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CBDP BUDGET ITEM JUSTIFICATION SHEET (R-2 Exhibit)	DATE February 2007
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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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COST (In Thousands)	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	Cost to Complete	Total Cost
	Actual	Estimate								
Total Program Element (PE) Cost	250752	212369	247935	242266	216249	294589	277131	234968	Continuing	Continuing
CA5 CONTAMINATION AVOIDANCE (SDD)	68829	46352	31623	36677	42135	53117	64030	34943	Continuing	Continuing
CM5 HOMELAND DEFENSE (SDD)	387	4000	0	0	0	0	0	0	0	4387
CO5 COLLECTIVE PROTECTION (SDD)	656	12534	13956	11477	2728	0	0	0	0	41351
DE5 DECONTAMINATION SYSTEMS (SDD)	15357	11010	6019	10300	23791	19094	16945	12811	Continuing	Continuing
IP5 INDIVIDUAL PROTECTION (SDD)	19533	17610	12881	2509	0	0	0	0	0	52533
IS5 INFORMATION SYSTEMS (SDD)	74728	24951	47465	39453	27610	17652	14893	25293	Continuing	Continuing
MB5 MEDICAL BIOLOGICAL DEFENSE (SDD)	49964	67358	69039	65396	57561	160884	143432	142500	Continuing	Continuing
MC5 MEDICAL CHEMICAL DEFENSE (SDD)	2406	6391	21348	26106	16306	18897	17740	12173	Continuing	Continuing
MR5 MEDICAL RADIOLOGICAL DEFENSE	0	0	0	7867	8515	9460	5083	2404	Continuing	Continuing
TE5 TEST & EVALUATION (SDD)	18892	22163	45604	42481	37603	15485	15008	4844	Continuing	Continuing

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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.</p>		
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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.

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.

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B. <u>Program Change Summary:</u>	<u>FY 2006</u>	<u>FY 2007</u>	<u>FY 2008</u>	<u>FY 2009</u>
Previous President's Budget (FY 2007 PB)	260279	212072	287074	238203
FY08 President's Budget	250752	212369	247935	242266
Total Adjustments	-9527	297	-39139	4063
a. Congressional General Reductions	0	-8003	0	0
b. Congressional Increases	0	8300	0	0
c. Reprogrammings	-4628	0	0	0
d. SBIR/STTR Transfer	-2533	0	0	0
e. Other Adjustments	-2366	0	-39139	4063

Change Summary Explanation:

Funding: FY08 - Establish separate project to develop test capabilities to evaluate CBRN Defense systems (+\$45,604K TE5). Other fund adjustments and realignments (-\$68,194K CA5; -\$7,494K CO4; +\$622K DE5; +\$440K IP5; +\$30,180K IS5; -\$23,494K MB5).

Schedule: N/A

Technical: N/A

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COST (In Thousands)	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	Cost to	Total Cost
	Actual	Estimate	Complete							
CA5 CONTAMINATION AVOIDANCE (SDD)	68829	46352	31623	36677	42135	53117	64030	34943	Continuing	Continuing

A. Mission Description and Budget Item Justification:

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

Efforts funded in this project are: (1) Joint Biological Tactical Detection System (JBTDs), (2) Joint Biological Point Detection System (JBPDS), (3) Joint Biological Stand-off Detection System (JBSDS), (4) Joint Chemical Agent Detector (JCAD), (5) Joint Chemical Biological Radiological Agent Water Monitor (JCBRAWM), (6) Joint Service Nuclear, Biological and Chemical Reconnaissance Systems I, II, III (JNBCRS I, II, III), (7) Joint Service Lightweight Stand-off Chemical Agent Detector (JSLSCAD), and (8) Major Defense Acquisition Program (MDAP) Support.

The JBTDs will be a lightweight biological agent detector that will detect, warn and isolate samples. Isolation of a sample will permit evacuation and confirmatory analysis sample. The detector will be networked to provide a cooperative detection capability to increase the probability of warning personnel and reduce the probability of false alarm. The JBTDs will be one man portable (i.e. < 35 lbs) and capable of being battery operated.

JBPDS is a joint service biological detector system for the services. The Army platforms include the JBPDS on the Biological Integrated Detection System (BIDS) and Stryker NBC Reconnaissance Vehicle. The Air Force and Marine Corps will include the JBPDS in the Lightweight NBC Reconnaissance vehicle platforms. Additionally, 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 and the trailer variant at port. The JBPDS is a fully automated system that increases the number of agents that can be identified by the current BIDS and IBADS, and provides first-time point biological detection capability to the Air Force and Marine Corps. Spiral development with 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.

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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.

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. Increment 1 will provide warfighter and simple platform mounted systems. Increment 2 will add low concentration detection and expand platform utility. 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.

The JCBRAWM program employs an incremental acquisition strategy to develop full capability to monitor Chemical Biological and Radiological (CBR) contamination in water. The JCBRAWM Increment 1 will provide first real-time biological and radiological detection capability in source water (lakes, sea water, rivers, and product waters from water treatment systems). Increment 2 will provide increased detection/monitoring capabilities for chemicals and biologicals in water. Increment 3 will provide a new detection system to replace the M272 Water Test Kit. Increment 4 will provide in-line continuous Chemical, Biological and Radiological (CBR) detection in water.

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The JNBCRS I, formerly known as the Joint Service Light-Weight Nuclear, Biological, Chemical Reconnaissance System (JSLNBCRS) was renamed in FY08 to reflect the program's expanded mission and capabilities. The JNBCRS I is a NBC detection and identification system, that will consist of a Base Vehicle (BV) equipped with hand-held, portable and mounted, current, and advanced NBC detection and identification equipment. The JNBCRS will provide on-the-move reconnaissance and surveillance in support of combat, combat support, and combat service support forces. There will be two variants of the JNBCRS: the High Mobility Multi-Purpose Wheeled Vehicle (HMMWV) variant and the Light Armored Vehicle (LAV) variant. The Chemical Biological Mass Spectrometer Block II (CBMS Block II) will provide chemical liquid, chemical vapor, and toxic industrial chemical as a component of the JNBCRS and Stryker NBCRV systems. The JNBCRS I consists of both Commercial and Government off-the-shelf equipment to provide detection, presumptive identification, sample collection, marking, and immediate reporting of standard NBC hazards, to include hazardous industrial materials. It fills a mission critical need to enhance Chemical, Biological, Radiological and Nuclear (CBRN) reconnaissance platoon capabilities.

The JNBCRS II fills a mission critical need to enhance Chemical, Biological, Nuclear (CBRN) reconnaissance platoon capabilities. The JNBCRS II consists of both Commercial and Government off-the-shelf equipment to provide detection, presumptive identification, sample collection, marking, and immediate reporting of standard NBC hazards, to include hazardous industrial materials. The sensor suites are housed on a M1151 HMMWV. The trailer towed by the HMMWV contains various sensor decontamination and individual protection equipment. The JNBCRS II will be integrated into the overall reconnaissance and surveillance effort, conducting reconnaissance during conventional war, combating terrorism, or mission other than war (MOTW). It provides commanders with an accurate picture of the battlefield for the purpose of contamination avoidance to avert disruption to operations and organizations.

The JNBCRS III integrates improved sensors into the JNBCRS, while optimizing design to improve human factors aspects of the configuration.

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The JSLSCAD will provide the first real-time, on-the-move, chemical agent vapor detection for contamination avoidance or reconnaissance operations. The JSLSCAD detects, identifies, and reports nerve, blister, and blood agent vapors. The JSLSCAD will replace the M21 Remote Stand-off Chemical Agent Alarm (RSCAAL). The JSLSCAD program will utilize an incremental acquisition approach. Increment 1 will provide an initial capability and be used for ground mobile reconnaissance applications. Increment 2 pursued an evaluation of three commercially available systems with follow-on low-rate production. As a result of the Increment 2 evaluation, a Pre-planned Product Improvement (P3I) of the Increment 1 system will be pursued instead and potential system of systems solutions will be evaluated. Increment 3 will provide standoff chemical agent vapor detection capabilities for aerial platforms.

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.

B. Accomplishments/Planned Program

	<u>FY 2006</u>	<u>FY 2007</u>	<u>FY 2008</u>	<u>FY 2009</u>
JOINT BIO POINT DETECTION SYSTEM (JBPDS)	2021	1232	0	0
RDT&E Articles (Quantity)	0	0	0	0

Accomplishments/Planned Program	FY2006	FY2007	FY2008	FY2009
JBPDS - FY 06 - Validated Line Replaceable Unit (LRU) improvements.	1030	0	0	0
JBPDS - Congressional Interest Item - FY 06 - Biological and Chemical Agents Detector.	991	0	0	0
JBPDS - FY 07 - Provide strategic, tactical planning, government system engineering, program/financial management, costing, technology assessment, contracting, scheduling, acquisition oversight and technical support.	0	1232	0	0

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Accomplishments/Planned Program (Cont):		FY2006	FY2007	FY2008	FY2009
Total		2021	1232	0	0
		<u>FY 2006</u>	<u>FY 2007</u>	<u>FY 2008</u>	<u>FY 2009</u>
JOINT BIOLOGICAL STANDOFF DETECTOR SYSTEM		19213	14491	0	0
RDT&E Articles (Quantity)		0	0	0	0
Accomplishments/Planned Program		FY2006	FY2007	FY2008	FY2009
JBSDS - FY 06 - Completed Developmental contract (including contractor support for Multi-Service Operational Test & Evaluation (MOT&E)).		4197	0	0	0
JBSDS - FY 06 - Completed Developmental Testing.		3007	0	0	0
JBSDS - FY 07 - Complete Integrated Logistics Support (ILS) effort to support JBSDS First Unit Equipped (FUE).		0	1700	0	0
JBSDS - FY 06 - Conducted Multi-Service Operational Test & Evaluation (MOT&E). FY07 - Complete JBSDS MOT&E Evaluation and prepare for FRP Decision.		6135	1850	0	0
JBSDS - FY 06/07 - Initiate and complete agent/simulant correlation optimization.		972	1700	0	0
JBSDS - FY 06/07 - Initiate and continue Fluorescence/Algorithm Improvement Study.		1618	1900	0	0
JBSDS - FY 06 - Continued Modeling & Simulation. FY 07 - Participate in field demonstration and conduct technology modeling and simulation effort to support Increment 2 CDD development and trade-off analysis.		1107	3593	0	0
JBSDS - FY 06 - Planned and conducted Urban Background Aerosol Characterization.		2177	0	0	0
JBSDS - FY 07 - Provide strategic/tactical planning, government systems engineering, program/ financial management, costing, technology assessment, contracting, scheduling, acquisition oversight and technical support.		0	1648	0	0
JBSDS - FY 07 - Conduct Increment 2 Concept and Technology Development.		0	2100	0	0
Total		19213	14491	0	0

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	<u>FY 2006</u>	<u>FY 2007</u>	<u>FY 2008</u>	<u>FY 2009</u>
JOINT BIO TACTICAL DETECTION SYSTEM	0	0	0	2122
RDT&E Articles (Quantity)	0	0	0	0

Accomplishments/Planned Program	FY2006	FY2007	FY2008	FY2009
JBTDs - FY 09 - Initiate system design.	0	0	0	1369
JBTDs - FY 09 - System Integration.	0	0	0	446
JBTDs - FY 09 - Provide strategic/tactical planning, government systems engineering, program/financial management, costing, technology assessment, contracting, scheduling, acquisition oversight and technical support.	0	0	0	307
Total	0	0	0	2122

	<u>FY 2006</u>	<u>FY 2007</u>	<u>FY 2008</u>	<u>FY 2009</u>
JOINT CHEMICAL AGENT DETECTOR (JCAD)	14344	2463	11792	13925
RDT&E Articles (Quantity)	120	0	240	0

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Accomplishments/Planned Program	FY2006	FY2007	FY2008	FY2009
JCAD - FY 06 - Purchased Increment 2 systems and support (120 systems at \$13.5K each). FY 08 - Purchase Increment 2 systems and support (240 at \$15K each).	2200	0	3600	0
JCAD - FY 06/08/09 - Provide systems engineering support.	1757	0	2000	2848
JCAD - FY 06 - Conducted government evaluation of Increment 1 commercial detector. Efforts included completing PQT and performing operational assessment.	10387	0	0	0
JCAD - FY 07/08/09 - Initiate and complete Increment 2 Production Qualification Testing (PQT).	0	463	2692	7077
JCAD - FY 07 - Conduct Increment 1 MOT&E.	0	2000	0	0
JCAD - FY 08/09 - Increment 2 System improvement contract option.	0	0	1000	1000
JCAD - FY 08 - Conduct Increment 2 Operational Assessment (OA).	0	0	2500	0
JCAD - FY 09 - Conduct Increment 2 MOT&E.	0	0	0	3000
Total	14344	2463	11792	13925

	<u>FY 2006</u>	<u>FY 2007</u>	<u>FY 2008</u>	<u>FY 2009</u>
JS CHEMICAL/BIOLOGICAL/RADIOLOGICAL AGENT WATER MONITO	0	7499	2291	4139
RDT&E Articles (Quantity)	0	25000	0	100000

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Accomplishments/Planned Program	FY2006	FY2007	FY2008	FY2009
JCBRAWM - FY 07 - Complete Increment 1 test methodology/design set-up.	0	1000	0	0
JCBRAWM - FY 07 - Purchase Increment 1 two-plex biological detection tickets (25,000 tickets at \$50 each). FY09 - Purchase Increment 2 multiplex biological detection tickets and pre-concentrators (200 pre-concentrators (100 Bio/100 Chem) at \$1K each and 100,000 tickets at \$18.00 each).	0	1250	0	2000
JCBRAWM - FY 07 - Conduct Increment 1 Developmental and Operational Test (DT/OT).	0	2000	0	0
JCBRAWM - FY 07 - Conduct Increment 1 shelf life test.	0	750	0	0
JCBRAWM - FY 07/08/09 - Provide government systems engineering support.	0	2499	800	1400
JCBRAWM - FY 08 - Conduct Increment 1 Multi-Service Operational Test and Evaluation (MOT&E).	0	0	1491	0
JCBRAWM - FY 09 - Conduct Increment 1 Follow-On Test and Evaluation (FOT&E).	0	0	0	739
Total	0	7499	2291	4139

	<u>FY 2006</u>	<u>FY 2007</u>	<u>FY 2008</u>	<u>FY 2009</u>
JOINT NBC RECONNAISSANCE SYSTEM (JNBCRS) I	11086	1747	0	0
RDT&E Articles (Quantity)	0	0	0	0

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Accomplishments/Planned Program	FY2006	FY2007	FY2008	FY2009
JNBCRS - FY 06 - Completed CBMS II software technical transfer and Integrated Logistics Support (ILS).	200	0	0	0
JNBCRS - FY 06 - Continued development and validation of biological detection capability for Chemical Biological Mass Spectrometer (CBMS) II.	1000	0	0	0
JNBCRS - FY 06 - Completed Production Verification Test (PVT) and initiated, conducted and completed MOT&E.	5782	0	0	0
JNBCRS - FY 06 - Provided systems engineering support (Gov't).	326	0	0	0
JNBCRS - FY 06 - Continued System, Development & Demonstration Light Armored Vehicle II (LAV II) effort with a period of performance extension thru completion of MOT&E.	2050	0	0	0
JNBCRS - FY 06 - Conducted Limited Objective Experiment (LOE) to establish the foundation for standard interface control documents for Chemical Biological Radiological Nuclear (CBRN) sensor manufacturers.	1728	0	0	0
JNBCRS - FY 07 - Provide strategic/tactical planning, government systems engineering, program/financial management, costing, technology assessment, contracting, scheduling, acquisition oversight and technical support.	0	1747	0	0
Total	11086	1747	0	0

	<u>FY 2006</u>	<u>FY 2007</u>	<u>FY 2008</u>	<u>FY 2009</u>
JOINT NBC RECONNAISSANCE SYSTEM (JNBCRS) II	0	0	5496	7116
RDT&E Articles (Quantity)	0	0	0	0

Accomplishments/Planned Program	FY2006	FY2007	FY2008	FY2009
JNBCRS II - FY 08 - Initiate program, develop program documentation, award contracts to develop test assets. FY 09 - Continue development of documentation and test assets.	0	0	2400	1250

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Accomplishments/Planned Program (Cont):	FY2006	FY2007	FY2008	FY2009
JNBCRS II - FY 08/09 - Initiate and continue training program and Integrated Logistics Support (ILS) effort.	0	0	1300	2673
JNBCRS II - FY 08 - Initiate Production Qualification Test (PQT) and Multiservice Operational Test & Evaluation testing (MOT&E). FY 09 - Continue MOT&E.	0	0	1050	2493
JNBCRS II - FY 08/09 - Initiate and continue Systems Engineering Support (Gov't).	0	0	746	700
Total	0	0	5496	7116

	<u>FY 2006</u>	<u>FY 2007</u>	<u>FY 2008</u>	<u>FY 2009</u>
JOINT NBC RECONNAISSANCE SYSTEM (JNBCRS) III	0	0	6044	2450
RDT&E Articles (Quantity)	0	0	0	0

Accomplishments/Planned Program	FY2006	FY2007	FY2008	FY2009
JNBCRS III - FY 08 - Initiate and complete integration support for improved sensors into the JNBCRS.	0	0	2000	0
JNBCRS III - FY 08 - Initiate and complete sensor improvement of test vehicles.	0	0	1900	0
JNBCRS III - FY 08 - Initiate and complete update of technical manuals and training packages.	0	0	1300	0
JNBCRS III - FY08/09 - Initiate and continue engineering support (Gov't).	0	0	844	844
JNBCRS III - FY 09 - Conduct Operational Test and Evaluation.	0	0	0	1606
Total	0	0	6044	2450

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	<u>FY 2006</u>	<u>FY 2007</u>	<u>FY 2008</u>	<u>FY 2009</u>
JS LIGHTWEIGHT STANDOFF CHEMICAL AGENT DET (JSLSCAD)	18238	18463	0	0
RDT&E Articles (Quantity)	0	0	0	0

Accomplishments/Planned Program	FY2006	FY2007	FY2008	FY2009
JSLSCAD - FY 06/07 - Initiate and complete product improvement program for system hardware and software integration.	3600	10100	0	0
JSLSCAD - FY 07 - Initiate and complete Engineering Development Test of product improvement program.	0	2100	0	0
JSLSCAD - FY 06/07 - Continue and complete Increment 1 model analysis and development of improved techniques to support testing and analysis to support NRC findings and refined modeling techniques.	3300	2000	0	0
JSLSCAD - FY 06 - Conducted MOT&E and validated Joint Service Interoperability.	2600	0	0	0
JSLSCAD - FY 06 - Continued to provide strategic/tactical planning, government systems engineering, program/financial management, costing, technology assessment, contracting, scheduling, acquisition oversight and technical support. FY07 - Complete government systems engineering support.	2238	4263	0	0
JSLSCAD - FY 06 - Initiated and completed purchase of data collection instrumentation.	1000	0	0	0
JSLSCAD - (T&E Capability) - FY 06 - Test Grid Instrument Network & Design. Built and installed a cloud characterization data network. Initiated comprehensive test grid and data network design (PD TESS TE5 effort).	5500	0	0	0
Total	18238	18463	0	0

	<u>FY 2006</u>	<u>FY 2007</u>	<u>FY 2008</u>	<u>FY 2009</u>
MDAP SUPPORT	980	0	6000	6925
RDT&E Articles (Quantity)	0	0	0	0

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Accomplishments/Planned Program	FY2006	FY2007	FY2008	FY2009
MDAP SPRT - FY 06 - Researched current commodity area Chemical Biological Radiological and Nuclear (CBRN) solutions to develop integrated System of Systems (SoS) solutions for Future Combat Systems (FCS).	490	0	0	0
MDAP SPRT - FY 06 - Initiated development of the technical architecture and conducted technical performance modeling required to develop SoS for Future Combat Systems (FCS).	490	0	0	0
MDAP SPRT - FY 08/09 - Continue analysis and development of SoS architecture that supports MDAP operational architectures and provides Chemical Biological Radiological Nuclear (CBRN) defense capabilities.	0	0	3200	2125
MDAP SPRT - FY 08/09 - Initiate and continue Developmental Test (DT) to validate and verify SoS concept prior to MDAP integration.	0	0	2000	4000
MDAP SPRT - FY 08/09 - Provide strategic/tactical planning, government systems engineering, financial management, technology assessment, contracting, scheduling, acquisition oversight and technical support.	0	0	800	800
Total	980	0	6000	6925

	<u>FY 2006</u>	<u>FY 2007</u>	<u>FY 2008</u>	<u>FY 2009</u>
TECHNOLOGY TRANSFER FOR BIO SENSORS	2947	0	0	0
RDT&E Articles (Quantity)	0	0	0	0

Accomplishments/Planned Program	FY2006	FY2007	FY2008	FY2009
TT Bio - Congressional Interest Item - FY 06 - Enhancements provided for the modernization and upgrade of sensors and detection devices.	2947	0	0	0
Total	2947	0	0	0

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	<u>FY 2006</u>	<u>FY 2007</u>	<u>FY 2008</u>	<u>FY 2009</u>
SBIR/STTR	0	457	0	0
RDT&E Articles (Quantity)	0	0	0	0

Accomplishments/Planned Program	FY2006	FY2007	FY2008	FY2009
SBIR - FY 07 - Small Business Innovative Research.	0	457	0	0
Total	0	457	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 CA5
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C. <u>Other Program Funding Summary:</u>	<u>FY 2006</u>	<u>FY 2007</u>	<u>FY 2008</u>	<u>FY 2009</u>	<u>FY 2010</u>	<u>FY 2011</u>	<u>FY 2012</u>	<u>FY 2013</u>	<u>To Compl</u>	<u>Total Cost</u>
CA7 CONTAMINATION AVOIDANCE OPERATIONAL SYS DEV	9671	7008	0	0	0	0	0	0	0	16679
JC0100 JOINT BIO POINT DETECTION SYSTEM (JBPDS)	112766	105333	77784	76397	112000	111957	101539	100360	Cont	Cont
JC0101 JS CHEMICAL/BIOLOGICAL/RADIOLOGICAL AGENT WATER MONITOR	0	0	5047	6067	3221	0	0	0	0	14335
JC0250 JOINT BIO STANDOFF DETECTOR SYSTEM (JBSDS)	16483	0	0	0	0	0	0	20161	Cont	Cont
JC1500 NBC RECON VEHICLE (NBCRV)	58460	10225	7814	0	0	0	0	0	0	76499
JF0100 JOINT CHEM AGENT DETECTOR (JCAD)	0	22588	33855	38393	38114	35437	47001	63340	Cont	Cont
M98801 AUTO CHEMICAL AGENT ALARM (ACADA), M22	34511	14437	0	0	0	0	0	0	0	48948
MC0100 JOINT NBC RECONNAISSANCE SYSTEM (JNBCRS)	31151	52586	50385	75261	101413	119453	159700	164043	Cont	Cont
MX0001 JOINT BIOLOGICAL TACTICAL DETECTION SYSTEM	0	0	0	0	0	8365	15365	25321	Cont	Cont

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C. <u>Other Program Funding Summary (Cont):</u>	<u>FY 2006</u>	<u>FY 2007</u>	<u>FY 2008</u>	<u>FY 2009</u>	<u>FY 2010</u>	<u>FY 2011</u>	<u>FY 2012</u>	<u>FY 2013</u>	<u>To Compl</u>	<u>Total Cost</u>
S10801 JS LTWT STANDOFF CW AGT DETECTOR (JSLSCAD)	14615	19497	16440	0	0	0	0	10000	Cont	Cont

D. Acquisition Strategy:

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. Thru the course of Low Rate Initial Production (LRIP), the system will be 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 support the development of a Whole System Live Agent Test (WSLAT) capability.

JB SDS The JB SDS will use an evolutionary acquisition strategy with phased developments for the JB SDS program supporting time-phased JORD requirements. The JB SDS will provide an operationally useful and supportable capability in as short a time as possible. Increment I JB SDSs 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. The Increment 2 JB SDS follow-on development contract will be competitively awarded with emphasis on increasing sensitivity, range, and reliability, while reducing acquisition life cycle costs, weight, power requirements, and size. The system is to be used by all Services, thus reducing acquisition life cycle costs.

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JBTDS	<p>The JBTDS will use an evolutionary development strategy to spiral in upgrades/improvements until the objective requirements are met. The JBTDS program will execute Milestone A in FY07. Technology Development Phase will run thru FY09 to develop system concepts, prepare Milestone B documentation and reduce risk. Technology Development will include conduct of market research, technology demonstrations, modeling and simulation efforts, data fusion network demonstrations, and evaluation of the most promising government and commercial technology in a Technology Readiness Evaluation. System Development and Demonstration (SDD) phase will commence with Milestone B. SDD will finalize system designs and procure devices to test and demonstrate device capabilities against requirements. Pre-milestone activities to reach Milestone A were initiated in FY06.</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, and subsequent improvements to that capability. Increment 1 will provide warfighter and simple platform mounted systems. Increment 2 will add low concentration detection and expand platform utility. For Increment 1, four commercial systems were initially tested. If selected for production, the contract will be Sole Source Firm Fixed Price (SS/FFP) to be awarded in FY07 for Low Rate Initial Production (LRIP), with options for Full Rate Production (FRP). For Increment 2, a competitive solicitation will be issued that includes FFP options for test articles, LRIP and FRP. Increment 2 will commence with an evaluation of commercial systems.</p>	
JCBRAWM	<p>JCBRAWM will provide an enhanced detection capability for waterborne CBR agents using an incremental development strategy. Increment 1 will provide the first biological and radiological detection capability in water. Milestone C for Low Rate Initial Production (LRIP) is planned for 1QFY08. Increment 2 will improve on the Increment 1 biological detection capability and the fielded M272 Water Test Kit chemical agent detection capability. MS B of Increment 2 is planned for FY09. Increment 3 will replace the M272 Water Test Kit chemical agent detection capability with new technology. MS B for Increment 3 is planned for FY11. Increment 4 will provide a capability for in-line and continuous sampling for CBR contamination. MS B for Increment 4 is planned for FY14.</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 CA5
JNBCRS I	<p>This joint program follows a modified Non-Developmental Item (NDI) strategy integrating Government Furnished Equipment (GFE), NDI, and systems undergoing development in parallel programs into an integrated suite of detection, analysis, and dissemination of equipment/software. A Low Rate Initial Production contract for the build and integration of 14 M1113 HMMWV variants was awarded on 4 March 2004. Two production representative LAVs were tested concurrently with LRIP HMMWVs during the 3QFY06. Initial Operational Capability (IOC) for HMMWV and LAV variants is Jun 07 (Objective) and Dec 07 (Threshold). Upon successful completion of LRIP and Multi-service Test and Evaluation (MOT&E), a Full Rate Production (FRP) competitive contract is anticipated.</p>	
JNBCRS II	<p>The JNBCRS II program will develop and test Commercial off-the-shelf (COTS) and Government off-the-shelf (GOTS) components to be integrated into the overall reconnaissance and surveillance effort conducting reconnaissance during conventional war, combating terrorism, or mission other than war (MOTW). A government team of developers and users will review candidate systems to choose which provide the capabilities required. Contracts will be awarded to procure the selected items and government testing will be conducted to verify claimed capabilities.</p> <p>It will be fielded to Light Brigade Combat teams as their integral NBC Reconnaissance capability. It is envisioned to be an Up-armored HMMWV (M1151) with Trailer containing Set Kit or Outfit (SKO) with the following capabilities:</p> <ul style="list-style-type: none"> - NBC detection, identification and sampling capability - Hazardous materials (HAZMAT)/Toxic Industrial Chemicals (TICs) detection and identification capability - Personal Protective Equipment (PPE) and sensors capability for confined/low-oxygen area - Decontamination capability - SSE support <p>JNBCRS II will enhance the Situation Awareness (SA) by providing the 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.</p>	
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JNBCRS III	<p>The JNBCRS III program will develop and test system improvements to increase the military utility of the JNBCRS platforms. An Indefinite Delivery/Indefinite Quantity contract will be awarded to the JNBCRS platform system integrators to support system engineering, software development, test & evaluation, and system support efforts to improve human factors and increase 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 detection technology into the JNBCRS platforms in the shortest possible time.</p>	
JSLSCAD	<p>The acquisition strategy for the JSLSCAD production phase focuses upon a dual path to procure required systems and concurrently develop and test system improvements to increase the military utility of the JSLSCAD Increment 1 system. Upon Milestone Decision Authority (MDA) approval of the JSLSCAD Milestone C/Full Rate Production decision, the Government will award a FFP contract for production of additional systems to fulfill the remaining Stryker NBCRV and JNBCRS production and fielding requirements.</p> <p>The JSLSCAD program office will award an Indefinite Delivery/Indefinite Quantity contract to support system engineering, software development, test & evaluation, and system support efforts for a preplanned product improvement program to increase the detection capabilities of the JSLSCAD Increment 1 system. 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 JSLSCAD host platforms in the shortest possible time.</p>	
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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>	
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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		
I. Product Development	Contract Method & Type	Performing Activity & Location	US NF CC	Total PYs Cost	FY2007 Cost	FY2007 Award Date	FY2008 Cost	FY2008 Award Date	FY2009 Cost	FY2009 Award Date	Cost to Complete	Total Cost	Target Value of Contract
JBSDS													
SW SB - Algorithm Development & Study	MIPR	NAVSEA, Johns Hopkins University, Baltimore, MD, MIT, Boston, MA	F	1696	1900	2Q FY07	0	NONE	0	NONE	0	3596	0
SW SB - Complete ILS Effort to support JBSDS FUE	C/CPFF	SESI, Columbia, MD	C	0	1700	2Q FY07	0	NONE	0	NONE	0	1700	0
HW S - Concept & Technology Development	MIPR	Various, TBD	U	0	1991	3Q FY07	0	NONE	0	NONE	0	1991	0
JBTDS													
HW S - System Design	C/CPFF	TBD	C	0	0	NONE	0	NONE	1369	2Q FY09	0	1369	0
JCAD													
HW SB - Purchase Commercial Detectors Inc 2	C/FFP	TBD	C	3400	0	NONE	3600	2Q FY08	0	NONE	0	7000	0
SW S - Fix Problems Identified in Gate 1	SS/FFP	TBD	C	0	0	NONE	500	1Q FY08	500	1Q FY09	0	1000	0
HW S - Fix Problems Identified in Gate 1	SS/FFP	TBD	C	0	0	NONE	500	1Q FY08	500	1Q FY09	0	1000	0
JCBRAWM													
HW C - Purchase detection tickets and pre-concentrators	SS/FFP	Various	C	0	1250	2Q FY07	0	NONE	2000	2Q FY09	0	3250	0
JNBCRS II													
HW S - Develop Test Assets	C/FFP	TBD	C	0	0	NONE	1800	2Q FY08	1000	2Q FY09	0	2800	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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I. Product Development - Cont.	Contract Method & Type	Performing Activity & Location	US NF CC	Total PYs Cost	FY2007 Cost	FY2007 Award Date	FY2008 Cost	FY2008 Award Date	FY2009 Cost	FY2009 Award Date	Cost to Complete	Total Cost	Target Value of Contract
JNBCRS III													
HW GFPP - Sensor Improvement of Test Vehicles	C/CPFF	TBD	C	0	0	NONE	1900	2Q FY08	0	NONE	0	1900	0
JLSLSCAD													
HW S - Pre-planned Product Improvement of Inc 1	C/CPFF	Various	C	0	10100	1Q FY07	0	NONE	0	NONE	0	10100	0
SW S - Model Development and Analysis	C/CPIF	ITT Industries, Alexandria, VA	C	0	300	1Q FY07	0	NONE	0	NONE	0	300	0
MDAP SPRT													
SW SB - Integrate Commodity Area Hardware Systems to SoS Configuration	C/CPFF	TBD	C	0	0	NONE	3200	2Q FY08	2125	2Q FY09	0	5325	0
Subtotal I. Product Development:					17241		11500		7494		0	41331	

Remarks: JCAD - FY06 - 120 systems at \$13.5K per system.
 FY08 - 240 systems at \$15.0K per system.

JCBRAWM - FY07 25,000 biodetection tickets @ \$50 each.
 FY09 200 pre-concentrates @ \$1K each and 100,000 tickets at \$18.00 each.

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II. Support Costs	Contract Method & Type	Performing Activity & Location	US NF CC	Total PYs Cost	FY2007 Cost	FY2007 Award Date	FY2008 Cost	FY2008 Award Date	FY2009 Cost	FY2009 Award Date	Cost to Complete	Total Cost	Target Value of Contract
JBSDS													
ES S - Modeling & Simulation, test support	PO	BSM, Inc, Kennett Square, PA	C	340	200	2Q FY07	0	NONE	0	NONE	0	540	0
ES S - Modeling & Simulation, test support	PO	NAVSEA, Johns Hopkins-APL, Columbia, MD	C	1839	1300	2Q FY07	0	NONE	0	NONE	0	3139	0
JCBRAWM													
ILS S - Logistics Support	MIPR	RDECOM, APG, MD	U	0	400	1Q FY07	200	1Q FY08	200	1Q FY09	0	800	0
TD/D S - Technical Data Documentation	MIPR	RDECOM, APG, MD	U	0	700	1Q FY07	0	NONE	0	NONE	0	700	0
JNBCRS I													
ES S - Provide strategic/tactical planning, government systems engineering, technology assessment, technical support.	MIPR	Various	U	0	1747	4Q FY07	0	NONE	0	NONE	0	1747	0
JNBCRS II													
ES S - Develop Program Documentation	C/FFP	TBD	C	0	0	NONE	400	2Q FY08	250	2Q FY09	0	650	0
ILS S - Initiate Training & ILS Effort	C/FFP	TBD	C	0	0	NONE	1300	2Q FY08	2673	2Q FY09	0	3973	0
JNBCRS III													
ES S - Integration support	C/CPFF	TBD	C	0	0	NONE	2000	2Q FY08	0	NONE	0	2000	0
TD/D S - Update Technical Manuals & Training Materials	MIPR	JPM NBC CA, APG, MD	U	0	0	NONE	1300	2Q FY08	0	NONE	0	1300	0

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III. Test and Evaluation	Contract Method & Type	Performing Activity & Location	US NF CC	Total PYs Cost	FY2007 Cost	FY2007 Award Date	FY2008 Cost	FY2008 Award Date	FY2009 Cost	FY2009 Award Date	Cost to Complete	Total Cost	Target Value of Contract
JBSDS													
OTHT SB - JBSDS Operational Test and Evaluation	MIPR	OTC/AEC/AFOTEC, Location Various	U	5041	1802	2Q FY07	0	NONE	0	NONE	0	6843	0
OTHT SB - Agent Simulant Correlation	MIPR	Sandia National Laboratory, Albuquerque, NM	U	630	700	2Q FY07	0	NONE	0	NONE	0	1330	0
JBTDS													
OTHT SB - System Integration	MIPR	Dugway Proving Ground, UT	U	0	0	NONE	0	NONE	446	3Q FY09	0	446	0
JCAD													
DTE S - JCAD Developmental Test (DT)	MIPR	Various Govt	U	20391	0	NONE	2692	1Q FY08	7077	2Q FY09	0	30160	0
OTE S - Increment 2 Operational Assessment	MIPR	Various	U	0	0	NONE	2500	2Q FY08	0	NONE	0	2500	0
OTE S - Increment 1 MOT&E	MIPR	Various	U	0	2000	4Q FY07	0	NONE	0	NONE	0	2000	0
OTHT S - Evaluate commercial detectors (Increment 2)	MIPR	Various	U	0	463	3Q FY07	0	NONE	0	NONE	0	463	0
OTE S - Increment 2 MOT&E	MIPR	Various	U	0	0	NONE	0	NONE	3000	2Q FY09	0	3000	0
JCBRAWM													
DTE S - Developmental Testing	MIPR	TBD	U	0	2000	2Q FY07	0	NONE	0	NONE	0	2000	0
OTHT C - Conduct shelf life test	MIPR	Various	U	0	750	2Q FY07	0	NONE	0	NONE	0	750	0
OTE S - MOT&E	MIPR	Various	U	0	0	NONE	1491	3Q FY08	0	NONE	0	1491	0
OTE S - MOT&E Planning	MIPR	Various	U	0	600	3Q FY07	0	NONE	0	NONE	0	600	0

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III. Test and Evaluation - Cont.	Contract Method & Type	Performing Activity & Location	US NF CC	Total PYs Cost	FY2007 Cost	FY2007 Award Date	FY2008 Cost	FY2008 Award Date	FY2009 Cost	FY2009 Award Date	Cost to Complete	Total Cost	Target Value of Contract
OTHT S - Follow-On Test & Evaluation	MIPR	Various	U	0	0	NONE	0	NONE	739	2Q FY09	0	739	0
JNBCRS II													
OTE C - Development and Implementation of Test Program	MIPR	TBD	U	0	0	NONE	1050	2Q FY08	2493	2Q FY09	0	3543	0
JNBCRS III													
DTE S - Stryker NBCRV BLK II	PO	OTC, Ft. Hood, TX	U	0	0	NONE	0	NONE	1606	2Q FY09	0	1606	0
JSLSCAD													
OTE S - Incr 1 M&S & Development of Improved Techniques for Test	PO	Various	U	8506	1700	2Q FY07	0	NONE	0	NONE	0	10206	0
OTHT SB - Engineering Development Testing and Remote Sensing Systems	PO	Various	U	7209	2100	3Q FY07	0	NONE	0	NONE	0	9309	0
MDAP SPRT													
DTE S - Demonstration and Technology (DT) Testing to Validate SoS Concept	MIPR	TBD	U	0	0	NONE	2000	2Q FY08	4000	2Q FY09	0	6000	0
Subtotal III. Test and Evaluation:					12115		9733		19361		0	82986	

Remarks:

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IV. Management Services	Contract Method & Type	Performing Activity & Location	US NF CC	Total PYs Cost	FY2007 Cost	FY2007 Award Date	FY2008 Cost	FY2008 Award Date	FY2009 Cost	FY2009 Award Date	Cost to Complete	Total Cost	Target Value of Contract
JBPDS													
PM/MS S - Project Management	MIPR	JPM BD, APG, MD	U	940	1232	2Q FY07	0	NONE	0	NONE	0	2172	0
JBSDS													
PM/MS S - JPM BD, APG, MD	MIPR	JPM BD, APG, MD	U	2677	2600	2Q FY07	0	NONE	0	NONE	0	5277	0
PM/MS S - PM/MS other services (USN, USMC, USAF)	MIPR	Various	U	368	1648	2Q FY07	0	NONE	0	NONE	0	2016	0
PM/MS S - Modeling and Simulation Analysis	MIPR	Various	U	0	650	2Q FY07	0	NONE	0	NONE	0	650	0
JBTDS													
PM/MS SB - Post MS B Contractor Support for System Demonstration	C/FFP	TBD	C	0	0	NONE	0	NONE	307	2Q FY09	0	307	0
JCAD													
PM/MS S - Joint Service Support	MIPR	Various	U	0	0	NONE	2000	2Q FY08	2848	2Q FY09	0	4848	0
JCBRAWM													
PM/MS S - Joint Service Support	MIPR	JPM NBC CA, APG, MD	U	0	1000	1Q FY07	400	1Q FY08	800	1Q FY09	0	2200	0
PM/MS S - Joint Service Integrated Product Support	MIPR	Various	U	0	799	2Q FY07	200	2Q FY08	400	2Q FY09	0	1399	0
JNBCRS II													
PM/MS S - Milestone Acquisition & Documentation Development	MIPR	JPM NBC CA, APG, MD	U	0	0	NONE	450	2Q FY08	500	2Q FY09	0	950	0
PM/MS S - Milestone Acquisition & Documentation Development	MIPR	USCMLS, FT Leonard Wood, MO	U	0	0	NONE	496	2Q FY08	200	2Q FY09	0	696	0

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IV. Management Services - Cont.	Contract Method & Type	Performing Activity & Location	US NF CC	Total PYs Cost	FY2007 Cost	FY2007 Award Date	FY2008 Cost	FY2008 Award Date	FY2009 Cost	FY2009 Award Date	Cost to Complete	Total Cost	Target Value of Contract
JNBCRS III													
PM/MS S - Program Management and Systems Engineering Support	MIPR	JPM NBC CA , APG, MD	U	0	0	NONE	844	2Q FY08	844	2Q FY09	0	1688	0
JSLSCAD													
PM/MS S - Management and Systems Engineering Support	MIPR	JPM NBC CA, APG, MD	U	7983	1963	1Q FY07	0	NONE	0	NONE	0	9946	2580
PM/MS S - Joint Service Support	MIPR	Various	U	3050	2100	1Q FY07	0	NONE	0	NONE	0	5150	0
MDAP SPRT													
PM/MS S - MDAP SPRT Cell Planning and Management Support	Allot	MDAP SPRT Cell, Falls Church, VA	U	0	0	NONE	800	1Q FY08	800	1Q FY09	0	1600	0
ZSBIR													
SBIR/STTR - Aggregated from ZSBIR-SBIR/STTR	PO	HQ, AMC, Alexandria, VA		0	457	NONE	0	NONE	0	NONE	0	457	0
Subtotal IV. Management Services:					12449		5190		6699		0	39356	

Remarks:

TOTAL PROJECT COST:		46352		31623		36677		0	184262
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Exhibit R-4a, Schedule Profile

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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

D. <u>Schedule Profile:</u>	FY 2006				FY 2007				FY 2008				FY 2009				FY 2010				FY 2011				FY 2012				FY 2013			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
JBPDS																																
Design and Validate selected Upgrades	>>							3Q																								
Whole System Live Agent Test	>>											2Q																				
Request for Proposal/FRP				4Q				2Q																								
Follow-On Operational Test and Evaluation (FOT&E)								4Q				2Q																				
MS C Full Rate Production Decision												3Q 4Q																				
Proposal Preparation/Submission							2Q					1Q																				
Evaluations/Selection												2Q																				
Negotiations												3Q																				
Best and Final Offer Evaluation												3Q 4Q																				
Contract Award												4Q																				
Full Rate Production												4Q																				4Q
JBSDS																																
Increment 1 JBSDS Multi-Service Operational Test & Evaluation (MOT&E)				4Q			1Q																									
Increment 1 JBSDS Full Rate Production							3Q					3Q																				
Increment 1 JBSDS First Unit Equipped (FUE)							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
CA5

D. Schedule Profile (cont):

	FY 2006				FY 2007				FY 2008				FY 2009				FY 2010				FY 2011				FY 2012				FY 2013			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
JBTDS																																
MS A Decision							3Q																									
Market Survey					1Q		3Q																									
System Engineering Trade Study							3Q	4Q																								
CDD							3Q					3Q																				
MS B Doc Prep							4Q					4Q																				
MS B Decision												2Q																				
SDD												2Q				4Q																
Capability Production Document																1Q				4Q												
MS C Decision																				1Q												
Low Rate Initial Production (LRIP)																				1Q				3Q								
Developmental Test & Evaluation																1Q				4Q												
Operational Test & Evaluation																				1Q				4Q								
Full Rate Production (FRP) Decision																								2Q								
FRP																								2Q				4Q				
First Unit Equipped (FUE)																								3Q								
JCAD																																
Inc 1 - Production Qualification Test (PQT)								1Q																								

Exhibit R-4a, Schedule Profile	DATE February 2007
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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 2006				FY 2007				FY 2008				FY 2009				FY 2010				FY 2011				FY 2012				FY 2013			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
JCAD (Cont)																																
Inc 1 - Milestone C Low Rate Initial Production (LRIP) Decision						2Q																										
Inc 1 - Multi-service Operational Test and Evaluation (MOT&E)								4Q																								
Inc 1 - Milestone C Full Rate Production (FRP) Decision										1Q																						
Inc 2 - Production Qualification Test (PQT)							3Q					2Q																				
Inc 2 - Gate 2 Decision											1Q																					
Inc 2 - Milestone C Low Rate Initial Production (LRIP) Decision												3Q																				
Inc 2 - LRIP Contract Award												3Q																				
Inc 2 - Production Verification Test (PVT)														4Q																		
Inc 2 - Multi-service Operational Test and Evaluation (MOT&E)														4Q																		
Inc 2 - Milestone C FRP Decision															1Q																	
JCBRAWM																																
Contractor Test & Evaluation Efforts						1Q		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 2006				FY 2007				FY 2008				FY 2009				FY 2010				FY 2011				FY 2012				FY 2013			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
JCBRAWM (Cont)																																
Operational/Development Test Increment 1							2Q	4Q																								
MS C Increment 1 Low Rate Initial Production									1Q																							
MS C Increment 1 Full Rate Production (FRP) Decision												4Q																				
JNBCRS I																																
HMMWV/LAV Production Verification Test	1Q																															
JNBCRS I Multi-service Operational Test and Evaluation (MOT&E) for HMMWV and the LAV			3Q	4Q																												
JNBCRS I Milestone C Full Rate Production (FRP) Decision							2Q																									
JNBCRS II																																
JNBCRS II Program Initiation									1Q																							
JNBCRS II Prod Verification Test - Commercial off-the-shelf Equip												4Q				2Q																
In-Process Review												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

D. Schedule Profile (cont):

	FY 2006				FY 2007				FY 2008				FY 2009				FY 2010				FY 2011				FY 2012				FY 2013				
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	
JNBCRS III																																	
JNBCRS III Program Initiation									1Q																								
JNBCRS III Sensor Improvement & Human Factors Eng Improvement									1Q	—————				4Q																			
JNBCRS III Conduct Operational Test & Evaluation													2Q	3Q																			
JSLSCAD																																	
Increment 1 - System Refurb	1Q																																
Milestone C Full Rate Production (FRP) Decision						2Q																											
Pre-Planned Product Improvement (P3I)					1Q	—————				4Q																							
P3I Engineering Development Test (EDT)						3Q	4Q																										
MDAP SPRT																																	
Modeling and Simulation (M&S) Analysis to Support Development		2Q	—————		3Q																												
Trade Analysis to Identify Components			4Q	—	2Q																												
System of Systems (SoS) Component Development					2Q	—————		2Q																									
Data Fusion Algorithm Development					2Q	—————				2Q																							

CBDP BUDGET ITEM JUSTIFICATION SHEET (R-2a Exhibit)	DATE February 2007
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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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COST (In Thousands)	FY 2006 Actual	FY 2007 Estimate	FY 2008 Estimate	FY 2009 Estimate	FY 2010 Estimate	FY 2011 Estimate	FY 2012 Estimate	FY 2013 Estimate	Cost to Complete	Total Cost
CM5 HOMELAND DEFENSE (SDD)	387	4000	0	0	0	0	0	0	0	4387

A. Mission Description and Budget Item Justification:

Project CM5 HOMELAND DEFENSE (SDD): The Force Protection - Chemical and Biological Installation Protection Program (CBIPP) consists of a highly effective and integrated Chemical, Biological, Radiological, and Nuclear (CBRN) installation protection and response capability. This capability includes detection, identification, warning, information management, individual and collective protection, restoration, and medical surveillance, protection and response. The communications network will leverage existing capabilities and be integrated into the base operational command and control infrastructure. The program will develop and procure the CBRN systems, emergency responder equipment sets, New Equipment Training (NET), Contractor Logistics Support, spares, and associated initial consumable items required to field an integrated installation protection capability for up to 200 DoD installations.

The Weapons of Mass Destruction - Civil Support Teams program (WMD-CST) supports the acquisition and delivery of an integrated chemical, biological, and nuclear analytical detection and rapid response capability for the National Guard Bureau's (CSTs) and the United States Army Reserve (USAR) Chemical Reconnaissance and Decontamination Platoons. Capabilities include a state-of-the-art Command, Control, Communications, Computer, and Intelligence (C4I) system that enables secure communications with Federal, State, and Local authorities from a WMD incident site. The program also provides CSTs and Reconnaissance/Decontamination platoons with individual protection, detection, survey and communications monitoring capability.

Major end items for this Commercial off-the-shelf (COTS) based acquisition program include the Analytical Laboratory System (ALS), and the Unified Command Suite (UCS) for the WMD-CSTs. The ALS provides a mobile laboratory platform that incorporates advanced analytical detection technology for the identification of Chemical Warfare (CW) agents, Toxic Industrial Chemicals (TICs), Toxic Industrial Materials (TIMs), and Biological Warfare (BW) agents. The UCS provides secure communications interoperability with the ALS and reach back capability to federal, state, and local authorities from the incident site.

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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 2006</u>	<u>FY 2007</u>	<u>FY 2008</u>	<u>FY 2009</u>
WMD - CIVIL SUPPORT TEAMS	387	3961	0	0
RDT&E Articles (Quantity)	0	0	0	0

Accomplishments/Planned Program	FY2006	FY2007	FY2008	FY2009
WMD CST - FY 06 - Completed Operational Assessment (OA) of the UCS Increment 1 and provided government engineering and planning support.	387	0	0	0
WMD CST#15 - Congressional Interest Item - FY 07 - Countermeasures to Biological and Chemical Control Rapid Response.	0	3961	0	0
Total	387	3961	0	0

	<u>FY 2006</u>	<u>FY 2007</u>	<u>FY 2008</u>	<u>FY 2009</u>
SBIR/STTR	0	39	0	0
RDT&E Articles (Quantity)	0	0	0	0

Accomplishments/Planned Program	FY2006	FY2007	FY2008	FY2009
SBIR - FY 07 - Small Business Innovative Research.	0	39	0	0
Total	0	39	0	0

CBDP BUDGET ITEM JUSTIFICATION SHEET (R-2a Exhibit)	DATE February 2007
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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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C. <u>Other Program Funding Summary:</u>	<u>FY 2006</u>	<u>FY 2007</u>	<u>FY 2008</u>	<u>FY 2009</u>	<u>FY 2010</u>	<u>FY 2011</u>	<u>FY 2012</u>	<u>FY 2013</u>	<u>To Compl</u>	<u>Total Cost</u>
CM6 HOMELAND DEFENSE (RDT&E MGT SUPPORT)	0	0	0	0	0	0	0	0	0	0
JS0004 WMD - CIVIL SUPPORT TEAM EQUIPMENT	56404	13146	0	0	0	0	0	0	0	69550
JS0500 CB INSTALLATION FORCE PROTECTION PROGRAM	144708	76619	86418	88748	62300	60070	0	0	0	518863

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CBDP BUDGET ITEM JUSTIFICATION SHEET (R-2a Exhibit)		DATE February 2007
BUDGET ACTIVITY RDT&E DEFENSE-WIDE/ BA5 - System Development and Demonstration (SDD)	PE NUMBER AND TITLE 0604384BP CHEMICAL/BIOLOGICAL DEFENSE (SDD)	PROJECT CM5

D. Acquisition Strategy:

WMD CST

This program utilizes multiple acquisition vehicles to deliver a CBRN capability to the WMD CSTs.

ALS Increment 1:

The ALS Increment 1 program will upgrade the analytical capability of the ALS System Enhancement Program (SEP) system with the objective of improving chemical and biological detection sensitivity and selectivity in line with the requirements as outlined in the validated Capability Production Document (CPD).

Government off-the-shelf (GOTS) Detection, Protection, and Decontamination Equipment:

Procure Chemical and Biological Defense equipment as outlined in Defense Reform Directive #25 (see GOTS items listed below under Program Unit Cost).

COTS Evaluation:

Evaluate existing and new COTS equipment for incorporation into the NGB CST Table of Distribution and Allowances (TDA) and USAR Letter of Authorization (LOA).

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CBDP PROJECT COST ANALYSIS (R-3 Exhibit)	DATE February 2007
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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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I. Product Development	Contract Method & Type	Performing Activity & Location	US NF CC	Total PYs Cost	FY2007 Cost	FY2007 Award Date	FY2008 Cost	FY2008 Award Date	FY2009 Cost	FY2009 Award Date	Cost to Complete	Total Cost	Target Value of Contract
WMD CST													
WMD CST#15 - Countermeasures to Bio & Chem Control	SS/FP	TBD	C	0	3961	4Q FY07	0	NONE	0	NONE	0	3961	0
Subtotal I. Product Development:					3961		0		0		0	3961	

Remarks:

II. Support Costs: Not applicable

III. Test and Evaluation: Not applicable

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CBDP PROJECT COST ANALYSIS (R-3 Exhibit)	DATE February 2007
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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	FY2007 Cost	FY2007 Award Date	FY2008 Cost	FY2008 Award Date	FY2009 Cost	FY2009 Award Date	Cost to Complete	Total Cost	Target Value of Contract
ZSBIR													
SBIR/STTR - Aggregated from ZSBIR-SBIR/STTR	PO	HQ, AMC, Alexandria, VA		0	39	NONE	0	NONE	0	NONE	0	39	0
Subtotal IV. Management Services:					39		0		0		0	39	

Remarks:

TOTAL PROJECT COST:		4000		0		0		0		0		4000	
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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 CM5
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D. <u>Schedule Profile:</u>	FY 2006				FY 2007				FY 2008				FY 2009				FY 2010				FY 2011				FY 2012				FY 2013			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
WMD CST																																
Incr 1 - Operational Assessment (OA)				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 CO5
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COST (In Thousands)	FY 2006 Actual	FY 2007 Estimate	FY 2008 Estimate	FY 2009 Estimate	FY 2010 Estimate	FY 2011 Estimate	FY 2012 Estimate	FY 2013 Estimate	Cost to Complete	Total Cost
CO5 COLLECTIVE PROTECTION (SDD)	656	12534	13956	11477	2728	0	0	0	0	41351

A. Mission Description and Budget Item Justification:

Project CO5 COLLECTIVE PROTECTION (SDD): Funding supports System Demonstration and Low Rate Initial Production (SD/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 CBRN environments. CP systems can be installed on any platform such as shelters, vehicles, ships, aircraft, buildings, and hospitals. CP systems create spaces safe from the effects of CBRN contamination.

Systems funded under this project are: (1) Joint Collective Protection Equipment (JCPE), (2) Joint Expeditionary Collective Protection (JECP).

JCPE - Provided needed improvements and cost saving standardization to fielded fixed site, building, shipboard, and vehicle collective protection systems. The program focused on fixing specific problems and deficiencies with fielded collective protection system equipment designated high priority by each Service and validated by the Collective Protection Joint Project Office (ColPro JPO). Standardization of individual system components (specifically filter systems) across Joint Service mission areas reduced logistics burden while maintaining the industrial base.

JECP - Results of a Baseline Capability Assessment conducted by the Joint Requirements Office (JRO) identified expeditionary Collective Protection (CP) as the highest priority capability gap within the commodity area. JECP provides the Joint Expeditionary Forces a Collective Protection (CP) capability which is lightweight, compact, modular, and affordable. A family of systems is planned that will allow the application of CP to portable hard-side and 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), heat, dust, and sand. The employment of JECP is a strategic deterrence against enemy use of CBRN agents or TIMs, and will reduce the need for personnel and equipment decontamination.

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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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B. Accomplishments/Planned Program

	<u>FY 2006</u>	<u>FY 2007</u>	<u>FY 2008</u>	<u>FY 2009</u>
JOINT COLLECTIVE PROTECTION EQUIPMENT	656	2548	0	0
RDT&E Articles (Quantity)	0	0	0	0

Accomplishments/Planned Program	FY2006	FY2007	FY2008	FY2009
JCPE - FY 06 - Completed the development of documentation to fully support the Collectively Protected Expeditionary Medical Support (CP EMEDS) and Collective Protection System (CPS) liner systems. Completed identification and testing of a second source for individual distribution breathing air hose. Continued development and testing of reliability improvements to the Fan Filter Assembly (FFA)-400 and M28 blowers. Continued live agent testing of improved 100/200 Cubic Feet per Minute (CFM) gas filters. Continued testing of 100/200 CFM gas filters with new media to provide protection against selected Toxic Industrial Chemicals (TICs). Completed development and testing of collective protection system, operational blast mitigation techniques. Continued development of shipboard CP automation. Initiated Aerodynamic deduster study to reduce the CPS logistics burden. Continued program management and IPT support.	271	0	0	0
JCPE - FY 06 - Initiated environmental qualification of simplified filter housing. Initiated technical data package for Collectively Protected Expeditionary Latrine (CPEL). Initiated a test and surveillance effort to better understand factors affecting service life and capacity of filters for land-based facilities. Initiated applicability of High Efficiency Particulate Arrestance (HEPA) filter studies to Chemical, Biological, Radiological, and Nuclear (CBRN) defense. Initiated the design and testing of an improved Navy filter housing o-ring. Initiated a study on the effects on CBRN filters due to ingestion of smoke. Initiated the study and analysis of the M93 gas particulate filter unit. Initiated design and testing of improved gaskets for M98 filter set.	385	0	0	0

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CBDP BUDGET ITEM JUSTIFICATION SHEET (R-2a Exhibit)		DATE February 2007
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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):	FY2006	FY2007	FY2008	FY2009
JCPE - FY 07 - Complete technical data package for FFA-400. Complete development of shipboard CP automation. Complete the design and testing of an improved Navy filter housing o-ring. Complete environmental qualification of simplified filter housing. Complete Aerodynamic deduster study to reduce the CPS logistics burden. Complete the study and analysis of the M93 gas particulate filter unit. Continue program management and IPT support. Complete development and testing of reliability improvements to the Fan Filter Assembly (FFA)-400 and M28 blowers. Complete testing of 100/200 CFM gas filters with new media to provide protection against selected Toxic Industrial Chemicals (TICs).	0	482	0	0
JCPE - FY 07 - Complete the test and surveillance effort to better understand factors affecting service life and capacity of filters for land-based facilities. Complete design and testing of improved gaskets for M98 filter set. Complete contaminated filter change-out procedures. Complete agent testing to verify 100/200 CFM gas filter improvements. Complete technical data package for Collectively Protected Expeditionary Latrine (CPEL). Complete applicability of High Efficiency Particulate Arrestance (HEPA) filter studies to Chemical, Biological, Radiological, and Nuclear (CBRN) defense. Complete a study on the effects on CBRN filters.	0	966	0	0
JCPE - FY 07 - Provide strategic/tactical planning, government systems engineering, program/financial management, costing, technology assessment, contracting, scheduling, acquisition oversight and technical support.	0	1100	0	0
Total	656	2548	0	0

	<u>FY 2006</u>	<u>FY 2007</u>	<u>FY 2008</u>	<u>FY 2009</u>
JOINT EXPEDITIONARY COLLECTIVE PROTECTION	0	9864	13956	11477
RDT&E Articles (Quantity)	0	12	18	0

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CBDP BUDGET ITEM JUSTIFICATION SHEET (R-2a Exhibit)		DATE February 2007			
BUDGET ACTIVITY	PE NUMBER AND TITLE	PROJECT			
RDT&E DEFENSE-WIDE/ BA5 - System Development and Demonstration (SDD)	0604384BP CHEMICAL/BIOLOGICAL DEFENSE (SDD)	CO5			
Accomplishments/Planned Program		FY2006	FY2007	FY2008	FY2009
JECP - FY 07/08/09 - Award SDD contract for prototype development and testing including an Early Operational Assessment (EOA). Prototypes will consist of four tent kits, four structure kits at an estimated unit cost of \$119K each and four standalone systems with an estimated unit cost of \$375K each. The total cost of all prototypes is \$2,452K. Integrate contractor into the joint IPT structure, build contractor 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, conduct configuration management, logistics planning, and contractor developmental testing.		0	5408	4500	2000
JECP - FY 08 - Procure Low Rate Initial Production (LRIP) quantities of JECP Family of Systems (FoS). LRIP systems will consist of 12 tent kits and three structure kits at an estimated unit cost of \$124K each along with three standalone systems at an estimated unit cost of \$390K each. The total cost of all LRIP systems is \$3,030K.		0	0	3400	0
JECP - FY 07/08/09 - Conduct Systems Engineering Integrated Product Team (IPT) support. Provide a Subject Matter Expert (SME) to the Joint Requirements Office (JRO) for Capabilities Production Document (CPD) development. Finalize system performance specification, system architecture, and system Work Breakdown Structure (WBS). Provide technical oversight of SDD contractor. Plan and conduct technical reviews including a SRR, SFR, PDR, and CDR. Validate and verify system configuration. Initiate New Equipment Training program for JECP FoS.		0	1230	1250	1250
JECP - FY 07/08/09 - Conduct Test and Evaluation (T&E) IPT support. Provide T&E acquisition documentation for MS B. Integrate the Test Threat Support Package (TTSP) into the TEMP. Finalize test methodology and Design of Experiment (DOE). Finalize TEMP. Conduct Limited Objective Experiment (LOE) with the Joint CBRN Combat Developer, Joint Experimentation and Analysis Branch, to examine service unique tactics, techniques, and procedures. Conduct integrated test planning, coordination, and execution. Secure equipment and facilities and conduct an EOA of prototypes in relevant environments. Support Initial Operational Test and Evaluation (IOT&E) phase.		0	1497	1500	1500
JECP - FY 09 - Conduct IOT&E of JECP family of systems for Initial Operational Capability (IOC).		0	0	0	3579
Project CO5/Line No: 104					
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Accomplishments/Planned Program (Cont):	FY2006	FY2007	FY2008	FY2009
JECP - FY 07/08/09 - Thru the product support Integrated Product Team (IPT), initiate a supportability analysis to address logistics support elements including maintenance philosophy, manpower & personnel, supply support, Tech Data, support & test equipment, training and training support. 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 JECP FoS documentation and support strategy for NET program.	0	433	750	900
JECP - FY 07 - Conduct Limited Objective Experiment (LOE) with the Joint Combat Developer, Joint Experimentation and Analysis Branch, to examine service unique tactics, techniques, and procedures. Conduct literature search, experiment planning conference, notional concept of operations, table top exercise, live experiment, and final report.	0	200	0	0
JECP - FY 07/08/09 - Program management and Acquisition Program Management Office (APMO) contractor support including financial tracking, schedule monitoring, System Design Development (SDD) contract management, and JPEO/JPM reporting requirements. Conduct acquisition documentation for MS B (Single Acquisition Management Plan (SAMP), Acquisition Program Baseline (APB), Test & Evaluation Master Plan (TEMP), SCG, etc.). Conduct source selection planning and support award of System Development and Demonstration contract. Prepare MS C documentation. Obtain material release and type classification for JECP FoS.	0	1096	1100	1100
JECP - FY 08/09 - Provide strategic tactical planning, government systems engineering, program/ financial management, costing, technology assessment, contracting, scheduling, acquisition oversight and technical support.	0	0	1456	1148
Total	0	9864	13956	11477

	<u>FY 2006</u>	<u>FY 2007</u>	<u>FY 2008</u>	<u>FY 2009</u>
SBIR/STTR	0	122	0	0
RDT&E Articles (Quantity)	0	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 CO5
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Accomplishments/Planned Program	FY2006	FY2007	FY2008	FY2009
SBIR - FY 07 - Small Business Innovative Research.	0	122	0	0
Total	0	122	0	0

C. <u>Other Program Funding Summary:</u>										
	<u>FY 2006</u>	<u>FY 2007</u>	<u>FY 2008</u>	<u>FY 2009</u>	<u>FY 2010</u>	<u>FY 2011</u>	<u>FY 2012</u>	<u>FY 2013</u>	<u>To Compl</u>	<u>Total Cost</u>
JN0014 COLLECTIVE PROT SYS AMPHIB BACKFIT (CPS BACKFIT)	10377	8798	10564	5124	0	0	0	0	0	34863
JP0911 CP FIELD HOSPITALS (CPFH)	2900	4073	3519	3369	3475	3519	4318	4739	Cont	Cont
JP1111 JOINT EXPEDITIONARY COLLECTIVE PROTECTION (JECF)	0	0	0	0	6173	7997	5171	4790	Cont	Cont
R12301 CB PROTECTIVE SHELTER (CBPS)	18137	30462	24774	32001	32424	32828	37363	37330	Cont	Cont

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D. Acquisition Strategy:

JCPE The JCPE acquisition strategy was to consolidate planned improvements to fielded collective protection systems into one Joint product improvement program for addressing deficiencies, improvements, and cost saving initiatives. System improvements, after successful prototype development and testing, were delivered via a performance specification that can then be implemented by respective Services thru an Engineering Change Proposal (ECP) process. All modified components were fabricated and tested to ensure Service compatibility. Fielding will be accomplished thru phased replacement or attrition thru the supply system. Existing procurement contracts were leveraged to expedite fielding improvement upgrades.

JECP Strategy based on incremental 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 will be conducted to mitigate risk and identify affordable mature technologies that individually or together meet the warfighters needs. Following MS B, a Statement of Objectives (SOO) and Performance Specification will be used to award competitive cost plus incentive type contract(s) 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 contract for Low Rate Initial Production (LRIP) to support formal Developmental Testing (DT) and Initial Operational Test & Evaluation (IOT&E). Following a successful Full Rate Production (FRP) decision, award a fixed price production contract with multi-year options and product improvement incentives. For each incremental capability identified by the user, a similar approach for MS B and C will be used to seamlessly integrate improved and/or new technologies into follow-on increments to achieve a full JECP capability.

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IV. Management Services	Contract Method & Type	Performing Activity & Location	US NF CC	Total PYs Cost	FY2007 Cost	FY2007 Award Date	FY2008 Cost	FY2008 Award Date	FY2009 Cost	FY2009 Award Date	Cost to Complete	Total Cost	Target Value of Contract
JCPE													
PM/MS S - IPT Support	MIPR	Various	U	1021	38	1Q FY07	0	NONE	0	NONE	0	1059	820
PM/MS S - Overall Program Management & IPT Oversight	MIPR	NSWCDD, Dahlgren, VA	U	1938	167	1Q FY07	0	NONE	0	NONE	0	2105	1403
PM/MS S - JPEO Oversight	MIPR	JPEO-CBD, Falls Church, VA	U	0	1100	4Q FY07	0	NONE	0	NONE	0	1100	0
JECP													
PM/MS SB - APMO Support	MIPR	Various	U	0	1096	1Q FY07	1100	1Q FY08	1100	1Q FY09	0	3296	0
PM/MS S - JPEO-CBD Support	MIPR	JPEO CBD, Falls Church, VA	U	0	0	NONE	1456	1Q FY08	1148	1Q FY09	0	2604	0
ZSBIR													
SBIR/STTR - Aggregated from ZSBIR-SBIR/STTR	PO	HQ, AMC, Alexandria, VA		0	122	NONE	0	NONE	0	NONE	0	122	0
Subtotal IV. Management Services:					2523		2556		2248		0	10286	

Remarks:

TOTAL PROJECT COST:					12534		13956		11477		300	42793	
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Exhibit R-4a, Schedule Profile

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BUDGET ACTIVITY
RDT&E DEFENSE-WIDE/
BA5 - System Development and Demonstration (SDD)

PE NUMBER AND TITLE
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CO5

D. Schedule Profile (cont):

	FY 2006				FY 2007				FY 2008				FY 2009				FY 2010				FY 2011				FY 2012				FY 2013			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
JCPE (Cont)																																
Improved Navy filter housing o-ring		2Q						3Q																								
Study and analysis of the M93 GPFU		2Q						4Q																								
Aerodynamic deduster study to reduce the CPS logistics burden		2Q						4Q																								
Improved gaskets for M98 filter set		2Q						4Q																								
Contaminated filter changeout procedures						1Q		4Q																								
TDP for FFA-400						1Q		4Q																								
JECP																																
Complete CDD							2Q																									
Decision Review							2Q																									
Limited Objective Experiment						1Q	2Q																									
MS-B Decision							3Q																									
Request for Proposal (RFP)							2Q																									
System Development Demonstration Contract Award							3Q																									
Prototype System Development & Testing							3Q			1Q																						
Operational Assessment (OA)										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 CO5
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D. <u>Schedule Profile (cont):</u>	FY 2006				FY 2007				FY 2008				FY 2009				FY 2010				FY 2011				FY 2012				FY 2013			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
JECP (Cont)																																
Capability Production Document (CPD)											3Q																					
MS-C Decision											4Q																					
LRIP Option											4Q																					
IOT&E															2Q 3Q																	
FRP Decision Review															4Q																	

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COST (In Thousands)	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	Cost to	Total Cost
	Actual	Estimate	Complete							
DE5 DECONTAMINATION SYSTEMS (SDD)	15357	11010	6019	10300	23791	19094	16945	12811	Continuing	Continuing

A. Mission Description and Budget Item Justification:

Project DE5 DECONTAMINATION SYSTEMS (SDD): This project funds System Development and Demonstration (SDD) for (1) the Joint Service Personnel/Skin Decontamination System (JSPDS), (2) the Joint Service Transportable Decontamination System - Small Scale (JSTDS-SS), (3) the Human Remains Decontamination System (HRDS), (4) the Joint Service Sensitive Equipment Decontamination (JSSED) and (5) Joint Platform Interior Decontamination (JPID).

The JSPDS will provide a United States Food and Drug Administration approved individually carried skin decontamination kit that will be used for immediate decontamination of skin, protective masks, hoods, gloves and small scale weapons (under 0.50 caliber).

The JSTDS-SS programs will be transported by existing platforms in close proximity to combat operations and will be used for 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 and Toxic Industrial Materials (TIMs).

The JSSED and JPID programs are based on the same technology and are being executed together by the Joint Material Decontamination Program Office. These systems will fill an immediate need to decontaminate chemical and biological warfare agents from sensitive equipment (JSSED) and vehicle/aircraft/buildings interiors, and associated cargo (JPID). JPID will develop two variants, the Joint Material Decontamination System - Tactical (JMDS-TAC) to decontaminate the interior of tactical ground vehicles and tactical aircraft and the Joint Material Decontamination System - Large Platform Interior (JMDS-LPI) to decontaminate the interior of large platforms (e.g., ships, large aircraft, buildings) and associated cargo. The JSSED, JMDS-TAC and JMDS-LPI will included a JMDS wipe for removal of gross contamination.

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The Human Remains Decontamination System (HRDS) will provide standardized, joint, intra-theater capabilities for the recovery, transportation and handling of human remains contaminated with chemical, biological, and radiological hazards. The system will deliver the capability to safely handle and transport all decontaminated remains, regardless of contamination status, from an operational theater to the servicing mortuary in the Continental United States for final disposition.

B. Accomplishments/Planned Program

	<u>FY 2006</u>	<u>FY 2007</u>	<u>FY 2008</u>	<u>FY 2009</u>
HUMAN REMAINS DECON SYSTEM	0	0	1327	2568
RDT&E Articles (Quantity)	0	0	60	60

Accomplishments/Planned Program	FY2006	FY2007	FY2008	FY2009
HRDS - FY 08 - Complete Market Research. FY 08/09: Prepare and release solicitation and evaluate responses.	0	0	460	60
HRDS - FY 08/09 - Procure test articles (Contaminated Human Remains Pouches (CHRP): Remains Decontamination System (RDS): various quantity/various components (tents, roller assembly, sprayer, containers and contaminant bags)) to support Component Developmental Testing and System Integration and Reliability testing. (FY 08: 60 pouches at \$1K each for \$60K, FY 09: 60 pouches at \$1K each for \$60K).	0	0	100	400
HRDS - FY 08/09 - Conduct developmental testing of CHRP.	0	0	174	200
HRDS - FY 09 - Conduct developmental testing and analysis of RDS components against operational requirements, where existing data is not available. Verification of component interfaces. HRDS System level testing.	0	0	0	700
HRDS - FY 08/09 - Conduct engineering, testing, and logistics planning and documentation to support Milestone B, Milestone C, Full Rate Production Decision and fielding.	0	0	593	1208
Total	0	0	1327	2568

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	<u>FY 2006</u>	<u>FY 2007</u>	<u>FY 2008</u>	<u>FY 2009</u>
JOINT PLATFORM INTERIOR DECONTAMINATION	0	0	0	3255
RDT&E Articles (Quantity)	0	0	0	0

Accomplishments/Planned Program	FY2006	FY2007	FY2008	FY2009
JPID - FY 09 - Continue development of JMDS-TAC and JMDS-LPI initiated under ACD&P.	0	0	0	3255
Total	0	0	0	3255

	<u>FY 2006</u>	<u>FY 2007</u>	<u>FY 2008</u>	<u>FY 2009</u>
JOINT SERVICE PERSONNEL/SKIN DECONTAMINATION SYSTEM	3603	2025	0	0
RDT&E Articles (Quantity)	0	0	0	0

Accomplishments/Planned Program	FY2006	FY2007	FY2008	FY2009
JSPDS - FY 06 - Updated program documentation to support MS C full rate production decision, updated logistics support documentation including fielding plans, and began implementation of the support strategy identified by the Performance Based Logistics (PBL) and the Business Case Analysis (BCA).	548	0	0	0
JSPDS - FY 06 - Conducted Initial Operational Test and Evaluation (IOT&E) to support full rate production decision and conducted packaging retest of modified pouch packaging.	3055	0	0	0
JSPDS - FY 07 - Perform follow-on live agent testing with additional threat agents.	0	600	0	0
JSPDS - FY 07 - Perform shelf-life extension testing on decontaminants.	0	229	0	0

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Accomplishments/Planned Program (Cont):	FY2006	FY2007	FY2008	FY2009
JSPDS - FY 07 - Complete program documentation updates and obtain MS C full rate production decision. Transition to support strategy identified by the PBL BCA.	0	1196	0	0
Total	3603	2025	0	0

	<u>FY 2006</u>	<u>FY 2007</u>	<u>FY 2008</u>	<u>FY 2009</u>
JS SENSITIVE EQUIP DECON	1488	1234	4692	4477
RDT&E Articles (Quantity)	0	0	0	0

Accomplishments/Planned Program	FY2006	FY2007	FY2008	FY2009
JSSSED - FY 06 - Completed JMDS Wipe prototype and support package development.	1488	0	0	0
JSSSED - FY 07 - Award SDD contract for JSSSED.	0	1234	0	0
JSSSED- FY 08 - Initiate development of JSSSED prototype.	0	0	3250	0
JSSSED - FY 08/09 - Fabricate JSSSED prototype for contractor test.	0	0	1442	2270
JSSSED - FY 09 - Initiate JSSSED Developmental Test (DT).	0	0	0	2207
Total	1488	1234	4692	4477

	<u>FY 2006</u>	<u>FY 2007</u>	<u>FY 2008</u>	<u>FY 2009</u>
JOINT SERVICE TRANSPORTABLE DECONTAMINATION SYSTEM - SM	10266	7645	0	0
RDT&E Articles (Quantity)	40000	0	0	0

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Accomplishments/Planned Program	FY2006	FY2007	FY2008	FY2009
JSTDS-SS - FY 06 - Conducted Initial Operational Test and Evaluation (IOT&E) to support full rate production decision.	2294	0	0	0
JSTDS-SS - FY 06 - Procured decontaminant (40,000 gallons at \$26 per gallon, 1040K) and interim contractor logistics support for testing.	1400	0	0	0
JSTDS-SS - FY 06 - Updated program documentation, performed an independent logistics assessment, validated life cycle cost estimate and obtained full rate production decision.	1800	0	0	0
JSTDS-SS - FY 06 - Performed DT II which included live chemical and biological agent testing, extensive material compatibility and efficacy testing, environmental testing and shelf-life testing.	2267	0	0	0
JSTDS-SS - FY 06 - Conducted PBL and BCA to determine optimum logistics support strategy for the JSTDS-SS hardware and decontaminant(s). Updated logistics and training documentation based on test results. Prepared fielding plans. Developed and validated shelf life surveillance plan for JSTDS-SS decontaminant.	2505	0	0	0
JSTDS-SS - FY 07 - Perform extended live agent, toxic industrial material and material compatibility testing on the JSTDS-SS decontaminant to determine if objective capabilities can be met with existing decontaminant.	0	1209	0	0
JSTDS-SS - FY 07 - Update program, logistics and training documentation to reflect configuration changes, and test results. Prepare plans to modify fielded systems, as required.	0	1540	0	0
JSTDS-SS - FY 07 - Complete Initial Operational Test and Evaluation (IOT&E) to support full rate production decision.	0	4896	0	0
Total	10266	7645	0	0

	<u>FY 2006</u>	<u>FY 2007</u>	<u>FY 2008</u>	<u>FY 2009</u>
SBIR/STTR	0	106	0	0
RDT&E Articles (Quantity)	0	0	0	0

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Accomplishments/Planned Program	FY2006	FY2007	FY2008	FY2009
SBIR - FY 07 - Small Business Innovative Research.	0	106	0	0
Total	0	106	0	0

C. <u>Other Program Funding Summary:</u>										
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	<u>FY 2006</u>	<u>FY 2007</u>	<u>FY 2008</u>	<u>FY 2009</u>	<u>FY 2010</u>	<u>FY 2011</u>	<u>FY 2012</u>	<u>FY 2013</u>	<u>To Compl</u>	<u>Total Cost</u>
JD0055 JOINT SERVICE PERSONNEL/SKIN DECONTAMINATION SYSTEM (JSPDS)	0	11542	13011	0	0	0	0	0	0	24553
JD0056 JS TRANS DECON SYSTEM - SMALL SCALE (JSTDS-SS)	2911	7176	15628	22161	30474	34835	40346	17992	Cont	Cont
JD0058 JOINT PORTABLE DECONTAMINATION SYSTEM (JPDS)	0	0	0	0	0	4002	5014	4322	Cont	Cont
JD0060 JOINT PLATFORM INTERIOR DECONTAMINATION (JPID)	0	0	0	0	0	0	15102	31442	Cont	Cont
JD0061 JOINT SERVICE SENSITIVE EQUIPMENT DECON (JSSD)	0	0	0	5720	8837	8452	19915	23000	Cont	Cont
JD0062 HUMAN REMAINS DECON SYSTEM	0	0	0	0	1000	3458	3110	5000	Cont	Cont

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D. Acquisition Strategy:

HRDS	The HRDS program consists of an integration effort for the Remains Decontamination System (RDS) and a developmental effort for the Contaminated Human Remains Pouch (CHRP). The RDS is composed of components that are type classified in the military system or commercially available. These components will be procured thru existing supply channels or commercial item contracts. The Contaminated Human Remains Pouch will require developmental efforts and a competitive contract strategy will be used. Multiple candidates may be tested prior to awarding the production contract.
JPID	The Joint Platform Interior Decontamination Program will be acquired as part of an overarching Joint Material Decontamination System (JMDS) evolutionary acquisition strategy, which covers both the JPID and Joint Service Sensitive Equipment Decontamination (JSSED) programs. This strategy uses a single technology I to meet the sensitive equipment and platform interior requirements. JMDS variants will be implemented in phases to leverage off lessons learned in the development process and to expand the capabilities to meet the different operational requirements. Each design is based off previous effort expanded to meet different operational requirements. A JMDS wipe for removal of gross contamination will be included as an accessory for each of the JMDS variants.
JSPDS	The JSPDS program is implementing an evolutionary acquisition strategy using spiral and incremental development. The first increment will leverage Commercial off-the-Shelf (COTS) systems/Non-Developmental Items (NDI). This increment will increase the warfighter's capability and address near-term support issues with the M291 Skin Decontamination Kit (SDK). The follow-on efforts will focus on expanding the capabilities, such as increasing the agents the systems can decontaminate, and expanding mission sets. A full and open competition will be used to award a contract for Research and Development (R&D) efforts and initial procurement.
JSSED	The Joint Material Decontamination System (JMDS) program is implementing an evolutionary acquisition strategy. The JMDS program will use a single technology in multiple applications to meet the sensitive equipment and platform interior requirements. All three JMDS variants are implemented in phases to leverage off the lessons learned in the development process. JMDS - Sensitive Equipment Decontamination (SED) will start first followed by JMDS-TAC and JMDS-LPI. Each design is based off previous effort expanded to meet different operational requirements. All JMDS variants are support by a JMDS Wipe.

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JSTDS SS	The JSTDS Small-Scale program is implementing an evolutionary acquisition strategy using incremental and spiral development. Increment 1 will focus largely upon fielding hardware systems that improve upon the capability of the M17 Lightweight Decontamination System.	
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I. Product Development	Contract Method & Type	Performing Activity & Location	US NF CC	Total PYs Cost	FY2007 Cost	FY2007 Award Date	FY2008 Cost	FY2008 Award Date	FY2009 Cost	FY2009 Award Date	Cost to Complete	Total Cost	Target Value of Contract
HRDS													
HW C - Contaminated Human Remains Pouch (CHRP)	C/FPI	TBD	C	0	0	NONE	60	4Q FY08	60	3Q FY09	100	220	0
HW C - Remains Decontamination System (RDS) Components	MIPR	TBD	U	0	0	NONE	40	3Q FY08	340	1Q FY09	0	380	0
JPID													
HW C - Develop system capability	MIPR	TBD	U	0	0	NONE	0	NONE	1305	2Q FY09	0	1305	0
JSSSED													
HW S - Build JSSSED pre-clean kits	C/CPFF	TBD	C	800	200	1Q FY07	1442	NONE	2270	NONE	0	4712	0
Subtotal I. Product Development:					200		1542		3975		100	6617	

Remarks:

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II. Support Costs	Contract Method & Type	Performing Activity & Location	US NF CC	Total PYs Cost	FY2007 Cost	FY2007 Award Date	FY2008 Cost	FY2008 Award Date	FY2009 Cost	FY2009 Award Date	Cost to Complete	Total Cost	Target Value of Contract
HRDS													
ILS S - HRDS Logistics Planning	C/FFP	TBD	C	0	0	NONE	100	1Q FY08	300	1Q FY09	150	550	0
ILS S - HRDS Logistics Planning	MIPR	TBD	U	0	0	NONE	100	1Q FY08	222	1Q FY09	100	422	0
ILS S - HRDS Market Survey	C/FFP	TBD	C	0	0	NONE	93	1Q FY08	0	NONE	0	93	0
JSPDS													
ILS S - JSPDS Logistics studies	MIPR	TBD	U	100	400	1Q FY07	0	NONE	0	NONE	0	500	0
ILS S - JSPDS Logistics studies	C/CPFF	TBD	C	100	460	1Q FY07	0	NONE	0	NONE	0	560	0
JSSD													
ES S - Develop system	MIPR	TBD	U	0	0	NONE	3250	1Q FY08	0	NONE	0	3250	0
JSTDS SS													
TD/D S - JSTDS-SS - Update technical documentation	MIPR	TBD	U	555	932	1Q FY07	0	NONE	0	NONE	0	1487	0
Subtotal II. Support Costs:					1792		3543		522		250	6862	

Remarks:

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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	FY2007 Cost	FY2007 Award Date	FY2008 Cost	FY2008 Award Date	FY2009 Cost	FY2009 Award Date	Cost to Complete	Total Cost	Target Value of Contract
HRDS													
DTE S - HRDS Developmental Test Planning	C/FFP	TBS	C	0	0	NONE	160	1Q FY08	160	1Q FY09	160	480	0
OTE S - HRDS Operational Test Planning	MIPR	Army Test and Evaluation Command, Alexandria, VA	U	0	0	NONE	100	1Q FY08	199	1Q FY09	300	599	0
DTE C - RDS Developmental Testing	MIPR	TBD	U	0	0	NONE	24	3Q FY08	200	1Q FY09	0	224	0
DTE C - CHRP Developmental Test	MIPR	TBD	U	0	0	NONE	150	3Q FY08	150	1Q FY09	0	300	0
DTE S - HRDS Systems Level Testing	MIPR	TBD	U	0	0	NONE	0	NONE	450	2Q FY09	0	450	0
JSPDS													
DTE S - JSPDS Shelf life extension testing	MIPR	TBD	U	0	254	1Q FY07	0	NONE	0	NONE	0	254	0
DTE S - JSPDS Follow-on agent test	C/CPFF	Battelle, Columbus, OH	C	0	537	1Q FY07	0	NONE	0	NONE	0	537	0
JSSSED													
DTE S - JSSSED developmental test planning/execution	MIPR	AFOTEC, Kirtland AFB, NM	U	200	551	2Q FY07	0	NONE	2207	1Q FY09	0	2958	0
JSTDS SS													
OTE S - JSTDS-SS Initial Operational Test and Evaluation	MIPR	TBD	U	2294	4896	1Q FY07	0	NONE	0	NONE	0	7190	0

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CBDP PROJECT COST ANALYSIS (R-3 Exhibit)										DATE February 2007			
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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 - Cont.	Contract Method & Type	Performing Activity & Location	US NF CC	Total PYs Cost	FY2007 Cost	FY2007 Award Date	FY2008 Cost	FY2008 Award Date	FY2009 Cost	FY2009 Award Date	Cost to Complete	Total Cost	Target Value of Contract
DTE S - JSTDS-SS Decontaminant Shelf life extension testing	MIPR	TBD	U	200	200	1Q FY07	0	NONE	0	NONE	0	400	0
DTE S - JSTDS-SS Decontaminant testing of objective capabilities	MIPR	TBD	U	0	509	1Q FY07	0	NONE	0	NONE	0	509	0
DTE S - JSTDS-SS Decontaminant testing of objective capabilities	C/CPFF	Battelle, Columbus, OH	C	0	500	1Q FY07	0	NONE	0	NONE	0	500	0
Subtotal III. Test and Evaluation:					7447		434		3366		460	14401	

Remarks:

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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	FY2007 Cost	FY2007 Award Date	FY2008 Cost	FY2008 Award Date	FY2009 Cost	FY2009 Award Date	Cost to Complete	Total Cost	Target Value of Contract
HRDS													
PM/MS S - HRDS Program Office Support	C/FFP	TBD	C	0	0	NONE	180	2Q FY08	267	2Q FY09	280	727	0
PM/MS S - HRDS Program Office Staff/Management	MIPR	TBD	U	0	0	NONE	320	1Q FY08	220	1Q FY09	220	760	0
JPID													
PM/MS S - Start program management for LPI development	MIPR	TBD	U	0	0	NONE	0	NONE	1950	1Q FY09	0	1950	0
JSPDS													
PM/MS S - JSPDS Programmatic Support	C/CPFF	TBD	C	174	174	1Q FY07	0	NONE	0	NONE	0	348	0
PM/MS S - JSPDS Programmatic Support	MIPR	TBD	U	174	200	1Q FY07	0	NONE	0	NONE	0	374	0
JSSSED													
PM/MS S - JSSSED Service Integrated Product Team Support	MIPR	TBD	U	488	483	1Q FY07	0	NONE	0	NONE	0	971	0
JSTDS SS													
PM/MS S - JSTDS-SS Programmatic Support	C/CPFF	TBD	C	500	108	1Q FY07	0	NONE	0	NONE	0	608	0
PM/MS S - JSTDS-SS Programmatic Support	MIPR	TBD	U	500	500	1Q FY07	0	NONE	0	NONE	0	1000	0
ZSBIR													
SBIR/STTR - Aggregated from ZSBIR-SBIR/STTR	PO	HQ, AMC, Alexandria, VA		0	106	NONE	0	NONE	0	NONE	0	106	0

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CBDP PROJECT COST ANALYSIS (R-3 Exhibit)										DATE February 2007			
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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 - Cont.	Contract Method & Type	Performing Activity & Location	US NF CC	Total PYs Cost	FY2007 Cost	FY2007 Award Date	FY2008 Cost	FY2008 Award Date	FY2009 Cost	FY2009 Award Date	Cost to Complete	Total Cost	Target Value of Contract
Subtotal IV. Management Services:					1571		500		2437		500	6844	

Remarks:

TOTAL PROJECT COST:					11010		6019		10300		1310	34724	
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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

D. Schedule Profile (cont):

	FY 2006				FY 2007				FY 2008				FY 2009				FY 2010				FY 2011				FY 2012				FY 2013			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
JSSSED (Cont)																																
Phase 2 Pre-clean kit design and fabrication		2Q						4Q																								
Phase 2 Pre-clean kit testing DT/OT							3Q	4Q																								
Phase 2 MS C for Pre-clean kits									1Q																							
JMDS Wipe DT/OT					1Q						2Q																					
IPR JMDS Wipe											2Q																					
Production JMDS Wipe											3Q													2Q								
JMDS-SED SDD contract award								4Q																								
JMDS-SED design and development									1Q	2Q																						
JMDS-SED prototype fabrication and delivery										2Q		4Q																				
JMDS-SED DT													1Q			4Q																
JMDS-SED MS C for LRIP															3Q					3Q												
JMDS-SED OT																			3Q				1Q									
JMDS-SED FRP Decision																							1Q									
JMDS-SED production																							2Q									2Q
JMDS-SED IOC																								4Q								

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BUDGET ACTIVITY
RDT&E DEFENSE-WIDE/
BA5 - System Development and Demonstration (SDD)

PE NUMBER AND TITLE
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DE5

D. Schedule Profile (cont):

	FY 2006				FY 2007				FY 2008				FY 2009				FY 2010				FY 2011				FY 2012				FY 2013			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
JSSD (Cont)																																
JMDS-TAC SDD option award													3Q																			
JMDS-TAC prototype fabrication and delivery													3Q	4Q																		
JMDS-TAC DT															1Q	2Q																
JMDS-TAC IPR for LRIP															3Q																	
JMDS-TAC OT																	1Q	2Q														
JMDS-TAC FRP Decision																			3Q													
JMDS-TAC production																			4Q												3Q	
JMDS-TAC IOC																							2Q									
JMDS-LPI SDD option award															3Q																	
JMDS-LPI prototype fabrication and delivery															3Q	4Q																
JMDS-LPI DT																	1Q	2Q														
JMDS-LPI IPR for LRIP																			3Q													
JMDS-LPI OT																							1Q	2Q								
JMDS-LPI FRP Decision																							3Q									
JMDS-LPI production																							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**
DE5

D. Schedule Profile (cont):

	FY 2006				FY 2007				FY 2008				FY 2009				FY 2010				FY 2011				FY 2012				FY 2013			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
JSSD (Cont)																																
JMDS-LPI IOC																																2Q
JSTDS SS																																
MS C (LRIP)				3Q																												
DT II		1Q		4Q																												
Develop decontaminant shelf life surveillance program		1Q		4Q																												
IOT&E						1Q																										
Full Rate Production							2Q																									4Q
Live Agent Testing						1Q		4Q																								

CBDP BUDGET ITEM JUSTIFICATION SHEET (R-2a Exhibit)	DATE February 2007
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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 2006 Actual	FY 2007 Estimate	FY 2008 Estimate	FY 2009 Estimate	FY 2010 Estimate	FY 2011 Estimate	FY 2012 Estimate	FY 2013 Estimate	Cost to Complete	Total Cost
IP5 INDIVIDUAL PROTECTION (SDD)	19533	17610	12881	2509	0	0	0	0	0	52533

A. Mission Description and Budget Item Justification:

Project IP5 INDIVIDUAL PROTECTION (SDD): This project funds System Demonstration and Development (SDD) of individual protection equipment, such as the Joint Service Lightweight Integrated Suit Technology (JSLIST) ensemble, aimed at increasing individual protection levels while reducing physiological and logistical burdens. 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.

Efforts funded in this program include:

(1) The Joint Service Aircrew Mask (JSAM) is an incrementally developed Acquisition Category (ACAT) III program being conducted in two or more increments. The first increment addresses the majority of the Department of Defense's (DoD's) rotary wing aircraft (Type I) and the Integrated Helmet and Display Sight System (IHADSS) system (Type IA). The second increment addresses fixed wing aircraft (Type II) and unique Helmet Mounted Display (HMD) variants, such as the Top Owl (Type IB). The goal of JSAM 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 all Army, Air Force, Navy and Marine rotary and fixed-wing aircrew members. It 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. JSAM will be compatible with all below-the-neck CB ensembles and existing aircrew life support equipment. It will include a protective hood assembly, CB filter, blower assembly, and an intercom for ground communication. It will provide flame and thermal protection, provide hypoxia protection to 60,000 feet, demist/emergency demist and anti-drown features. Some variants will be capable of being donned in flight.

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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) JSLIST Performance Enhancement (JPE) improves upon the JSLIST in use by U.S. ground and shipboard forces. The goal is to eliminate 1) the capability gaps for JSLIST identified by the Joint Requirement Office, 2) the commonly known vulnerabilities for JSLIST, and 3) to use JSLIST Operation Iraq Freedom (OIF) lessons learned to improve upon CB suit capabilities. The effort will include design improvements to reduce weight, bulk, and heat stress. A single camouflage pattern for the suit is advocated in order to increase inventory efficiency and to reduce operational risk.

B. Accomplishments/Planned Program

	<u>FY 2006</u>	<u>FY 2007</u>	<u>FY 2008</u>	<u>FY 2009</u>
JS AIRCREW MASK (JSAM)	14475	16092	12881	2509
RDT&E Articles (Quantity)	274	250	0	0

Accomplishments/Planned Program	FY2006	FY2007	FY2008	FY2009
JSAM - FY 06 - Continued planning of Development Test (DT) and Operational Test (OT) activities for Rotary Wing (Type I), Integrated Helmet and Display Sighting System (IHADSS) Apache (Type IA), Fixed Wing (Type II) variants and unique Helmet Mounted Display (HMD) systems such as Top Owl (Type IB). Initiated DT for Types I & IA utilizing 169 Rotary Wing assets at \$2,802 average unit cost and 105 IHADSS JSAM assets at \$3,520 average unit cost. FY 07 - Complete DT and initiate/complete OT for Types I & IA. Initiate DT for Types II & IB utilizing 175 Fixed Wing assets at \$3,180 average unit cost and 75 Top Owl JSAM assets at \$3,395 average unit cost. FY 08 - Complete DT and initiate OT for Types II & IB. FY 09 - Complete OT for Types II & IB.	5824	9633	6662	429
JSAM - FY 06 - Continue contract and government program management, logistics and sustainment planning. FY 07 - Complete Milestone C documentation for Types I & IA. FY 08/09 - Complete Milestone C documentation for Types II & IB. Conduct FRP decision process for Types II & IB.	4593	4195	4360	1600

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Accomplishments/Planned Program (Cont):	FY2006	FY2007	FY2008	FY2009
JSAM - FY 06/07/08/09 - Continue system design, engineering and fabrication activities on all required variants; continue to develop production processes and ensure tooling and equipment are adequate to fabricate production units.	4058	2264	1859	480
Total	14475	16092	12881	2509

	<u>FY 2006</u>	<u>FY 2007</u>	<u>FY 2008</u>	<u>FY 2009</u>
PROTECTIVE CLOTHING (JSLIST)	5058	1347	0	0
RDT&E Articles (Quantity)	0	0	0	0

Accomplishments/Planned Program	FY2006	FY2007	FY2008	FY2009
JSLIST - FY 06 - Completed DT/OT test and evaluation of multiple ensemble components.	2100	0	0	0
JSLIST - FY 06 - Completed RFI evaluation for footwear and testing for SOCOM unique footwear.	201	0	0	0
JSLIST - FY 06 - Conducted producibility/reproducibility production base analysis. This effort included all configuration management work and the work necessary to ensure that the design is producible (and reproducible with minimum variance) with new production methodologies.	800	0	0	0
JSLIST - FY 06 - Purchased prototypes and conducted initial design screening tests. This screening test allowed for informed design selection decisions.	657	0	0	0
JSLIST - FY 06 - Initiated design of a new lightweight protective seven day suit to support Special Forces operational requirements.	1300	0	0	0
JSLIST - FY 07 - Conduct JPE design field testing.	0	397	0	0
JSLIST - FY 07 - Conduct mission DT and Field User Evaluations (FUE) for JPE with service personnel performing specific job specialties while wearing production representative suits.	0	850	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 IP5		
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Accomplishments/Planned Program (Cont):	FY2006	FY2007	FY2008	FY2009
JSLIST - FY 07 - Purchase production representative JPE necessary for all FUE.	0	100	0	0
Total	5058	1347	0	0

	<u>FY 2006</u>	<u>FY 2007</u>	<u>FY 2008</u>	<u>FY 2009</u>
SBIR/STTR	0	171	0	0
RDT&E Articles (Quantity)	0	0	0	0

Accomplishments/Planned Program	FY2006	FY2007	FY2008	FY2009
SBIR - FY 07 - Small Business Innovative Research.	0	171	0	0
Total	0	171	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 IP5
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C. <u>Other Program Funding Summary:</u>	<u>FY 2006</u>	<u>FY 2007</u>	<u>FY 2008</u>	<u>FY 2009</u>	<u>FY 2010</u>	<u>FY 2011</u>	<u>FY 2012</u>	<u>FY 2013</u>	<u>To Compl</u>	<u>Total Cost</u>
IP7 INDIVIDUAL PROTECTION OPERATIONAL SYS DEV	0	0	0	2240	4436	4837	5380	4203	Cont	Cont
JI0002 JT SVC AIRCREW MASK (JSAM)	700	7970	21736	39175	15852	0	0	0	0	85433
JI0003 JOINT SERVICE GENERAL PURPOSE MASK (JSGPM/JSCESM)	27779	32243	45842	42963	42095	42774	44525	49611	Cont	Cont
JI0015 JOINT PROTECTIVE AIRCREW ENSEMBLE (JPACE)	23808	0	11027	0	0	0	0	0	0	34835
JSM001 JOINT SERVICE MASK LEAKAGE TESTER (JSMLT)	9258	4934	9921	0	0	0	0	0	0	24113
MA0400 PROTECTIVE CLOTHING	37135	31277	39011	36838	27451	18141	18485	9582	Cont	Cont

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D. Acquisition Strategy:

JSAM	<p>The JSAM program acquisition strategy for full and open competition for a Systems Development and Demonstration (SDD) contract, with follow-on production options, was conducted IAW FAR 15 (as supplemented). The initial contract was awarded on November 26, 2002 to Scott Aviation, now AVOX Systems, Inc. (a.k.a. AVOX).</p> <p>Due to contractual issues, on September 1, 2004 the JSAM contract was restructured from an all-encompassing, multi-variant development to an incremental variant development. In November 2004, the JPEO approved the program rebaseline that utilized this approach. The revised Acquisition Program Baseline Agreement (APBA) identifies Increment 1 as the Rotary Wing (RW) and Integrated Helmet and Display Sighting System (IHADSS or Apache) variant, developed and produced by AVOX. RW/IHADSS will be fielded first. Appropriate production options will be exercised.</p> <p>Increment 2 is the Fixed Wing (FW) variant; Increment 3 is the Top Owl (TO) variant. Due to mounting RW/IHADSS contract issues, the Fixed Wing (FW) and Top Owl (TO) development efforts were recompeted. The FW/TO development contract (with production options) was awarded 13 April 2006 to GENTEX Respiratory Products.</p> <p>Cost, schedule and performance is the key to program success. This acquisition strategy supports the Government's intent to continue pursuing competition and reduce program risk.</p>
PROT CLTH	<p>The JSLIST acquisition strategy employs an evolutionary approach, any deficiencies found in the JSLIST ensemble will be addressed to support the warfighters' mission and capabilities requirements using competitive material search.</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 IP5
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I. Product Development	Contract Method & Type	Performing Activity & Location	US NF CC	Total PYs Cost	FY2007 Cost	FY2007 Award Date	FY2008 Cost	FY2008 Award Date	FY2009 Cost	FY2009 Award Date	Cost to Complete	Total Cost	Target Value of Contract
JSAM													
HW S - Contractor Development Types I/IA	C/CPAF	AVOX, Lancaster, NY	C	21048	347	2Q FY07	0	NONE	0	NONE	0	21395	7209
SW SB - Contractor Development Type II/Top Owl	C/FPI	Gentex, Rancho Cucamonga, CA	C	2183	583	2Q FY07	1182	2Q FY08	176	2Q FY09	0	4124	0
Subtotal I. Product Development:					930		1182		176		0	25519	

Remarks:

II. Support Costs	Contract Method & Type	Performing Activity & Location	US NF CC	Total PYs Cost	FY2007 Cost	FY2007 Award Date	FY2008 Cost	FY2008 Award Date	FY2009 Cost	FY2009 Award Date	Cost to Complete	Total Cost	Target Value of Contract
JSAM													
TD/D SB - JSAM Logistics, Training, and Data	C/CPAF	AVOX, Lancaster, NY	C	1651	1104	2Q FY07	0	NONE	0	NONE	10	2765	188
TD/D SB - TD/D SB - JSAM Logistics, Training, and Data	C/FPI	Gentex, Rancho Cucamonga, CA	C	215	1063	2Q FY07	2677	2Q FY08	1093	2Q FY09	0	5048	0
Subtotal II. Support Costs:					2167		2677		1093		10	7813	

Remarks:

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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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IV. Management Services	Contract Method & Type	Performing Activity & Location	US NF CC	Total PYs Cost	FY2007 Cost	FY2007 Award Date	FY2008 Cost	FY2008 Award Date	FY2009 Cost	FY2009 Award Date	Cost to Complete	Total Cost	Target Value of Contract
JSAM													
PM/MS C - Program Management/Management Support	MIPR	Various	U	9705	2747	2Q FY07	2368	2Q FY08	829	2Q FY09	0	15649	2420
PM/MS S - Contractor Program Management	C/CPAF	AVOX, Lancaster, NY	C	4113	944	2Q FY07	0	NONE	0	NONE	0	5057	1163
PM/MS S - Contractor Program Management	C/FPI	Gentex, Rancho Cucamonga, CA	C	648	389	2Q FY07	1007	2Q FY08	148	2Q FY09	179	2371	0
ZSBIR													
SBIR/STTR - Aggregated from ZSBIR-SBIR/STTR	PO	HQ, AMC, Alexandria, VA		0	171	NONE	0	NONE	0	NONE	0	171	0
Subtotal IV. Management Services:					4251		3375		977		179	23248	

Remarks:

TOTAL PROJECT COST:					17610		12881		2509		11409	108458	
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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

D. <u>Schedule Profile:</u>	FY 2006				FY 2007				FY 2008				FY 2009				FY 2010				FY 2011				FY 2012				FY 2013					
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4		
JSAM																																		
SDD	>>	—————												4Q																				
Types I/IA Development Test Readiness Review (DTRR)	>>	2Q																																
MS C/FRP Decision Type 1A							3Q																											
MS C/FRP Decision Type 1								1Q																										
Fixed Wing (FW, Type II) DTRR							4Q	— 2Q																										
FW, Type II Milestone C											4Q																							
FW, Type II FRP Decision												3Q																						
Top Owl (TO, Type IB) DTRR											3Q																							
Top Owl FRP Decision															4Q																			
PROT CLTH																																		
JSLIST - Overgarment Production	>>	—————												4Q																				
JSLIST - Block II Glove Conduct Developmental Test (DT)/Operational Test (OT)	>>	—————												4Q																				
JSLIST - Block II Glove MS C							1Q																											
JSLIST - Developmental Test (DT)/Operational Test (OT) IFS	>>	—————												4Q																				

Exhibit R-4a, Schedule Profile	DATE February 2007
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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. <u>Schedule Profile (cont):</u>	FY 2006				FY 2007				FY 2008				FY 2009				FY 2010				FY 2011				FY 2012				FY 2013			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
PROT CLTH (Cont)																																
JSLIST - Milestone C IFS					1Q																											
JSLIST - Initial Operational Test and Evaluation (IOT&E) and DT (AFS)	>>			4Q																												
JSLIST - Milestone C AFS					2Q																											
JSLIST - Performance Enhancement Initiation - Overgarment				2Q																												
JSLIST - Performance Enhancement DT - Overgarment					1Q			3Q																								
JSLIST - Performance Enhancement FUE - Overgarment								4Q																								

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CBDP BUDGET ITEM JUSTIFICATION SHEET (R-2a Exhibit)	DATE February 2007
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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 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	Cost to	Total Cost
	Actual	Estimate	Complete							
IS5 INFORMATION SYSTEMS (SDD)	74728	24951	47465	39453	27610	17652	14893	25293	Continuing	Continuing

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 will be DoD's only accredited model for predicting hazards associated with the release of contaminants into the environment. JEM will be developed in separate increments and will be 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 will operate 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.

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 JWARN will provide standard integration and analysis of NBC detection information with C4ISR on the battlefield automating the NBC warning and reporting processes currently performed manually throughout the Services. The JWARN will collectively consist of Commercial off-the-shelf (COTS) materiel and JWARN software for C4ISR. JWARN is being developed for deployment with NBC detectors in the following battlefield applications: combat and armored vehicles, tactical vehicles, vans, shelters, shipboard application, area warning, semi-fixed sites, and fixed sites. JWARN ID was the initial acquisition and fielding of COTS and Government off-the-shelf (GOTS) software to standardize NBC warning and reporting throughout the Armed Forces. JWARN will provide automatic NBC message capability at the Global Command and Control System (GCCS) level. JWARN will integrate NBC legacy and future detector systems, NBC Warning and Reporting software modules, and NBC battle space management modules in the Joint Services C4I systems. In addition to JWARN development, a JWARN Initial Capability (JIC) will be developed and provided to warfighters in order to support refinement of Service CONOPS and provide feedback to the JWARN developer. Pre-Planned Product Improvements (P3I) will investigate new detectors/sensors and software changes to Service C4I systems.

The JPEO-CBD SSA is a JPEO-CBD user developmental support and service organization supporting all JPMs and JPEO-CBD Directorates, and providing enterprise-wide services and coordination to facilitate net-centric interoperability. The SSA provides the CBRN Warfighter with Joint service solutions for 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.

B. Accomplishments/Planned Program

	<u>FY 2006</u>	<u>FY 2007</u>	<u>FY 2008</u>	<u>FY 2009</u>
JOINT EFFECTS MODEL	20996	1730	14654	14884
RDT&E Articles (Quantity)	0	0	0	0

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CBDP BUDGET ITEM JUSTIFICATION SHEET (R-2a Exhibit)		DATE February 2007			
BUDGET ACTIVITY	PE NUMBER AND TITLE	PROJECT			
RDT&E DEFENSE-WIDE/ BA5 - System Development and Demonstration (SDD)	0604384BP CHEMICAL/BIOLOGICAL DEFENSE (SDD)	IS5			
Accomplishments/Planned Program	FY2006	FY2007	FY2008	FY2009	
JEM - FY 06 - Completed software development, migration and integration. Merged legacy hazard prediction models (HPAC, VLSTrack and D2Puff) into JEM baseline and architecture. Performed software development to enable JEM to operate on Windows (2000 and XP) as well as Service C4I systems (GCCS-J, GCCS-M, C2PC, etc). Developed appropriate interfaces with JWARN to ensure interoperability. Developed a net-centric, web-based application.	8558	0	0	0	
JEM - FY 06 - Conducted Operational Assessments (OA) with the Service Operational Test Agencies (OTA). Prepared for independent operational test and evaluation.	623	0	0	0	
JEM - FY 06 - Performed Development Test (DT). Confirmed that JEM transitioned legacy S&T code correctly and conducted test in support of accreditation and operational test. Completed interoperability, network and system security certifications on 12 different service C4I/host systems and three computer operating systems (Windows 2000, XP, and UNIX).	2987	0	0	0	
JEM - FY 06 - Conducted Milestone C. Finalized computer Based Training (CBT) and courseware. Completed infrastructure and stand up of software support capability and 24/7 capable Help Desk. Developed deployment plan for JEM software to include training.	2856	0	0	0	
JEM - FY 06/08/09 - Support operational demonstrations and exercises.	47	0	46	48	
JEM - FY 06/07/08/09 - Conduct independent verification, validation, and accreditation of JEM software and models.	1058	155	290	842	
JEM - FY 06/07/08/09 - Complete System Engineering Tasks to include requirements analysis, architecture analysis, configuration management, human-system integration, security analysis, and DoD architecture artifact development.	2300	373	781	468	
JEM - FY 06/07/08/09 - Continue JEM program financial management, scheduling, planning and reporting.	2567	597	1856	1912	
JEM - FY 07/08/09 - Perform software maintenance on existing JEM baseline. Provide JEM upgrades 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), etc).	0	605	2247	2387	
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CBDP BUDGET ITEM JUSTIFICATION SHEET (R-2a Exhibit)		DATE February 2007
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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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Accomplishments/Planned Program (Cont):	FY2006	FY2007	FY2008	FY2009
JEM - FY 08 - Conduct Follow-on Test and Evaluation (FOT&E).	0	0	1213	0
JEM - FY 08 - Revalidate Increment 2 technology analysis from FY04, develop prototype options for down-select and prepare for Increment 2 Milestone B.	0	0	200	0
JEM - FY 08/09 - Science and Technology transition and development of JEM Increment 2 software. Analysis of existing and future software architecture. Migration of 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.	0	0	6025	6299
JEM - FY 08/09 - Conduct OA with the service OTAs. Prepare for independent operational test and evaluation.	0	0	1000	1030
JEM - FY 08/09 - Perform DT. Confirm that 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).	0	0	590	1345
JEM - FY 08/09 - Update Computer Based Training (CBT), instructor lead training and courseware. Update infrastructure and software support capability. Update deployment plan and other applicable supporting documentation for JEM.	0	0	406	553
Total	20996	1730	14654	14884

	<u>FY 2006</u>	<u>FY 2007</u>	<u>FY 2008</u>	<u>FY 2009</u>
JOINT OPERATIONAL EFFECTS FEDERATION	16234	8078	4814	4731
RDT&E Articles (Quantity)	0	0	121	1085

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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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Accomplishments/Planned Program	FY2006	FY2007	FY2008	FY2009
JOEF - FY 06/07/08/09 - Provide Program Management Support, including Systems Engineering, Warfighter, Test and Evaluation, and Integrated Logistics Support Integrated Project Teams.	3227	1819	1090	1024
JOEF - FY 06/07/08/09 - 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) and Command and Control Personal Computer (C2PC) interfaces.	3652	1601	787	649
JOEF - FY 06/07/08/09 - Develop mobile force capability to meet Service requirements.	2146	1597	742	593
JOEF - FY 06/07/08/09 - Develop and test interoperability of JOEF software with required systems.	3801	1665	687	628
JOEF - FY 06/07/08/09 - Plan and conduct developmental and operational testing.	1443	633	815	1022
JOEF - FY 06/07/08/09 - Plan and provide Integrated Logistics Support, including training, to the JOEF system.	396	151	183	105
JOEF - FY 06/07/08/09 - Plan and conduct software validation and verification.	133	94	177	410
JOEF - FY 06/07/08/09 - Continue the integration with JEM, JWARN and database management systems.	1436	518	333	300
Total	16234	8078	4814	4731

	<u>FY 2006</u>	<u>FY 2007</u>	<u>FY 2008</u>	<u>FY 2009</u>
JOINT WARNING & REPORTING NETWORK (JWARN)	33119	14903	23919	16686
RDT&E Articles (Quantity)	0	0	0	0

Accomplishments/Planned Program	FY2006	FY2007	FY2008	FY2009
JWARN - FY 06 - Developed the Joint Component Interface Device (JCID) wired, stand-alone variant.	5165	0	0	0
JWARN - FY 06 - Conducted JCID acceptance tests.	2995	0	0	0

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BUDGET ACTIVITY	PE NUMBER AND TITLE	PROJECT			
RDT&E DEFENSE-WIDE/ BA5 - System Development and Demonstration (SDD)	0604384BP CHEMICAL/BIOLOGICAL DEFENSE (SDD)	IS5			
Accomplishments/Planned Program (Cont):					
		FY2006	FY2007	FY2008	FY2009
JWARN - (T&E Capability) - FY 06 - Developed a high bandwidth data transfer backbone to transmit and integrate test data for rapid analysis across multiple users and test sites.		1000	0	0	0
JWARN - FY 06 - Conducted Increment 2 Interoperability Tests (IOT).		3000	0	0	0
JWARN - FY 06 - Designed and integrated JCID functionality.		2500	0	0	0
JWARN - FY 06/07 - Conduct Multi-Service Operational Test & Evaluation (MOT&E) event planning.		1502	750	0	0
JWARN - FY 06/07/08/09 - Conduct Increment 2 Developmental Test (DT).		1817	1520	2100	1515
JWARN - FY 06/07/08/09 - Generate comprehensive DT test results reports.		602	350	425	375
JWARN - FY 06/07/08/09 - Continue JWARN program management and oversight.		2277	1972	2051	2310
JWARN - FY 06/07/08/09 - Design, Develop, and integrate software and hardware for a Functional Operational Test (FOT) Simulator demonstration system.		2000	190	175	160
JWARN - FY 06/07/08/09 - Complete Increment 1 development and Increment 2 planning and development.		7594	3095	7750	4500
JWARN - FY 06/07/08/09 - Conduct demonstrations and exercises.		130	60	50	70
JWARN - FY 06/07/08/09 - Develop Network Centric Enterprise Services (NCES)/Net Ready (NR)/Key Performance Parameters (KPP) enhancements.		2102	1000	1500	1000
JWARN - FY 06/07/08/09 - Develop the wireless JCID as required by the services Urgent Needs Statement (UNS).		435	950	1250	2603
JWARN - FY 07 - Conduct JCID First Article Test (FAT).		0	220	0	0
JWARN - FY 07 - Conduct Milestone C review.		0	940	0	0
JWARN - FY 07 - Coordinate JCID Low Rate Initial Production (LRIP).		0	593	0	0
JWARN - FY 07/09 - Conduct Increment 2 Operational Assessment (OA) 1 & 2.		0	1741	0	2750
JWARN - FY 07/09 - Generate comprehensive OA 1 & 2 reports.		0	527	0	550
JWARN - FY 07/08 - Conduct MOT&E.		0	995	4600	0
JWARN - FY 08 - Generate MOT&E test results and reports.		0	0	525	0
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Accomplishments/Planned Program (Cont):	FY2006	FY2007	FY2008	FY2009
JWARN - FY 08 - Conduct Functional Qualification Test (FQT).	0	0	2968	0
JWARN - FY 08 - Generate FQT test results and reports.	0	0	525	0
JWARN - FY 09 - Coordinate JCID Full Rate Production.	0	0	0	853
Total	33119	14903	23919	16686

	<u>FY 2006</u>	<u>FY 2007</u>	<u>FY 2008</u>	<u>FY 2009</u>
SOFTWARE SUPPORT ACTIVITY	4379	0	4078	3152
RDT&E Articles (Quantity)	0	0	0	0

Accomplishments/Planned Program	FY2006	FY2007	FY2008	FY2009
SSA - FY 06 - Established SSA Charter, Management Plans, Processes and Procedures.	335	0	0	0
SSA - FY 06/08/09 - Provide Policies, Standards & Guidelines for IT Systems Development.	292	0	312	267
SSA - FY 06/08/09 - Develop and maintain a Validated Technical C4I Architecture for JPEO CBD.	632	0	651	482
SSA - FY 06/08/09 - Provide Support Services for Architecture, Data, Help Desk, Integration & Test, and Standards and Policies.	899	0	604	378
SSA - FY 06/08/09 - Support Common Data Model Development for the CBRN Community.	404	0	396	388
SSA - FY 06/08/09 - Develop and maintain Enterprise IT Support Plan.	174	0	176	237
SSA - FY 06/08/09 - Establish and provide assistance services for developing JPEO-CBD programs.	547	0	626	468
SSA - FY 06/08/09 - Establish and maintain an Information Assurance System Certification Testing and Evaluation Program for the JPEO-CBD Enterprise.	404	0	476	308

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Accomplishments/Planned Program (Cont):	FY2006	FY2007	FY2008	FY2009
SSA - FY 06/08/09 - Establish and maintain a repository for applicable Enterprise policies, standards, and guidelines.	52	0	51	78
SSA - FY 06/08/09 - Establish and provide Technology Transition Support Services.	149	0	234	198
SSA - FY 06/08/09 - Establish Enterprise VV&A guidelines and provide process assistance.	491	0	552	348
Total	4379	0	4078	3152

	<u>FY 2006</u>	<u>FY 2007</u>	<u>FY 2008</u>	<u>FY 2009</u>
SBIR/STTR	0	240	0	0
RDT&E Articles (Quantity)	0	0	0	0

Accomplishments/Planned Program	FY2006	FY2007	FY2008	FY2009
SBIR - FY 07 - Small Business Innovative Research.	0	240	0	0
Total	0	240	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 IS5
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C. <u>Other Program Funding Summary:</u>	<u>FY 2006</u>	<u>FY 2007</u>	<u>FY 2008</u>	<u>FY 2009</u>	<u>FY 2010</u>	<u>FY 2011</u>	<u>FY 2012</u>	<u>FY 2013</u>	<u>To Compl</u>	<u>Total Cost</u>
G47101 JOINT WARNING & REPORTING NETWORK (JWARN)	6112	6517	6744	6944	6628	7000	8200	5679	Cont	Cont
JC0208 JOINT EFFECTS MODEL (JEM)	1996	2050	3534	4394	0	0	0	0	0	11974
JC0209 JOINT OPERATIONAL EFFECTS FEDERATION (JOEF)	0	0	3611	3328	3523	0	0	0	0	10462

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 will be fielded in increments of capabilities. Each increment will retain the functionality of the preceding increment. JEM is expected to develop 3 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 is planned for the follow-on JEM contract for integration and development.

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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
JWARN	<p>The Joint Warning and Reporting Network (JWARN) revised Acquisition Strategy (AS) is based on the contract awarded on July 15, 2003 to Northrop Grumman - Information Technology and updates key program milestones and events accordingly. The revised AS accelerates the development effort to provide a JWARN Initial Capability (JIC) providing a limited, end-to-end JWARN capability to the warfighter by 1QFY05. This acceleration will be accomplished by leveraging the technology of an extant end-to-end JIC. The JIC was completed early in the contract cycle, was demonstrated in 2QFY04, and will be made available to key users by 1QFY05. Usage of this initial integrated capability by the warfighter will generate operational feedback to the JWARN developer and provide a venue to validate and refine Measures of Performance (MOPs) and Measures of Effectiveness (MOEs). Further, it will provide 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 a single increment JWARN-Full Capability (JWARN-FC) system vice development in two separate Blocks. This acceleration is achieved thru the concurrent integration of sensor connectivity initially planned for Increment 3. The revised strategy eliminates the Increment 2 Milestone Decision process as well as the Increment 2 Development Testing/Operational Assessment (DT/OA). This shortens the delivery schedule for the full capability of JWARN by approximately 12 months.</p>	
SSA	<p>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> <p>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] .</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 IS5
<p>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].</p> <p>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].</p>		
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I. Product Development	Contract Method & Type	Performing Activity & Location	US NF CC	Total PYs Cost	FY2007 Cost	FY2007 Award Date	FY2008 Cost	FY2008 Award Date	FY2009 Cost	FY2009 Award Date	Cost to Complete	Total Cost	Target Value of Contract
JEM													
SW SB - JEM Hazard Prediction Model Development and Integration	C/CPAF	TBD	C	6815	605	2Q FY07	8272	2Q FY08	8686	2Q FY09	0	24378	0
JOEF													
SW S - Engineering Builds - Development, Design, Coding	C/CPIF	Cubic Applications, Lacy, WA	C	9701	4863	2Q FY07	2136	2Q FY08	1574	2Q FY09	0	18274	0
SW S - Integration & Interoperability	MIPR	Various	U	3742	518	2Q FY07	333	2Q FY08	266	2Q FY09	0	4859	0
JWARN													
SW S - JWARN System Development and Demonstration	C/FPI	Northrop Grumman - Winterpark, FL	C	29522	5895	2Q FY07	0	NONE	0	NONE	0	35417	0
SW S - JWARN System Development and Demonstration	C/CPIF	TBD	C	0	0	NONE	4000	2Q FY08	3417	2Q FY09	0	7417	0
SSA													
Product Development	MIPR	SPAWAR Systems Center, San Diego, CA	U	1231	0	NONE	1328	1Q FY08	1062	1Q FY09	0	3621	0
Subtotal I. Product Development:					11881		16069		15005		0	93966	

Remarks:

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CBDP PROJECT COST ANALYSIS (R-3 Exhibit)	DATE February 2007
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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	FY2007 Cost	FY2007 Award Date	FY2008 Cost	FY2008 Award Date	FY2009 Cost	FY2009 Award Date	Cost to Complete	Total Cost	Target Value of Contract
JEM													
DTE S - Hazard Prediction Model Developmental Test	MIPR	Various	U	4194	0	NONE	590	1Q FY08	1345	1Q FY09	0	6129	0
OTE S - Hazard Prediction Model Developmental Test	MIPR	Various	U	1147	0	NONE	2213	2Q FY08	1030	2Q FY09	0	4390	0
OTHT S - Hazard Prediction Model - IV&V	MIPR	Various	C	1221	155	2Q FY07	290	2Q FY08	842	2Q FY09	0	2508	0
JOEF													
DTE S - Developmental Test Planning	MIPR	Various	U	2378	603	2Q FY07	541	2Q FY08	614	2Q FY09	0	4136	0
OTHT S - JOEF Independent Verification and Validation	MIPR	Various	C	338	93	2Q FY07	176	2Q FY08	349	2Q FY09	0	956	0
OTE S - Operational Test Planning	MIPR	TBD	U	0	31	1Q FY07	272	1Q FY08	298	1Q FY09	0	601	0
JWARN													
OTHT SB - JWARN Block II Development Test	MIPR	Various	U	9387	5695	2Q FY07	10051	2Q FY08	6275	2Q FY09	0	31408	0
SSA													
Test and Evaluation	MIPR	SPAWAR Systems Center, San Diego, CA	U	895	0	NONE	1028	1Q FY08	656	1Q FY09	0	2579	0
Subtotal III. Test and Evaluation:					6577		15161		11409		0	52707	

Remarks:

Project IS5/Line No: 104

Exhibit R-4a, Schedule Profile

DATE
February 2007

BUDGET ACTIVITY
**RDT&E DEFENSE-WIDE/
BA5 - System Development and Demonstration (SDD)**

PE NUMBER AND TITLE
0604384BP CHEMICAL/BIOLOGICAL DEFENSE (SDD) PROJECT
IS5

D. <u>Schedule Profile:</u>	FY 2006				FY 2007				FY 2008				FY 2009				FY 2010				FY 2011				FY 2012				FY 2013								
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4					
JEM																																					
Increment 1 - Software Development	>>			4Q																																	
Increment 1 - Developmental Test (DT) (Contr)	>>			4Q																																	
Increment 1 - DT (Government)	>>	—————																																			
Increment 1 - Software Maintenance	>>	—————																																			
Increment 1 - Establish, Train, Stand Up Software Support Capability	>>			3Q																																	
Increment 1 - M/S C								4Q																													
Increment 1 - Production and Deployment								4Q	—————																												
Increment 1 - Limited Deployment Phase								4Q	—————																												
Increment 1 - Operational Testing (OT)								4Q																													
Increment 1 - Initial Operational Capability (IOC)												2Q	—————																								
Increment 1 - Full Rate Production												2Q	—————																								
Increment 1 - Follow-on Test and Evaluation												3Q	—————							2Q																	
Increment 2 - Software Development									1Q	—————																											
Increment 2 - DT (Cont)												3Q	—————							2Q																	

Exhibit R-4a, Schedule Profile

DATE
February 2007

BUDGET ACTIVITY
**RDT&E DEFENSE-WIDE/
BA5 - System Development and Demonstration (SDD)**

PE NUMBER AND TITLE
0604384BP CHEMICAL/BIOLOGICAL DEFENSE (SDD) PROJECT
IS5

D. <u>Schedule Profile (cont):</u>	FY 2006				FY 2007				FY 2008				FY 2009				FY 2010				FY 2011				FY 2012				FY 2013			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
JEM (Cont)																																
Increment 2 - DT (Government)									3Q							2Q																
JOEF																																
Prototype Development	1Q																															
Focused Technology Assessment III (Mobile Forces & Bus. Process Mgt. Models)	1Q																															
Increment 1 - Milestone B	1Q																															
Increment 1 - Award Systems Development and Demonstration (SDD) Contract		2Q																														
Increment 1 - Software Development		2Q						3Q																								
Increment 1 - Tech Reviews		2Q							1Q																							
Increment 1 - DT Build 1					1Q																											
Increment 1 - Operational Assessment								4Q																								
Increment 1 - DT Build 2							3Q																									
Increment 1 - Multi Operational Test & Evaluation (MOTE)									2Q																							
Increment 1 - Milestone C (Limited Deployment)												4Q																				

Exhibit R-4a, Schedule Profile

DATE
February 2007

BUDGET ACTIVITY
RDT&E DEFENSE-WIDE/
BA5 - System Development and Demonstration (SDD)

PE NUMBER AND TITLE
0604384BP CHEMICAL/BIOLOGICAL DEFENSE (SDD)

PROJECT
IS5

D. <u>Schedule Profile (cont):</u>	FY 2006				FY 2007				FY 2008				FY 2009				FY 2010				FY 2011				FY 2012				FY 2013			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
JOEF (Cont)																																
Increment 1 - Initial Operational Capability (IOC)												4Q																				
Increment 1 - Full Operational Capability (FOC)																4Q																
JWARN																																
JWARN Inc 1 - SDD Performance				>> 2Q																												
JWARN Inc 1 - JIC Deployment				>> 2Q																												
JWARN Inc 1 - JCID Design and Development				>> 2Q																												
JWARN Inc 1 - Development Test				3Q 4Q																												
JWARN Inc 1 - Operational Assessment				4Q				— 2Q																								
JWARN Inc 1 - Milestone C								2Q 3Q																								
JWARN Inc 1 - JCID Low Rate Initial Production (LRIP) Contract Award								3Q				— 1Q																				
JWARN Inc 1 - First Article Test								3Q 4Q																								
JWARN Inc 1 - Initial Operational Test and Evaluation (IOT&E)												1Q 2Q																				

Exhibit R-4a, Schedule Profile

DATE
February 2007

BUDGET ACTIVITY
**RDT&E DEFENSE-WIDE/
BA5 - System Development and Demonstration (SDD)**

PE NUMBER AND TITLE
0604384BP CHEMICAL/BIOLOGICAL DEFENSE (SDD) PROJECT
IS5

D. Schedule Profile (cont):

	FY 2006				FY 2007				FY 2008				FY 2009				FY 2010				FY 2011				FY 2012				FY 2013							
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4				
JWARN (Cont)																																				
JWARN Inc 1 - Multiservice Operational Test & Evaluation									1Q	2Q																										
JWARN Inc 1 - Full Rate Production Milestone Decision											4Q																									
JWARN Inc 1 - Full Rate Production									4Q	—————																4Q										
JWARN Inc 1 - Full Operational Capability															2Q																					
SSA																																				
Establish SSA Charter, Management Plans, Processes, Procedures					>>	2Q																														
Develop Enterprise IT Support Plan					>>	—————	4Q																													
Begin support services for Architecture, Data, Help Desk, Integration & Test, and Standards and Policies					>>	—————	2Q																													
Establish CM Services for the Enterprise JCBRND Products					>>	2Q																														
Provide Data Model Implementation Guidance					1Q	—————																														4Q

Exhibit R-4a, Schedule Profile	DATE February 2007
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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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D. <u>Schedule Profile (cont):</u>	FY 2006				FY 2007				FY 2008				FY 2009				FY 2010				FY 2011				FY 2012				FY 2013			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
SSA (Cont)																																
Establish an Information Assurance Support Capability	1Q	_____			2Q																											
Provide Enterprise Architecture Products and Services	2Q	_____			_____												4Q															
Demonstrate Technology Transition Capabilities					2Q	_____			_____												4Q											
Provide Information Assurance Site Compliance Testing									3Q	_____			_____												4Q							
Provide Integration and Test, M&S, VV&A Certification and Accreditation	2Q	_____			_____												4Q															
Establish Technology Transition Support Services	1Q	_____			2Q																											

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CBDP BUDGET ITEM JUSTIFICATION SHEET (R-2a Exhibit)							DATE February 2007			
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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 MB5	
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COST (In Thousands)	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	Cost to	Total Cost
	Actual	Estimate	Complete							
MB5 MEDICAL BIOLOGICAL DEFENSE (SDD)	49964	67358	69039	65396	57561	160884	143432	142500	Continuing	Continuing

A. Mission Description and Budget Item Justification:

Project MB5 MEDICAL BIOLOGICAL DEFENSE (SDD): This project funds the System Development and Demonstration (SDD) phase of vaccines, drugs, and diagnostic medical devices that are directed against validated biological warfare (BW) agents to include bacteria, viruses, and toxins of biological origin. Efforts for medical biological defense product development involve production scale-up studies, consistency manufacturing, and expanded human safety studies. The results of these efforts, and those conducted during the SDD phase, will be used to submit a Biologic License Application (BLA) to the Food and Drug Administration (FDA) for product licensure. Upon FDA licensure, the product will transition to full-scale licensed production. Products to be developed under this program include Recombinant Botulinum and Plague vaccines.

The Critical Reagents Program (CRP) integrates and consolidates all Department of Defense (DoD) reagents/antibodies/select biological threat agent and genomic reference materials, and DNA biological detection requirements from Technology Development thru production. The CRP ensures the availability of standardized high-quality reagents throughout the life-cycle of all biological warfare (BW) detection/identification systems. The CRP supports all aspects of manufacturing "scale-up" of developmental protocols for CRP developed products, including maintenance of repositories and validation laboratories. Supported systems include the Biological Integrated Detection System (BIDS), Joint Biological Agent and Identification System (JBAIDS), and the Joint Biological Point Detection System (JBPDS) Increments 1 and 2. This program also supports the development and manufacture of individual handheld Immunochromatographic Assays (HHA), electrochemiluminescence (ECL) immunoassays, polymerase chain reaction (PCR) genomic assays, and the DoD biological sampling kits. This program results in improved identification performance and ensures comparable results across disparate systems.

CBDP BUDGET ITEM JUSTIFICATION SHEET (R-2a Exhibit)	DATE February 2007
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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 MB5
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The Joint Biological Agent Identification and Diagnostic System (JBAIDS) is a reusable, portable, modifiable biological agent identification and diagnostic system. JBAIDS will enhance force protection by providing commanders and medical personnel with the capability to determine appropriate treatment, effective preventive measures, and prophylaxis, in response to the presence of biological and toxin agents. JBAIDS will be configured to support reliable, fast, and specific identification of biological and toxin agents from a variety of clinical and environmental sources.

B. Accomplishments/Planned Program

	<u>FY 2006</u>	<u>FY 2007</u>	<u>FY 2008</u>	<u>FY 2009</u>
CRITICAL REAGENTS PROGRAM	10487	3161	10232	7604
RDT&E Articles (Quantity)	0	0	0	0

Accomplishments/Planned Program	FY2006	FY2007	FY2008	FY2009
CRP - FY 06/07/08/09 - Continued expansion of select biological threat agent reference materials.	5733	1103	3500	2217
CRP - FY 06/07/08/09 - Continue development of electrochemiluminescence (ECL) immunoassays and polymerase chain reaction (PCR) genomic assays.	3179	619	1423	1187
CRP - FY 06/07/08/09 - Initiate and continue expansion of a formal Quality Assurance/Quality Control (QA/QC) medical and non-medical, systems engineering/Lean Six Sigma, validation, Developmental Testing (DT), and Operational Testing (OT) program to encompass the transition and fielding of biological detection assays.	1575	575	4852	3777
CRP - FY 07/08/09 - Initiate and complete International Organization for Standardization (ISO) 17025 guidelines into select biological threat agent reference materials.	0	864	457	423
Total	10487	3161	10232	7604

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CBDP BUDGET ITEM JUSTIFICATION SHEET (R-2a Exhibit)	DATE February 2007
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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 MB5
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	<u>FY 2006</u>	<u>FY 2007</u>	<u>FY 2008</u>	<u>FY 2009</u>
JOINT BIOLOGICAL AGENT IDENT AND DIAG SYSTEM	6968	4270	0	0
RDT&E Articles (Quantity)	0	0	0	0

Accomplishments/Planned Program	FY2006	FY2007	FY2008	FY2009
JBAIDS Block I - FY 06 - Initiated and completed Qiagen Flow kit development.	3343	0	0	0
JBAIDS Block I - FY 06/07 - Initiate and complete process control development.	3625	1889	0	0
JBAIDS Block I - FY 07 - Conduct follow-on test and evaluation.	0	1044	0	0
Congressional Interest Item - FY 06 - Rapid Identification of Biological Warfare Agents.	0	1337	0	0
Total	6968	4270	0	0

	<u>FY 2006</u>	<u>FY 2007</u>	<u>FY 2008</u>	<u>FY 2009</u>
BOTULINUM VACCINE	0	18330	18753	23898
RDT&E Articles (Quantity)	0	0	0	0

Accomplishments/Planned Program	FY2006	FY2007	FY2008	FY2009
JVAP - Recombinant Botulinum Vaccine - FY 07/08/09 - Continue non-clinical testing.	0	4767	1900	2000
JVAP - Recombinant Botulinum Vaccine - FY 07/08/09 - Continue and complete manufacturing process validation and validation of formulation, fill and finish process for serotypes A and B.	0	6216	3400	2600
JVAP - Recombinant Botulinum Vaccine - FY 07/08/09 - Initiate and complete execution of Phase 1b clinical trial.	0	4200	3300	3400

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CBDP BUDGET ITEM JUSTIFICATION SHEET (R-2a Exhibit)		DATE February 2007
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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 MB5
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Accomplishments/Planned Program (Cont):	FY2006	FY2007	FY2008	FY2009
JVAP - Recombinant Botulinum Vaccine - FY 08 - Conduct Milestone B review and enter into Systems Development and Demonstration acquisition phase.	0	0	100	0
JVAP - Recombinant Botulinum Vaccine - FY 08/09 - Initiate and complete manufacture of consistency lots of vaccine.	0	0	3153	11398
JVAP - Recombinant Botulinum Vaccine - FY07 - Conduct planning for Phase 2 clinical trial. FY08 - Initiate and continue execution of Phase 2 clinical trial.	0	3147	6900	4500
Total	0	18330	18753	23898

	<u>FY 2006</u>	<u>FY 2007</u>	<u>FY 2008</u>	<u>FY 2009</u>
ENCEPHALITIS VACCINE	250	0	0	0
RDT&E Articles (Quantity)	0	0	0	0

Accomplishments/Planned Program	FY2006	FY2007	FY2008	FY2009
JVAP - Equine Encephalitis Vaccine - FY 06 - Continue manufacturing process development.	250	0	0	0
Total	250	0	0	0

	<u>FY 2006</u>	<u>FY 2007</u>	<u>FY 2008</u>	<u>FY 2009</u>
PLAGUE VACCINE	29833	39306	40054	33894
RDT&E Articles (Quantity)	0	0	0	0

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CBDP BUDGET ITEM JUSTIFICATION SHEET (R-2a Exhibit)	DATE February 2007
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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 MB5
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Accomplishments/Planned Program	FY2006	FY2007	FY2008	FY2009
JVAP - Plague Vaccine - FY 06/07/08/09 - Continue and complete non-clinical studies of US candidate.	1566	5680	6000	4900
JVAP - Plague Vaccine - FY 07 - Complete Phase 1 clinical trial of US candidate.	0	1000	0	0
JVAP - Plague Vaccine - FY 06 - Continue and complete large scale manufacturing process development of US candidate.	985	10920	0	0
JVAP - Plague Vaccine - FY 06 - Initiated large scale manufacturing process development and validation of UK candidate.	20000	0	0	0
JVAP - Plague Vaccine - FY 06/07/08/09 - Initiate and complete Phase 2 clinical trial of US candidate.	7282	12635	10000	4266
JVAP - Plague Vaccine - FY 07/08 - Initiate and complete large scale manufacturing process validation of US candidate.	0	9071	8400	0
JVAP - Plague Vaccine - FY 08 - Conduct down-select decision to single candidate.	0	0	100	0
JVAP - Plague Vaccine - FY 08/09 - Initiate and complete manufacturing of consistency lots of vaccine of US candidate.	0	0	15554	10000
JVAP - Plague Vaccine - FY 09 - Initiate Phase 3 clinical trial.	0	0	0	14628
JVAP - Plague Vaccine - FY 09 - Conduct Milestone C.	0	0	0	100
Total	29833	39306	40054	33894

	<u>FY 2006</u>	<u>FY 2007</u>	<u>FY 2008</u>	<u>FY 2009</u>
BIOLOGICAL VACCINES	2426	1634	0	0
RDT&E Articles (Quantity)	0	0	0	0

Accomplishments/Planned Program	FY2006	FY2007	FY2008	FY2009
TT Bio - Congressional Interest Item - FY 06/07 - ParalellaVax Rapid Vaccine Testing Technology.	2426	1634	0	0
Total	2426	1634	0	0

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CBDP BUDGET ITEM JUSTIFICATION SHEET (R-2a Exhibit)	DATE February 2007
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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 MB5
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	<u>FY 2006</u>	<u>FY 2007</u>	<u>FY 2008</u>	<u>FY 2009</u>
SBIR/STTR	0	657	0	0
RDT&E Articles (Quantity)	0	0	0	0

Accomplishments/Planned Program	FY2006	FY2007	FY2008	FY2009
SBIR - FY 07 - Small Business Innovative Research.	0	657	0	0
Total	0	657	0	0

C. <u>Other Program Funding Summary:</u>	<u>FY 2006</u>	<u>FY 2007</u>	<u>FY 2008</u>	<u>FY 2009</u>	<u>FY 2010</u>	<u>FY 2011</u>	<u>FY 2012</u>	<u>FY 2013</u>	<u>To Compl</u>	<u>Total Cost</u>
JM0001 JOINT BIO AGENT IDENTIFICATION AND DIAGNOSTIC SYS (JBAIDS)	12504	5710	4934	483	0	0	0	0	0	23631
JX0005 DOD BIOLOGICAL VACCINE PROCUREMENT	45809	38917	48627	47134	54847	54639	60495	61031	Cont	Cont
JX0210 CRITICAL REAGENTS PROGRAM (CRP)	2192	2297	2430	0	0	0	0	0	0	6919

CBDP BUDGET ITEM JUSTIFICATION SHEET (R-2a Exhibit)		DATE February 2007
BUDGET ACTIVITY RDT&E DEFENSE-WIDE/ BA5 - System Development and Demonstration (SDD)	PE NUMBER AND TITLE 0604384BP CHEMICAL/BIOLOGICAL DEFENSE (SDD)	PROJECT MB5

D. Acquisition Strategy:

CRP	The Critical Reagents Program (CRP) is executing a strategy that establishes a core R&D capability to develop reference materials (antigens, nucleic acids, and antibodies) and new detection and diagnostic assays for biothreat agent detection that can be horizontally inserted across multiple platforms. In addition, this strategy will implement a formal 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 will be developed and tested during FY07 as a product enhancement. The JBAIDS FOT&E for shipboard applications will be executed in 3QFY07.
VAC BOT	<p>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 thru FDA licensure of a recombinant bivalent (A and B) botulinum vaccine. Other serotypes will be developed thru an evolutionary approach, as funding becomes available.</p> <p>The management lead for the program shifted to JVAP at MS A. The technology development stage includes the manufacture of candidate current Good Manufacturing Practices (cGMP) lots, animal safety testing, and initial clinical trials. During this phase, the vaccine is evaluated for safety and immunogenicity in a small human trial (Phase 1).</p>

CBDP BUDGET ITEM JUSTIFICATION SHEET (R-2a Exhibit)		DATE February 2007
BUDGET ACTIVITY RDT&E DEFENSE-WIDE/ BA5 - System Development and Demonstration (SDD)	PE NUMBER AND TITLE 0604384BP CHEMICAL/BIOLOGICAL DEFENSE (SDD)	PROJECT MB5

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 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 "Animal Rule." The Milestone C, also the Low Rate Initial Production (LRIP) decision, will be conducted after the manufacturing process has been validated, consistency lots have been produced, and interim safety data is available from the Phase 3 clinical trial. 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.

VAC ENC

The management lead for the program shifted to CBMS at MS A. The technology development stage includes the manufacture of candidate current Good Manufacturing Practices (cGMP) lots, animal safety testing, and initial clinical trials. During this phase, the vaccine is evaluated for safety and immunogenicity in a small human trial.

VAC PLG

The current budget supports development thru FDA licensure of a plague vaccine.

Chemical Biological Medical Systems (CBMS) is mitigating technical program risk in the Plague Vaccine Program by temporarily supporting development of both a US vaccine candidate and a United Kingdom (UK) vaccine candidate. The US candidate is managed by JVAP's prime systems contractor and the UK candidate is managed thru a Project Arrangement (PA) with Canada and the UK. Both vaccines will be developed thru an event-driven down-select decision which is after a Phase 2-like clinical trial (Phase 1b for the UK - funded thru a contract with the National Institute of Allergy and Infectious Diseases (NIAID) - and Phase 2a for the US). The information from this trial and other supporting non-clinical information will be used to determine if the vaccines can meet the Capabilities Development Document (CDD) threshold duration of protective immunity - one year after completion of primary series. Following down-select in 2008, the US will fund a single plague vaccine candidate thru FDA licensure. The dates listed in the "SCHEDULE" are primarily for the US candidate, as only the manufacturing scale up and validation efforts for the UK candidate have been funded thru the Project Arrangement.

CBDP BUDGET ITEM JUSTIFICATION SHEET (R-2a Exhibit)		DATE February 2007
BUDGET ACTIVITY RDT&E DEFENSE-WIDE/ BA5 - System Development and Demonstration (SDD)	PE NUMBER AND TITLE 0604384BP CHEMICAL/BIOLOGICAL DEFENSE (SDD)	
VACCINES		PROJECT MB5 <p>The management lead for the program shifted to JVAP at MS A. The technology development stage 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).</p> <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, consistency lots have been produced, and interim safety data is available from the Phase 3 clinical trial. 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>Anthrax Vaccine Absorbed (AVA) and Vaccinia Immune Globulin (VIG) are procured as Commercial off-the-shelf (COTS) products directly from the manufacturer. Smallpox is currently procured thru an Interagency Agreement (IAA) with the Centers for Disease Control (CDC).</p>

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CBDP PROJECT COST ANALYSIS (R-3 Exhibit)											DATE February 2007		
BUDGET ACTIVITY RDT&E DEFENSE-WIDE/ BA5 - System Development and Demonstration (SDD)					PE NUMBER AND TITLE 0604384BP CHEMICAL/BIOLOGICAL DEFENSE (SDD)						PROJECT MB5		
I. Product Development	Contract Method & Type	Performing Activity & Location	US NF CC	Total PYs Cost	FY2007 Cost	FY2007 Award Date	FY2008 Cost	FY2008 Award Date	FY2009 Cost	FY2009 Award Date	Cost to Complete	Total Cost	Target Value of Contract
CRP													
CRP - Scale-up of Select Biological Threat Agent Reference Materials	MIPR	USAMRIID, Fort Detrick, MD & Dugway Proving Ground, DPG, UT	U	5385	535	2Q FY07	1500	2Q FY08	1000	2Q FY09	0	8420	0
CRP - Development of Select Biological Threat Agent Reference Materials and Assays	MIPR	Naval Medical Research Center, Silver Spring, MD	U	1412	205	2Q FY07	350	2Q FY08	300	2Q FY09	0	2267	0
JBAIDS													
SW SB - JBAIDS Block I - Assay and Kit Prototype Development	C/FFP	Idaho Technology, Inc., Salt Lake City, UT	C	13207	1011	2Q FY07	0	NONE	0	NONE	0	14218	0
HW S - JBAIDS Block I - Congressional Interest Item	C/FPI	TBD	C	0	1337	4Q FY07	0	NONE	0	NONE	0	1337	0
VAC BOT													
HW S - Vaccine Development - Includes Consistency Lot, Pilot Lot, and Scale-Up Production	C/CPAF	DynPort Vaccine Company, Frederick, MD	C	0	5640	2Q FY07	7501	2Q FY08	9402	2Q FY09	0	22543	0
VAC PLG													
HW S - Includes validation and consistency lot production	C/CPAF	DynPort Vaccine Company, Frederick, MD	C	11123	16216	1Q FY07	16022	1Q FY08	13335	1Q FY09	0	56696	0
VACCINES													
TT Bio - ParalellaVax Rapid Vaccine Testing	SS/CPFF	Maxygen, Inc. Redwood City, CA	C	0	1634	4Q FY07	0	NONE	0	NONE	0	1634	0

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CBDP PROJECT COST ANALYSIS (R-3 Exhibit)	DATE February 2007
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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 MB5
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I. Product Development - Cont.	Contract Method & Type	Performing Activity & Location	US NF CC	Total PYs Cost	FY2007 Cost	FY2007 Award Date	FY2008 Cost	FY2008 Award Date	FY2009 Cost	FY2009 Award Date	Cost to Complete	Total Cost	Target Value of Contract
Subtotal I. Product Development:					26578		25373		24037		0	107115	

Remarks:

II. Support Costs	Contract Method & Type	Performing Activity & Location	US NF CC	Total PYs Cost	FY2007 Cost	FY2007 Award Date	FY2008 Cost	FY2008 Award Date	FY2009 Cost	FY2009 Award Date	Cost to Complete	Total Cost	Target Value of Contract
CRP													
CRP - Conformance Testing and Select Biological Threat Agent Reference Material Development	MIPR	Aberdeen Proving Ground, Edgewood, MD	U	1452	520	2Q FY07	650	2Q FY08	467	2Q FY09	0	3089	0
CRP - Select Biological Threat Agent Reference Material Regulatory/Quality Assurance (QA) Support	MIPR	Dugway Proving Ground, Dugway, UT	U	623	250	2Q FY07	275	2Q FY08	138	2Q FY09	0	1286	0
JBAIDS													
TD/D SB - JBAIDS Block I - Joint Services Training	MIPR	AMEDD, Fort Sam Houston, TX	U	1095	10	2Q FY07	0	NONE	0	NONE	0	1105	0
TD/D SB - JBAIDS Block I - Government Labs Support	MIPR	AFIOH, AFIP, NSWC, and DPG	U	2339	240	2Q FY07	0	NONE	0	NONE	0	2579	0

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CBDP PROJECT COST ANALYSIS (R-3 Exhibit)											DATE February 2007		
BUDGET ACTIVITY RDT&E DEFENSE-WIDE/ BA5 - System Development and Demonstration (SDD)					PE NUMBER AND TITLE 0604384BP CHEMICAL/BIOLOGICAL DEFENSE (SDD)						PROJECT MB5		
III. Test and Evaluation	Contract Method & Type	Performing Activity & Location	US NF CC	Total PYs Cost	FY2007 Cost	FY2007 Award Date	FY2008 Cost	FY2008 Award Date	FY2009 Cost	FY2009 Award Date	Cost to Complete	Total Cost	Target Value of Contract
CRP													
CRP - Conformance Testing of Select Biological Threat Agent Reference Materials and Assays	MIPR	Naval Medical Research Center, Silver Spring, MD	U	1513	346	1Q FY07	705	2Q FY08	600	2Q FY09	0	3164	0
CRP - Test & Evaluation of Select Biological Threat Agent Reference Materials and Assays	MIPR	USAMRIID, Frederick, MD	U	721	116	2Q FY07	705	2Q FY08	546	2Q FY09	0	2088	0
CRP - Validation Program	Reqn	FDA/AOAC International, Gaithersburg, MD	U	1017	900	2Q FY07	5103	2Q FY08	4000	2Q FY09	0	11020	0
JBAIDS													
OTHT SB - JBAIDS Block I - Conduct DT, FOT&E	MIPR	AMEDDC&S, Brooks City-Base, TX; Norfolk, VA	U	2295	115	3Q FY07	0	NONE	0	NONE	0	2410	0
DTE SB - JBAIDS Block I - Conduct OA & OT	MIPR	AFOTEC, Kirtland AFB, NM	U	2995	800	1Q FY07	0	NONE	0	NONE	0	3795	0
DTE SB - JBAIDS Block I - Assay and Protocol Testing	MIPR	Dugway Proving Ground, UT	U	1236	25	3Q FY07	0	NONE	0	NONE	0	1261	0
DTE SB - JBAIDS Block I - DT, Limited User Testing	MIPR	TBD (Various)	U	0	100	3Q FY07	0	NONE	0	NONE	0	100	0
VAC BOT													
OTHT S - Testing, evaluation and clinical trials	C/CPAF	DynPort Vaccine Company, Frederick, MD	C	0	7063	2Q FY07	5626	2Q FY08	3624	2Q FY09	0	16313	0

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CBDP PROJECT COST ANALYSIS (R-3 Exhibit)										DATE February 2007		
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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 MB5		
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III. Test and Evaluation - Cont.	Contract Method & Type	Performing Activity & Location	US NF CC	Total PYs Cost	FY2007 Cost	FY2007 Award Date	FY2008 Cost	FY2008 Award Date	FY2009 Cost	FY2009 Award Date	Cost to Complete	Total Cost	Target Value of Contract
VAC PLG													
OTHT S - Vaccine Development - Includes Testing, Evaluation, and Clinical Trials	C/CPAF	DynPort Vaccine Company, Frederick, MD	C	9340	11619	1Q FY07	12016	1Q FY08	10280	1Q FY09	0	43255	0
Subtotal III. Test and Evaluation:					21084		24155		19050		0	83406	

Remarks:

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CBDP PROJECT COST ANALYSIS (R-3 Exhibit)	DATE February 2007
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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 MB5
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IV. Management Services	Contract Method & Type	Performing Activity & Location	US NF CC	Total PYs Cost	FY2007 Cost	FY2007 Award Date	FY2008 Cost	FY2008 Award Date	FY2009 Cost	FY2009 Award Date	Cost to Complete	Total Cost	Target Value of Contract
CRP													
PM/MS S - Program Management Support	SS/FFP	Goldbelt Raven, LLC, Frederick, MD	C	769	193	1Q FY07	434	1Q FY08	325	1Q FY09	0	1721	0
PM/MS S - Chem Bio Medical Systems Office	Allot	CBMS, Frederick, MD	U	548	96	4Q FY07	306	4Q FY08	127	4Q FY09	0	1077	0
PM/MS S - Joint Program Executive Office	Allot	JPEO, Falls Church, VA	U	327	0	NONE	204	4Q FY08	101	4Q FY09	0	632	0
JBAIDS													
PM/MS S - Chem Bio Medical Systems Office	Allot	CBMS, Frederick, MD	U	586	468	4Q FY07	0	NONE	0	NONE	0	1054	0
PM/MS S - Program Management Support	C/FFP	Goldbelt Raven, LLC, Frederick, MD	C	582	164	1Q FY07	0	NONE	0	NONE	0	746	0
VAC BOT													
PM/MS S - Vaccine Development - Program Management/Program Manager Support	Allot	JPEO, Falls Church, VA	U	0	372	4Q FY07	422	4Q FY08	1087	4Q FY09	0	1881	0
PM/MS S - Vaccine Development - Joint Vaccine Acquisition Program Management Office	Allot	CBMS, Frederick, MD	U	0	558	4Q FY07	563	4Q FY08	1450	4Q FY09	0	2571	0
PM/MS S - Contractor Systems Engineering/Program Management Support	SS/FFP	Goldbelt Raven, LLC, Frederick, MD	C	0	608	1Q FY07	563	1Q FY08	1450	1Q FY09	0	2621	0

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CBDP PROJECT COST ANALYSIS (R-3 Exhibit)	DATE February 2007
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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 MB5
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IV. Management Services - Cont.	Contract Method & Type	Performing Activity & Location	US NF CC	Total PYs Cost	FY2007 Cost	FY2007 Award Date	FY2008 Cost	FY2008 Award Date	FY2009 Cost	FY2009 Award Date	Cost to Complete	Total Cost	Target Value of Contract
PM/MS S - Award Fee (Maximum 10.5%)	C/CPAF	DynPort Vaccine Company, Frederick, MD	C	0	1301	1Q FY07	1265	1Q FY08	3261	1Q FY09	0	5827	0
VAC PLG													
PM/MS S - Vaccine Development - Program Management/Program Manager Support	Allot	JPEO, Falls Church, VA	U	705	1216	4Q FY07	901	4Q FY08	770	4Q FY09	0	3592	0
PM/MS S - Vaccine Development - Joint Vaccine Acquisition Program Management Office	Allot	CBMS, Frederick, MD	U	940	912	4Q FY07	1201	4Q FY08	1028	4Q FY09	0	4081	0
PM/MS S - Contractor Systems Engineering/Program Management Support	SS/FFP	Goldbelt Raven, LLC, Frederick, MD	C	940	2350	1Q FY07	1201	1Q FY08	1028	1Q FY09	0	5519	0
PM/MS S - Award Fee (Maximum 10.5%)	C/CPAF	DynPort Vaccine Company, Frederick, MD	C	2115	912	1Q FY07	2705	1Q FY08	2313	1Q FY09	0	8045	0
ZSBIR													
SBIR/STTR - Aggregated from ZSBIR-SBIR/STTR	PO	HQ, AMC, Alexandria, VA		0	657	NONE	0	NONE	0	NONE	0	657	0
Subtotal IV. Management Services:													
					9807		9765		12940		0	40024	

Remarks:

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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 MB5
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TOTAL PROJECT COST:		67358		69039		65396		0	269728	
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Exhibit R-4a, Schedule Profile	DATE February 2007
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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 MB5
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D. <u>Schedule Profile:</u>	FY 2006				FY 2007				FY 2008				FY 2009				FY 2010				FY 2011				FY 2012				FY 2013			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
CRP																																
CRP - Expand Select Biological Threat Agent Reference Materials	>>	—————																												2Q		
CRP - Development of ECL Immunoassays & PCR Genomic Assays	>>	—————																												2Q		
CRP - Development and Implementation of ISO Guidelines, Validation Program, and Systems Engineering/Lean Six Sigma			4Q	—————																												2Q
CRP - ISO 17025 Guidelines into Select Biological Threat Agent Reference Materials					2Q	—————																						3Q				
JBAIDS																																
JBAIDS Inc 1 - DT, Limited User Testing & Follow-On Test and Evaluation of Qiagen Flow Kit and process controls		2Q	—————																						4Q							
VAC BOT																																
Non-Clinical Testing	>>	—————																												4Q		
Process Validation - Large Scale	>>	—————																												2Q		
Phase 1 Clinical Trial (A/B)	>>	—————																												2Q		

Exhibit R-4a, Schedule Profile

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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
MB5

D. <u>Schedule Profile (cont):</u>	FY 2006				FY 2007				FY 2008				FY 2009				FY 2010				FY 2011				FY 2012				FY 2013				
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	
VAC BOT (Cont)																																	
Milestone B											3Q																						
Consistency Lot Production											3Q	—	4Q																				
Phase 2 Clinical Trial (A/B)											4Q	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
Phase 3 Clinical Trial (A/B)																	3Q	—	—	—	—	—	—	—	—	—	—	—	—	—			
Milestone C																																	
Biological Licensure Application																																	
FDA Licensure (A/B)/IOC																																	
VAC PLG																																	
Non-Clinical Studies (US Candidate)																																	
Phase 1 Clinical Trial (US Candidate)																																	
Process Development - Large Scale (US Candidate)																																	
Manufacturing Scale Up/Process Validation (UK Candidate)																																	
Milestone B (US Candidate)																																	
Phase 2 Clinical Trial (US Candidate)																																	
Process Validation - Large Scale (US Candidate)																																	

Exhibit R-4a, Schedule Profile	DATE February 2007
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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 MB5
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D. <u>Schedule Profile (cont):</u>	FY 2006				FY 2007				FY 2008				FY 2009				FY 2010				FY 2011				FY 2012				FY 2013			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
VAC PLG (Cont)																																
Down-select to single candidate												3Q																				
Consistency Lot Production (US Candidate)												3Q				2Q																
Phase 3 Clinical Trial																1Q																
Milestone C																				4Q												
Biological Licensure Application (BLA) Submission																								1Q								
FDA Licensure/IOC																												4Q				

CBDP BUDGET ITEM JUSTIFICATION SHEET (R-2a Exhibit)	DATE February 2007
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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 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	Cost to	Total Cost
	Actual	Estimate	Complete							
MC5 MEDICAL CHEMICAL DEFENSE (SDD)	2406	6391	21348	26106	16306	18897	17740	12173	Continuing	Continuing

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) Pharmaceutical Post Approval and Development Support (PPADS) - Soman Nerve Agent Pyridostigmine Pretreatment (SNAPP) used as a pretreatment against nerve agent poisoning and Skin Exposure Reduction Paste Against Chemical Warfare Agents (SERPACWA), used as a topical skin protectant; (2) Advanced Anticonvulsant System (AAS), which will be used as a treatment for seizures from exposure to nerve agents; (3) Improved Nerve Agent Treatment System (INATS), which will be used as a treatment for nerve agent intoxication to include new indications for Pyridostigmine Bromide (BP) that will be integrated with current therapeutic regimens; and (4) Bioscavenger Increment 2 (BSCAV Increment 2), which will be used as a prophylaxis against nerve agents.

B. Accomplishments/Planned Program

	<u>FY 2006</u>	<u>FY 2007</u>	<u>FY 2008</u>	<u>FY 2009</u>
ADVANCED ANTICONVULSANT SYSTEM	0	6329	11269	10746
RDT&E Articles (Quantity)	0	0	0	0

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CBDP BUDGET ITEM JUSTIFICATION SHEET (R-2a Exhibit)	DATE February 2007
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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	FY2006	FY2007	FY2008	FY2009
AAS - FY 07/08/09 - Continue process development and current Good Manufacturing Practices (cGMP) requirements.	0	3033	3071	2763
AAS - FY 07 - Achieve Milestone B. Initiate Phase 2 clinical safety studies. FY 08/09 - Continue Phase 2 clinical safety studies.	0	2000	6246	6252
AAS - FY 07/08/09 - Initiate and complete Good Laboratory Practices (GLP) animal efficacy studies.	0	726	917	467
AAS - FY 07/08/09 - Initiate and complete formulation toxicology and stability studies.	0	570	746	201
AAS - FY 08/09 - Initiate and continue Developmental Testing/Operational Testing (DT/OT) of packaging.	0	0	289	193
AAS - FY 09 - Initiate New Drug Application (NDA).	0	0	0	870
Total	0	6329	11269	10746

	<u>FY 2006</u>	<u>FY 2007</u>	<u>FY 2008</u>	<u>FY 2009</u>
BIOSCAVENGER	0	0	0	4898
RDT&E Articles (Quantity)	0	0	0	0

Accomplishments/Planned Program	FY2006	FY2007	FY2008	FY2009
BSCAV Increment 2 - FY 09 - Continue large scale manufacturing, process qualification, and validation. Achieve Milestone B.	0	0	0	2709
BSCAV Increment 2 - FY 09 - Initiate Phase 2 clinical safety studies.	0	0	0	1366
BSCAV Increment 2 - FY 09 - Initiate GLP animal efficacy studies.	0	0	0	823
Total	0	0	0	4898

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CBDP BUDGET ITEM JUSTIFICATION SHEET (R-2a Exhibit)	DATE February 2007
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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 2006</u>	<u>FY 2007</u>	<u>FY 2008</u>	<u>FY 2009</u>
IMPROVED NERVE AGENT TREATMENT SYSTEM	0	0	10079	10462
RDT&E Articles (Quantity)	0	0	0	0

Accomplishments/Planned Program	FY2006	FY2007	FY2008	FY2009
INATS - FY 08 - Complete GLP pre-clinical safety studies.	0	0	628	0
INATS - FY 08 - Complete and submit Investigational New Drug (IND) application.	0	0	255	0
INATS - FY 08 - Initiate and complete formulation, compatibility, and stability studies with autoinjector.	0	0	3330	0
INATS - FY 08 - Continue Phase 1 clinical safety studies. FY 09 - Complete Phase 1 clinical safety studies and achieve Milestone B.	0	0	673	376
INATS - FY 08/09 - Continue process development and cGMP manufacturing requirements.	0	0	5193	4581
INATS - FY 09 - Initiate Phase 2 clinical safety studies.	0	0	0	4090
INATS - FY 09 - Initiate GLP definitive animal efficacy studies.	0	0	0	1415
Total	0	0	10079	10462

	<u>FY 2006</u>	<u>FY 2007</u>	<u>FY 2008</u>	<u>FY 2009</u>
PHARMACEUTICAL POST APPROVAL & DEVELOPMENT SUPPORT	2406	0	0	0
RDT&E Articles (Quantity)	0	0	0	0

CBDP BUDGET ITEM JUSTIFICATION SHEET (R-2a Exhibit)	DATE February 2007
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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	FY2006	FY2007	FY2008	FY2009
SNAPP - FY 06 - Completed FDA required post-approval studies.	1633	0	0	0
SERPACWA - FY 06 - Completed FDA required post-marketing studies (including compatibility study with M291).	773	0	0	0
Total	2406	0	0	0

	<u>FY 2006</u>	<u>FY 2007</u>	<u>FY 2008</u>	<u>FY 2009</u>
SBIR/STTR	0	62	0	0
RDT&E Articles (Quantity)	0	0	0	0

Accomplishments/Planned Program	FY2006	FY2007	FY2008	FY2009
SBIR - FY 07 - Small Business Innovative Research.	0	62	0	0
Total	0	62	0	0

C. Other Program Funding Summary: N/A

CBDP BUDGET ITEM JUSTIFICATION SHEET (R-2a Exhibit)		DATE February 2007
BUDGET ACTIVITY RD&E DEFENSE-WIDE/ BA5 - System Development and Demonstration (SDD)	PE NUMBER AND TITLE 0604384BP CHEMICAL/BIOLOGICAL DEFENSE (SDD)	PROJECT MC5

D. Acquisition Strategy:

AAS Medical Identification and Treatment Systems (MITS) Joint Product Management Office and/or a commercial partner 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 have been obtained and full rate and stockpile production will be pursued. Any FDA mandated post-marketing surveillance will be conducted.

CBDP BUDGET ITEM JUSTIFICATION SHEET (R-2a Exhibit)		DATE February 2007
BUDGET ACTIVITY RDT&E DEFENSE-WIDE/ BA5 - System Development and Demonstration (SDD)	PE NUMBER AND TITLE 0604384BP CHEMICAL/BIOLOGICAL DEFENSE (SDD)	PROJECT MC5

BSCAV

Bioscavenger is a developmental program with three distinct increments. Increment 1 is based on butyrylcholinesterase purified from human plasma, i.e., plasma-derived Bioscavenger or pBioscavenger. 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 that includes pre-clinical animal studies and Phase 1 human clinical safety studies. The Department of Health and Human Services (DHHS) may consider transition of this product for further development using BioShield funds after the Phase 1 clinical study is completed.

Bioscavenger Increment 2 will initially look at two different technologies that bind and sequester nerve agents. The down-selection to one of the technologies will occur following the Phase 1 human clinical safety study. MITS Joint Product Management Office exercises management oversight and commercial partners to serve as system integrators for their respective candidate products during the Technology Development Phase that includes pre-clinical animal studies and Phase 1 human clinical safety studies. Contracts have been awarded for both technologies, and there will be a down-selection to one Bioscavenger product at Milestone B. The plasma-derived Bioscavenger will be considered in the down selection. After Milestone B, during the System Development and Demonstration Phase, MITS will continue to exercise management oversight and the selected commercial partner will serve as the system integrator to ensure that: the selected product is 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 have been obtained, and full rate and stockpile production will be pursued. Any FDA mandated post-marketing surveillance will be conducted.

Bioscavenger Increment 3 will be based on a product that degrades nerve agents while retaining its own activity.

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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
INATS	<p>Medical Identification and Treatment Systems (MITS) Joint Product Management Office and/or a commercial partner 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 have been obtained and full rate and stockpile production will be pursued. Any FDA mandated post-marketing surveillance will be conducted.</p>	
PPADS	<p>Medical Identification and Treatment Systems (MITS) Joint Product Management Office and/or a commercial partner will serve as the system integrator during the Production and Deployment Phase. FDA approval will be obtained and full rate and stockpile production will be pursued. Large-scale production and packaging issues will be addressed along with any FDA mandated post-marketing testing and surveillance.</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	FY2007 Cost	FY2007 Award Date	FY2008 Cost	FY2008 Award Date	FY2009 Cost	FY2009 Award Date	Cost to Complete	Total Cost	Target Value of Contract
AAS													
AAS - GLP Animal Efficacy Studies	MIPR	TBD	U	0	324	2Q FY07	510	2Q FY08	491	2Q FY09	0	1325	0
AAS - Phase 2 Clinical Safety Study	C/CPIF	TBD	C	0	1342	2Q FY07	2379	2Q FY08	2176	2Q FY09	0	5897	0
AAS - New Formulation Toxicology and Stability Studies	C/CPIF	TBD	C	0	327	2Q FY07	510	2Q FY08	492	2Q FY09	0	1329	0
BSCAV													
BSCV II - Phase 2 Clinical Safety and GLP Animal Efficacy Studies	C/CPIF	TBD	C	0	0	NONE	0	NONE	1469	1Q FY09	0	1469	0
INATS													
INATS - GLP Pre-clinical and Phase 1 Studies	MIPR	USAMRAA, USAMRICD, CBIAC, Fort Detrick, MD	U	0	0	NONE	1276	2Q FY08	336	2Q FY09	0	1612	0
INATS - Formulation, Compatibility, Stability Studies with Autoinjector	C/CPIF	TBD	C	0	0	NONE	2987	1Q FY08	0	NONE	0	2987	0
INATS - GLP Animal Efficacy & Phase 2 Clinical Safety Studies	C/CPIF	TBD	C	0	0	NONE	0	NONE	3550	2Q FY09	0	3550	0
Subtotal III. Test and Evaluation:													
					1993		7662		8514		0	18169	

Remarks:

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CBDP PROJECT COST ANALYSIS (R-3 Exhibit)	DATE February 2007
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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	FY2007 Cost	FY2007 Award Date	FY2008 Cost	FY2008 Award Date	FY2009 Cost	FY2009 Award Date	Cost to Complete	Total Cost	Target Value of Contract
AAS													
AAS - Program Management Support	SS/FFP	Goldbelt Raven, LLC, Frederick, MD	C	0	563	1Q FY07	568	1Q FY08	546	1Q FY09	0	1677	0
AAS - Joint Program Executive Office	Allot	JPEO, Falls Church, VA	U	0	0	NONE	567	4Q FY08	546	4Q FY09	0	1113	0
AAS - Chem Bio Medical Systems	Allot	CBMS, Frederick, MD	U	0	321	4Q FY07	566	4Q FY08	546	4Q FY09	0	1433	0
BSCAV													
BSCV II - Chem Bio Medical Systems	Allot	CBMS, Frederick, MD	U	0	0	NONE	0	NONE	146	4Q FY09	0	146	0
BSCV II - Joint Program Executive Office	Allot	JPEO, Falls Church, VA	U	0	0	NONE	0	NONE	97	4Q FY09	0	97	0
BSCV II - Program Management Support	SS/FFP	Goldbelt Raven, LLC, Frederick, MD	C	0	0	NONE	0	NONE	493	1Q FY09	0	493	0
INATS													
INATS - Chem Bio Medical Systems	Allot	CBMS, Frederick, MD	U	0	0	NONE	504	4Q FY08	523	4Q FY09	0	1027	0
INATS - Joint Program Executive Office	Allot	JPEO, Falls Church, VA	U	0	0	NONE	507	4Q FY08	507	4Q FY09	0	1014	0
INATS - Program Management Support	SS/FFP	Goldbelt Raven, LLC, Frederick, MD	C	0	0	NONE	530	1Q FY08	593	1Q FY09	0	1123	0
ZSBIR													
SBIR/STTR - Aggregated from ZSBIR-SBIR/STTR	PO	HQ, AMC, Alexandria, VA		0	62	NONE	0	NONE	0	NONE	0	62	0

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CBDP PROJECT COST ANALYSIS (R-3 Exhibit)	DATE February 2007
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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	FY2007 Cost	FY2007 Award Date	FY2008 Cost	FY2008 Award Date	FY2009 Cost	FY2009 Award Date	Cost to Complete	Total Cost	Target Value of Contract
Subtotal IV. Management Services:					946		3242		3997		0	8185	

Remarks:

TOTAL PROJECT COST:					6391		21348		26106		0	53845	
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Exhibit R-4a, Schedule Profile

DATE
February 2007

BUDGET ACTIVITY
**RDT&E DEFENSE-WIDE/
BA5 - System Development and Demonstration (SDD)**

PE NUMBER AND TITLE
0604384BP CHEMICAL/BIOLOGICAL DEFENSE (SDD) PROJECT
MC5

D. <u>Schedule Profile:</u>	FY 2006				FY 2007				FY 2008				FY 2009				FY 2010				FY 2011				FY 2012				FY 2013								
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4					
AAS																																					
AAS - cGMP Manufacturing Requirements	>>	—————																				1Q															
AAS - Milestone B					2Q																																
AAS - Formulation Toxicology & Stability Studies					2Q	—————						2Q																									
AAS - Phase 2 Clinical Safety Studies					2Q	—————										1Q																					
AAS - GLP Animal Efficacy Studies					2Q	—————										4Q																					
AAS - DT/OT for Packaging												4Q	—————		1Q																						
AAS - New Drug Application (NDA) Submission																3Q	—————		3Q																		
AAS - MS C																								4Q													
BSCAV																																					
BSCAV Inc. 2 - Large Scale Manufacturing, Process Qualification & Validation									1Q	—————																											4Q
BSCAV Inc. 2 - Milestone B																2Q																					
BSCAV Inc. 2 - Conduct GLP Animal Efficacy Studies																4Q	—————		4Q																		

<h2>Exhibit R-4a, Schedule Profile</h2>	DATE February 2007
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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 MC5
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D. <u>Schedule Profile (cont):</u> PPADS	FY 2006				FY 2007				FY 2008				FY 2009				FY 2010				FY 2011				FY 2012				FY 2013			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
SNAPP - FDA Required Post-Marketing Studies	>>			4Q																												
SERPACWA - FDA Required Post-Marketing Studies	>>			4Q																												

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CBDP BUDGET ITEM JUSTIFICATION SHEET (R-2a Exhibit)	DATE February 2007
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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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COST (In Thousands)	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	Cost to	Total Cost
	Actual	Estimate	Complete							
MR5 MEDICAL RADIOLOGICAL DEFENSE	0	0	0	7867	8515	9460	5083	2404	Continuing	Continuing

A. Mission Description and Budget Item Justification:

Project MR5 MEDICAL RADIOLOGICAL DEFENSE: This project funds the advanced development of candidate therapeutic and/or prophylactic medical countermeasures to mitigate the consequences of exposure to ionizing radiation due to nuclear or radiological attacks. Exposure to ionizing radiation causes damage to the blood-forming cells (hematopoietic system) and gastrointestinal system, leading to Acute Radiation Syndrome (ARS). Development and fielding of prophylactic and therapeutic drugs requires Food and Drug Administration (FDA) approval. Testing the efficacy of candidate drugs against 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 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 during evacuation.

B. Accomplishments/Planned Program

	<u>FY 2006</u>	<u>FY 2007</u>	<u>FY 2008</u>	<u>FY 2009</u>
MEDICAL RADIOLOGICAL COUNTERMEASURES	0	0	0	7867
RDT&E Articles (Quantity)	0	0	0	0

CBDP BUDGET ITEM JUSTIFICATION SHEET (R-2a Exhibit)	DATE February 2007
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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	FY2006	FY2007	FY2008	FY2009
MRADC - FY 09 - Initiate Phase 2 clinical safety studies.	0	0	0	3564
MRADC - FY 09 - Initiate large scale manufacturing.	0	0	0	4303
Total	0	0	0	7867

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 Production and Deployment Phase, sufficient quantities of product to meet Initial Operating 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 full capability (FDA approval). The DoD MRADC program shall be non-duplicative of and synergistic with similar efforts by the Department of Health and Human Services (DHHS).

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CBDP PROJECT COST ANALYSIS (R-3 Exhibit)	DATE February 2007
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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	FY2007 Cost	FY2007 Award Date	FY2008 Cost	FY2008 Award Date	FY2009 Cost	FY2009 Award Date	Cost to Complete	Total Cost	Target Value of Contract
MRADC													
MRADC - cGMP Manufacturing	C/CPIF	TBD	C	0	0	NONE	0	NONE	3284	2Q FY09	0	3284	0
Subtotal I. Product Development:					0		0		3284		0	3284	

Remarks:

II. Support Costs	Contract Method & Type	Performing Activity & Location	US NF CC	Total PYs Cost	FY2007 Cost	FY2007 Award Date	FY2008 Cost	FY2008 Award Date	FY2009 Cost	FY2009 Award Date	Cost to Complete	Total Cost	Target Value of Contract
MRADC													
MRADC - Regulatory Integration and NDA Support Efforts	C/CPIF	TBD	C	0	0	NONE	0	NONE	1180	2Q FY09	0	1180	0
Subtotal II. Support Costs:					0		0		1180		0	1180	

Remarks:

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CBDP PROJECT COST ANALYSIS (R-3 Exhibit)	DATE February 2007
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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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III. Test and Evaluation	Contract Method & Type	Performing Activity & Location	US NF CC	Total PYs Cost	FY2007 Cost	FY2007 Award Date	FY2008 Cost	FY2008 Award Date	FY2009 Cost	FY2009 Award Date	Cost to Complete	Total Cost	Target Value of Contract
MRADC													
MRADC - Phase 2 Clinical Safety Studies	C/CPIF	TBD	C	0	0	NONE	0	NONE	2360	2Q FY09	0	2360	0
Subtotal III. Test and Evaluation:					0		0		2360		0	2360	

Remarks:

IV. Management Services	Contract Method & Type	Performing Activity & Location	US NF CC	Total PYs Cost	FY2007 Cost	FY2007 Award Date	FY2008 Cost	FY2008 Award Date	FY2009 Cost	FY2009 Award Date	Cost to Complete	Total Cost	Target Value of Contract
MRADC													
MRADC - Program Management Support	SS/FFP	Goldbelt Raven, LLC, Frederick, MD	C	0	0	NONE	0	NONE	423	1Q FY09	0	423	0
MRADC - Chem Bio Medical Systems	Allot	CBMS, Frederick, MD	U	0	0	NONE	0	NONE	393	4Q FY09	0	393	0
MRADC - Joint Program Executive Office	Allot	JPEO, Falls Church, VA	U	0	0	NONE	0	NONE	227	4Q FY09	0	227	0
Subtotal IV. Management Services:					0		0		1043		0	1043	

Remarks:

Exhibit R-4a, Schedule Profile

DATE
February 2007

BUDGET ACTIVITY
**RDT&E DEFENSE-WIDE/
BA5 - System Development and Demonstration (SDD)**

PE NUMBER AND TITLE
0604384BP CHEMICAL/BIOLOGICAL DEFENSE (SDD)

PROJECT
MR5

D. <u>Schedule Profile:</u>	FY 2006				FY 2007				FY 2008				FY 2009				FY 2010				FY 2011				FY 2012				FY 2013			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
MRADC																																
MRADC - Milestone B																4Q																
MRADC - Phase 2 Clinical Safety Studies																4Q	————— 4Q															
MRADC - Large Scale Manufacturing																4Q	—————							1Q								
MRADC - Definitive Animal Efficacy Studies																				1Q	————— 4Q											
MRADC - NDA Submission																												2Q				
MRADC - FDA Approval																												4Q				
MRADC - Milestone C																																1Q

CBDP BUDGET ITEM JUSTIFICATION SHEET (R-2a Exhibit)	DATE February 2007
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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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COST (In Thousands)	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	Cost to	Total Cost
	Actual	Estimate	Complete							
TE5 TEST & EVALUATION (SDD)	18892	22163	45604	42481	37603	15485	15008	4844	Continuing	Continuing

A. Mission Description and Budget Item Justification:

Project TE5 TEST & EVALUATION (SDD): This funding supports the Product Director Test Equipment, Strategy, and Support (PD TESS) effort. PD TESS provides support for the Milestone Decision Authority, Joint Project Managers, and the Test and Evaluation (T&E) community with the development of test capabilities to adequately test and evaluate Chemical, Biological, Radiological, and Nuclear Defense systems throughout the life cycle acquisition process.

Efforts funded under PD TESS support the following five major areas: (1) Sense Laboratory (Chemical), (2) Sense Laboratory (Biological), (3) Sense Field, (4) Shield and Sustain, and (5) Shape.

CBDP BUDGET ITEM JUSTIFICATION SHEET (R-2a Exhibit)	DATE February 2007
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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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(1) Sense Laboratory (Chemical): The Sense (Chem) development effort provides a new capability to the Edgewood Chemical Biological Center (ECBC) to conduct tests involving new and emerging highly toxic threat materials. The test capability will support tests of various commodity areas (such as decontamination, collective protection and individual protection, and contamination avoidance (detection) technologies and systems for the Department of Defense and other government agencies. The Acquisition Programs supported by this effort will be the Joint Chemical Agent Detector (JCAD); the Automatic Chemical Agent Detector Alarm (ACADA); the Joint NBC Reconnaissance System (JNBCRS) Sensors; the Joint Chemical Biological Radiological Agent Water Monitor (JCBRAWM); the Nuclear, Biological, Chemical Reconnaissance Vehicle (NBCRV) Stryker Sensors; the Joint Service General Purpose Mask (JSGPM); the Joint Service Lightweight Integrated Suit Technology (JSLIST); the Joint Expeditionary Collective Protection (JECBP); the Joint Collective Protection Equipment (JCPE); the Joint Service Tactical Decontamination System (JSTDS); the Joint Service Sensitive Equipment Decontamination (JSSSED); the Joint Warning and Reporting Network (JWARN) hardware components; the Joint Service Lightweight Standoff Chemical Agent Detector (JSLSCAD); the Joint Protective Air Crew Ensemble (JPACE); the JSLIST Combat Vehicle Crewman Coverall (JC3); Multipurpose Lightweight Overboot (MULO); the Advanced Footwear Solution (AFS); the Initial Footwear Solution (IFS); the JSLIST Block I Glove Upgrade (JB1GU); the JSLIST Block II Glove Upgrade (JB2GU); the Chemical & Biological Protective Shelter (CBPS); the Collective Protection System (CPS); the Joint Service Aircrew Mask (JSAM); the Joint Service Chemical Environment Survivability Mask (JSCESM); the Joint Chemical Ensemble (JCE); and the All Purpose - Personal Protective Equipment (AP-PPE).

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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

(2) Sense Laboratory (Biological): The Sense (Bio) development effort supports current and future biological point detection system programs; develops a single unit of measure for characterizing biological aerosols in testing; designs and fabricates a live agent Biological Standoff facility; and develops a biological spectral instrument which measure spectral signatures and cross sections of biological warfare agents and stimulant materials. The Acquisition Programs supported by this effort will be the 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); the Joint Biological Standoff Detection System (JBSDS); the Joint NBC Reconnaissance System (JNBCRS); and the Nuclear, Biological, Chemical Reconnaissance Vehicle (NBCRV) Stryker.

(3) Sense Field: The Sense Field capability provides the Test Grid and Data Network, a fully instrumental CB stimulant field test capability to include cloud tracking, Test Data Network, C4ISR network, and safari capability; a Spectroradiometer effort which procures two Adaptive Infrared Imaging Spectroradiometers - Wide Area Detector (AIRIS-WAD) to complement a Joint Science and Technology Office effort; and the Joint Ambient Breeze Tunnel and Active Standoff Chamber (JABT/ASC) upgrade which provides test instrumentation and fully characterizes and validates JABT/ASC chamber performance. The Acquisition Programs supported by this effort will be the 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 Nuclear, Biological, Chemical Reconnaissance Vehicle (NBCRV) Stryker; the Joint Effort Model (JEM); the Joint Operational Effects Federation (JOEF); and the Joint Expeditionary Collective Protection (JECP).

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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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(4) Shield and Sustain: The Shield and Sustain capability provides the Upgraded Decontamination Facility (UDF), an enhanced ability to conduct decontamination efficacy testing thru the use of a test apparatus that includes separate containment chambers to support small-scale contamination, decontamination, and off-gassing/residual agent collection test procedures; the Protection Ensemble Test Mannequin (PETMAN) program which designs and procures articulated robotic mannequins that simulate soldier activity to allow for full system evaluation of individual protection ensembles against chemical warfare agents and non-traditional agents; the Man-in-Simulant Test (MIST) Upgrade program which includes two improved test capability development efforts. The first is the development of a real-time simulant sampling system and associated test methodology. The second is the development of test equipment and methodology that allows for simultaneous particulate quantification of various particle sizes to support aerosol (stimulant) level tests; the Liquid Chromatograph and Gas Chromatograph (LC/GC) effort, procures analytical testing equipment for low-level detection of CW agents in support of decontamination programs. This test capability will provide improved characterization of residual contamination to support evaluation of decontamination efficacy of decontamination systems; the Individual Protection Ensemble (IPE) Grid program develops methodology for assigning locations to the body and each successive layer of IPE to provide a commonality of measurements for IPE performance assessment. A common sample location identification system is needed to equate data collected by various test protocols, to provide a means to ensure data is collected from the same location for each testing cycle at each testing location, and to joint data from several testing scenarios; the Collective Protection Airflow Mapping (CPAFM) program develops capabilities to measure, map, and model the airflow, barometric pressure and agent flux of the Collective Protection (ColPro) systems, both internally and externally, as a function of time. The program provides enhanced test and evaluation tools to allow fielding of significantly more effective ColPro systems for the warfighter. The enhancement will be achieved by using airflow mapping capabilities to identify ColPro design problems that reduce protection factors and allow contamination to enter the protected area; and the ColPro Facility Upgrade effort provides improved test fixtures and instrumentation to evaluate ColPro systems and components to include air purification systems and novel closures. Standardized test procedures will be developed to allow for comparison of test data across facilities. The Acquisition Programs supported by this effort will be the Joint Sensitive Equipment Decontamination (JSSSED); the Joint Platform Interior Decontamination (JPID); the Joint Expeditionary Collective Protection (JECP); the Joint Collective Protection Equipment (JCPE); the Chemical & Biological Protective Shelter (CBPS); the Collective Protection System (CPS); the Joint Service Lightweight Integrated Suit Technology (JSLIST); the Joint Protective Air Crew Ensemble (JPACE); the JSLIST Combat Vehicle Crewman Coverall (JC3); the Multipurpose Lightweight Overboot (MULO); the Advanced Footwear Solution (AFS); the Initial Footwear Solution (IFS); the JSLIST Block I Glove Upgrade (JB1GU); the JSLIST Block II Glove Upgrade (JB2GU); the Joint Service General Purpose Mask (JSGPM); the Joint Service Aircrew Mask (JSAM); the Joint Service Chemical Environment Survivability Mask (JSCESM); the Joint Chemical Ensemble (JCE); and the All Purpose - Personal Protective Equipment (AP-PPE).

CBDP BUDGET ITEM JUSTIFICATION SHEET (R-2a Exhibit)	DATE February 2007
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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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(5) Shape: The Shape capability provides the Synthetic Test Environment effort which produces a library of real world environmental and interferent physical characteristics for CB systems by collecting background and interferent signatures at operationally relevant locations throughout the world. The signatures will be integrated into models to generate synthetic environments to assess material performance under various conditions; and the Stimulants and Stimulators effort to design and build detection system stimulants and stimulators to facilitate hardware-in-the-loop testing in a field environment. The stimulants and stimulators will be networked on the Dugway Proving Ground test grid and will allow an operator to cause any combination of detection systems to enter an alarm state by exercising the technology in the detection system. The stimulants and stimulators will allow the detection systems to be exercised without the release of simulants into the test area. The Acquisition Programs supported by this effort will be the 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 Nuclear, Biological, Chemical Reconnaissance Vehicle (NBCRV) Stryker; the Joint Effects Model (JEM); the Improved Point Detection System (IPDS); the Improved Chemical Agent Monitor (ICAM); and the Multiservice Radiac Program (AN/PDR-75, AN/UDR-2, AN/PDR-77, AN/UDR-13).

B. Accomplishments/Planned Program

	<u>FY 2006</u>	<u>FY 2007</u>	<u>FY 2008</u>	<u>FY 2009</u>
TEST EQUIPMENT, STRATEGY & SUPPORT	18892	21954	45604	42481
RDT&E Articles (Quantity)	0	0	0	0

Accomplishments/Planned Program	FY2006	FY2007	FY2008	FY2009
PD TESS - IPE Mannequin - FY 08 - Initiate design of Protection Ensemble Test Mannequin (PETMAN) system construction, verification testing, installation and validation testing of systems. FY 09 - Complete installation and testing of systems.	0	0	4000	3000

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CBDP BUDGET ITEM JUSTIFICATION SHEET (R-2a Exhibit)		DATE February 2007			
BUDGET ACTIVITY	PE NUMBER AND TITLE	PROJECT			
RDT&E DEFENSE-WIDE/ BA5 - System Development and Demonstration (SDD)	0604384BP CHEMICAL/BIOLOGICAL DEFENSE (SDD)	TE5			
Accomplishments/Planned Program (Cont):		FY2006	FY2007	FY2008	FY2009
PD TESS - Chemical Biological Agent Resistance Test (CBART) System - FY 06 - Initiated design of new material swatch test system to test novel filtration material technologies in an effort to mimic real life field conditions. FY 07 - Complete fixture design and initiate verification testing and methodology prove out. FY 08 - Complete verification testing, initiate final reporting/methodology documentation of CBART fixture design. FY 09 - Fabricate, install and verify CBART systems at DPG.		420	372	600	1500
PD TESS - Man-in-Simulant Test (MIST) Upgrade - FY 06 - Acquired sampling hardware and aerosol measurement equipment to support verification of a real-time MIST sampling system and associated test methodology. FY 07 - Acquire real-time MIST sensors to support testing. FY 08 - Conduct verification/validation testing.		500	418	100	0
PD TESS - Upgrade ColPro Facilities - FY 06 - Acquired instrumentation/initiated design and upgrade of collective protection (ColPro) test facilities at DPG, UT, Naval Surface Warfare Center, Dahlgren, VA, Eglin AFB, FL and Edgewood Chemical Biological Center (ECBC), APG, MD.		3000	0	0	0
PD TESS - Upgrade DPG ASC/JABT - FY 06 - Developed test plans to characterize and validate the Joint Ambient Breeze Tunnel (JABT) and Active Standoff Chamber (ASC). Purchased and installed ASC/JABT referee instrumentation/equipment. Performed modeling studies for ASC/JABT chemical and biological simulant characterization. Conducted chemical and biological simulant characterization and validation tests in the JABT and initiated chemical and biological simulant characterization and validation tests in the ASC. FY 07 - Complete simulant characterization testing and validation testing in the JABT/ASC.		2000	465	0	0
PD TESS - Test Grid Instrument Network & Design - FY 06 - Built and installed a cloud characterization data network. Initiated comprehensive test grid and data network design (Funds located on CA5 JSLSCAD line). FY 07 - Complete design of test grid instrumentation, data network, C4ISR and Safari capability. FY 08 - Purchase necessary referee instrumentation and data management hardware and initiate data fusion software development. FY 09 - Complete software development and integrate into test grid command center. Purchase/integrate data visualization hardware into test grid command center.		0	4274	13144	10772
Project TE5/Line No: 104		Page 158 of 167 Pages		Exhibit R-2a (PE 0604384BP)	

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CBDP BUDGET ITEM JUSTIFICATION SHEET (R-2a Exhibit)			DATE February 2007	
BUDGET ACTIVITY RDT&E DEFENSE-WIDE/ BA5 - System Development and Demonstration (SDD)	PE NUMBER AND TITLE 0604384BP CHEMICAL/BIOLOGICAL DEFENSE (SDD)	PROJECT TE5		
Accomplishments/Planned Program (Cont):				
	FY2006	FY2007	FY2008	FY2009
PD TESS - Whole System Live Agent Test (WSLAT) - FY 06 - Validated LRU improvements. Completed modeling and simulation development of Joint Biological Point Detection System (JBPDS) engineering models supporting WSLAT. Completed methodology development/testing. Completed preliminary chamber design. FY 07 - Conduct WSLAT record test in support of JBPDS. Initiate and complete final WSLAT chamber design. FY 08 - Complete WSLAT evaluation. Initiate fabrication of WSLAT chamber. FY 09 - Complete fabrication of WSLAT chamber.	6617	4460	10000	18566
PD TESS - Biospectral Instrument - FY 06 - Prepared engineering design, initiated and completed software development and integration, fabrication and electronics assembly, and testing/of spectral characterization instrument to measure the relative UV, laser-induced fluorescence signatures and cross-sections, and the UV and infrared elastic backscatter cross-sections of biological simulant and agent materials.	1380	0	0	0
PD TESS - DPG Chemistry Laboratory Upgrade - FY 06 - Developed design and upgraded test chambers/fixtures for chemistry laboratory.	3475	0	0	0
PD TESS - Dynamic Test Chamber (DTC) - FY 06 - Initiated design of chemical agent point detector chamber, that allows the chamber environment, including challenge materials, to be varied to simulate real-world conditions. FY 07 - Complete DTC design. FY 08 - Fabricate and initiate installation of DTC. Develop system performance validation test plan and operating procedures. FY 09 - Complete installation of the DTC. Conduct performance validation test.	500	2323	7000	3000
PD TESS - Stimulants and Stimulator System - FY 07 - Complete stimulant devices design and stimulator system design. FY 08 - Fabricate stimulant devices/stimulator system. Initiate verification/validation testing. FY 09 - Complete fabrication of stimulant devices/stimulator system. Complete verification/validation testing.	0	929	4500	2100
PD TESS - Backgrounds and Interferents - FY 06 - Developed a signature/interferent collection plan and a data/metadata management plan to guide worldwide collection of backgrounds and interferents for CBD detection programs. FY 07 - Initiate collection of background/interferent signatures. FY 08 - Complete background/interferent signature collection and integrate into signature database.	1000	2880	3500	0
Project TE5/Line No: 104				

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CBDP BUDGET ITEM JUSTIFICATION SHEET (R-2a Exhibit)		DATE February 2007
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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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Accomplishments/Planned Program (Cont):	FY2006	FY2007	FY2008	FY2009
PD TESS - FY 07/08/09 - Provide systems engineering support to integrate and execute System Development and Demonstration T&E capability development efforts.	0	5833	2760	3543
Total	18892	21954	45604	42481

	<u>FY 2006</u>	<u>FY 2007</u>	<u>FY 2008</u>	<u>FY 2009</u>
SBIR/STTR	0	209	0	0
RDT&E Articles (Quantity)	0	0	0	0

Accomplishments/Planned Program	FY2006	FY2007	FY2008	FY2009
SBIR - FY 07 - Small Business Innovative Research.	0	209	0	0
Total	0	209	0	0

C. <u>Other Program Funding Summary:</u>	<u>FY 2006</u>	<u>FY 2007</u>	<u>FY 2008</u>	<u>FY 2009</u>	<u>FY 2010</u>	<u>FY 2011</u>	<u>FY 2012</u>	<u>FY 2013</u>	<u>To Compl</u>	<u>Total Cost</u>
TE7 TEST & EVALUATION (OP SYS DEV)	0	0	7016	7201	6922	8094	8235	8235	Cont	Cont

CBDP BUDGET ITEM JUSTIFICATION SHEET (R-2a Exhibit)		DATE February 2007
BUDGET ACTIVITY RDT&E DEFENSE-WIDE/ BA5 - System Development and Demonstration (SDD)	PE NUMBER AND TITLE 0604384BP CHEMICAL/BIOLOGICAL DEFENSE (SDD)	PROJECT TE5

D. Acquisition Strategy:

PD TESS

The PD TESS program provides for the development and acquisition of new and enhanced test capabilities to support the sense, shield, shape, and sustain mission areas for the Joint Service Chemical and Biological Defense Program (CBDP). Beginning in FY06 and continuing thru the FYDP, a combination of Advanced Component Development and Prototypes (ACD&P) and System Development and Demonstration (SDD) efforts will be executed. The efforts are being supported thru new, competitive contract actions, by studies conducted by the National Academies of Science, and thru efforts conducted by technology experts of other Government agencies and academia. Technology solutions will leverage commercially available technologies and systems to provide state-of-the-art capabilities that address the current and future test and evaluation needs of the CBDP. Delivery of the capabilities is prioritized and synchronized with the needs of the acquisition programs of record to ensure capability availability when needed.

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CBDP PROJECT COST ANALYSIS (R-3 Exhibit)	DATE February 2007
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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	FY2007 Cost	FY2007 Award Date	FY2008 Cost	FY2008 Award Date	FY2009 Cost	FY2009 Award Date	Cost to Complete	Total Cost	Target Value of Contract
PD TESS													
HW S - IPE Mannequin (PETMAN) Systems	C/CPFF	TBD	C	0	0	NONE	3700	1Q FY08	2775	1Q FY09	0	6475	0
HW S - CBART - System Fabrication/Installation	MIPR	Dugway Proving Grounds, DPG, UT	U	420	322	2Q FY07	0	NONE	1500	1Q FY09	0	2242	0
SW SB - MIST Sampling Hardware Procurement	MIPR	Dugway Proving Grounds, DPG, UT	U	500	418	3Q FY07	0	NONE	0	NONE	0	918	0
HW S - WSLAT Final Chamber Design	C/FFP	TBD	C	0	2380	2Q FY07	10000	1Q FY08	18566	1Q FY09	0	30946	0
HW GFPP - Test Grid Referee Instrumentation	C/CPFF	Lockheed Martin Integrated Systems, Wall, NJ	C	0	4274	2Q FY07	13144	2Q FY08	10772	2Q FY09	0	28190	0
HW S - Stimulants/Stimulator System Development	C/CPFF	ARINC Engineering, Annapolis, MD	C	0	929	2Q FY07	4300	2Q FY08	2000	2Q FY09	0	7229	0
HW S - Dynamic Test Chamber Design, Fabrication, Installation	MIPR	NAVSEA (JHU-APL), Washington, DC	U	500	2323	2Q FY07	6500	2Q FY08	2700	2Q FY09	0	12023	0
Subtotal I. Product Development:					10646		37644		38313		0	88023	

Remarks:

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CBDP PROJECT COST ANALYSIS (R-3 Exhibit)	DATE February 2007
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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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III. Test and Evaluation	Contract Method & Type	Performing Activity & Location	US NF CC	Total PYs Cost	FY2007 Cost	FY2007 Award Date	FY2008 Cost	FY2008 Award Date	FY2009 Cost	FY2009 Award Date	Cost to Complete	Total Cost	Target Value of Contract
PD TESS													
OTHT S - IPE Mannequin (PETMAN) System Validation	MIPR	Dugway Proving Grounds, DPG, UT	U	0	0	NONE	300	3Q FY08	225	3Q FY09	0	525	0
OTHT S - CBART Test Fixture Design/Testing	MIPR	Dugway Proving Grounds, DPG, UT	U	0	50	2Q FY07	600	1Q FY08	0	NONE	0	650	0
OTHT S - MIST Sampling System Validation	MIPR	Dugway Proving Grounds, DPG, UT	U	0	0	NONE	100	1Q FY08	0	NONE	0	100	0
OTHT SB - WSLAT M&S, Methodology Development, Validation Testing	MIPR	Various	U	1010	1955	1Q FY07	0	NONE	0	NONE	0	2965	0
OTHT S - Background/Interferent Collection	C/FFP	Lockheed Martin Integrated Systems, Wall, NJ	C	1000	2880	1Q FY07	3500	1Q FY08	0	NONE	0	7380	0
OTHT S - Dynamic Test Chamber Validation	MIPR	Various	U	0	0	NONE	500	1Q FY08	300	2Q FY09	0	800	0
OTHT S - Stimulants/Stimulators Validation	C/CPFF	TBD	C	0	0	NONE	200	2Q FY08	100	2Q FY09	0	300	0
OTHT S - ASC/JABT Modeling Studies, CB Simulants, and Validation	MIPR	Dugway Proving Grounds, DPG, UT	U	1190	465	2Q FY07	0	NONE	0	NONE	0	1655	0
Subtotal III. Test and Evaluation:					5350		5200		625		0	14375	

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CBDP PROJECT COST ANALYSIS (R-3 Exhibit)	DATE February 2007
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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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III. Test and Evaluation - Cont.
 Remarks: PD TESS - Test efforts are for the validation of capabilities.

IV. Management Services	Contract Method & Type	Performing Activity & Location	US NF CC	Total PYs Cost	FY2007 Cost	FY2007 Award Date	FY2008 Cost	FY2008 Award Date	FY2009 Cost	FY2009 Award Date	Cost to Complete	Total Cost	Target Value of Contract
PD TESS													
PM/MS S - Program Management/Systems Engineering Support	MIPR	JPM NBCCA, APG, MD	U	0	5833	1Q FY07	2760	1Q FY08	3543	1Q FY09	0	12136	0
ZSBIR													
SBIR/STTR - Aggregated from ZSBIR-SBIR/STTR	PO	HQ, AMC, Alexandria, VA		0	209	NONE	0	NONE	0	NONE	0	209	0
Subtotal IV. Management Services:					6042		2760		3543		0	12345	

Remarks:

TOTAL PROJECT COST:		22163		45604		42481		0	115048
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Exhibit R-4a, Schedule Profile

DATE
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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

D. <u>Schedule Profile:</u>	FY 2006				FY 2007				FY 2008				FY 2009				FY 2010				FY 2011				FY 2012				FY 2013			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
PD TESS																																
IPE Mannequin Design, Construction, Installation, Testing									1Q																							
CBART System Design, Verification Testing & Methodology Prove Out			3Q									4Q																				
CBART System Fabrication/Installation (DPG)													1Q			4Q																
MIST Upgrades				4Q																												
Upgrade ColPro Facilities			3Q					4Q																								
DPG ASC/JABT Upgrade			2Q					4Q																								
Test Grid Instrument Network & Design	1Q																															4Q
WSLAT Chamber Design/Fabrication	1Q															4Q																
Bio Standoff Facility Design & Fabrication													1Q																			4Q
Bio Spectral Instrument Design, Development, Testing			3Q					4Q																								
Stimulant/Stimulator Design, Fabrication, Testing						1Q																										4Q
Background/Interferent Signature Collection																																4Q

Exhibit R-4a, Schedule Profile	DATE February 2007
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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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D. <u>Schedule Profile (cont):</u>	FY 2006				FY 2007				FY 2008				FY 2009				FY 2010				FY 2011				FY 2012				FY 2013			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
PD TESS (Cont)																																
DPG Chem Lab Upgrades				4Q	—————																											
Dynamic Test Chamber Design/Fabrication/Installation/Validation				4Q	—————											2Q																

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