECT MR5
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	FY 2008 Actual	FY 2009 Estimate	FY 2010 Estimate		
COST (In Thousands)					
MR5 MEDICAL RADIOLOGICAL DEFENSE	0	2936	8311		

A. Mission Description and Budget Item Justification:

Project MR5 MEDICAL RADIOLOGICAL DEFENSE: This project funds the advanced development of candidate therapeutic medical countermeasures to mitigate the consequences of exposure to ionizing radiation due to nuclear or radiological attacks. Exposure to ionizing radiation causes damage to blood-forming cells (hematopoietic system) and gastrointestinal system, leading to Acute Radiation Syndrome (ARS). Medical countermeasures must be approved by the Food and Drug Administration (FDA) for human use prior to fielding. Testing the efficacy of candidate drugs against normally lethal radiation exposure cannot be conducted in humans; therefore, surrogate animal models must be used to obtain FDA approval. This project allows the Joint force to operate safely, over the long term, and at near normal levels of effectiveness while in a contaminated environment.

Medical Radiation Countermeasures (MRADC) efforts include multiple countermeasures required to restore casualties to pre-exposure health and to protect U.S. Forces against injury caused by exposure to radiation. MRADC shall reverse or limit radiation injury resulting in increase survival, decreased incapacity, and sustained operational effectiveness. In addition, MRADC shall be effective against a broad range of radiation sources and types, and shall be useable in the battle space, including evacuation.

B. Accomplishments/Planned Program

	<u>FY 2008</u>	<u>FY 2009</u>	<u>FY 2010</u>
MEDICAL RADIOLOGICAL COUNTERMEASURES (MRADC)	0	2902	8311
RDT&E Articles (Quantity)	0	0	0

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CBDP BUDGET ITEM JUSTIFICATION SHEET (R-2a Exhibit)	DATE May 2009
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BUDGET ACTIVITY RDT&E DEFENSE-WIDE/ BA5 - System Development and Demonstration (SDD)	PE NUMBER AND TITLE 0604384BP CHEMICAL/BIOLOGICAL DEFENSE (SDD)	PROJECT MR5
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Accomplishments/Planned Program	FY 2008	FY 2009	FY 2010
MRADC - FY10 - Initiate process development and current Good Manufacturing Practices (cGMP) manufacturing requirements.	0	0	3583
MRADC - FY09/10 - Initiate, continue and complete product formulation, storage, and delivery system.	0	1335	1294
MRADC - FY09/10 - Initiate, continue and complete GLP definitive animal efficacy studies.	0	1567	2223
MRADC - FY10 - Initiate and complete BLA application efforts.	0	0	1211
Total	0	2902	8311

	<u>FY 2008</u>	<u>FY 2009</u>	<u>FY 2010</u>
SBIR/STTR	0	34	0
RDT&E Articles (Quantity)	0	0	0

Accomplishments/Planned Program	FY 2008	FY 2009	FY 2010
SBIR - FY09 - Small Business Innovative Research.	0	34	0
Total	0	34	0

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CBDP BUDGET ITEM JUSTIFICATION SHEET (R-2a Exhibit)	DATE May 2009
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BUDGET ACTIVITY RDT&E DEFENSE-WIDE/ BA5 - System Development and Demonstration (SDD)	PE NUMBER AND TITLE 0604384BP CHEMICAL/BIOLOGICAL DEFENSE (SDD)	PROJECT MR5
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C. Other Program Funding Summary: N/A

D. Acquisition Strategy:

MRADC

Medical Identification and Treatment Systems (MITS) Joint Product Management Office will manage the development of Medical Radiation Countermeasures (MRADC) for the DoD. A contractor will serve as the product integrator throughout development and shall be responsible for conducting activities associated with drug development in a manner consistent with eventual approval by the Food and Drug Administration (FDA). The contractor shall sponsor the drug to the FDA and hold all approvals and/or licenses. The Technology Development phase includes pre-clinical studies and Phase 1 human clinical safety studies. During the System Development and Demonstration (SDD) phase, large scale manufacturing, Phase 2 human clinical safety studies and definitive animal efficacy studies will be conducted. FDA approval of the countermeasure is an exit criterion for the SDD phase. During the Production and Deployment Phase, sufficient quantities of product to meet Initial Operational Capability will be purchased. Subsequent purchases will be made by the Defense Logistics Agency. Any post-marketing surveillance requested by the FDA will be conducted.

MRADC will be developed using a system-of-systems approach to address the multiple organ systems affected by radiation exposure. Individual countermeasure solutions will be developed using a single step to a full capability (FDA approval). The DoD is working very closely with the Department of Health and Human Services (DHHS), which also has an anti-radiation program. The establishment of an interagency working group provides oversight and guidance to both agency programs to ensure that their efforts are non-duplicative. DHHS will be responsible for developing a MRADC that will treat hematological syndrome of acute radiation syndrome (ARS) and the DoD will be responsible for the development of a MRADC for the treatment of the gastrointestinal syndrome of ARS.

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CBDP PROJECT COST ANALYSIS (R-3 Exhibit)	DATE May 2009
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BUDGET ACTIVITY RDT&E DEFENSE-WIDE/ BA5 - System Development and Demonstration (SDD)	PE NUMBER AND TITLE 0604384BP CHEMICAL/BIOLOGICAL DEFENSE (SDD)	PROJECT MR5
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I. Product Development	Contract Method & Type	Performing Activity & Location	US NF CC	Total PYs Cost	FY 2009 Cost	FY 2009 Award Date	FY 2010 Cost	FY 2010 Award Date					
MRADC													
MRADC - Product Formulation, Storage and Delivery System	C/CPIF	TBD	C	0	1177	4Q FY09	4733	2Q FY10					
Subtotal I. Product Development:					1177		4733						

Remarks:

II. Support Costs	Contract Method & Type	Performing Activity & Location	US NF CC	Total PYs Cost	FY 2009 Cost	FY 2009 Award Date	FY 2010 Cost	FY 2010 Award Date					
MRADC													
MRADC - Regulatory Integration and NDA Support Efforts	C/CPIF	TBD	C	0	443	3Q FY09	895	2Q FY10					
Subtotal II. Support Costs:					443		895						

Remarks:

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CBDP PROJECT COST ANALYSIS (R-3 Exhibit)	DATE May 2009
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BUDGET ACTIVITY RDT&E DEFENSE-WIDE/ BA5 - System Development and Demonstration (SDD)	PE NUMBER AND TITLE 0604384BP CHEMICAL/BIOLOGICAL DEFENSE (SDD)	PROJECT MR5
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IV. Management Services	Contract Method & Type	Performing Activity & Location	US NF CC	Total PYs Cost	FY 2009 Cost	FY 2009 Award Date	FY 2010 Cost	FY 2010 Award Date					
MRADC													
MRADC - Product Management Support	SS/FFP	Goldbelt Raven, LLC, Frederick, MD	C	0	140	2Q FY09	300	2Q FY10					
MRADC - Chem Bio Medical Systems	Allot	CBMS, Frederick, MD	U	0	114	3Q FY09	200	3Q FY10					
MRADC - Joint Program Executive Office	Allot	JPEO, Falls Church, VA	U	0	0	NONE	243	3Q FY10					
MRADC - Product Management Services	MIPR	USAMMDA, Ft Detrick, MD	U	0	145	2Q FY09	152	1Q FY10					
ZSBIR													
SBIR/STTR - Aggregated from ZSBIR-SBIR/STTR	PO	HQ, AMC, Alexandria, VA		0	34	NONE	0	NONE					
Subtotal IV. Management Services:					433		895						

Remarks:

TOTAL PROJECT COST:					2936		8311						
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Exhibit R-4a, Schedule Profile	DATE May 2009
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BUDGET ACTIVITY RDT&E DEFENSE-WIDE/ BA5 - System Development and Demonstration (SDD)	PE NUMBER AND TITLE 0604384BP CHEMICAL/BIOLOGICAL DEFENSE (SDD)	PROJECT MR5
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D. <u>Schedule Profile:</u>	FY 2008				FY 2009				FY 2010			
	1	2	3	4	1	2	3	4	1	2	3	4
MRADC												
MRADC - Milestone B							3Q	4Q				
MRADC - Product Formulation, Storage, and Delivery System.								4Q	————— >>			
MRADC - GLP Definitive Animal Efficacy Studies								4Q	————— >>			
MRADC - BLA Submission												4Q

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CBDP BUDGET ITEM JUSTIFICATION SHEET (R-2a Exhibit)	DATE May 2009
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BUDGET ACTIVITY RDT&E DEFENSE-WIDE/ BA5 - System Development and Demonstration (SDD)	PE NUMBER AND TITLE 0604384BP CHEMICAL/BIOLOGICAL DEFENSE (SDD)	PROJECT TE5
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	FY 2008	FY 2009	FY 2010		
COST (In Thousands)	Actual	Estimate	Estimate		
TE5 TEST & EVALUATION (SDD)	48238	42020	41466		

A. Mission Description and Budget Item Justification:

Project TE5 TEST & EVALUATION (SDD): This funding supports the Joint Project Manager Nuclear, Biological, Chemical Contamination Avoidance Product Director, Test Equipment, Strategy, and Support (PD TESS) efforts. PD TESS provides test infrastructure products for testing and evaluating chemical and biological defense systems throughout the life cycle acquisition process in support of the Milestone Decision Authority, Joint Project Managers, and the Test and Evaluation (T&E) community. PD TESS test infrastructure products are aligned in five groups to include: (1) Chemical Laboratory (Sense); (2) Biological Laboratory (Sense); (3) Field Simulant (Sense); (4) Individual Protection, Collective Protection and Decontamination (Shield and Sustain); and (5) Modeling and Simulation (Shape).

(1) Chemical Laboratory (Sense): Products for this area include a Non-Traditional Agent (NTA) Test Facility, Dynamic Test Chamber (DTC) for chemical point sensors and the upgrade of a chemical standoff test fixture. The NTA Facility provides a new capability at the Edgewood Chemical Biological Center (ECBC) to conduct highly toxic materials testing using new, emerging threat agents. The NTA facility supports testing of decontamination, collective protection, individual protection, and contamination avoidance products. The Dynamic Test Chamber provides a new capability for testing chemical point detection systems against chemical warfare agents in various environmental conditions. The final effort provides for the upgrade of a chemical standoff detection test fixture located at Dugway Proving Ground (DPG). Major CBDP acquisition programs supported are: the Joint Chemical Agent Detector (JCAD); the Automatic Chemical Agent Detector Alarm (ACADA); the Joint Chemical Biological Radiological Agent Water Monitor (JCBRAWM); the Joint Service General Purpose Mask (JSGPM); the Joint Service Lightweight Integrated Suit Technology (JSLIST); Joint Expeditionary Collective Protection (JECPP); Joint Collective Protection Equipment (JCPE); Joint Service Transportable Decontamination System (JSTDS); Joint Warning and Reporting Network (JWARN) hardware components; the Joint Service Lightweight Standoff Chemical Agent Detector (JSLSCAD); the Joint Protective Aircrew Ensemble (JPACE); the Joint Service Aircrew Mask (JSAM); the Joint Service Chemical Environment Survivability Mask (JSCESM); and the Joint Chemical Ensemble (JCE).

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<p>(2) Sense Laboratory (Biological): Products for this area include a Whole System Live Agent Test (WSLAT) "Strung Out" Chamber, WSLAT "Full System" Chamber and upgrade of a bio-level 3 facility located at Dugway Proving Ground (DPG). The WSLAT "Strung Out" Chamber supports Joint Biological Point Detection component testing in biological live agent environments. The WSLAT "Full System" Chamber supports testing of all biological detection systems in production configuration in biological live agent environments. The Baker Laboratory Upgrade will provide a bio-level 3 fabricated infrastructure to host the WSLAT "Full System" Chamber. The upgrade will include bio-level 3 support laboratories and analytical instrumentation. Major CBDP acquisition programs supported are: Joint Chemical Biological Radiological Agent Water Monitor (JCBRAWM); the Joint Biological Point Detection System (JBPDs)/JBPDs Block II; the Joint Biological Tactical Detection System (JBTDS); and the Joint Biological Standoff Detection System (JBSDS) Block II.</p> <p>(3) Field Simulant (Sense): Products for this area include a fully instrumented Simulant Test Grid and characterization of the existing Joint Ambient Breeze Tunnel (JABT) and Active Standoff Chamber (ASC) facilities. The Test Grid effort provides a fully instrumented 20 km by 40 km field simulant test capability that integrates cloud tracking equipment, meteorological equipment, test data network, C4ISR network, and operations center. The JABT/ASC effort provides simulant cloud characterization and validates system performance. Major acquisition programs supported are: Joint Service Lightweight Standoff Chemical Agent Detector (JSLSCAD); the Joint Chemical Agent Detector (JCAD); the Automatic Chemical Agent Detector Alarm (ACADA) Variants; the Joint NBC Reconnaissance System (JNBCRS); the Joint Warning and Reporting Network (JWARN); the Joint Chemical Biological Radiological Agent Water Monitor (JCBRAWM); the Joint Biological Standoff Detection System (JBSDS); the Joint Biological Point Detection System (JBPDs); the Joint Biological Tactical Detection System (JBTDS); the Nuclear, Biological, Chemical Reconnaissance Vehicle (NBCRV) Stryker; the Joint Effects Model (JEM); the Joint Operational Effects Federation (JOEF); and the Joint Expeditionary Collective Protection (JECp) System.</p>		
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(4) Individual Protection, Collective Protection and Decontamination (Shield and Sustain): Products for this area include a Small Item Decontamination Chamber, Individual Protection Ensemble (IPE) Mannequin, Man-in-Simulant Test (MIST) instrumentation, Individual Protection Equipment (IPE) Grid, Chemical, Biological Agent Resistance Test (CBART) Equipment and Collective Protection (ColPro) Instrumentation and Chamber. The Small Item Decontamination Chamber provides an enhanced ability to conduct decontamination and residual agent off-gassing testing. The IPE Mannequin provides an articulated robotic mannequin that simulates warfighters activities and includes under ensemble agent sensing capability for evaluating IPE against chemical warfare agents. The Man-in-Simulant Test instrumentation provides a near real time simulant sensor system to monitor penetration of simulant. The Individual Protection Equipment (IPE) Grid provides test procedures to establish commonality measurements for system level IPE performance tests. Chemical, Biological Agent Resistance Test (CBART) equipment provides a near real time testing capability under a range of environmental conditions for individual and collective protection materials. Collective Protection instrumentation upgrades provide improved test capabilities at Dugway Proving Ground, Eglin Air Force Base, Dahlgren Naval Surface Warfare Center, and the Edgewood Chemical Biological Center for the evaluation of entire ColPro systems, subsystems and individual components. Acquisition Programs supported are: Joint Platform Interior Decontamination/Joint Material Decontamination System (JPID/JMDS); Joint Service Transportable Decontamination System (JSTDS); Joint Expeditionary Collective Protection (JECP); Joint Collective Protection Equipment (JCPE); Joint Service Lightweight Integrated Suit Technology (JSLIST); Joint Protective Aircrew Ensemble (JPACE); Joint Service General Purpose Mask (JSGPM); Joint Service Aircrew Mask (JSAM); Joint Service Chemical Environment Survivability Mask (JCESM); and the Joint Chemical Ensemble (JCE).

(5) Modeling and Simulation (Shape): Product for this area is a Synthetic Test Environment (Backgrounds & Interferents) library of real world environmental and interferent physical characteristics for Chemical/Biological systems. The environmental signatures will be integrated into models to generate synthetic environments to assess material performance under various conditions. All CBDP Acquisition Programs, except medical, are supported by this effort.

B. Accomplishments/Planned Program

	<u>FY 2008</u>	<u>FY 2009</u>	<u>FY 2010</u>
TEST EQUIPMENT, STRATEGY & SUPPORT (PD TESS)	48238	41524	41466
RDT&E Articles (Quantity)	0	0	0

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Accomplishments/Planned Program		FY 2008	FY 2009	FY 2010
PD TESS - Individual Protection Ensemble (IPE) Mannequin - FY10 - Fabricate, install and validate mannequin system.		0	0	19000
PD TESS - IPE Man-in-Simulant Test (MIST) Upgrade - FY10 - Procure, verify and validate real-time MIST sensors.		0	0	659
PD TESS - Chem Bio Agent Resistance Test (CBART) - FY09 - Design, fabricate, install and verify CBART prototype system.		0	2175	0
PD TESS - ColPro Facility Upgrade - FY08 - Completed upgrades to the Advanced Air Purification Test Fixture. Completed Dynamic Entry and Exit Test Chamber build.		1171	0	0
PD TESS - Decon Facility Upgrade - FY08 - Completed design, build and validation of small item decontamination test system. FY09 - Install fixtures and equipment.		425	134	0
PD TESS - Test Grid Instrumentation Network & Design - FY08 - Completed Test Grid power distribution design. Procured referee and dissemination instrumentation for characterization and qualification testing. FY09 - Continue instrumentation procurement. Develop data fusion software. Initiate installation of network and C4ISR system. FY10 - Complete instrumentation procurement. Install/integrate referee and dissemination instrumentation.		14631	22436	21347
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Accomplishments/Planned Program (Cont):		FY 2008	FY 2009	FY 2010
PD TESS - Joint Ambient Breeze Tunnel/Active Standoff Chamber (JABT/ASC) Upgrade - FY08 - Conducted ASC simulant characterization and validation tests.		458	0	0
PD TESS - Whole System Live Agent Test (WSLAT) - FY08 - Completed WSLAT strung out record tests. Completed WSLAT full system chamber design. FY09 - Fabricate and install WSLAT full system chamber. FY10 - Conduct validation testing.		2942	9946	460
PD TESS - Baker Laboratory Upgrade - FY08 - Completed final design of Baker Laboratory upgrade. Initiated upgrade of areas to support WSLAT Chamber. FY09 - Complete Baker Laboratory upgrade. Procure laboratory instrumentation.		9280	2682	0
PD TESS - Dynamic Test Chamber (DTC) - FY08 - Completed DTC design. Initiated fabrication and installation. FY09 - Complete installation and conduct validation testing.		7962	985	0
PD TESS - Backgrounds and Interferents - FY08 - Performed background/interferent signature collections and integrated into signature database. Developed virtual scene generation capability for standoff detection systems. Developed initial models to simulate background environments.		5357	0	0
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Accomplishments/Planned Program (Cont):	FY 2008	FY 2009	FY 2010
PD TESS - Bio Standoff Facility - FY08 - Conducted an analysis of alternatives to evaluate currently available technologies for measuring biological agent cross sections in support of biological standoff detection system testing.	500	0	0
PD TESS - FY08 - Provided systems engineering support to integrate and execute T&E capability development efforts. FY09- Continue system engineering support.	5512	3166	0
Total	48238	41524	41466

	<u>FY 2008</u>	<u>FY 2009</u>	<u>FY 2010</u>
SBIR/STTR	0	496	0
RDT&E Articles (Quantity)	0	0	0

Accomplishments/Planned Program	FY 2008	FY 2009	FY 2010
SBIR - FY09 - Small Business Innovative Research.	0	496	0
Total	0	496	0

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C. <u>Other Program Funding Summary:</u>					
	<u>FY 2008</u>	<u>FY 2009</u>	<u>FY 2010</u>		
TE7 TEST & EVALUATION (OP SYS DEV)	6887	7119	4891		

D. Acquisition Strategy:

PD TESS The PD TESS program provides for the development and acquisition of new and enhanced test infrastructure to support the sense, shield, shape, and sustain mission areas for the Joint Service Chemical and Biological Defense Program (CBDP). The efforts are supported through competitive contract actions, academia, and other Government agencies. Infrastructure solutions will leverage commercially available systems to provide state-of-the-art capabilities that address current and future CBDP test and evaluation needs.

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CBDP PROJECT COST ANALYSIS (R-3 Exhibit)	DATE May 2009
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BUDGET ACTIVITY RDT&E DEFENSE-WIDE/ BA5 - System Development and Demonstration (SDD)	PE NUMBER AND TITLE 0604384BP CHEMICAL/BIOLOGICAL DEFENSE (SDD)	PROJECT TE5
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I. Product Development	Contract Method & Type	Performing Activity & Location	US NF CC	Total PYs Cost	FY 2009 Cost	FY 2009 Award Date	FY 2010 Cost	FY 2010 Award Date					
PD TESS													
HW S - IPE Mannequin System Fabricate/Install	C/FFP	Midwest Research Institute, Kansas City, MO	C	0	0	NONE	19000	2Q FY10					
HW S - IPE MIST Sensors/Installation	C/FFP	TBD	C	500	0	NONE	459	2Q FY10					
HW S - CBART System Design/Fabricate/Install	C/FFP	TBD	C	0	1060	4Q FY09	0	NONE					
HW S - Decon Facility Upgrades Small Item Decon	MIPR	Various	U	397	134	1Q FY09	0	NONE					
HW S - WSLAT Chamber Fabrication/Installation	C/FFP	TBD	C	0	9946	2Q FY09	0	NONE					
HW S - Baker Lab Design/Upgrade	C/FFP	Nakaya Construction, LLC, Bountiful, UT	C	9280	2682	1Q FY09	0	NONE					
HW S - Test Grid Referee Instrumentation, Data Network and C4ISR	C/FFP	Lockheed Martin Integrated Systems, Wall, NJ	C	17784	22436	2Q FY09	21347	2Q FY10					
HW S - Dynamic Test Chamber Fabrication/Installation	Reqn	NAVSEA (JHU-APL), Washington, DC	U	5182	500	2Q FY09	0	NONE					
Subtotal I. Product Development:					36758		40806						

Remarks:

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CBDP PROJECT COST ANALYSIS (R-3 Exhibit)	DATE May 2009
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BUDGET ACTIVITY RDT&E DEFENSE-WIDE/ BA5 - System Development and Demonstration (SDD)	PE NUMBER AND TITLE 0604384BP CHEMICAL/BIOLOGICAL DEFENSE (SDD)	PROJECT TE5
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II. Support Costs: Not applicable

III. Test and Evaluation	Contract Method & Type	Performing Activity & Location	US NF CC	Total PYs Cost	FY 2009 Cost	FY 2009 Award Date	FY 2010 Cost	FY 2010 Award Date				
PD TESS												
OTHT S - Dynamic Test Chamber Validation	MIPR	Various	U	0	485	2Q FY09	0	NONE				
OTHT S - IPE MIST Validation	MIPR	Various	U	0	0	NONE	200	4Q FY10				
OTHT S - CBART Configuration Management / Validation	MIPR	Various	U	0	1115	1Q FY09	0	NONE				
OTHT S - WSLAT Chamber Validation	MIPR	Various	U	0	0	NONE	460	2Q FY10				
Subtotal III. Test and Evaluation:					1600		660					

Remarks: PD TESS - Test efforts are for the validation of capabilities.

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IV. Management Services	Contract Method & Type	Performing Activity & Location	US NF CC	Total PYs Cost	FY 2009 Cost	FY 2009 Award Date	FY 2010 Cost	FY 2010 Award Date					
PD TESS													
PM/MS S - Program Management/Systems Engineering Support	MIPR	JPM NBCCA, APG, MD	U	8907	3166	1Q FY09	0	NONE					
ZSBIR													
SBIR/STTR - Aggregated from ZSBIR-SBIR/STTR	PO	HQ, AMC, Alexandria, VA		0	496	NONE	0	NONE					
Subtotal IV. Management Services:					3662		0						

Remarks:

TOTAL PROJECT COST:		42020		41466									
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Exhibit R-3 (PE 0604384BP)

Exhibit R-4a, Schedule Profile	DATE May 2009
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D. <u>Schedule Profile:</u>	FY 2008				FY 2009				FY 2010			
	1	2	3	4	1	2	3	4	1	2	3	4
PD TESS												
Upgrade ColPro Facilities	>>	_____			_____ 2Q							
Upgrade Decon Facility	>>	_____			_____ 4Q							
Dynamic Test Chamber Design/Fabrication/Installation/Validation	>>	_____			_____ 4Q							
JABT/ASC Upgrade	>>	_____			_____ 2Q							
Baker Laboratory Upgrade	1Q	_____			_____ 4Q							
Background/Interferent Signature Collection	>>	_____			_____ 4Q							

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