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CBDP BUDGET ITEM JUSTIFICATION SHEET (R-2 Exhibit)	DATE February 2005
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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 2004 Actual	FY 2005 Estimate	FY 2006 Estimate	FY 2007 Estimate	FY 2008 Estimate	FY 2009 Estimate	FY 2010 Estimate	FY 2011 Estimate	Cost to Complete	Total Cost
Total Program Element (PE) Cost	172505	145794	280908	228319	290942	237065	191023	118205	Continuing	Continuing
CA5 CONTAMINATION AVOIDANCE (SDD)	117476	65786	95085	83795	101159	59278	55821	14286	Continuing	Continuing
CM5 HOMELAND DEFENSE (SDD)	945	17761	395	0	0	0	0	0	0	19101
CO5 COLLECTIVE PROTECTION (SDD)	2833	2534	671	11697	21738	27992	20371	19225	Continuing	Continuing
DE5 DECONTAMINATION SYSTEMS (SDD)	5260	4264	19242	10638	5467	14885	15279	7521	Continuing	Continuing
IP5 INDIVIDUAL PROTECTION (SDD)	37536	23537	20521	17951	12608	3054	3056	1020	Continuing	Continuing
IS5 INFORMATION SYSTEMS (SDD)	0	20434	77037	25584	17517	8714	5511	3343	Continuing	Continuing
MB5 MEDICAL BIOLOGICAL DEFENSE (SDD)	7053	10087	61448	72125	93784	94061	77023	60858	Continuing	Continuing
MC5 MEDICAL CHEMICAL DEFENSE (SDD)	1402	1391	6509	6529	38669	29081	13962	11952	Continuing	Continuing

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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)

A. Mission Description and Budget Item Justification: 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.

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.

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.

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<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> <p>DoD Biological Defense mission requires the detection of validated biological threat agents to provide early warning capabilities on mobile and fixed platforms. This program element will provide theater protection through the development of point and stand-off detection systems. The detection system concept will provide detection, identification, warning, and sample collection for verification that a biological agent attack has occurred. This program element also provides for the development of biological defense medical programs. DoD Biological Defense medical mission will address: (1) protective vaccines - vaccination capability against the most probable biological threat agents; (2) identification - clinical identification of biological threat agents through medical evaluation and laboratory analysis to augment early warning capabilities.</p> <p>The projects in this program element support efforts in the system development phases of the acquisition strategy and are therefore correctly placed in Budget Activity 5.</p>		
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B. Program Change Summary:	<u>FY 2004</u>	<u>FY 2005</u>	<u>FY 2006</u>	<u>FY 2007</u>
Previous President's Budget (FY 2005 PB)	176337	152379	72702	58133
Current Biennial Budget Estimates (FY 2006)	172505	145794	280908	228319
Total Adjustments	-3832	-6585	208206	170186
a. Congressional General Reductions	-279	-18186	0	0
b. Congressional Increases	0	31600	0	0
c. Reprogrammings	-688	-20000	0	0
d. SBIR/STTR Transfer	-2478	0	0	0
e. Other Adjustments	-387	1	208206	170186

Change Summary Explanation:

Funding: FY05 - Congressional increases to enhance development projects (+\$26,050K CA5; +\$1,000K DE5; +\$2,100K IS5; +\$2,450K MB5). Congressional reductions (-\$12,021K CA5; -\$2,979K CM5). Congressional general reductions (-\$1,380K CA5; -\$534K CM5; -\$56K CO5; -\$73K DE5; -\$530K IP5; -\$408K IS5; -\$173K MB5; -\$32K MC5). Reprogramming to align developmental efforts (-\$20,000K CA5).

FY06 - Enhance test and evaluation capabilities (+\$11,000K CA5; +\$3,000K IS5). Enhance developmental efforts in areas of agent detection, early warning and battle management, decontamination, and biological medical countermeasures (+\$6,000K DE5; +\$29,000K IS5; +\$11,400K MB5). Inflation adjustment (+\$1,406K CA5; +\$6K CM5; +\$10K CO5; +\$285K DE5; +\$303K IP5; +\$1,139K IS5; +\$741K MB5; +\$96K MC5). Reprioritization of programs within the Chemical Biological Defense Program to provide full funding of high priority developmental items (+\$43,541K CA5; -\$3,457K CO5; +\$7,247K DE5; +\$14,782K IP5; +\$36,793K IS5; +\$45,664K MB5; -\$750K MC5).

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Funding (cont.)

FY07 - Enhance test and evaluation capabilities (+\$5,000K CA5; +\$2,000K IS5; +\$2,000K IP5); Enhance developmental efforts in areas of agent detection, decontamination, and collective protection (+\$4,000K CA5; +\$6,000K DE5; +\$10,000K CO5). Inflation adjustment (+\$1,406K CA5; +\$197K CO5; +\$178K DE5; +\$301K IP5; +\$430K IS5; +\$1,210K MB5; +\$110K MC5). Reprioritization of programs within the Chemical Biological Defense Program to provide full funding of high priority developmental items (+\$49,762K CA5; -\$3,076K CO5; -\$952K DE5; +\$14,680K IP5; +\$21,735K IS5; +\$55,985K MB5; -\$780K MC5).

Schedule: N/A

Technical: N/A

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COST (In Thousands)	FY 2004 Actual	FY 2005 Estimate	FY 2006 Estimate	FY 2007 Estimate	FY 2008 Estimate	FY 2009 Estimate	FY 2010 Estimate	FY 2011 Estimate	Cost to Complete	Total Cost
CA5 CONTAMINATION AVOIDANCE (SDD)	117476	65786	95085	83795	101159	59278	55821	14286	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) Interim Biological Agent Detection System (IBADS), (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 Agent Water Monitor (JCBAWM), (6) Joint Contaminated Surface Detector (JCSD), (7) Joint Effects Model (JEM), (8) Joint Service Light Nuclear, Biological and Chemical Reconnaissance System (JSLNBCRS), (9) Joint Service Lightweight Stand-off Chemical Agent Detector (JSLSCAD), (10) Joint Warning and Reporting Network (JWARN), (11) Mobile Chemical Agent Detector (MCAD), (12) Nuclear, Biological and Chemical Reconnaissance Vehicle (NBCRV), (13) Force Protection - CB Installation/Force Protection Program and (14) the Point Chemical Agent Detector Evaluation (PCADE) Program.

This project includes IBADS continued operational support. IBADS gives the Navy an interim point detection capability aboard ships at sea, which will be part of the theater protection strategy. The JBPDS BLKI will replace the IBADS beginning in FY05.

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The JBPDS suite will be integrated onto Service specific platforms (e.g., JSLNBCRS, NBCRV, ships, etc.), employed at fixed sites (e.g., air bases and ports), and may be deployed as a portable system for expeditionary and forward operating forces. 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.

The Joint Biological Standoff Detection System (JBSDS) is the first standoff early warning biological detection (BD) system. The system will be capable of providing near real time detection of biological attacks/incidents and standoff early warning detection/warning of biological warfare (BW) agents at fixed sites or when mounted on multiple platforms, including NBC reconnaissance platforms. It will be capable of providing standoff detection, ranging, tracking, discrimination (manmade vs. natural occurring aerosol) and generic detection (bio vs. non-bio) of large area 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. Increment I will provide an initial capability to Army and Air Force units and will be deployed at fixed site locations or will operate in a stationary mode on mobile platforms. Increment II will be used by all services and will provide increased sensitivity, on-the-move operation, and an interface with existing and planned communication networks (i.e. JWARN). Increment II can be employed in support of various areas (e.g., fixed sites, APODs/SPODs, amphibious landing sites, etc., or on platforms (ships, aircraft or ground vehicles)).

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The JCAD program is employing 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 JCBAWM Increment 1 will provide first real-time biological detection capability in source water. Increment 2 will provide increased detection/monitoring capabilities for chemicals in water. Increment 3 will provide non-reagent biological detection in water. Increment 4 will provide radiological detection capability in water. Increment 5 integrates all capabilities into one system.

The JCSD program will develop a laser interrogation of surface agents system that will operate from host platforms, and will provide non-contact detection of chemical agents on contaminated surfaces. The JCSD will replace the double wheel sample system in the NBCRV and the JSLNBCRS. The JCSD will provide near-term instantaneous detection and identification of chemical agents at vehicle speeds greater than possible with the Double Wheeled Sample System.

The JEM will be a general-purpose, accredited model for predicting hazards associated with the release of contaminants into the environment. JEM will be developed in blocks and will be capable of modeling hazards in a variety of scenarios including: counterforce, passive defense, accident and/or incidents (Block I), high altitude releases, urban NBC environments (Block II), building interiors, and human performance degradation (Block III). This program has been transitioned to IS5 beginning FY05.

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The JSLNBCRS is a new lightweight NBC detection and identification system and will consist of a Base Vehicle (BV) equipped with hand-held, portable and mounted, current, and advanced NBC detection and identification equipment. The JSLNBCRS 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 JSLNBCRS: 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, toxic industrial chemical and biological weapon detection and identification as a component of the JSLNBCRS and Stryker NBCRV systems.

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. These systems have detection capabilities of up to five kilometers. 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 will pursue an evaluation of three commercially available systems with follow-on low-rate production. Increment 3 will assess the potential for integrating detection capabilities in aerial platforms.

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The JWARN will provide standard integration and analysis of NBC detection information with Command, Control, Communication, Computers, Intelligence Surveillance and Reconnaissance (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 battlespace 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. Preplanned Product Improvement (P3I) will investigate new detectors/sensors and software changes to Service C4I systems. This program has been transitioned to IS5 beginning in FY05.

The MCAD is a passive, standoff system that detects, classifies, identifies and maps chemical agent vapor threats. While operating stationary or on-the-move, MCAD detects agents within its 5 km standoff range. The system can also detect TICs. The mostly Commercial-off-the-shelf (COTS) system includes a Fourier Transform Infrared (FTIR) sensor, TV camera, digital compass, and laptop computer. This system has the flexibility of operating alone or in groups via a Local Area Network (LAN). The MCAD contractor is Northrup Grumman Security Systems Corporation, located in Linthicum, MD.

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The NBCRV is a dedicated system of nuclear and chemical detection and warning equipment, and biological sampling equipment integrated into the Stryker vehicle chassis and is capable of performing NBC reconnaissance on primary, secondary, or cross country routes throughout the battlefield.

The PCADE program will evaluate emerging technologies for potential insertion into future point chemical agent detection systems.

B. Accomplishments/Planned Program

	<u>FY 2004</u>	<u>FY 2005</u>	<u>FY 2006</u>	<u>FY 2007</u>
INTERIM BIO AGENT DETECTOR SYS (IBADS)	278	289	0	0
RDT&E Articles (Quantity)	0	0	0	0

FY 2004 Accomplishments:

- 278 IBADS - Continued to provide engineering and technical support to maintain fielded systems. The Navy decommissioned four (4) IBADS.

Total 278

FY 2005 Planned Program:

- 289 IBADS - Complete the decommissioning of the remaining nine (9) shipboard IBADS.

Total 289

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	<u>FY 2004</u>	<u>FY 2005</u>	<u>FY 2006</u>	<u>FY 2007</u>
JOINT BIO POINT DETECTION SYSTEM (JBPDS)	5657	8860	7446	1017
RDT&E Articles (Quantity)	0	5	0	0

FY 2004 Accomplishments:

- 709 JBPDS BLK I - Completed Biological Aerosol Warning System (BAWS) upgrade for Low Rate Initial Production (LRIP) systems to meet Joint Operational Requirements Document (JORD) objective requirements for detection.
- 4448 JBPDS BLKI - Completed Multi-Service Operational Test and Evaluation (MOT&E) for the Army, Navy, and Air Force (Phases II-V). Provided final System Evaluation Report (SER).
- 500 JBPDS BLK I - Provided systems engineering support.

Total 5657

FY 2005 Planned Program:

- 2810 JBPDS BLKI - Congressional Add. Purchase JBPDS test hardware, Man-Portable, XM 96 systems (five @ \$503K ea.) and one System Support Package (\$295K) for Whole System Live Agent Test (WSLAT) support.
- 3000 JBPDS BLK I - Initiate and select spiral improvements for the JBPDS LRUs to meet objective requirement for number of agents and sensitivity.
- 2550 JBPDS BLK I - Congressional Add. Adapt the Array Biological Sensor as an upgrade to the JBPDS.
- 500 JBPDS BLK I - Provide systems engineering support.

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FY 2005 Planned Program (Cont):

Total 8860

FY 2006 Planned Program:

- 1100 JBPDS BLK I - Initiate, select, and validate improved collector.
- 800 JBPDS BLK I - Initiate, develop, and validate embedded training.
- 650 JBPDS BLK I - Support WSLAT execution.
- 350 JBPDS BLK I - Purchase one JBPDS System Support Package (\$350K), for support to WSLAT.
- 2000 JBPDS BLK I (T&E Capability) - Prepare preliminary chamber design.
- 154 JBPDS BLK I - Provide system engineering support.
- 2392 JPBDS BLK I - (T&E Capability) - Initiate designs and prepare statements of work and deliverables for contractors. Provide chamber and fixtures, specify instrumentation and control systems.

Total 7446

FY 2007 Planned Program:

- 1017 JBPDS BLK I (T&E Capability) - Finalize designs and prepare statements of work and deliverables for contractors. Provide chamber and fixtures, specify instrumentation and control systems.

Total 1017

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	<u>FY 2004</u>	<u>FY 2005</u>	<u>FY 2006</u>	<u>FY 2007</u>
JOINT BIOLOGICAL STANDOFF DETECTOR SYSTEM	15645	18036	0	2034
RDT&E Articles (Quantity)	0	0	0	0

FY 2004 Accomplishments:

- 8367 JBSDS - Completed development contract award.
- 450 JBSDS - Provided systems engineering support.
- 1200 JBSDS - Completed Production Qualification Test (PQT) and analysis.
- 300 JBSDS - Initiated background test, planning and analysis at multiple locations to refine detection/discrimination algorithm.
- 1628 JBSDS - Completed Milestone B and Milestone C activities.
- 2700 JBSDS - Initiated and completed the prototype upgrade and Engineering Design Test (EDT) planning.
- 1000 JBSDS - Initiated development of Increment II JBSDS system. This includes modeling and simulation analysis and market research.

Total 15645

FY 2005 Planned Program:

- 1550 JBSDS - Complete development contract (including contractor support of Production Verification Test (PVT) and Initial Operational Test and Evaluation (IOT&E)).

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FY 2005 Planned Program (Cont):

- 450 JBSDS - Provide systems engineering support.
- 2300 JBSDS - Conduct PVT.
- 4300 JBSDS - Conduct Multi-Service Operational Test and Evaluation (MOT&E).
- 1200 JBSDS - Initiate Modeling and Simulation for JBSDS Increment II.
- 8236 JBSDS - Initiate demonstration of Increment II technologies.

Total 18036

FY 2007 Planned Program:

- 2034 JBSDS (T&E Capability) - Develop real-time Man In Simulant Test (MIST) sampling system.

Total 2034

	<u>FY 2004</u>	<u>FY 2005</u>	<u>FY 2006</u>	<u>FY 2007</u>
JOINT BIOLOGICAL STANDOFF DETECTOR SYSTEM INCREMENT II	0	0	20049	42927
RDT&E Articles (Quantity)	0	0	0	18

FY 2006 Planned Program:

- 2000 JBSDS Increment II - Initiate Milestone B (MS B) preparations.
- 1100 JBSDS Increment II - Initiate system development contract solicitation.

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FY 2006 Planned Program (Cont):

- 11846 JBSDS Increment II - Initiate design and development of engineering prototype.
- 450 JBSDS Increment II - Provide systems engineering support.
- 1953 JBSDS Increment II - Initiate supportability strategy.
- 2700 JBSDS Increment II - Initiate agent/simulant correlation.

Total 20049

FY 2007 Planned Program:

- 7620 JBSDS Increment II - Finalize design, conduct critical design review and develop logistics products.
- 600 JBSDS Increment II - Provide systems engineering support.
- 18000 JBSDS Increment II - Initiate fabrication, assembly, and integration of 18 engineering prototypes (\$1M each).
- 6707 JBSDS Increment II - Develop and initiate developmental and operational test planning and developmental testing.
- 2000 JBSDS Increment II - Continue agent/simulant correlation.
- 2000 JBSDS Increment II - Initiate chemical biological standoff chamber test capability.
- 2000 JBSDS Increment II - Initiate field simulant challenge test and cloud characterization.
- 2000 JBSDS Increment II - Initiate additional test grid development.
- 2000 JBSDS Increment II - (T&E Capability) - Prepare turnkey packages of required NEPA documentation for expanded range capabilities, to allow for rapid and standing environmental approvals.

Total 42927

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	<u>FY 2004</u>	<u>FY 2005</u>	<u>FY 2006</u>	<u>FY 2007</u>
JOINT CHEMICAL AGENT DETECTOR (JCAD)	13575	0	17563	3560
RDT&E Articles (Quantity)	80	0	120	0

FY 2004 Accomplishments:

- 2105 JCAD - Completed EMD hardware and software development.
- 7667 JCAD - Initiated government evaluation of commercial detectors to include production qualification testing (PQT) and chamber design and validation.
- 1200 JCAD - Purchased Increment I commercial systems and support (20 systems each from four vendors; 80 systems total. 20 systems at \$8,875 each from vendor one; 20 systems at \$25,535 each from vendor two; 20 systems at \$12,827 each from vendor three; and 20 systems at \$12,743 each from vendor four).
- 2603 JCAD - Initiated systems engineering support for commercial detector evaluation program.

Total 13575

FY 2006 Planned Program:

- 2345 JCAD - Provide contract support of commercial test systems.
- 8340 JCAD - Conduct government evaluation of commercial detector. Efforts include completing PQT, performing MOT&E, and preparing test methodology for Increment 2 low-level detection requirements.
- 2178 JCAD - Provide systems engineering support.

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FY 2006 Planned Program (Cont):

- 2200 JCAD - Purchase Increment 2 systems and support (120 systems at \$13.5K each.
- 2500 JCAD - (T&E Capability) - Design agent simulant dissemination systems, sampling systems, monitoring systems, and establishment of testing, safety and security protocols.

Total 17563

FY 2007 Planned Program:

- 3560 JCAD - Initiate government evaluation of Increment 2 detector.

Total 3560

	<u>FY 2004</u>	<u>FY 2005</u>	<u>FY 2006</u>	<u>FY 2007</u>
JS CHEMICAL/BIOLOGICAL AGENT WATER MONITOR	0	0	4060	7730
RDT&E Articles (Quantity)	0	0	0	0

FY 2006 Planned Program:

- 3450 JCBAWM - Initiate test and evaluation efforts to include developing test methodology for bio warfare agents.
- 610 JCBAWM - Initiate systems engineering support (Government).

Total 4060

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FY 2007 Planned Program:

- 6930 JCBAWM - Continue and complete test and evaluation efforts to include validating test methodology and purchasing test instrumentation.
- 800 JCBAWM - Continue systems engineering support (Government).

Total 7730

	<u>FY 2004</u>	<u>FY 2005</u>	<u>FY 2006</u>	<u>FY 2007</u>
JOINT CONTAMINATED SURFACE DETECTOR (JCSD)	4614	0	0	0
RDT&E Articles (Quantity)	1	0	0	0

FY 2004 Accomplishments:

- 1750 JCSD - Completed systems engineering and design, and continued logistics support planning. Built first prototype unit (\$500K), and ordered parts for two additional units for laboratory and field testing to support transition to NBC Reconnaissance P3I program.
- 942 JCSD - Continued sensor performance and qualification testing. Initiated modifications to vehicle platform, integrated system in vehicle, and conducted dust/smoke effects testing as well as customer demonstration.
- 961 JCSD - Initiated CB Warfare Agent Detector Chip development efforts.
- 961 JCSD - Initiated Handheld Biological Agent Identifier development efforts.

Total 4614

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	<u>FY 2004</u>	<u>FY 2005</u>	<u>FY 2006</u>	<u>FY 2007</u>
JOINT EFFECTS MODEL	15564	0	0	0
RDT&E Articles (Quantity)	0	0	0	0

FY 2004 Accomplishments:

- 3212 JEM Block I - Completed the Test and Evaluation Master Plan (TEMP) and further refined the operational assessment and formal test plan. Developed the developmental test plan. Initiated joint interoperability test planning and increased developmental test lab capabilities. Coordinated developmental and operational test events. Initiated a test data gap analysis on CBRN field trials to assess the necessity of further field trial requirements. Selected an Accreditation Agent and initiated development of an Accreditation Plan.
- 6242 JEM Block I - Contractor completed development of engineering builds and initiated development of formal JEM Baseline. Completed Preliminary and Critical Design Reviews. Developed software system engineering documentation. Completed two of five planned development spirals.
- 3024 JEM Block I - Developed detailed Developmental and Operational test plans. Performed Independent Validation & Verification (IV&V) activities during software development. Updated the TEMP and the Verification Validation and Accreditation (VV&A) plan to support MS C. Completed data gap analysis of CBRN/TIC/TIM field trials. Produced IV&V exhibits to support class accreditation. Initiated Government Developmental Testing.

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FY 2004 Accomplishments (Cont):

- 2324 JEM Block I - Initiated development of JEM computer based training / courseware. Continued planning for the software support activity and 24/7 help desk support. Conducted joint service reviews of engineering documentation.
- 563 JEM Block I - Completed required program documentation and attained Milestone B. Performed Information Assurance Assessment. Reviewed and assessed independent model analysis report and initiated acquisition of proprietary source code.
- 199 JEM Block II - Completed Block II Focused Technology Assessment. Conducted Request For Information process, convening oversight panel to examine all current technologies. Held multiple review meetings to produce a new Independent Model Assessment Report.

Total 15564

	<u>FY 2004</u>	<u>FY 2005</u>	<u>FY 2006</u>	<u>FY 2007</u>
JS LIGHT NBC RECON SYS (JSLNBCRS)	16169	15627	9591	0
RDT&E Articles (Quantity)	0	0	0	0

FY 2004 Accomplishments:

- 7083 JSLNBCRS - Completed Light Armored Variant (LAV) integration. Initiated the preparation for LAV #1 Engineering Design Test (EDT). Completed Nuclear, Biological, Chemical Detection, Analysis, and Communication Software (NBCDACS) upgrades.

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FY 2004 Accomplishments (Cont):

- 5951 JSLNBCRS - Initiated Toxic Industrial Chemical (TIC) and Toxic Industrial Material (TIM) software upgrade for CBMS II transition to JSLNBCRS procurement. Initiated improvements to biological detection/identification capability.
- 2375 JSLNBCRS - Initiated Multi-service Operational Test and Evaluation (MOT&E) planning/coordination.
- 760 JSLNBCRS - Provided government systems engineering support.

Total 16169

FY 2005 Planned Program:

- 4842 JSLNBCRS - Continue TICs and TIMs software upgrades for CBMS II transition to JSLNBCRS procurement. Continue improvements to biological detection/identification capability. Initiate Integrated Logistics Support (ILS) of CBMS II.
- 2117 JSLNBCRS - Continue MOT&E planning and preparation.
- 2170 JSLNBCRS - Continue LAV Developmental Test (DT) of sensors and regression testing.
- 3238 JSLNBCRS - Complete LAV integration and conduct contractor Engineering Design Test (EDT).
- 2500 JSLNBCRS - Initiate First Article Test (FAT)/Production Verification Test (PVT) of HMMWV LRIP.
- 760 JSLNBCRS - Provide government systems engineering support.

Total 15627

FY 2006 Planned Program:

- 3501 JSLNBCRS - Complete development and validation of biological detection capability for CBMS II.

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FY 2006 Planned Program (Cont):

- 3120 JSLNBCRS - Initiate additional chemical/Toxic Industrial Chemical (TIC) library for CBMS II.
- 2210 JSLNBCRS - Complete CBMS II software technical transfer and Integrated Logistics Support (ILS).
- 760 JSLNBCRS - Provide government systems engineering support.

Total 9591

	<u>FY 2004</u>	<u>FY 2005</u>	<u>FY 2006</u>	<u>FY 2007</u>
JS LIGHTWEIGHT STANDOFF CHEMICAL AGENT DET (JSLSCAD)	15365	19459	36376	26527
RDT&E Articles (Quantity)	12	9	0	0

FY 2004 Accomplishments:

- 2114 JSLSCAD - Supported Stryker Nuclear Biological Reconnaissance Vehicle (NBCRV) Production Qualification Test and Limited User Test (LUT).
- 1000 JSLSCAD - Continued methodology development to support the comparison of commercially available remote sensing detectors.
- 4122 JSLSCAD - Selected and procured Increment 2 candidate remote sensing detectors and support equipment for testing (six detectors at \$387K each from vendor one; six detectors at \$300K each from vendor two for a total of 12 detectors).
- 4878 JSLSCAD - Conducted testing of JSLSCAD Increment 1 detectors to support National Research Council (NRC) findings.

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FY 2004 Accomplishments (Cont):

- 2051 JSLSCAD - Initiated modeling and simulation (M&S) efforts to allow evaluation of standoff detectors under various challenge environments.
- 1200 JSLSCAD - Provided government systems engineering support.

Total 15365

FY 2005 Planned Program:

- 3000 JSLSCAD - Continue Increment 1 evaluation to support NRC findings (M&S) and initiate Increment 2 evaluation efforts.
- 9259 JSLSCAD - Initiate evaluation of candidate commercial remote detection systems (Increment 2).
- 4000 JSLSCAD - Procure additional Increment 2 test items and support (three detectors at \$387K each from vendor one; three detectors at \$300K each from vendor two; and three detectors at \$484K each from vendor three for a total of 9 detectors).
- 500 JSLSCAD - Integrate commercial systems into platforms.
- 1500 JSLSCAD - Support remote sensing test facility design and use for testing of commercial detectors.
- 1200 JSLSCAD - Continue to provide government systems engineering support.

Total 19459

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FY 2006 Planned Program:

- 10800 JSLSCAD - Continue evaluation of commercial remote detection systems and down-select to a single system (Increment 2).
- 5576 JSLSCAD - Initiate and plan for operational test and evaluation of selected commercial system.
- 4100 JSLSCAD - Continue testing and analysis to support NRC findings and refine modeling techniques.
- 2200 JSLSCAD - Continue integration and support of the commercial remote detection system onto various platforms.
- 1000 JSLSCAD - Initiate Increment 3 technology assessment.
- 1500 JSLSCAD - Initiate product improvement program for Increment 1 detection software.
- 1200 JSLSCAD - Continue to provide government systems engineering support.
- 7900 JSLSCAD - (T&E Capability) Initiate data gathering efforts from various battle-space representative environments to include correlating and archiving spectral background signatures from these environments.
- 1200 JSLSCAD - (T&E Capability) Coordinate/facilitate subject matter expert support.
- 900 JSLSCAD - (T&E Capability) Initiate purchase of data collection instrumentation.

Total 36376

FY 2007 Planned Program:

- 6100 JSLSCAD - Complete follow-on testing and evaluation of selected commercial remote detection system (Increment 2).
- 6445 JSLSCAD - Continue operational test and evaluation of selected commercial system.
- 4500 JSLSCAD - Complete modeling and simulation verification efforts to support NRC findings.

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FY 2007 Planned Program (Cont):

- 4682 JSLSCAD - Initiate evaluation of Increment 3 systems.
- 1600 JSLSCAD - Continue product improvement program for Increment 1 detection software.
- 1200 JSLSCAD - Continue to provide government systems engineering support.
- 2000 JSLSCAD - (T&E Capability) Continue background signature data gathering efforts to include adding CB spectral signatures and correlating field and chamber test data.

Total 26527

	<u>FY 2004</u>	<u>FY 2005</u>	<u>FY 2006</u>	<u>FY 2007</u>
JOINT WARNING & REPORTING NETWORK (JWARN)	27243	0	0	0
RDT&E Articles (Quantity)	0	0	0	0

FY 2004 Accomplishments:

- 3864 JWARN - Conducted Program Management and Oversight of JWARN and JWARN Initial Capability (JIC) development efforts.
- 2426 JWARN - Continued JIC Component Development.
- 1824 JWARN - Planned for and initiated JWARN Developmental Test/Operational Assessment (DT/OA).

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FY 2004 Accomplishments (Cont):

- 2000 JWARN - Provided integration support for JWARN with Joint Effects Model (JEM) and Joint Operational Effect Federation (JOEF).
- 5509 JWARN - Integrated JIC with C4I Systems.
- 932 JWARN - Supported Mission Application Software Integration.
- 1824 JWARN - Planned for Operational Assessment
- 8864 JWARN - Developed JWARN Communications Interface Device (JCID)

Total 27243

	<u>FY 2004</u>	<u>FY 2005</u>	<u>FY 2006</u>	<u>FY 2007</u>
MOBILE CHEMICAL AGENT DETECTOR	3366	0	0	0
RDT&E Articles (Quantity)	6	0	0	0

FY 2004 Accomplishments:

- 3211 MCAD - Procured six commercial MCADs (\$484K each, \$2,904K total) and associated support for testing.
- 155 MCAD - Completed Toxic Industrial Chemical Testing.

Total 3366

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	<u>FY 2004</u>	<u>FY 2005</u>	<u>FY 2006</u>	<u>FY 2007</u>
POINT CHEMICAL AGENT DETECTOR EVALUATION	0	3000	0	0
RDT&E Articles (Quantity)	0	0	0	0

FY 2005 Planned Program:

- 2500 PCADE - Initiate government evaluation of candidate technologies.
- 500 PCADE - Initiate systems engineering support.

Total 3000

	<u>FY 2004</u>	<u>FY 2005</u>	<u>FY 2006</u>	<u>FY 2007</u>
SBIR/STTR	0	515	0	0
RDT&E Articles (Quantity)	0	0	0	0

FY 2005 Planned Program:

- 515 SBIR

Total 515

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C. <u>Other Program Funding Summary:</u>	<u>FY 2004</u>	<u>FY 2005</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>To Compl</u>	<u>Total Cost</u>
CA7 CONTAMINATION AVOIDANCE OPERATIONAL SYS DEV	0	2131	10093	8137	8134	8143	8148	8164	Cont	Cont
G47101 JOINT WARNING & REPORTING NETWORK (JWARN)	1102	5913	5183	7151	21142	21254	22410	28576	Cont	Cont
JC1500 NBC RECON VEHICLE (NBCRV)	13139	10272	14991	10120	7559	0	0	0	0	56081
JF0100 JOINT CHEM AGENT DETECTOR (JCAD)	2085	0	5122	26357	26124	29961	31783	38924	Cont	Cont
M98801 AUTO CHEMICAL AGENT ALARM (ACADA), M22	14889	55581	3433	12757	12806	12771	12839	0	0	125076
MC0100 JT SVC LIGHT NBC RECON SYS (JSLNBCRS)	36988	50452	71311	60852	55610	56404	93144	108370	Cont	Cont
S02201 IMPROVED CHEMICAL AGENT MONITOR (ICAM)	0	4083	0	0	0	0	0	0	0	4083
S10801 JS LTWT STANDOFF CW AGT DETECTOR (JSLSCAD)	2994	2721	17764	27000	29668	29086	37467	32306	Cont	Cont

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D. Acquisition Strategy:

IBADS	Technical support of 13 fielded systems. It is the goal of the Navy to decommission all 13 shipboard IBADS during FY04 and FY05 because of the expected fielding of JBPDS. Due to ship availability, the decommissioning effort may run into early FY06.
JBPDS	The Joint Biological Point Detection System (JBPDS) utilizes an open systems approach as part of the overall acquisition strategy to expedite fielding of a credible force protection strategy, while ensuring a process is in place to inserting maturing and validated technologies. Through 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 the testing to launch upgrades of the system's line replaceable units (LRUs). Upgraded LRUs that demonstrate improved system performance, availability, and lower ownership cost, will be supplied to field units throughout the LRIP phase, until new Full Rate Production (FRP) systems or LRUs are developed that meet the objective requirements.
JBSDS	The JBSDS will use an evolutionary acquisition strategy with phased developments for the JBSDS program supporting time-phased JORD requirements. The JBSDS will provide an operationally useful and supportable capability in as short a time as possible. Increment I JBSDSs will incorporate an accelerated development cycle relying on the modification of existing GOTS and COTS technologies. A down-select of existing systems via a competitive test fly-off resulted in a selection of a single system to enter Low Rate Initial Production (LRIP) to support the government testing program.

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JBSDS II	The JBSDS will use an evolutionary acquisition strategy with phased developments for the JBSDS program supporting time-phased JORD requirements. The JBSDS will provide an operationally useful and supportable capability in as short a time as possible. The Increment II JBSDS 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.
JBTDS	The JBTDS will use an evolutionary development strategy to expedite fielding of a system to meet the threshold requirements and then be upgraded at intervals until the objective requirements can be met and implemented at the appropriate time. The program will build on the DARPA Smart Sensor, technology base, industry opportunities and JBPDS programs to maximize commonality across the biological detection family. Pre-milestone activities to reach Milestone A must be initiated in FY05. Concurrently, concept exploration and tech base activities will be monitored to import the necessary critical detection technologies.
JCAD	Joint Chemical Agent Detector (JCAD) acquisition strategy focused Joint Service science and technology efforts into development of a small lightweight chemical agent detector. During production qualification test (PQT), issues were identified in meeting two key performance parameters. Testing was terminated and the development contract allowed to expire. The acquisition strategy is being restructured to meet the JCAD requirements. A new Acquisition Program Baseline and Single Acquisition Management Plan has been submitted by JPM NBC CA for approval. 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.

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JCBAWM

Increment 1: Conducted technology down-select in Feb 04 with formal Decision Analysis Process and Panel. Recommended for early transition of biodetection tickets for the interim capability. The concept of this detector will be handheld multiplex assay tickets with a reader.

Increment 2: This increment identifies a technology for detecting/monitoring Chemical Warfare Agents (CW agents) in water. Milestone A is planned for FY08.

Increment 3: This increment develops a technology to replace Increment 1 with a non-reagent biological detector/monitor in water.

Increment 4: This increment develops a detector/monitor for identifying radiological agents in water. Milestone A is planned for FY08.

Increment 5: This increment integrates all technologies into one detector/monitor for chemical, biological and radiological agents.

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JCSD	<p>The JCSD program will develop and test platform specific prototype laser interrogation of surface agents system via a spiral development acquisition strategy. System development is under contract with ITT Industries, and will demonstrate a technology readiness level (TRL) of six in laboratory and field testing, and will be used in the upcoming FY05 Chemical Unmanned Ground Vehicle (CUGR) Advance Concept Technology Demonstration (ACTD). The Sole Source contract with ITT Industries will finalize the technical approach and produce three prototypes. The system algorithm and design will be optimized and later integrated onto the JSLNBCRS. Extensive laboratory and early user testing will be conducted in preparation for an Operational Test (OT) in FY06. Upon successful completion of OT, a Milestone C In-Process Review (IPR) will be held to initiate the formal Acquisition Program, and approve low-rate initial production of the JCSD. The JCSD will be introduced to the JSLNBCRS and Stryker Fleets via Pre-Planned Product Improvements in FY07.</p>
JEM	<p>The JEM program will use a three-block evolutionary acquisition approach for the design, development, testing and fielding of JEM. For Block I, upon completion of an Independent Model Analysis, JEM interface, credibility and performance requirements will be refined in an iterative process through a series of design reviews, using cost-effective graphical storyboarding prior to actual implementation of the algorithms and data harvested from the legacy Chemical, Biological, Radiological and Nuclear (CBRN) models. A cost-plus award/incentive fee contract is being used for Block I model development.</p>

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JSLNBCRS	<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 to Northrop Grumman Mission Systems (NGMS) on 4 March 2004. Initial Operational Capability (IOC), HMMWV/LAV variant, is expected during FY07.</p>
JSLSCAD	<p>The Joint Program Executive Officer for Chemical & Biological Defense (JPEO-CBD) requested a restructure of the entire JSLSCAD program in September 2003. The JSLSCAD program restructure reflects an incremental acquisition strategy to provide initial capability using the current configuration and an evaluation of commercial systems against the JSLSCAD Joint Operational Requirements Document (JORD) requirements.</p> <p>Increment 1 - Initial Capability: This Increment is the current JSLSCAD configuration developed under the Engineering and Manufacturing Development (EMD) contract with General Dynamics Armament and Technical Products (GDATP), Deland, FL (now Charlotte, NC). While this system did not meet all the Key Performance Parameters (KPPs) or critical operational requirements of the JORD, the Acquisition and Combatant communities determined that the Increment 1 system provided additional capabilities to the warfighter (on-the move detection) that the currently fielded M21 Remote Standoff Chemical Agent Alarm (RSCAAL) is not capable of performing. Increment 1 systems will be used for ground mobile reconnaissance applications on the Stryker Nuclear, Biological and Chemical (NBC) Reconnaissance Variant and the Joint Service Light NBC Reconnaissance System.</p>

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Increment 2 Commercial Item - Ground/Ship/Fixed-Site: Increment 2 will pursue an evaluation of three commercially available systems from three contractors who responded favorably to a market survey. The Government will procure and evaluate the commercial systems with the potential to meet the JSLSCAD KPPs for ground, mobile, fixed site, and shipboard applications. The Government anticipates one or more contractors will be awarded a low rate initial production (LRIP) contract as a result of its evaluation. Upon successful completion of LRIP and IOT&E, a full rate production contract will be awarded to meet the joint forces JSLSCAD ground vehicle/shipboard/fixed-site requirements. Increment 2 contractors are listed below-

- a. General Dynamics Armament and Technical Products, Charlotte, NC
- b. Northrop Grumman Security Systems Corporation, Linthicum, MD
- c. Bruker Daltonics, Inc, Billerica, MA

Increment 3 Commercial Item - Aerial: After the Increment 2 Government evaluation, the Government will assess the potential for developing the contractor's item to meet the Increment 3 aerial requirements. If the Increment 2 system does not have the potential to meet the Increment 3 KPPs, the Government will conduct another market survey to determine if there is a commercial technology with the capability to meet the Increment 3 requirements.

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<p>JWARN</p> <p>MCAD</p> <p>PCADE</p>	<p>The 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 through the concurrent integration of sensor connectivity initially planned for Block III. The revised strategy eliminates the Block II Milestone Decision process as well as Block II Development Testing/Operational Assessment (DT/OA). This shortens the delivery schedule for the full capability of JWARN by approximately 12 months.</p> <p>The program procured six MCADs in FY04 for Government test and evaluation as part of the JSLSCAD Increment 2 government evaluation. The MCAD instrument is one of three commercial items being evaluated against the JSLSCAD requirements. The results of the Government evaluation will be used to determine the best value for the JSLSCAD fixed site, ground mobile, and naval applications.</p> <p>PCADE is a limited technology demonstration program to investigate emerging technologies for potential insertion into future point chemical agent detection programs.</p>
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I. Product Development	Contract Method & Type	Performing Activity & Location	US NF CC	Total PYs Cost	FY2005 Cost	FY2005 Award Date	FY2006 Cost	FY2006 Award Date	FY2007 Cost	FY2007 Award Date	Cost to Complete	Total Cost	Target Value of Contract
JBPDS													
SW SB - Detection and Identification Component Upgrades	C/CPFF	GD, ATP, Charlotte, NC	C	791	0	NONE	1100	2Q FY06	0	NONE	0	1891	0
SW SB - JBPDS Test Hardware (WSLAT)	C/CPFF	GD, ATP, Charlotte, NC	C	0	2727	2Q FY05	350	1Q FY06	0	NONE	0	3077	0
HW S - Sensor Design	PO	MIT-LL, Boston, MA	F	0	3500	2Q FY05	0	NONE	0	NONE	0	3500	0
HW S - Identification upgrades	SS/CPFF	Constellation Technology, Washington, DC	F	0	2550	3Q FY05	0	NONE	0	NONE	0	2550	0
JBSDS													
SW SB - Develop and Integrate JBSDS, Initiate LRIP, Develop ILS and Documentation	C/CPFF	Science & Engineering Services, Inc, Columbia, MD	C	6755	1200	1Q FY05	0	NONE	0	NONE	0	7955	0
SW SB - Initiate Demonstration of Increment II technologies	C/CPFF	TBS	C	0	4544	2Q FY05	0	NONE	0	NONE	0	4544	0
JBSDS II													
HW S - Finalize design, conduct Critical Design Review, develop logistic products, and fabricate prototypes	C/CPFF	TBS	C	0	0	NONE	11346	1Q FY06	24683	1Q FY07	0	36029	0
JCAD													
SW SB - Purchase Commercial Detectors	C/FFP	TBS	C	1200	0	NONE	2200	1Q FY06	0	NONE	0	3400	0

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CBDP PROJECT COST ANALYSIS (R-3 Exhibit)	DATE February 2005
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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	FY2005 Cost	FY2005 Award Date	FY2006 Cost	FY2006 Award Date	FY2007 Cost	FY2007 Award Date	Cost to Complete	Total Cost	Target Value of Contract
JSLNBCRS													
SW S - Toxic Industrial Chemicals/Toxic Industrial Materials and Biological Detection Software Improvement for CBMS	MIPR	Oak Ridge National Laboratory, Oak Ridge, TN	U	7800	4802	2Q FY05	8791	2Q FY06	0	NONE	0	21393	0
HW S - Development/Design/Integration of LAV Variant	C/CPFF	Northrup Grumman Mission Systems, Sierra Vista, AZ	C	11491	3218	2Q FY05	0	NONE	0	NONE	0	14709	0
JSLSCAD													
SW S - Develop Software	C/CPFF	General Dynamics-ATP, Charlotte, NC	C	14975	250	2Q FY05	250	1Q FY06	0	NONE	0	15475	11095
SW S - Design and Build Test Hardware	C/CPFF	General Dynamics-ATP, Charlotte, NC	C	37500	250	2Q FY05	250	1Q FY06	0	NONE	0	38000	0
SW S - Develop and Manage Test Methodology	PO	Various	U	1000	1500	1Q FY05	500	1Q FY06	1000	1Q FY07	0	4000	0
SW S - Purchase and Support Commercial Systems	C/CPFF	Various	C	4122	4000	2Q FY05	1000	2Q FY06	2000	2Q FY07	0	11122	0
HW S - Purchase Data Collection Instrumentation	Reqn	TBS	C	0	0	NONE	900	1Q FY06	0	NONE	0	900	0
Subtotal I. Product Development:				85634	28541		26687		27683		0	168545	

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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.

Remarks: JBPDS - Purchase five XM96 systems at \$503k/ea and one system support package at \$295k.

JBSDS II - FY07 - 18 engineering prototypes @ \$1M each.

JCAD - FY06 - 120 systems at \$13.5K per system

JSLSCAD - FY06 - Three systems at \$387K each from vendor one; three systems at \$300K each from vendor two; and three systems at \$484K each from vendor three for a total of nine systems.

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BUDGET ACTIVITY RDT&E DEFENSE-WIDE/ BA5 - System Development and Demonstration (SDD)	PE NUMBER AND TITLE 0604384BP CHEMICAL/BIOLOGICAL DEFENSE (SDD)	PROJECT CA5
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II. Support Costs	Contract Method & Type	Performing Activity & Location	US NF CC	Total PYs Cost	FY2005 Cost	FY2005 Award Date	FY2006 Cost	FY2006 Award Date	FY2007 Cost	FY2007 Award Date	Cost to Complete	Total Cost	Target Value of Contract
IBADS													
ILS S - Continued Support of Fielded IBAD Systems, and decommission of IBADS.	MIPR	NSWC, Dahlgren, VA	U	263	289	1Q FY05	0	NONE	0	NONE	0	552	0
JBSDS													
TD/D SB - Modeling and Simulation	PO	FT Detrick, MD and BSM Inc., Kennett Square, PA	C	200	200	1Q FY05	0	NONE	0	NONE	0	400	0
TD/D S - Modeling and Test Support	MIPR	NAVSEA/Johns Hopkins University, Baltimore, MD	F	600	1400	1Q FY05	0	NONE	0	NONE	0	2000	0
ES S - Modeling & Simulation, CAIV	MIPR	Various	F	0	300	1Q FY05	0	NONE	0	NONE	0	300	0
JBSDS II													
ES S - Modeling & Simulation, test support	PO	BSM, Inc, Kennett Square, PA	C	0	0	NONE	240	1Q FY06	240	1Q FY07	0	480	0
ES S - Modeling & Simulation, test support	PO	NAVSEA, Johns Hopkins-APL, Columbia, MD	C	0	0	NONE	650	1Q FY06	670	1Q FY07	0	1320	0
JCAD													
ILS S - Technical Data and Logistics Support	MIPR	Various	U	2558	0	NONE	2386	1Q FY06	0	NONE	0	4944	0
ES S - Contractor Support - Technical Evaluation	Reqn	TBS	C	0	0	NONE	2345	1Q FY06	0	NONE	0	2345	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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II. Support Costs - Cont.	Contract Method & Type	Performing Activity & Location	US NF CC	Total PYs Cost	FY2005 Cost	FY2005 Award Date	FY2006 Cost	FY2006 Award Date	FY2007 Cost	FY2007 Award Date	Cost to Complete	Total Cost	Target Value of Contract
ES S - Evaluate commercial detectors	MIPR	Various	U	0	0	NONE	1415	1Q FY06	0	NONE	0	1415	0
JCBAWM													
ILS S - Logistics Support	MIPR	RDECOM, APG, MD	U	0	0	NONE	150	1Q FY06	150	1Q FY07	0	300	0
TD/D S - Technical Data Documentation	MIPR	RDECOM, APG, MD	U	0	0	NONE	100	1Q FY06	100	1Q FY07	0	200	0
JSLNBCRS													
ILS C - CBMS Block II ILS Support	MIPR	JPM NBC CA, APG, MD	U	40	40	1Q FY05	40	1Q FY06	0	NONE	0	120	0
JSLSCAD													
TD/D S - Evaluation of Engineering Changes	MIPR	JPM NBC CA, APG, MD	U	1150	100	1Q FY05	100	1Q FY06	100	1Q FY07	0	1450	870
TD/D S - ILS Analysis and Documentation	MIPR	JPM NBC CA, APG, MD	U	2720	100	1Q FY05	100	1Q FY06	100	1Q FY07	0	3020	2315
TD/D S - Prepare Technical Manuals and Documents	MIPR	JPM NBC CA, APG, MD	U	1320	150	1Q FY05	500	1Q FY06	750	1Q FY07	0	2720	650
ES S - T&E Subject Matter Expert Support	PO	Various	U	0	0	NONE	1200	1Q FY06	0	NONE	0	1200	0
PCADE													
ES S - Engineering Support	MIPR	Various	U	0	350	2Q FY05	0	NONE	0	NONE	0	350	0
Subtotal II. Support Costs:				8851	2929		9226		2110		0	23116	

Remarks:

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CBDP PROJECT COST ANALYSIS (R-3 Exhibit)	DATE February 2005
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BUDGET ACTIVITY RDT&E DEFENSE-WIDE/ BA5 - System Development and Demonstration (SDD)	PE NUMBER AND TITLE 0604384BP CHEMICAL/BIOLOGICAL DEFENSE (SDD)	PROJECT CA5
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III. Test and Evaluation	Contract Method & Type	Performing Activity & Location	US NF CC	Total PYs Cost	FY2005 Cost	FY2005 Award Date	FY2006 Cost	FY2006 Award Date	FY2007 Cost	FY2007 Award Date	Cost to Complete	Total Cost	Target Value of Contract
JBPDS													
DTE C - WSLAT Test Execution	MIPR	Various	U	0	0	NONE	300	4Q FY06	0	NONE	0	300	0
DTE C - Collector and Embedded Trainer Development	PO	Various	U	0	0	NONE	800	2Q FY06	0	NONE	0	800	0
OTHT SB - T&E Capability	PO	Various	U	0	0	NONE	1890	2Q FY06	1017	1Q FY07	0	2907	0
HW S - Instrumentation and control systems	MIPR	Various	U	0	0	NONE	2192	3Q FY06	0	NONE	0	2192	0
JBSDS													
OTE S - Planning and Operational Testing I	MIPR	AFOTEC, Albuquerque, NM	U	818	620	2Q FY05	0	NONE	0	NONE	0	1438	0
DTE S - Production Verification Test	MIPR	Developmental Test Command, APG, MD	U	100	1000	1Q FY05	0	NONE	0	NONE	0	1100	0
OTE S - Operational Testing (MOT&E)	MIPR	Operational Test Command, FT Hood, TX	U	700	3200	2Q FY05	0	NONE	0	NONE	0	3900	0
OTE S - DT/OT Evaluation	MIPR	AEC, APG, MD	U	450	620	2Q FY05	0	NONE	0	NONE	0	1070	0
OTHT SB - Initiate demonstration of Increment 2 technologies	MIPR	DTE, DPG, UT	U	0	1328	2Q FY05	0	NONE	0	NONE	0	1328	0
OTHT S - Test & Evaluation Infrastructure	PO	Various	U	0	0	NONE	0	NONE	2034	2Q FY07	0	2034	0
JBSDS II													
OTHT S - Initiate developmental and operational test planning and developmental testing	MIPR	DTC, APG MD	U	0	0	NONE	613	1Q FY06	2110	1Q FY07	0	2723	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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III. Test and Evaluation - Cont.	Contract Method & Type	Performing Activity & Location	US NF CC	Total PYs Cost	FY2005 Cost	FY2005 Award Date	FY2006 Cost	FY2006 Award Date	FY2007 Cost	FY2007 Award Date	Cost to Complete	Total Cost	Target Value of Contract
DTE S - Developmental/Operational Evaluation	MIPR	Various	U	0	0	NONE	800	1Q FY06	1200	1Q FY07	0	2000	0
OTE S - Opetational Test and Evaluation	MIPR	OTC, Fort Hood, TX	U	0	0	NONE	200	1Q FY06	400	1Q FY07	0	600	0
OTHT SB - Agent Simulant Correlation	MIPR	TBS, JPM NBC	U	0	0	NONE	2700	1Q FY06	2000	1Q FY07	0	4700	0
OTHT S - CB Standoff Chamber Test Capability	MIPR	TBS, JPM NBC	U	0	0	NONE	0	NONE	2000	1Q FY07	0	2000	0
OTHT S - Field Simulant Challenge Test and Cloud Characterization	MIPR	TBS, JPM NBC	U	0	0	NONE	0	NONE	2000	1Q FY07	0	2000	0
OTHT S - Additional Test Grid Development	MIPR	TBS, JPM NBC	U	0	0	NONE	0	NONE	2000	1Q FY07	0	2000	0
OTHT S - Turnkey packages	MIPR	Various	U	0	0	NONE	0	NONE	2000	3Q FY07	0	2000	0
JCAD													
OTHT S - Evaluate Commercial Detectors (Increment 1)	MIPR	Various	U	5700	0	NONE	5340	1Q FY06	0	NONE	0	11040	0
OTHT S - Evaluate Commercial Detectors (Increment 2)	MIPR	Various	U	0	0	NONE	0	NONE	3560	1Q FY07	0	3560	0
OTHT SB - Agent simulant dissemination systems	MIPR	Various	U	0	0	NONE	2500	3Q FY06	0	NONE	0	2500	0
JCBAWM													
DTE S - Developmental/Operational Testing	MIPR	TBS	U	0	0	NONE	3450	2Q FY06	6930	2Q FY07	0	10380	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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III. Test and Evaluation - Cont.	Contract Method & Type	Performing Activity & Location	US NF CC	Total PYs Cost	FY2005 Cost	FY2005 Award Date	FY2006 Cost	FY2006 Award Date	FY2007 Cost	FY2007 Award Date	Cost to Complete	Total Cost	Target Value of Contract
JSLNBCRS													
OTHT SB - Conduct FAT/PVT of HMMWV	MIPR	Various	U	3200	2350	2Q FY05	0	NONE	0	NONE	0	5550	0
DTE S - LAV DT I	MIPR	Dugway Proving Ground, Dugway, UT	U	50	2340	2Q FY05	0	NONE	0	NONE	0	2390	0
OTHT S - MOTE Test Planning & Prep	PO	Various	U	4147	2117	1Q FY05	0	NONE	0	NONE	0	6264	0
JSLSCAD													
OTE S - Multiservice Operational Test and Evaluation (Increment 2)	MIPR	Various	U	14363	0	NONE	5538	1Q FY06	6445	1Q FY07	0	26346	3464
OTE S - Remote Vapor Sensing to Support NRC Findings (M&S)	PO	Various	U	2206	3000	1Q FY05	3600	1Q FY06	4500	1Q FY07	0	13306	0
OTE S - Evaluate Commercial Remote Sensing Systems (Increments 2 and 3)	PO	Various	U	0	7209	2Q FY05	11638	2Q FY06	6732	2Q FY07	0	25579	0
OTE S - Evaluate Background Data	PO	Various	U	0	0	NONE	7900	1Q FY06	2000	1Q FY07	0	9900	0
PCADE													
OTHT S - Evaluate Candidate Technologies	MIPR	Various	U	0	2500	2Q FY05	0	NONE	0	NONE	0	2500	0
Subtotal III. Test and Evaluation:				31734	26284		49461		46928		0	154407	

Remarks:

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CBDP PROJECT COST ANALYSIS (R-3 Exhibit)	DATE February 2005
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BUDGET ACTIVITY RDT&E DEFENSE-WIDE/ BA5 - System Development and Demonstration (SDD)	PE NUMBER AND TITLE 0604384BP CHEMICAL/BIOLOGICAL DEFENSE (SDD)	PROJECT CA5
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IV. Management Services	Contract Method & Type	Performing Activity & Location	US NF CC	Total PYs Cost	FY2005 Cost	FY2005 Award Date	FY2006 Cost	FY2006 Award Date	FY2007 Cost	FY2007 Award Date	Cost to Complete	Total Cost	Target Value of Contract
JBPDS													
PM/MS S - Project Management	MIPR	JPM NBC CA, APG, MD	U	500	83	1Q FY05	814	2Q FY06	0	NONE	0	1397	0
JBSDS													
PM/MS S - Program Management/Management Support	MIPR	JPM NBC CA, APG, MD	U	2081	2000	1Q FY05	0	NONE	0	NONE	0	4081	0
PM/MS S - Other Services (Army, Navy, and Air Force)	MIPR	Various	U	984	1224	1Q FY05	0	NONE	0	NONE	0	2208	0
PM/MS S - Modeling and simulation analysis, market research and CAIV	MIPR	Various	U	1480	400	1Q FY05	0	NONE	0	NONE	0	1880	0
JBSDS II													
PM/MS S - PM NBC CA, APG, MD	MIPR	PM NBC CA, APG, MD	U	0	0	NONE	2000	1Q FY06	2000	1Q FY07	0	4000	0
PM/MS S - PM/MS other services (USN, USMC, USAF)	MIPR	Various	U	0	0	NONE	1100	1Q FY06	1224	1Q FY07	0	2324	0
PM/MS S - Modeling and Simulation Analysis	MIPR	Various	U	0	0	NONE	400	1Q FY06	400	1Q FY07	0	800	0
JCAD													
PM/MS SB - Joint Service Support	MIPR	Various	U	8293	0	NONE	1377	1Q FY06	0	NONE	0	9670	0
JCBAWM													
PM/MS S - Joint Service Support	MIPR	TBS	U	0	0	NONE	360	1Q FY06	550	1Q FY07	0	910	0
JSLNBCRS													
PM/MS SB - Project/Program Management	MIPR	JPM NBC CA, APG, MD	U	2050	760	1Q FY05	760	1Q FY06	0	NONE	0	3570	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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IV. Management Services - Cont.	Contract Method & Type	Performing Activity & Location	US NF CC	Total PYs Cost	FY2005 Cost	FY2005 Award Date	FY2006 Cost	FY2006 Award Date	FY2007 Cost	FY2007 Award Date	Cost to Complete	Total Cost	Target Value of Contract
JSLSCAD													
PM/MS S - Management and Systems Engineering Support	MIPR	JPM NBC CA, APG, MD	U	6008	1200	1Q FY05	1200	1Q FY06	1200	1Q FY07	0	9608	2580
PM/MS S - Joint Service Support	MIPR	Various	U	0	1700	1Q FY05	1700	1Q FY06	1700	1Q FY07	0	5100	0
PCADE													
PM/MS S - Joint Service Support	MIPR	Various	U	0	150	2Q FY05	0	NONE	0	NONE	0	150	0
ZSBIR													
SBIR/STTR - Aggregated from ZSBIR-SBIR/STTR	PO	HQ, AMC Alexandria, VA	U	0	515	NONE	0	NONE	0	NONE	0	515	0
Subtotal IV. Management Services:				21396	8032		9711		7074		0	46213	

Remarks:

TOTAL PROJECT COST:	147615	65786		95085		83795		0	392281
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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 2004				FY 2005				FY 2006				FY 2007				FY 2008				FY 2009				FY 2010				FY 2011				
	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	
IBADS																																	
Fielding Support	>>				4Q																												
JBPDS																																	
Multi-service Operational Test and Evaluation (IOT&E) (Phase II through V)	1Q	2Q																															
Block I First Unit Equipped (FUE)	1Q																																
Whole System Live Agent Test												1Q	2Q																				
JBSDS																																	
Increment I JBSDS Milestone C (Low Rate Initial Production (LRIP))			3Q																														
Increment I JBSDS LRIP Contract Award			3Q																														
Increment I JBSDS LRIP (2 Systems)			3Q		1Q																												
Increment I JBSDS Engineering Design Test					1Q																												
Increment I JBSDS LRIP (4 Systems)						2Q		4Q																									
Increment I JBSDS Milestone C2						2Q																											
Increment I JBSDS Multi-Service Operational Test & Evaluation (MOT&E)						2Q		1Q																									
Increment I JBSDS Full Rate Production Decision								4Q		2Q																							

Exhibit R-4a, Schedule Profile	DATE February 2005
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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 2004				FY 2005				FY 2006				FY 2007				FY 2008				FY 2009				FY 2010				FY 2011			
	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
JBSDS (Cont)																																
Increment I JBSDS First Unit Equipped (FUE)									2Q																							
JBSDS II																																
Increment II JBSDS Milestone B									1Q																							
Increment II JBSDS System Development and Demonstration (SDD)									2Q							2Q																
Increment II JBSDS Developmental Testing (DT)													3Q			2Q																
Increment II JBSDS CDR													3Q																			
Increment II JBSDS Early Operational Assessment																1Q 2Q																
Increment II JBSDS Milestone C																3Q																
Increment II JBSDS Low Rate Initial Production (LRIP)																3Q				3Q												
Increment II JBSDS Full Rate Production (FRP)																									2Q							4Q
JCAD																																
Market Survey of Commercially Available Items				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
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D. <u>Schedule Profile (cont):</u>	FY 2004				FY 2005				FY 2006				FY 2007				FY 2008				FY 2009				FY 2010				FY 2011			
	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)																																
Request For Proposal (RFP) to Selected Commercially Available Systems			3Q																													
Technical Evaluation and Analysis of Data			4Q		————— 2Q																											
Milestone C - Low Rate Initial Production (LRIP) Decision											3Q																					
Multi-service Operational Test and Evaluation (MOT&E)											4Q																					
Full Rate Production (FRP) Decision											1Q																					
JCBAWM																																
Initiate test and evaluation efforts							3Q		————— 4Q																							
Initiate/Complete operational/development testing											1Q		————— 4Q																			
Milestone A Increment 2/4																4Q																
Milestone C Increment 1																4Q																
Milestone B Increment 2/4																								4Q								
JCSD																																
Technology Development																																
JEM																																

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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 2004				FY 2005				FY 2006				FY 2007				FY 2008				FY 2009				FY 2010				FY 2011			
	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)																																
BLK I - Software Development	>>	—————			————— 3Q																											
BLK I - Milestone B Decision	2Q																															
BLK I - Award System Development and Demonstration (SDD) Contract	2Q																															
BLK I - In Process Review (IPR)				4Q																												
BLK I - Developmental Testing (DT) (Contractor)					1Q	—————			3Q																							
BLK I - DT (Government)						2Q	—————		4Q																							
BLK I - Software Maintenance				4Q	—————				1Q																							
BLK I - Establish, Train, Stand Up Software Support Activity								3Q	—————				3Q																			
BLK I - Operational Testing (OT)								4Q	1Q																							
BLK I - Milestone C (Limited Deployment) and Full Rate Production (FRP)									2Q																							
BLK I - Production and Deployment									2Q	—————						2Q																
BLK I - Initial Operational Capability (IOC)																																
JSLNBCRS																																

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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 2004				FY 2005				FY 2006				FY 2007				FY 2008				FY 2009				FY 2010				FY 2011			
	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
JSLNBCRS (Cont)																																
Chemical Test CBMS Block II	1Q																															
Development and Testing			4Q					4Q																								
Milestone C Low Rate Initial Production (LRIP)	2Q																															
Engineering Developmental Test (EDT) II LAV Variant			4Q																													
HMMWV FAT					2Q	3Q																										
Developmental Test I (DT I) LAV variant					2Q	3Q																										
Developmental Testing CBMS II					2Q			4Q																								
HMMWV & LAV PVT						3Q	4Q																									
First Article Test LRIP (FAT) LRIP HMMWVs						3Q	4Q																									
Multi-service Operational Test and Evaluation (MOT&E) for HMMWV and the LAV									3Q																							
Milestone C Full Rate Production (FRP)											4Q																					
JSLSCAD																																
Complete Test and Operational Documentation for Stryker NBCRV Test	1Q	2Q																														

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BUDGET ACTIVITY RDT&E DEFENSE-WIDE/ BA5 - System Development and Demonstration (SDD)	PE NUMBER AND TITLE 0604384BP CHEMICAL/BIOLOGICAL DEFENSE (SDD)	PROJECT CA5
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D. <u>Schedule Profile (cont):</u>	FY 2004				FY 2005				FY 2006				FY 2007				FY 2008				FY 2009				FY 2010				FY 2011			
	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
JSLSCAD (Cont)																																
Support Stryker NBCRV Pre Qualification Test (PQT) Testing	>>			4Q																												
Joint Service Milestone C Low Rate Initial Production (LRIP)											3Q																					
Increment 2 - Evaluation of Commercial Systems						2Q						3Q																				
Increment 2 - Initial Operational Test and Evaluation (IOT&E) of Commercial Systems															4Q	1Q																
Increment 2 - Full Rate Production Decision																			3Q													
JWARN																																
JWARN BLK II - System Design and Development (SDD) Performance	>>											2Q																				
JWARN BLK II - Development Test											3Q	4Q																				
JWARN BLK II - Operational Assessment											4Q				2Q																	
JWARN BLK II - Milestone C															2Q	3Q																
JWARN BLK II - Low Rate Initial Production (LRIP) Contract Award															3Q				1Q													
JWARN BLK II - First Article Test															3Q	4Q																

Exhibit R-4a, Schedule Profile	DATE February 2005
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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 2004				FY 2005				FY 2006				FY 2007				FY 2008				FY 2009				FY 2010				FY 2011			
	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 BLK II - Initial Operational Test and Evaluation (IOT&E)																1Q 2Q																
JWARN BLK II - Multiservice Operational Test & Evaluation																1Q 2Q																
JWARN BLK II - Full Rate Production Milestone Decision																4Q																
JWARN BLK II - Full Rate Production																4Q													4Q			
JWARN BLK II - Full Operational Capability																								2Q								
MCAD																																
Initiate Agent and Interference Testing				>> 3Q																												
Environmental Trials				1Q																												
EMI Testing at WSMR				1Q 2Q																												
TIC Testing at NTS				4Q																												
Procure Six Commercial MCADs				2Q																												
NBCRV																																
Production Qualification Test (PQT)				>> 4Q																												
NBCRV IPR - LRIP				4Q																												

Exhibit R-4a, Schedule Profile	DATE February 2005
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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 2004				FY 2005				FY 2006				FY 2007				FY 2008				FY 2009				FY 2010				FY 2011			
	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
PCADE																																
Evaluate Candidate Detection Technologies/Systems							2Q	4Q																								

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CBDP BUDGET ITEM JUSTIFICATION SHEET (R-2a Exhibit)	DATE February 2005
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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 2004 Actual	FY 2005 Estimate	FY 2006 Estimate	FY 2007 Estimate	FY 2008 Estimate	FY 2009 Estimate	FY 2010 Estimate	FY 2011 Estimate	Cost to Complete	Total Cost
CM5 HOMELAND DEFENSE (SDD)	945	17761	395	0	0	0	0	0	0	19101

A. Mission Description and Budget Item Justification:

Project CM5 HOMELAND DEFENSE (SDD): The Force Protection - CB 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 (185 CONUS and 15 OCONUS).

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.

CBDP BUDGET ITEM JUSTIFICATION SHEET (R-2a Exhibit)	DATE February 2005
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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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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.

B. Accomplishments/Planned Program

	<u>FY 2004</u>	<u>FY 2005</u>	<u>FY 2006</u>	<u>FY 2007</u>
WMD - CIVIL SUPPORT TEAMS	945	17591	395	0
RDT&E Articles (Quantity)	0	0	0	0

FY 2004 Accomplishments:

- 331 WMD CST- Continued development of Unified Command Suite (UCS) Increment I.
- 614 WMD CST- Provided government engineering and planning support to Analytical Laboratory System (ALS) Block I.

Total 945

CBDP BUDGET ITEM JUSTIFICATION SHEET (R-2a Exhibit)	DATE February 2005
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BUDGET ACTIVITY RDT&E DEFENSE-WIDE/ BA5 - System Development and Demonstration (SDD)	PE NUMBER AND TITLE 0604384BP CHEMICAL/BIOLOGICAL DEFENSE (SDD)	PROJECT CM5
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FY 2005 Planned Program:

- 6471 WMD CST- Develop ALS Block I Prototypes.
- 1395 WMD CST- Develop UCS Increment I Prototypes.
- 1714 WMD CST- Initiate Production Qualification Test (PQT) for ALS Block I.
- 1112 WMD CST- Initiate Developmental Testing (DT) for UCS Increment I.
- 1205 WMD CST- Initiate Operational Assessment (OA) for ALS Block I.
- 1249 WMD CST- Initiate Operational Assessment (OA) for UCS Increment I.
- 670 WMD CST- Government Engineering and Management Support.
- 3775 WMD-CST- Complete Component Testing of analytical detection equipment being considered for the ALS Block I.

Total 17591

FY 2006 Planned Program:

- 295 WMD CST- Complete Operational Assessment of the UCS Increment I and ALS Blk I upgrades.
- 100 WMD CST - Provide government engineering and planning support.

Total 395

	<u>FY 2004</u>	<u>FY 2005</u>	<u>FY 2006</u>	<u>FY 2007</u>
SBIR/STTR	0	170	0	0
RDT&E Articles (Quantity)	0	0	0	0

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CBDP BUDGET ITEM JUSTIFICATION SHEET (R-2a Exhibit)		DATE February 2005
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BUDGET ACTIVITY RDT&E DEFENSE-WIDE/ BA5 - System Development and Demonstration (SDD)	PE NUMBER AND TITLE 0604384BP CHEMICAL/BIOLOGICAL DEFENSE (SDD)	PROJECT CM5
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FY 2005 Planned Program:

- 170 SBIR

Total 170

<u>C. Other Program Funding Summary:</u>	<u>FY 2004</u>	<u>FY 2005</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>To Compl</u>	<u>Total Cost</u>
CM6 HOMELAND DEFENSE (RDT&E MGT SUPPORT)	1525	1352	1557	1558	0	0	0	0	0	5992
JA0004 WMD - CIVIL SUPPORT TEAM EQUIPMENT	8792	18200	0	0	0	0	0	0	0	26992
JS0004 WMD - CIVIL SUPPORT TEAM EQUIPMENT	0	13300	54252	9082	0	0	0	0	0	76634
JS0500 CB INSTALLATION FORCE PROTECTION PROGRAM	0	91230	143793	184981	203957	217646	152347	148234	Cont	Cont

CBDP BUDGET ITEM JUSTIFICATION SHEET (R-2a Exhibit)		DATE February 2005
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 and the USAR Reconnaissance/Decontamination Platoons.

UCS Increment I:

The UCS Increment I program consists of the integration of additional Command, Control, Communication, Computer, and Intelligence (C4I) equipment and Non-Developmental Items (NDI) to allow the UCS system to meet all objective requirements as outlined in the validated Capability Production Document (CPD).

ALS Block I:

The ALS Block I 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 in the Operational Requirements Document (ORD).

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 2005
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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	FY2005 Cost	FY2005 Award Date	FY2006 Cost	FY2006 Award Date	FY2007 Cost	FY2007 Award Date	Cost to Complete	Total Cost	Target Value of Contract
WMD CST													
SW SB - UCS Increment I - Prototype Communications (C4I) equipment	MIPR	Naval Air Warfare Center Aircraft Division, St. Inigoes, MD	U	331	1395	1Q FY05	0	NONE	0	NONE	0	1726	0
SW SB - ALS Blk I - Chassis and Shelter Prototype	C/FFP	Wolfcoach, Auburn, MA	C	0	991	3Q FY05	0	NONE	0	NONE	0	991	0
SW SB - ALS Blk I - Analytical Detection Equipment Prototypes	C/FFP	TBS	C	0	1800	3Q FY05	0	NONE	0	NONE	0	1800	0
HW S - ALS Blk I - Prototype Integration Contract	C/FFP	TBS	C	0	3680	3Q FY05	0	NONE	0	NONE	0	3680	0
Subtotal I. Product Development:				331	7866		0		0		0	8197	

Remarks:

II. Support Costs: Not applicable

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CBDP PROJECT COST ANALYSIS (R-3 Exhibit)										DATE February 2005			
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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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III. Test and Evaluation	Contract Method & Type	Performing Activity & Location	US NF CC	Total PYs Cost	FY2005 Cost	FY2005 Award Date	FY2006 Cost	FY2006 Award Date	FY2007 Cost	FY2007 Award Date	Cost to Complete	Total Cost	Target Value of Contract
WMD CST													
DTE S - ALS Blk I - Developmental Test (PQT)	MIPR	Aberdeen Proving Grounds, Aberdeen, MD	U	0	1714	4Q FY05	0	NONE	0	NONE	0	1714	0
DTE S - UCS Increment I - Developmental Testing	MIPR	Aberdeen Proving Grounds, Aberdeen, MD	U	0	1112	2Q FY05	0	NONE	0	NONE	0	1112	0
OTE S - ALS Blk I - Operational Assessment	MIPR	Aberdeen Proving Grounds, Aberdeen, MD	U	0	1205	4Q FY05	147	2Q FY06	0	NONE	0	1352	0
OTE S - UCS Increment I - Operational Assessment	MIPR	Aberdeen Proving Grounds, Aberdeen, MD	U	0	1249	4Q FY05	148	1Q FY06	0	NONE	0	1397	0
OTHT C - ALS Blk I - Analytical Detection Equipment Testing	C/FFP	TBS	C	0	3775	3Q FY05	0	NONE	0	NONE	0	3775	0
Subtotal III. Test and Evaluation:				0	9055		295		0		0	9350	

Remarks:

Project CM5

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CBDP PROJECT COST ANALYSIS (R-3 Exhibit)	DATE February 2005
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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	FY2005 Cost	FY2005 Award Date	FY2006 Cost	FY2006 Award Date	FY2007 Cost	FY2007 Award Date	Cost to Complete	Total Cost	Target Value of Contract
WMD CST													
PM/MS S - Management Services	MIPR	PM WMD CSS, APG, MD	U	614	670	2Q FY05	100	2Q FY06	0	NONE	0	1384	0
ZSBIR													
SBIR/STTR - Aggregated from ZSBIR-SBIR/STTR	PO	HQ, AMC Alexandria, VA	U	0	170	NONE	0	NONE	0	NONE	0	170	0
Subtotal IV. Management Services:				614	840		100		0		0	1554	

Remarks:

TOTAL PROJECT COST:	945	17761		395		0		0	19101
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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
CM5

D. Schedule Profile:

	FY 2004				FY 2005				FY 2006				FY 2007				FY 2008				FY 2009				FY 2010				FY 2011				
	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																																	
ALS BLK I PROGRAM	>>	—————												4Q																			
Block I - Technology Screening	>>	—————		1Q																													
Block I - IPR - Stakeholder				1Q																													
Block I - IPR - MDA				2Q																													
Block I - Component Testing		3Q	—————	3Q																													
Block I - Final Component Down-select		3Q	—————	3Q																													
Block I - System Prototyping				2Q 3Q																													
Block I - Production Qualification Test (PQT)							4Q	—————	2Q																								
Block I - Operational Assessment (OA)							4Q	—————	2Q																								
Block I - Milestone C - Full Rate Production								2Q																									
UCS INCREMENT I PROGRAM	1Q	—————											2Q																				
Incr I - CPD Approval				1Q																													
Incr I - Design Engineering and Documentation				2Q																													
Incr I - Prototyping-Vehicle Installation				2Q																													
Incr I - Developmental Testing (DT)				2Q	—————	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 CM5
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D. <u>Schedule Profile (cont):</u>	FY 2004				FY 2005				FY 2006				FY 2007				FY 2008				FY 2009				FY 2010				FY 2011			
	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 (Cont)																																
Incr I - Operational Assessment (OA)								4Q	2Q																							
Incr I - IPR									2Q																							
Incr I - Production									2Q	2Q																						

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BUDGET ACTIVITY RDT&E DEFENSE-WIDE/ BA5 - System Development and Demonstration (SDD)				PE NUMBER AND TITLE 0604384BP CHEMICAL/BIOLOGICAL DEFENSE (SDD)				PROJECT CO5	
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COST (In Thousands)	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	Cost to	Total Cost
	Actual	Estimate	Estimate	Estimate	Estimate	Estimate	Estimate	Estimate	Complete	
CO5 COLLECTIVE PROTECTION (SDD)	2833	2534	671	11697	21738	27992	20371	19225	Continuing	Continuing

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, Radiological, and Nuclear (CBRN) 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 - Provides needed improvements and cost saving standardization to fielded fixed site, building, shipboard, and vehicle collective protection systems. The program focuses 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 will reduce logistics burden while maintaining the industrial base.

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JECP - Results of a Baseline Capability Assessment conducted by the Joint Requirements Office identified expeditionary CP as the highest priority capability gap within CP. JECP is a new start program that will address the need to reduce size, weight, power consumption, and logistics footprint of current CP systems, equipment and/or components. JECP will provide a portable and adaptable CP capability to protect and sustain the Joint Expeditionary Force and allow them to operate safely, at near-normal levels of effectiveness and efficiency, while under a CBRN threat or hazard area.

B. Accomplishments/Planned Program

	<u>FY 2004</u>	<u>FY 2005</u>	<u>FY 2006</u>	<u>FY 2007</u>
JOINT COLLECTIVE PROTECTION EQUIPMENT	2833	2513	671	1526
RDT&E Articles (Quantity)	0	0	0	0

FY 2004 Accomplishments:

- 287 JCPE - Completed development and testing of a Collectively Protected Expeditionary Latrine (CPEL) for the Collectively Protected Expeditionary Medical System (CPEMEDS). Completed development and testing of a modified M28 liner for Large Capacity Shelters (LCS). Continued development and testing to increase efficiency of collective protection system supply fan motors to operate at peak performance over the entire range of filter loading. Completed testing of improved airlock doors systems to increase durability and life cycle costs for all existing CB shelter systems utilizing the Bump Through Door Airlocks.

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<p>FY 2004 Accomplishments (Cont):</p> <ul style="list-style-type: none"> • 1495 JCPE - Completed design and testing of improvements to liner material, construction, and enclosures. Continued live agent testing of improved 100/200 cubic feet per minute (CFM) gas filters. Continued integration and testing of a Tunnel Airlock Litter Patient (TALP) with a Modular General Purpose Tent System (MGPTS). Continued program management and Integrated Product Team (IPT) support. • 1051 JCPE - Completed a study to determine if CB shelters should be tested for extreme environmental conditions. Completed identification and testing of a second source for individual distribution breathing air hose. Completed development and testing of a filter moisture indicator. Completed development of shipboard CP automation. Initiated development and testing of a Small Shelter System (SSS) Contamination Control Area (CCA) and airlock integration. Initiated development and testing of collective protection system operational blast mitigation techniques. Completed comprehensive engineering study and analysis of the Collective Protection Equipment (CPE) systems used with the Patriot Missile system to evaluate and investigate potential upgrades/improvements using current technologies. Completed development and testing of a redesigned CPDEMDS collective protection liner systems for use in the Chemically Protected Deployable Medical Systems (CPDEPMEDS) version of the SSS. <p>Total 2833</p> <p>FY 2005 Planned Program:</p> <ul style="list-style-type: none"> • 1536 JCPE - Complete development and testing of reliability improvements of FFA-400 and M28 blowers. Complete live agent testing of improved 100/200 CFM gas filters. Complete integration and testing of a TALP with a MGPTS. Complete development and testing of a SSS CCA/airlock integration. Continue development and testing of collective protection system blast operational mitigation techniques. 		
Project CO5/Line No: 088	Page 67 of 178 Pages	Exhibit R-2a (PE 0604384BP)

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RDT&E DEFENSE-WIDE/ BA5 - System Development and Demonstration (SDD)	0604384BP CHEMICAL/BIOLOGICAL DEFENSE (SDD)	CO5
FY 2005 Planned Program (Cont):		
<ul style="list-style-type: none"> 977 JCPE - Continue development and testing to increase efficiency of collective protection system supply fan motors to operate at peak performance over the entire range of filter loading. Complete testing of 100/200 CFM gas filters with new media to provide protection against selected Toxic Industrial Chemicals (TICs). Continue program management and IPT support. 		
Total	2513	
FY 2006 Planned Program:		
<ul style="list-style-type: none"> 671 JCPE - Complete development and testing to increase efficiency of collective protection system supply fan motors to operate at peak performance over the entire range of filter loading. Complete development and testing of collective protection system, operational blast mitigation techniques. Continue program management and IPT support. 		
Total	671	
FY 2007 Planned Program:		
<ul style="list-style-type: none"> 976 JCPE - Initiate changes to the technical data package on improvement to 28 Volt Direct Current motor on the M93 gas particulate filter unit. Continue program management and IPT support. 550 JCPE - Initiate a test and surveillance effort to better understand factors affecting service life and capacity of filters for land-based facilities. Initiate development and testing of BASE-X Shelter liner. 		
Total	1526	
Project CO5/Line No: 088		
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	<u>FY 2004</u>	<u>FY 2005</u>	<u>FY 2006</u>	<u>FY 2007</u>
JOINT EXPEDITIONARY COLLECTIVE PROTECTION	0	0	0	10171
RDT&E Articles (Quantity)	0	0	0	0

FY 2007 Planned Program:

- 1498 JECF - Update the Single Acquisition Management Plan (SAMP). Provide PMO and subject matter expert support to the Joint Requirements Office (JRO) in update of the Concept of Operation (ConOps) and development of the Capability Production Document (CPD). Initiate an update to the Systems Engineering Management Plan (SEMP) and the Test & Evaluation Master Plan (TEMP) along with all requisite documentation to support a MS C decision.
- 5478 JECF - Continue contract for prototype development and test including an Early Operational Assessment (EOA). Integrate contractor into the joint IPT structure. Expand the government generated Work Breakdown Structure (WBS) to include contractor details. Translate the CPD and Performance Specification (P-Spec) into a documented design. Continue program risk analysis and management. Conduct technical reviews including a Systems Requirements Review (SRR), System Functional Review (SFR) and Preliminary and Critical Design Reviews.
- 1171 JECF - Initiate development of a test resources and results database. Develop methodology and procedures in support of the overall test strategy. Secure equipment and facilities and conduct an EOA of prototypes in relevant environments.

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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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FY 2007 Planned Program (Cont):

- 2024 JECF - Through the Product Support 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 Logistic Support Plan.

Total 10171

	<u>FY 2004</u>	<u>FY 2005</u>	<u>FY 2006</u>	<u>FY 2007</u>
SBIR/STTR	0	21	0	0
RDT&E Articles (Quantity)	0	0	0	0

FY 2005 Planned Program:

- 21 SBIR

Total 21

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CBDP BUDGET ITEM JUSTIFICATION SHEET (R-2a Exhibit)								DATE February 2005	
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BUDGET ACTIVITY RDT&E DEFENSE-WIDE/ BA5 - System Development and Demonstration (SDD)				PE NUMBER AND TITLE 0604384BP CHEMICAL/BIOLOGICAL DEFENSE (SDD)				PROJECT CO5	
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C. <u>Other Program Funding Summary:</u>	<u>FY 2004</u>	<u>FY 2005</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>To Compl</u>	<u>Total Cost</u>
JCP001 COLLECTIVELY PROTECTED DEPLOYABLE MEDICAL SYSTEM	0	0	0	0	0	0	0	0	0	0
JN0014 COLLECTIVE PROT SYS AMPHIB BACKFIT (CPS BACKFIT)	15892	16088	10517	8707	3592	5140	0	0	0	59936
JN0017 JOINT COLLECTIVE PROTECTION EQUIPMENT (JCPE)	11825	2166	0	0	0	0	0	0	0	13991
JP1111 JOINT EXPEDITIONARY COLLECTIVE PROTECTION (JECP)	0	0	0	0	0	4995	6210	8110	Cont	Cont
R12301 CB PROTECTIVE SHELTER (CBPS)	19892	14250	16460	30149	30599	31531	32621	33295	Cont	Cont

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D. Acquisition Strategy:

JCPE	The JCPE acquisition strategy is 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, are delivered via a performance specification that can then be implemented by respective Services through an Engineering Change Proposal (ECP) process. All modified components will be fabricated and tested to ensure Service compatibility. Fielding will be accomplished through phased replacement or attrition through the supply system. Existing procurement contracts are leveraged to expedite fielding improvement upgrades.
JECF	Pursue an incremental development strategy based on the JRO/User developed capability documents. Conduct a tailored AoA leveraging the market survey, test results, and lessons learned from the FY05 Collective Protection Technology Readiness Evaluation (ColPro TRE). Following MS B, use a Statement of Objectives (SOO) and P-Spec to award competitive cost plus incentive type contract(s) to develop prototypes for Developmental Testing (DT) and EOA. Conduct an Operational Assessment (OA) prior to MS C. Following MS C, exercise contract option for Low Rate Initial Production (LRIP) to support DT and Initial Operational Test and Evaluation (IOT&E). After a successful full rate production decision, award a competitive fixed price production contract with multi-year options and product improvement incentives.

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CBDP PROJECT COST ANALYSIS (R-3 Exhibit)	DATE February 2005
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BUDGET ACTIVITY RDT&E DEFENSE-WIDE/ BA5 - System Development and Demonstration (SDD)	PE NUMBER AND TITLE 0604384BP CHEMICAL/BIOLOGICAL DEFENSE (SDD)	PROJECT CO5
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I. Product Development	Contract Method & Type	Performing Activity & Location	US NF CC	Total PYs Cost	FY2005 Cost	FY2005 Award Date	FY2006 Cost	FY2006 Award Date	FY2007 Cost	FY2007 Award Date	Cost to Complete	Total Cost	Target Value of Contract
JCPE													
HW C - 28VDC M93 Gas Particulate Filter Unit	MIPR	ECBC, Edgewood, MD	U	0	0	NONE	0	NONE	200	1Q FY07	0	200	0
HW C - Base X Liner Development	MIPR	NSWCDD, Dahlgren, VA	U	0	0	NONE	0	NONE	250	1Q FY07	0	250	0
JECP													
HW S - Prototype Development	C/CPIF	TBS	U	0	0	NONE	0	NONE	3300	1Q FY07	0	3300	0
Subtotal I. Product Development:				0	0		0		3750		0	3750	

Remarks:

II. Support Costs	Contract Method & Type	Performing Activity & Location	US NF CC	Total PYs Cost	FY2005 Cost	FY2005 Award Date	FY2006 Cost	FY2006 Award Date	FY2007 Cost	FY2007 Award Date	Cost to Complete	Total Cost	Target Value of Contract
JECP													
TD/D S - MS C Documentation	MIPR	Various	U	0	0	NONE	0	NONE	2024	1Q FY07	0	2024	0
Subtotal II. Support Costs:				0	0		0		2024		0	2024	

Remarks:

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CBDP PROJECT COST ANALYSIS (R-3 Exhibit)	DATE February 2005
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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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III. Test and Evaluation	Contract Method & Type	Performing Activity & Location	US NF CC	Total PYs Cost	FY2005 Cost	FY2005 Award Date	FY2006 Cost	FY2006 Award Date	FY2007 Cost	FY2007 Award Date	Cost to Complete	Total Cost	Target Value of Contract
JCPE													
OTHT C - Shipboard CPS Supply Fans	WR	NSWCDD, Dahlgren, VA	U	180	150	1Q FY05	50	1Q FY06	0	NONE	0	380	200
OTHT C - 100/200 CFM Gas Filter - Live Agent Testing	MIPR	RDECOM, APG, MD	U	782	620	1Q FY05	0	NONE	0	NONE	0	1402	582
OTHT C - TALP Testing for MGPTS	MIPR	Various	U	275	40	1Q FY05	0	NONE	0	NONE	0	315	0
OTHT C - SSS CCA/Airlock	MIPR	HSW/YACN Brooks City Base, San Antonio, TX	U	0	225	1Q FY05	0	NONE	0	NONE	0	225	250
DTE S - CP Protection Blast Operational Analysis	MIPR	HSW/YACN Brooks City Base, San Antonio, TX	U	80	288	1Q FY05	75	1Q FY06	0	NONE	0	443	0
OTHT C - Modified 100/200 CFM Filter for TICs - Testing	MIPR	ECBC, Edgewood, MD	U	0	450	1Q FY05	0	NONE	0	NONE	0	450	0
OTHT C - Land-based Filter Surveillance Testing	MIPR	NSWCDD, Dahlgren, VA	U	0	0	NONE	0	NONE	300	1Q FY07	300	600	0
DTE C - Blower Reliability and Environmental Testing	MIPR	ECBC, Edgewood, MD	U	0	72	1Q FY05	0	NONE	0	NONE	0	72	0
JECP													
DTE S - Prototype Testing	MIPR	TBS	C	0	0	NONE	0	NONE	2178	1Q FY07	0	2178	0
DTE S - Test Results & Resource Data Base	MIPR	TBS	U	0	0	NONE	0	NONE	1171	1Q FY07	0	1171	0
Subtotal III. Test and Evaluation:				1317	1845		125		3649		300	7236	

Remarks:

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IV. Management Services	Contract Method & Type	Performing Activity & Location	US NF CC	Total PYs Cost	FY2005 Cost	FY2005 Award Date	FY2006 Cost	FY2006 Award Date	FY2007 Cost	FY2007 Award Date	Cost to Complete	Total Cost	Target Value of Contract
JCPE													
PM/MS S - IPT Support	MIPR	Various	U	756	200	1Q FY05	200	1Q FY06	200	1Q FY07	0	1356	820
PM/MS S - Overall Program Management & IPT Oversight	MIPR	NSWCDD, Dahlgren, VA	U	1457	468	1Q FY05	346	1Q FY06	576	1Q FY07	0	2847	1403
JECP													
PM/MS S - PMO & IPT	MIPR	Dahlgren, VA	U	0	0	NONE	0	NONE	1498	1Q FY07	0	1498	0
ZSBIR													
SBIR/STTR - Aggregated from ZSBIR-SBIR/STTR	PO	HQ, AMC Alexandria, VA	U	0	21	NONE	0	NONE	0	NONE	0	21	0
Subtotal IV. Management Services:				2213	689		546		2274		0	5722	

Remarks:

TOTAL PROJECT COST:	3530	2534		671		11697		300	18732
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D. <u>Schedule Profile:</u>	FY 2004				FY 2005				FY 2006				FY 2007				FY 2008				FY 2009				FY 2010				FY 2011				
	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																																	
Market Survey and Test Latrine CPEMEDS	>>	—————			2Q																												
Develop Modified M28 Liner-Lg Cap Shelters	>>	—————			2Q																												
Blower Reliability and Environmental Testing						1Q	2Q																										
Develop and Test Improved Ship CPS Motors	>>	—————												4Q																			
Develop Improved Airlock	>>	—————			2Q																												
Develop Improved Liner-Mat/Constr/Closures	>>	—————												4Q																			
Agent Testing 100/200 CFM Gas Filters	>>	—————												4Q																			
Develop and Test TALP for MGPTS	>>	—————												4Q																			
CB Shelter Extreme Environments Study	1Q	—————			4Q																												
Individual Breathing Air Hose Improvements	1Q	—————			4Q																												
Develop and Test Filter Moisture Indicator	1Q	—————			4Q																												
Develop and Test Ship CP Automation	1Q	—————			4Q																												
Develop and Test SSS CCA/Airlock	1Q	—————			2Q																												

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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
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D. <u>Schedule Profile (cont):</u>	FY 2004				FY 2005				FY 2006				FY 2007				FY 2008				FY 2009				FY 2010				FY 2011									
	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)																																						
Develop and Test CP Blast Operations Analysis	1Q	—————												4Q																								
Patriot Missile CP Upgrade Recommendations	1Q	—————												4Q																								
Modify CPEMEDS Liner for CPDEPMEDS SSS	1Q	—————												2Q																								
Develop and Test 100/200 CFM Gas Filters-TICs					1Q	—————												4Q																				
28VDC M93 Gas Particulate Filter Unit													1Q	—————												4Q												
Land-based Aged Filter Capacity													1Q	—————												4Q												
Base X Liner													1Q	—————												4Q												
JECP																																						
Complete CDD									2Q																													
MS-B Decision									3Q																													
Prototype Contract Award									3Q																													
Prototype Development and DT									3Q	—————												2Q																
CPD													2Q																									
EOA Testing																	4Q																					

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D. <u>Schedule Profile (cont):</u>	FY 2004				FY 2005				FY 2006				FY 2007				FY 2008				FY 2009				FY 2010				FY 2011				
	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)																																	
OA																	1Q				3Q												
MS-C Decision																					3Q												
LRIP																					3Q				3Q								
IOT&E																					4Q				4Q								

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COST (In Thousands)	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	Cost to	Total Cost
	Actual	Estimate	Estimate	Estimate	Estimate	Estimate	Estimate	Estimate	Complete	
DE5 DECONTAMINATION SYSTEMS (SDD)	5260	4264	19242	10638	5467	14885	15279	7521	Continuing	Continuing

A. Mission Description and Budget Item Justification:

Project DE5 DECONTAMINATION SYSTEMS (SDD): This project funds System Development and Demonstration (SDD) of decontamination equipment for the Joint Service Sensitive Equipment Decontamination (JSSED), Joint Service Family of Decontamination System (JSFDS), Joint Portable Decontamination System (JPDS), Joint Service Stationary Decontamination System (JSSDS), Joint Service Transportable Decontamination System - Small Scale (JSTDS-SM), Joint Service Transportable Decontamination System - Large Scale (JSTDS-LG), and the Joint Service Personnel/Skin Decontamination System (JSPDS).

The JSSED system will fill an immediate need to decontaminate chemical and biological warfare agents from sensitive equipment during thorough decontamination operations. It will be a family of systems that will provide thorough decontamination capabilities for sensitive equipment (e.g. avionics, computers, electronics and environmental system equipment). JSSED Increment I will be a closed loop non-aqueous decontamination system that will remove and/or neutralize threat agents from sensitive equipment used on the integrated battlefield.

The JSFDS will provide a family of decontamination systems to decontaminate Chemical, Biological, Radiological and Nuclear (CBRN) warfare agents, and Toxic Industrial Materials (TIMs) from Service assets. In FY04, the capabilities to be met by the JSFDS programs were separated into JPDS, JSSDS, JSTDS-SM, JSTDS-LG and the JSPDS programs.

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The JPDS will provide a decontamination system that is capable of being carried and operated by a single individual. It will support immediate thorough decontamination of a broad range of equipment, critical airfield assets and ships (e.g., flight, hanger, well decks, non-sensitive internal compartments) that have been exposed to chemical and biological warfare agents and TIMs.

The JSSDS will provide an automated thorough decontamination capability for large aircraft that have been exposed to CBRN agents and TIMs. The system will be used at established bases.

The JSTDS - SM will be transportable by a platform [i.e., High Mobility Multi-purpose Wheeled Vehicle (HMMWV)/Trailer, Family of Medium Tactical Vehicles (FMTV)/Trailer] capable of being operated in close proximity to combat operations off-road over any terrain. It is designed to have limited capability to keep it mobile. It 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 TIMs.

The JSTDS - LG can be transported on a platform that normally operates on roads and hard surfaces, with only a limited off-road capability. It will be capable of decontamination on-the-move and will have on-board decontaminant storage inherent to the system. It will be semi-autonomous (it will not require a warfighter to manually dispense decontaminant from an applicator). It will be used to decontaminate non-sensitive military materiel (including large aircraft), terrain, fixed facilities, airfields, naval ships, key command and control facilities, and property.

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**RDT&E DEFENSE-WIDE/
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PE NUMBER AND TITLE

0604384BP CHEMICAL/BIOLOGICAL DEFENSE (SDD)

PROJECT

DE5

B. Accomplishments/Planned Program

	<u>FY 2004</u>	<u>FY 2005</u>	<u>FY 2006</u>	<u>FY 2007</u>
JS FAMILY OF DECON SYSTEMS (JSFDS)	5260	4229	0	0
RDT&E Articles (Quantity)	400	0	0	0

FY 2004 Accomplishments:

- 2138 JSFDS/JSPDS - Continued development testing (DT II) to include clinical studies to address long-term safety and initial packaging tests.
- 322 JSFDS/JSPDS - Initiated economic analyses of alternative logistics strategies for JSPDS, developed technical manual, training and other logistics support documentation.
- 1800 JSFDS/JSTDS-SM - Procured test units and decontaminants for down-selection testing (400 systems at average cost of \$40K each) for the JSTDS-SM.
- 1000 JSFDS/JSTDS-SM - Conducted source selection, prepared test sites for conduct of down-select testing.

Total 5260**FY 2005 Planned Program:**

- 1895 JSFDS/JSPDS - Complete DT II, including extended packaging testing, material compatibility testing, system level compatibility testing, and field durability developmental testing.

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FY 2005 Planned Program (Cont):

- 500 JSFDS/JSPDS - Conduct Performance Based Logistics (PBL) Business Case Analysis (BCA) to determine optimum logistics support strategy. Update logistics and training documentation based on test results.
- 842 JSFDS/JSTDS-SM - Perform an operational assessment on four candidate JSTDS-SM decontamination systems.
- 992 JSFDS - Congressional Add. Prepare and conduct study of passive materials for chemical and biological decontamination.

Total 4229

	<u>FY 2004</u>	<u>FY 2005</u>	<u>FY 2006</u>	<u>FY 2007</u>
JOINT SERVICE PERSONNEL/SKIN DECONTAMINATION SYSTEM	0	0	2509	1485
RDT&E Articles (Quantity)	0	0	0	0

FY 2006 Planned Program:

- 1937 JSPDS - Conduct Initial Operational Test and Evaluation (IOT&E) to support full rate production decision.
- 572 JSPDS - Update program documentation to support MS C full rate production decision, update logistics support documentation including fielding plans, begin implementation of the support strategy identified by the PBL BCA.

Total 2509

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FY 2007 Planned Program:

- 1285 JSPDS - Complete program documentation updates and obtain MS C full rate production decision. Transition to support strategy identified by the PBL BCA.
- 200 JSPDS - Perform shelf-life extension testing on decontaminants.

Total 1485

	<u>FY 2004</u>	<u>FY 2005</u>	<u>FY 2006</u>	<u>FY 2007</u>
JS SENSITIVE EQUIP DECON	0	0	1523	1271
RDT&E Articles (Quantity)	0	0	0	0

FY 2006 Planned Program:

- 1523 JSSSED - Award SDD contract and initiate prototype award.

Total 1523

FY 2007 Planned Program:

- 1271 JSSSED - Conduct developmental testing.

Total 1271

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	<u>FY 2004</u>	<u>FY 2005</u>	<u>FY 2006</u>	<u>FY 2007</u>
JOINT SERVICE TRANSPORTABLE DECONTAMINATION SYSTEM - SMA	0	0	15210	7882
RDT&E Articles (Quantity)	0	0	0	0

FY 2006 Planned Program:

- 5300 JSTDS-SM - Conduct Initial Operational Test and Evaluation (IOT&E) to support full rate production decision.
- 3400 JSTDS-SM - Perform DT II which includes live chemical and biological agent testing, extensive material compatibility and efficacy testing, environmental testing and shelf-life testing.
- 1800 JSTDS-SM - Update program documentation and obtain full rate Production decision. Conduct Performance Based Logistics (PBL) Business Case Analysis (BCA) to determine optimum logistics support strategy for the JSTDS-SM hardware and decontaminant(s). Update logistics and training documentation based on test results. Prepare fielding plans.
- 1400 JSTDS-SM - Procure decontaminants (40,000 gallons) and interim contract support for testing.
- 3310 JSTDS-SM - Develop change packages for detectors to ensure ability to assess success of decontamination operations.

Total 15210

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FY 2007 Planned Program:

- 1550 JSTDS-SM - Perform extended live agent, toxic industrial material and material compatibility testing on the JSTDS-SM decontaminant to determine if objective capabilities can be met with existing decontaminant.
- 2500 JSTDS-SM - Develop and incorporate changes into JSTDS-SM (three systems) to improve reliability/decrease weight and validate reliability increases in JSTDS-SM through Field Durability Demonstration Testing.
- 3000 JSTDS-SM - Complete validation of detector modifications and test decontaminant with legacy decontamination of dual use systems.
- 832 JSTDS-SM - Update program, logistics and training documentation to reflect configuration changes, and test results. Prepare plans to modify fielded systems, as required.

Total 7882

	<u>FY 2004</u>	<u>FY 2005</u>	<u>FY 2006</u>	<u>FY 2007</u>
SBIR/STTR	0	35	0	0
RDT&E Articles (Quantity)	0	0	0	0

FY 2005 Planned Program:

- 35 SBIR

Total 35

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C. <u>Other Program Funding Summary:</u>	<u>FY 2004</u>	<u>FY 2005</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>To Compl</u>	<u>Total Cost</u>
JD0055 JOINT SERVICE PERSONNEL/SKIN DECONTAMINATION SYSTEM (JSPDS)	0	0	0	10047	12589	14233	16314	17192	Cont	Cont
JD0056 JS TRANSPORTABLE DECON SYSTEM - SMALL SCALE (JSTDS-SM)	0	0	2950	7106	11178	17195	39350	62130	Cont	Cont
JD0061 JOINT SERVICE SENSITIVE EQUIPMENT DECON (JSSED)	0	0	0	0	0	6759	6886	6487	Cont	Cont
JD5555 JOINT SERVICE MAN PORTABLE DECONTAMINATION SYSTEM (JSPMDS)	0	0	0	0	0	0	1479	3990	Cont	Cont
JD8000 DECONTAMINATION APPLICATION SYSTEMS	6000	0	0	0	0	0	0	0	0	6000
JN0010 JOINT SERVICE FAMILY OF DECON SYSTEMS (JSFDS)	6194	6401	0	0	0	0	0	0	0	12595
JN0018 SORBENT DECON	1253	0	0	0	0	0	0	0	0	1253
JX0054 DECONTAMINATION (DE) ITEMS LESS THAN \$5M	7991	4839	0	0	0	0	0	0	0	12830

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D. Acquisition Strategy:

JSFDS	The JSFDS program will use an evolutionary acquisition strategy with spiral development. This allows the program to leverage existing commercial products to provide an initial capability. The initial capability will be enhanced through product modifications and technology insertion to further enhance the warfighter's fixed site, equipment and personnel decontamination capability.
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) predecessor system. 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 JSSED program will execute an evolutionary acquisition strategy with a two-increment approach. The first increment provides capabilities required by the ORD. The second increment will incorporate additional capabilities as more funding becomes available. Increment I is a four-step approach. The first step is the Optimization Phase that will focus on the decontaminant for the JSSED system. The second step is the System Integration of the JSSED Increment I. The third step is the production phase of the JSSED Increment I variant. The fourth and final step is the spiral development of the JSSED shipboard variant. It will include two sub-phases, shipboard System Integration and shipboard production. A limited objective experiment (LOE) will be conducted prior to system integration. The LOE will allow the combat developers to operate prototype hardware and to provide input to system integration design.

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The JPID program will execute using an evolutionary acquisition strategy with technical insertions on an incremental approach. The first increment phase will use COTS and NDI. This approach will meet the warfighter initial requirements resulting in an increase in their operational tempo. The second increment will enhance the initial capability through product improvements and technical insertions. The third increment for decontamination on-the-move will require a comprehensive review of delivery systems using the evolutionary approach.

JSTDS LG

The JSTDS Large-Scale program is implementing an evolutionary acquisition strategy using incremental and spiral development. Increment I will focus largely upon fielding COTS/NDI hardware systems that improve upon the capability of the M12A1.

JSTDS SM

The JSTDS Small-Scale program is implementing an evolutionary acquisition strategy using incremental and spiral development. Increment I will focus largely upon fielding hardware systems that improve upon the capability of the M17 Lightweight Decontamination System.

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CBDP PROJECT COST ANALYSIS (R-3 Exhibit)											DATE February 2005		
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BUDGET ACTIVITY RDT&E DEFENSE-WIDE/ BA5 - System Development and Demonstration (SDD)					PE NUMBER AND TITLE 0604384BP CHEMICAL/BIOLOGICAL DEFENSE (SDD)					PROJECT DE5		
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I. Product Development	Contract Method & Type	Performing Activity & Location	US NF CC	Total PYs Cost	FY2005 Cost	FY2005 Award Date	FY2006 Cost	FY2006 Award Date	FY2007 Cost	FY2007 Award Date	Cost to Complete	Total Cost	Target Value of Contract
JSSSED													
HW S - Build JSSSED prototype	C/CPFF	TBD	C	0	0	NONE	1000	1Q FY06	0	NONE	0	1000	0
JSTDS SM													
HW C - JSTDS-SM - Procure decontaminant	C/FFP	TBS	C	0	0	NONE	1060	1Q FY06	0	NONE	0	1060	0
HW S - JSTDS-SM - Modify detectors	MIPR	Various	U	0	0	NONE	0	NONE	2400	1Q FY07	0	2400	0
HW S - JSTDS-SM - Modify system	C/FFP	TBS	C	0	0	NONE	0	NONE	432	1Q FY07	0	432	0
Subtotal I. Product Development:				0	0		2060		2832		0	4892	

Remarks:

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CBDP PROJECT COST ANALYSIS (R-3 Exhibit)	DATE February 2005
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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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II. Support Costs	Contract Method & Type	Performing Activity & Location	US NF CC	Total PYs Cost	FY2005 Cost	FY2005 Award Date	FY2006 Cost	FY2006 Award Date	FY2007 Cost	FY2007 Award Date	Cost to Complete	Total Cost	Target Value of Contract
JSFDS													
ILS S - JSFDS JSPDS Logistics studies	MIPR	Various	U	560	250	2Q FY05	0	NONE	0	NONE	0	810	0
ILS S - JSFDS JSPDS Logistics studies	C/CPFF	Various	C	577	250	2Q FY05	0	NONE	0	NONE	0	827	0
ES S - JSFDS - Passive materials for chemical and biological decontamination study	C/FFP	TBD	C	0	992	3Q FY05	0	NONE	0	NONE	0	992	0
JSPDS													
ILS S - JSPDS Logistics studies	MIPR	Various	U	0	0	NONE	100	1Q FY06	400	1Q FY07	0	500	0
ILS S - JSPDS Logistics studies	C/CPFF	Various	C	0	0	NONE	100	1Q FY06	460	1Q FY07	0	560	0
JSTDS SM													
ILS S - JSTDS-SM Logistics studies	MIPR	Various	U	0	0	NONE	575	1Q FY06	0	NONE	0	575	0
ILS S - JSTDS-SM Logistics studies	C/CPFF	Various	C	0	0	NONE	575	1Q FY06	0	NONE	0	575	0
ES SB - JSTDS-SM - Detector upgrades	MIPR	Various	U	0	0	NONE	2800	1Q FY06	0	NONE	0	2800	0
TD/D S - JSTDS-SM - Update technical documentation	MIPR	Various	U	0	0	NONE	0	NONE	500	1Q FY07	0	500	0
Subtotal II. Support Costs:				1137	1492		4150		1360		0	8139	

Remarks:

Project DE5

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CBDP PROJECT COST ANALYSIS (R-3 Exhibit)	DATE February 2005
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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	FY2005 Cost	FY2005 Award Date	FY2006 Cost	FY2006 Award Date	FY2007 Cost	FY2007 Award Date	Cost to Complete	Total Cost	Target Value of Contract
JSFDS													
DTE S - JSFDS DT II JSPDS Testing	MIPR	Various	U	2019	1895	1Q FY05	0	NONE	0	NONE	0	3914	0
OTE S - JSFDS Operational Assessment (OA) for JSTDS-SM	MIPR	Various	U	0	842	2Q FY05	0	NONE	0	NONE	0	842	0
JSPDS													
OTE S - JSPDS Initial Operational Test and Evaluation (IOT&E)	MIPR	Various	U	0	0	NONE	1937	2Q FY06	0	NONE	0	1937	0
DTE S - JSPDS Shelf life extension testing	MIPR	Various	U	0	0	NONE	0	NONE	225	1Q FY07	0	225	0
JSED													
DTE S - JSED developmental test planning/execution	MIPR	AFOTEC, Kirtland AFB, NM	U	0	0	NONE	150	1Q FY06	271	1Q FY07	0	421	0
JSTDS SM													
OTE S - JSTDS-SM Initial Operational Test and Evaluation	MIPR	Various	U	0	0	NONE	5100	2Q FY06	0	NONE	0	5100	0
DTE S - JSTDS-SM Down-selection Testing (DT II)	MIPR	Various	U	0	0	NONE	2300	1Q FY06	0	NONE	0	2300	0
DTE S - JSTDS-SM Down-selection Testing (DT II)	C/CPFF	Battelle, Columbus, OH	C	0	0	NONE	1000	1Q FY06	0	NONE	0	1000	0
DTE S - JSTDS-SM Decontaminant Shelf life extension testing	MIPR	Various	U	0	0	NONE	0	NONE	200	1Q FY07	0	200	0
DTE S - JSTDS-SM Decontaminant testing of objective capabilities	MIPR	Various	U	0	0	NONE	0	NONE	450	1Q FY07	0	450	0

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CBDP PROJECT COST ANALYSIS (R-3 Exhibit)	DATE February 2005
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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	FY2005 Cost	FY2005 Award Date	FY2006 Cost	FY2006 Award Date	FY2007 Cost	FY2007 Award Date	Cost to Complete	Total Cost	Target Value of Contract
DTE S - JSTDS-SM Decontaminant testing of objective capabilities	C/CPFF	Battelle, Columbus, OH	C	0	0	NONE	0	NONE	600	1Q FY07	0	600	0
DTE S - JSTDS-SM - Detector testing	MIPR	Various	U	0	0	NONE	0	NONE	2800	1Q FY07	0	2800	0
Subtotal III. Test and Evaluation:				2019	2737		10487		4546		0	19789	

Remarks:

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CBDP PROJECT COST ANALYSIS (R-3 Exhibit)	DATE February 2005
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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	FY2005 Cost	FY2005 Award Date	FY2006 Cost	FY2006 Award Date	FY2007 Cost	FY2007 Award Date	Cost to Complete	Total Cost	Target Value of Contract
JSPDS													
PM/MS S - JSPDS Programmatic Support	C/CPFF	Various	C	0	0	NONE	192	1Q FY06	200	1Q FY07	0	392	0
PM/MS S - JSPDS Programmatic Support	MIPR	Various	U	0	0	NONE	180	1Q FY06	200	1Q FY07	0	380	0
JSSSED													
PM/MS S - JSSSED Service Integrated Product Team Support	MIPR	Various	U	0	0	NONE	373	1Q FY06	1000	1Q FY07	0	1373	0
JSTDS SM													
PM/MS S - JSTDS-SM Programmatic Support	C/CPFF	Various	C	0	0	NONE	900	1Q FY06	0	NONE	0	900	0
PM/MS S - JSTDS-SM Programmatic Support	MIPR	Various	U	0	0	NONE	900	1Q FY06	500	1Q FY07	0	1400	0
ZSBIR													
SBIR/STTR - Aggregated from ZSBIR-SBIR/STTR	PO	HQ, AMC Alexandria, VA	U	0	35	NONE	0	NONE	0	NONE	0	35	0
Subtotal IV. Management Services:				0	35		2545		1900		0	4480	

Remarks:

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CBDP PROJECT COST ANALYSIS (R-3 Exhibit)							DATE February 2005					
BUDGET ACTIVITY RDT&E DEFENSE-WIDE/ BA5 - System Development and Demonstration (SDD)			PE NUMBER AND TITLE 0604384BP CHEMICAL/BIOLOGICAL DEFENSE (SDD)				PROJECT DE5					
TOTAL PROJECT COST:							3156	4264	19242	10638	0	37300
Project DE5												

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Exhibit R-4a, Schedule Profile	DATE February 2005
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BUDGET ACTIVITY RDT&E DEFENSE-WIDE/ BA5 - System Development and Demonstration (SDD)	PE NUMBER AND TITLE 0604384BP CHEMICAL/BIOLOGICAL DEFENSE (SDD)	PROJECT DE5
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D. <u>Schedule Profile:</u>	FY 2004				FY 2005				FY 2006				FY 2007				FY 2008				FY 2009				FY 2010				FY 2011			
	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
JSFDS																																
JSFDS Restructuring of Requirements/ORD Acquisition Strategy				>> 2Q																												
JSFDS Requirement feasibility and acquisition strategy development		1Q		4Q																												
JSFDS Compatibility Testing for JSPDS		2Q	3Q																													
JSFDS Multi-purpose Decontamination System Reliability Testing		2Q		4Q																												
JSFDS Milestone (MS) B for JSPDS			3Q																													
JSFDS Developmental Testing (DT) II for JSPDS		1Q						4Q																								
JSFDS RFP Release for JSTDS-SM			3Q																													
JSFDS Procure test articles for JSTDS-SM down-selection testing				4Q																												
JSFDS Paper down-selection for JSTDS-SM				4Q																												
JSFDS MS B for JSTDS-SM				4Q																												
JSFDS Down-selection testing (DT I) for JSTDS-SM						1Q		3Q																								
JSFDS MS C (LRIP) for JSTDS-SM							3Q																									

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Exhibit R-4a, Schedule Profile	DATE February 2005
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BUDGET ACTIVITY RDT&E DEFENSE-WIDE/ BA5 - System Development and Demonstration (SDD)	PE NUMBER AND TITLE 0604384BP CHEMICAL/BIOLOGICAL DEFENSE (SDD)	PROJECT DE5
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D. <u>Schedule Profile (cont):</u>	FY 2004				FY 2005				FY 2006				FY 2007				FY 2008				FY 2009				FY 2010				FY 2011			
	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
JSFDS (Cont)																																
JSFDS DT II for JSTDS-SM								4Q																								
JSFDS Funding Transition								4Q																								
JSPDS																																
Restructuring of Requirements/ORD Approval				>> 2Q																												
JSPDS Compatibility Testing				2Q 3Q																												
JSPDS MS B				3Q																												
JSPDS DT II Testing				1Q				4Q																								
JSPDS IOT&E								2Q 3Q																								
JSPDS MS C (Full Rate Production)												1Q																				
JSSSED																																
JSSSED - SDD contract award								2Q																								
JSSSED - Design and prototype fabrication and test								2Q				4Q																				
JSSSED - Prototype delivery (20 units at \$80K each)												4Q																				
JSSSED - SDD Prototype testing																1Q				2Q												
JSSSED - Operation Assessment																				2Q												

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Exhibit R-4a, Schedule Profile	DATE February 2005
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BUDGET ACTIVITY RDT&E DEFENSE-WIDE/ BA5 - System Development and Demonstration (SDD)	PE NUMBER AND TITLE 0604384BP CHEMICAL/BIOLOGICAL DEFENSE (SDD)	PROJECT DE5
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D. <u>Schedule Profile (cont):</u>	FY 2004				FY 2005				FY 2006				FY 2007				FY 2008				FY 2009				FY 2010				FY 2011			
	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)																																
JSSSED - MS C LRIP Decision																				3Q												
JSSSED - PQT, PVT and IOT&E																								1Q								
JSSSED - DOTE Report/Staffing																								2Q 3Q								
JSSSED - Full Rate Production Decision																												4Q				
JSSSED - IOC																												4Q				
JSTDS SM																																
JSTDS-SM RFP Release				3Q																												
JSTDS-SM Paper Down-selection				4Q																												
JSTDS-SM MS B				4Q																												
JSTDS-SM Down-selection Testing (DT I)								1Q 3Q																								
JSTDS-SM MS C (LRIP)								3Q																								
JSTDS-SM DT II								4Q 2Q																								
JSTDS-SM - Develop detector/decontaminant change package												1Q 4Q																				
JSTDS-SM IOT&E												2Q 3Q																				
JSTDS-SM Full Rate Production												3Q																				
JSTDS-SM Live Agent Testing																1Q 4Q																

Exhibit R-4a, Schedule Profile							DATE February 2005
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BUDGET ACTIVITY RDT&E DEFENSE-WIDE/ BA5 - System Development and Demonstration (SDD)	PE NUMBER AND TITLE 0604384BP CHEMICAL/BIOLOGICAL DEFENSE (SDD)	PROJECT DE5
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D. <u>Schedule Profile (cont):</u>	FY 2004				FY 2005				FY 2006				FY 2007				FY 2008				FY 2009				FY 2010				FY 2011			
	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
JSTDS SM (Cont)																																
JSTDS-SM - Incorporate Detector/decontaminant changes													1Q																			
JSTDS-SM - Test Detector.decontaminant changes													2Q	3Q																		
JSTDS-SM - Upgrade changes													1Q																			
JSTDS-SM - FDDT for JSTDS-SM upgrade													2Q	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 IP5
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COST (In Thousands)	FY 2004 Actual	FY 2005 Estimate	FY 2006 Estimate	FY 2007 Estimate	FY 2008 Estimate	FY 2009 Estimate	FY 2010 Estimate	FY 2011 Estimate	Cost to Complete	Total Cost
IP5 INDIVIDUAL PROTECTION (SDD)	37536	23537	20521	17951	12608	3054	3056	1020	Continuing	Continuing

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) Development of a Joint Protective Aircrew Ensemble (JPACE) to standardize aircrew ensembles across the services and reduce user fatigue.
- (2) Development of a Joint Service Aircrew Mask (JSAM) to replace multiple Service-specific aircrew chemical protective masks. JSAM will be a chemical/bio protection system with positive pressure breathing capabilities. JSAM will be compatible with all appropriate existing life-support equipment and can be used during escape and evasion in a chemical, biological, or radiological dust particulate environment. It is the only mask that will incorporate Chemical, Biological, Radiological, and Nuclear (CBRN) protection and anti-G protection for fighter aircrews; and will provide increased protection with increased comfort and the flexibility of a detachable faceplate.

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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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(3) Development of a Joint Service General Purpose Mask (JSGPM) to replace and improve upon the multiple masks currently used by U.S. ground forces; development of a Joint Service Chemical Environment Survivability Mask (JSCESM) to provide a lightweight, disposable mask for special operations; and development of an Improved Protective Mask (IPM) for the unique needs of counterproliferation missions.

(4) Validating the ability of Commercial off-the-shelf (COTS) products for a JSLIST Block II Glove Upgrade (JB2GU) to replace and improve upon the 7, 14 and 25 mil dipped butyl rubber gloves used by U.S. forces. The goal is to validate one COTS glove system with improved durability, tactility and dexterity when compared to the entire legacy butyl family.

(5) Validating the ability of Commercial off-the-shelf products for a JSLIST Alternative Footwear Systems/Integrated Footwear System (AFS/IFS) to replace and improve upon the Chemical Protective Footwear Cover, Green/Black Vinyl Overboot, Multi-Purpose Overboot used by U.S. forces. The goal is to validate two COTS footwear systems with improved availability (through reduced volume and weight) and traction. The AFS will be a lightweight overboot for use by ground and shipboard forces while the IFS will be a sock or insert for use by Aviation, Combat Vehicle Crew and Special Mission personnel.

(6) JSLIST Spiral Development (JSLIST SD) garment to replace and improve 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 OIF lessons learned to improve upon CB suit capabilities. The effort will include using Joint Protective Air Crew Ensemble, U.S. Special Operations Command and a seams and closure effort for design improvements. The advanced materials identified through U.S. Special Operations Command, the JSLIST Alternative Source Qualification and nontraditional agent protection effort will be used. A single camouflage pattern for the suit is advocated in order to increase inventory efficiency and to reduce operational risk.

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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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B. Accomplishments/Planned Program

	<u>FY 2004</u>	<u>FY 2005</u>	<u>FY 2006</u>	<u>FY 2007</u>
JOINT PROTECTIVE AIRCREW ENSEMBLE (JPACE)	6391	3527	0	0
RDT&E Articles (Quantity)	500	0	0	0

FY 2004 Accomplishments:

- 4130 JPACE - Continued combined DT/OT with durability and other system level testing, including chemical Man-in-Simulant Test (MIST), aerosol test, and swatch test. Developed and tested contaminated doffing procedures and acquired final safe-to-fly decision from the services.
- 2261 JPACE - Prepared for Independent Operational Test & Evaluation (IOT&E). Purchased 500 test articles (at \$591 each) for IOT&E. Continue to develop and update program logistics and technical documentation required to ensure that ensembles will be fully supported when fielded. Updated and finalized garment specifications and patterns based on DT/OT results.

Total 6391

FY 2005 Planned Program:

- 400 JPACE - Finalize program, logistics, and technical documentation required to ensure that ensembles are fully supported.
- 2485 JPACE - Complete IOT&E. Conduct MS C decision for LRIP of ensembles. Prepare documentation for contract option to manufacture LRIP ensembles.

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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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FY 2005 Planned Program (Cont):

- 642 JPACE - Finalize garment specifications and patterns. Conduct System Verification Review (SVR). Complete MS C for Full Rate Production (FRP) design.

Total 3527

	<u>FY 2004</u>	<u>FY 2005</u>	<u>FY 2006</u>	<u>FY 2007</u>
JS AIRCREW MASK (JSAM)	12022	12134	14837	14544
RDT&E Articles (Quantity)	0	306	0	508

FY 2004 Accomplishments:

- 5767 JSAM - Continued system design, engineering and fabrication activities of the two major JSAM variants (Type I - rotary wing and Type II - fixed wing), to include helmet mounted display units; developed production processes and planned for adequate tooling in preparation for fabrication of units.
- 2928 JSAM - Continued contractor and government developmental test and evaluation and operational test planning activities, to include integration with selected aircraft.
- 3327 JSAM - Continued program management, logistics and sustainment planning. Prepared program and technical documentation.

Total 12022

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FY 2005 Planned Program:

- 4820 JSAM - Complete Contractor Developmental Testing (DT) for the JSAM rotary wing aircraft variant (Type I), to include the Apache variant (Type IA), and initiate Government DT. Complete material purchase, fabrication, and assembly of JSAM filters, as well as 121 JSAM Apache DT units (at an average unit cost of \$2141), and 185 JSAM Type I DT units (at an average unit cost of \$1858). Continue documentation and planning in preparation for JSAM Operational Testing (OT).
- 2650 JSAM - Continue system design, engineering and fabrication activities for JSAM Type I and Type II variants, to include helmet mounted display variants; continue to develop production processes and ensure tooling and equipment are adequate to fabricate units.
- 4664 JSAM - Continue contract and government program management, logistics and sustainment planning.

Total 12134

FY 2006 Planned Program:

- 4659 JSAM - Complete Government DT and evaluation for the JSAM rotary wing aircraft variation (Type I), to include the Apache variant (Type IA). Initiate Government OT, utilizing Type I and Type IA JSAM DT assets. Continue Government DT and OT planning for fixed wing (Type II) HMD variants.
- 5235 JSAM - 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.
- 4943 JSAM - Continue contract and government program management, logistics and sustainment planning.

Total 14837

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FY 2007 Planned Program:

- 5913 JSAM - Complete Government OT, utilizing Type I and Type IA JSAM assets. Initiate Government DT for 348 fixed wing (Type II at \$4090 average per unit cost), and 160 HMD variants (at \$3649 average per unit cost).
- 4872 JSAM - 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.
- 3759 JSAM - Continue contract and government program management, logistics and sustainment planning.

Total 14544

	<u>FY 2004</u>	<u>FY 2005</u>	<u>FY 2006</u>	<u>FY 2007</u>
JS GENERAL PURPOSE MASK	14411	2919	0	0
RDT&E Articles (Quantity)	0	1000	0	0

FY 2004 Accomplishments:

- 5454 JSGPM - Continued System Demonstration. System Demonstration included system support packages for Production Qualification Testing (PQT) and Initial Operational Testing and Evaluation (IOT&E).
- 835 JSGPM - Continued preparation of program/project documentation. Documentation included the Single Acquisition Management Plan (SAMP) and Performance Specifications.
- 5521 JSGPM - Continued Developmental and Operational Testing. Generated test incident reports and corrective action plans addressing test results during mask design and prototype production.

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<p>FY 2004 Accomplishments (Cont):</p> <ul style="list-style-type: none"> • 438 JSGPM - Continued Logistics Support Planning. This effort included development of manuals and finalization of supportability plans. • 1734 JSGPM - Continued development of the JSCESM as a lightweight complement to the JSGPM against limited threats. • 429 JSGPM - Conducted support for the development of the Improved Protective Mask (IPM) and completed MS C for IPM. <p>Total 14411</p> <p>FY 2005 Planned Program:</p> <ul style="list-style-type: none"> • 1509 JSGPM - Complete System Demonstration. System Demonstration includes system support packages for PQT and Multiservice Operational Testing and Evaluation. • 500 JSGPM - Complete preparation of program/project documentation. Documentation includes the SAMP and performance specifications. • 700 JSGPM - Complete Development (PQT) and Operational (Limited User Team) Testing. Complete test and evaluation reports. Purchase 1000 test articles (at \$150 each) for Multiservice Operational Test and Evaluation. • 210 JSGPM - Complete developmental Logistics Support Planning. This effort includes completion of manuals and finalization of supportability plans. <p>Total 2919</p>		
<p>Project IP5/Line No: 088</p> <p style="text-align: center;">Page 105 of 178 Pages</p> <p style="text-align: right;">Exhibit R-2a (PE 0604384BP)</p>		

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	<u>FY 2004</u>	<u>FY 2005</u>	<u>FY 2006</u>	<u>FY 2007</u>
PROTECTIVE CLOTHING (JSLIST)	4712	4765	5684	3407
RDT&E Articles (Quantity)	0	0	0	0

FY 2004 Accomplishments:

- 2500 JB2GU and AFS - Initiated developmental testing.
- 400 JB2GU and AFS - Conducted preparations for MS C Full Rate Production (FRP).
- 1189 JB2GU and AFS - Formed project teams, conducted market surveys, prepared acquisition strategies.
- 623 JSLIST IFS - Formed project teams, conducted market surveys, prepared acquisition strategies.

Total 4712

FY 2005 Planned Program:

- 2912 JB2GU and AFS - Complete chemical agent validation testing and complete IOT&E.
- 300 JB2GU and AFS - Complete preparations for MS C Full Rate Production (FRP).
- 1553 IFS - Complete durability testing, complete IOT&E.

Total 4765

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<p>FY 2006 Planned Program:</p> <ul style="list-style-type: none"> • 200 JSLIST - Initiate hierarchical requirement and affordability analysis. New materials with new designs present trade-offs in about every area of capability. This effort will weigh warfighter requirements in order to ensure that all material and design selections can be traced to the improvements in operational capability most in demand. • 1300 JSLIST - Design a new protective suit to support Special Forces operational requirements. U.S. Special Operations Command and JSLIST Additional Source Qualification (JASQ) efforts. • 800 JSLIST - Conduct producibility/reproducibility production base analysis. This effort includes all configuration management work and the work necessary to ensure that the design is producible (and reproducible with minimum variance) with new production methodologies. • 2100 JSLIST - Initiate testing of design variations at the system level in aerosol and vapor system test laboratories with U.S. military personnel (only simulants are used). • 1284 JSLIST - Conduct initial design field testing. This field-testing will allow informed design selection decisions. <p>Total 5684</p> <p>FY 2007 Planned Program:</p> <ul style="list-style-type: none"> • 350 JSLIST - Complete design field testing. • 100 JSLIST - Purchase production representative items necessary for all Operational Testing (OT). • 900 JSLIST - Conduct mission OT with service personnel performing specific job specialties while wearing production representative suits. 		
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FY 2007 Planned Program (Cont):

- 1355 JSLIST (T&E Capability) - Develop a prototype instrumented mannequin for use in testing Individual Protective Equipment (IPE), including full ensembles, with live agents. Configure chamber for IPE simulant testing.
- 702 JSLIST (T&E Capability) - Generate, validate, and verify base model and perform confirmatory testing to include live agent testing. Develop plans for live-agent testing.

Total 3407

	<u>FY 2004</u>	<u>FY 2005</u>	<u>FY 2006</u>	<u>FY 2007</u>
SBIR/STTR	0	192	0	0
RDT&E Articles (Quantity)	0	0	0	0

FY 2005 Planned Program:

- 192 SBIR

Total 192

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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 2004</u>	<u>FY 2005</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>To Compl</u>	<u>Total Cost</u>
JI0002 JT SVC AIRCREW MASK (JSAM)	0	0	1824	7888	21030	42922	33039	10096	Cont	Cont
JI0003 JOINT SERVICE GENERAL PURPOSE MASK (JSGPM)	13168	13325	27242	33959	43358	34479	48023	48137	Cont	Cont
JI0015 JOINT PROTECTIVE AIRCREW ENSEMBLE (JPACE)	0	17638	24131	24801	35066	12054	13997	7726	Cont	Cont
JSM001 JOINT SERVICE MASK LEAKAGE TESTER (JSMLT)	19184	8164	6343	4883	4988	4788	0	0	0	48350
MA0400 PROTECTIVE CLOTHING	73654	93282	37643	30956	0	0	0	0	0	235535

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D. Acquisition Strategy:

JPACE The acquisition strategy employs a spiral development approach. Block I will address 90% of the JPACE requirements, including key performance parameters. Block II is intended to address any deficiencies found in Block I and specifically to address CB protection in a rotorwash or high velocity wind environment and to enhance the thermal burden reduction capabilities of the JPACE system. Block I includes a competitive material search for advanced material technologies addressing aviation material performance requirements from the JPACE Joint ORD. Firm Fixed Price delivery order type contracts were awarded to finalize design and verify system level requirements. These contract vehicles include quantities for System Development and Demonstration (SDD), LRIP, and FRP.

JSAM The JSAM acquisition strategy included full and open competition for the Program Definition & Risk Reduction (PDRR) and Systems Development and Demonstration (SDD)/production efforts IAW FAR 15 (as supplemented). Two contracts were awarded for PDRR. One contract was awarded for SDD. The SDD award was made to the offeror whose proposal, based on the established evaluation criteria as written in section M of the solicitation, provided the best value to the government.

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The current acquisition strategy reflects an evolutionary acquisition approach. The first increment of JSAM development and fielding is for rotary wing systems [the Integrated Helmet And Display Sighting System (IHADSS) followed by non-Helmet Mounted Display (HMD) rotary wing systems]. This effort is under contract with AVOX Systems. Future increments, currently in AVOX contract option segments, are for fixed wing and HMD systems development and fielding. This acquisition strategy supports the Government's intent to continue pursuing competition within future increments through solicitation and evaluation of other potential sources, ensuring the user receives the best value product with reduced program risk.

JSGPM

The JSGPM acquisition strategy is a combined full-scale development (System Development and Demonstration) and production with Contractor Logistics Support (CLS). The contract for development/production is based on a Joint Service performance specification with special emphasis on the lowest total ownership cost (TOC).

PROT CLTH

The JSLIST acquisition strategy employs a spiral developmental approach, any deficiencies found in the JSLIST ensemble will be addressed to support the warfighters' mission and capabilities requirements using competitive material search.

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CBDP PROJECT COST ANALYSIS (R-3 Exhibit)	DATE February 2005
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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	FY2005 Cost	FY2005 Award Date	FY2006 Cost	FY2006 Award Date	FY2007 Cost	FY2007 Award Date	Cost to Complete	Total Cost	Target Value of Contract
JPACE													
HW C - Prototype Pattern Design	MIPR	NCTRF, Natick, MA	U	2011	150	1Q FY05	0	NONE	0	NONE	0	2161	2161
HW S - Prototype Procurement	C/FFP	Creative Apparel Associates, Belfast, ME	C	660	242	2Q FY05	0	NONE	0	NONE	0	902	570
JSAM													
HW S - Contractor Development	C/CPAF	AVOX, Lancaster, NY	C	13540	2650	2Q FY05	4833	2Q FY06	4870	2Q FY07	0	25893	1831
JSGPM													
HW S - Develop JSGPM Hardware	C/CPIF	Avon, Inc. Cadillac, MI	C	19347	1009	1Q FY05	0	NONE	0	NONE	0	20356	0
PROT CLTH													
HW S - Protective Clothing	C/FFP	Various	C	0	0	NONE	0	NONE	100	1Q FY07	0	100	0
Subtotal I. Product Development:				35558	4051		4833		4970		0	49412	

Remarks:

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CBDP PROJECT COST ANALYSIS (R-3 Exhibit)	DATE February 2005
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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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III. Test and Evaluation	Contract Method & Type	Performing Activity & Location	US NF CC	Total PYs Cost	FY2005 Cost	FY2005 Award Date	FY2006 Cost	FY2006 Award Date	FY2007 Cost	FY2007 Award Date	Cost to Complete	Total Cost	Target Value of Contract
JPACE													
OTE S - Initial Operational Test and Evaluation	MIPR	AFOTEC DET 1, Albuquerque, NM	U	1048	900	1Q FY05	0	NONE	0	NONE	0	1948	2912
OTE S - Initial Operational Test and Evaluation	MIPR	USA ATEC, Aberdeen, MD	U	198	935	1Q FY05	0	NONE	0	NONE	0	1133	1182
OTE S - Initial Operational Test and Evaluation	WR	COMOPTEVFOR, Norfolk, VA	U	160	300	1Q FY05	0	NONE	0	NONE	0	460	1256
JSAM													
OTHT SB - Govt Developmental Test	MIPR	Various	U	1723	3310	2Q FY05	1269	2Q FY06	3354	2Q FY07	0	9656	0
OTE S - Govt Operational Test	MIPR	Various	U	706	549	2Q FY05	1939	2Q FY06	2458	2Q FY07	0	5652	0
DTE S - Contractor Test and Integration	PO	TBS	U	616	961	2Q FY05	1451	2Q FY06	102	2Q FY07	0	3130	0
JSGPM													
OTHT SB - Plan and Conduct Developmental Testing of JSGPM System	MIPR	ATEC, Falls Church VA; DTC; HRED, APG, MD	U	3796	600	1Q FY05	0	NONE	0	NONE	0	4396	1250
OTE S - Plan and Conduct Operational Testing of JSGPM System	MIPR	Various	U	3312	500	1Q FY05	0	NONE	0	NONE	0	3812	8050
PROT CLTH													
OTE S - Block II Glove Test	MIPR	Various	U	5040	2912	1Q FY05	0	NONE	0	NONE	0	7952	0
DTE S - JSLIST MPS Durability Trials	MIPR	Various	U	370	1553	1Q FY05	0	NONE	0	NONE	0	1923	0
OTE S - Protective Clothing OT&E	MIPR	Various	U	0	0	NONE	0	NONE	1250	2Q FY07	0	1250	0

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CBDP PROJECT COST ANALYSIS (R-3 Exhibit)	DATE February 2005
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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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III. Test and Evaluation - Cont.	Contract Method & Type	Performing Activity & Location	US NF CC	Total PYs Cost	FY2005 Cost	FY2005 Award Date	FY2006 Cost	FY2006 Award Date	FY2007 Cost	FY2007 Award Date	Cost to Complete	Total Cost	Target Value of Contract
OTE SB - Test Methodologies Modeling	MIPR	Various	U	0	0	NONE	0	NONE	1657	1Q FY07	0	1657	0
Subtotal III. Test and Evaluation:				16969	12520		4659		8821		0	42969	

Remarks:

IV. Management Services	Contract Method & Type	Performing Activity & Location	US NF CC	Total PYs Cost	FY2005 Cost	FY2005 Award Date	FY2006 Cost	FY2006 Award Date	FY2007 Cost	FY2007 Award Date	Cost to Complete	Total Cost	Target Value of Contract
JPACE													
PM/MS S - Overall Program Coordination	WR	NAWCAD, Patuxent River, MD	U	2330	300	1Q FY05	0	NONE	0	NONE	0	2630	2322
PM/MS SB - Air Force Program Coordination	MIPR	311 HSW Brooks AFB, TX	U	1095	100	1Q FY05	0	NONE	0	NONE	0	1195	1203
PM/MS SB - US Army Program Coordination	MIPR	PMSOLDIER, Ft. Belvoir, VA	U	146	100	1Q FY05	0	NONE	0	NONE	0	246	470
PM/MS SB - US Marine Corps Program Coordination	WR	MARCORSYSCOM, Quantico, VA	U	244	100	1Q FY05	0	NONE	0	NONE	0	344	344
JSAM													
PM/MS C - Program Management/Management Support	MIPR	Various	U	4261	2600	2Q FY05	2921	2Q FY06	3015	2Q FY07	0	12797	0
PM/MS S - Contractor Program Management	C/CPAF	TBS	C	2048	1469	2Q FY05	1414	2Q FY06	599	2Q FY07	0	5530	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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IV. Management Services - Cont.	Contract Method & Type	Performing Activity & Location	US NF CC	Total PYs Cost	FY2005 Cost	FY2005 Award Date	FY2006 Cost	FY2006 Award Date	FY2007 Cost	FY2007 Award Date	Cost to Complete	Total Cost	Target Value of Contract
JSGPM													
PM/MS S - Program Management by Army (Lead Service)	MIPR	JPM - IP, Quantico, VA	U	2243	200	1Q FY05	0	NONE	0	NONE	0	2443	1400
PM/MS S - Program Management by Joint Services other than Army	MIPR	USN, USAF, USMC various locations	U	1600	250	1Q FY05	0	NONE	0	NONE	0	1850	1900
PROT CLTH													
PM/MS C - IPT	MIPR	Various	U	2652	300	1Q FY05	384	1Q FY06	0	NONE	0	3336	0
PM/MS C - Design/Analysis/Modeling	MIPR	Various		0	0	NONE	5300	1Q FY06	0	NONE	0	5300	0
PM/MS S - Protective Clothing	MIPR	Various	U	0	0	NONE	0	NONE	400	1Q FY07	0	400	0
ZSBIR													
SBIR/STTR - Aggregated from ZSBIR-SBIR/STTR	PO	HQ, AMC Alexandria, VA	U	0	192	NONE	0	NONE	0	NONE	0	192	0
Subtotal IV. Management Services:													
				16619	5611		10019		4014		0	36263	

Remarks:

TOTAL PROJECT COST:	74296	23537		20521		17951		0	136305	
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Exhibit R-3 (PE 0604384BP)

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Exhibit R-4a, Schedule Profile	DATE February 2005
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D. <u>Schedule Profile:</u>	FY 2004				FY 2005				FY 2006				FY 2007				FY 2008				FY 2009				FY 2010				FY 2011			
	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
JPACE																																
Pattern Finalization	>>			4Q																												
Developmental Test - Durability Testing	>>			4Q																												
Developmental Testing - Combined Developmental Testing (DT)/Operational Testing (OT) Assessment	>>			4Q																												
System Verification Review					1Q																											
Milestone C - Low Rate Initial Production (LRIP)					2Q																											
Independent Operational Testing						3Q		2Q																								
MS C Full Rate Production (FRP) Decision							4Q																									
JSAM																																
System Demonstration and Development	>>											4Q																				
Development Test				4Q				3Q																								
Operational Test (Rotary Wing)									4Q	1Q																						
Operational Test (Fixed Wing)									3Q		3Q																					
Milestone C (Full Rate Production Decision) - Type I (Rotary) & Type 1a (Apache) variants										1Q																						

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Exhibit R-4a, Schedule Profile	DATE February 2005
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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 2004				FY 2005				FY 2006				FY 2007				FY 2008				FY 2009				FY 2010				FY 2011			
	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
JSGPM																																
Conduct System Demonstration	>>	—			2Q																											
Documentation for Developmental Testing (DT) and Operational Testing (OT) Test	>>	—			4Q																											
Developmental Testing (DT) Production Qualification Testing (PQT)			3Q	—	2Q																											
Initial Evaluation Report					1Q	2Q																										
Prepare and Execute Log Spt Plan	>>	—			1Q																											
Preparation of Milestone C Documentation	>>	—			1Q																											
Limited User Test (LUT)			4Q		1Q																											
Final Performance Specification			4Q																													
Milestone C Low Rate Initial Production (LRIP) JSGPM					2Q																											
Production Contract Award					3Q																											
Material Release									2Q	3Q																						
Full Rate Production (FRP) Review									2Q																							
Multiservices Operational Test and Evaluation (MOT&E) with Production Representative Articles									2Q																							
First Unit Equipped (FUE)/Initial Operational Capability (IOC)												4Q																				

Exhibit R-4a, Schedule Profile	DATE February 2005
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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 2004				FY 2005				FY 2006				FY 2007				FY 2008				FY 2009				FY 2010				FY 2011			
	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																																
JSLIST Block II Glove Conduct Developmental Test (DT)/Operational Test (OT)			3Q		—————				1Q																							
JSLIST Block II Glove Milestone C												4Q																				
JSLIST Block II Glove MS C												4Q																				
JSLIST MPS - Milestone C	1Q																															
JSLIST MPS - Production Contract Award	1Q																															
JSLIST - Initial Operational Test and Evaluation (IOT&E) Alternative Footwear Solutions (AFS)							3Q		1Q																							
JSLIST- Milestone C AFS												3Q																				
Integrated Footwear System (IFS) DT/OT					1Q				1Q																							
JSLIST Spiral Development MS B												2Q																				
JSLIST Spiral Development DT												2Q				2Q																
JSLIST Spiral Development MS C LRIP												3Q				3Q																
JSLIST Spiral Development OT																3Q				3Q												
JSLIST Spiral Development MS C FRP																																

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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 2004 Actual	FY 2005 Estimate	FY 2006 Estimate	FY 2007 Estimate	FY 2008 Estimate	FY 2009 Estimate	FY 2010 Estimate	FY 2011 Estimate	Cost to Complete	Total Cost
IS5 INFORMATION SYSTEMS (SDD)	0	20434	77037	25584	17517	8714	5511	3343	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) Joint Warning and Reporting Network (JWARN). These programs were previously funded in CA4/CA5 prior to FY05.

The JEM will be a general-purpose, accredited model for predicting hazards associated with the release of contaminants into the environment. JEM will be developed in blocks and will be capable of modeling hazards in a variety of scenarios including: counterforce, passive defense, accident and/or incidents (Block I), high altitude releases, urban NBC environments (Block II), building interiors, and human performance degradation (Block III).

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JOEF will be a near real-time course of action analysis tool developed in three blocks using a detailed NBC hazard prediction model. Each block supports Aerial Ports of Debarkation (APODs), Sea Ports of Debarkation (SPODs), mobile forces, medical and automated Tactics, Techniques and Procedures (TTPs) in various levels of fidelity.

Block I will support deliberate planning for operational and strategic users in a Command, Control, Communications, Computers, Intelligence, Surveillance and Reconnaissance (C4ISR) common operating environment (COE); crisis planning for the operational users in a COE.

Block II will support deliberate and crisis planning for the tactical users in a COE, non-COE, and non-networked environment; deliberate planning for operational and strategic users in a non-COE; crisis planning for the operational users in a non-COE; and crisis planning for the strategic users in a COE. The second block supports planning for consequence management and development of consequence management for military capabilities.

Block III will support deliberate planning for operational and strategic users in a non-networked environment; crisis planning for operational users in a non-COE; crisis planning for strategic users in a non-COE and non-networked environment. The third block extends consequence management capabilities to include civilian facilities.

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The JWARN will provide standard integration and analysis of NBC detection information with Command, Control, Communication, Computers, Intelligence, Surveillance and Reconnaissance (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 battlespace 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.

B. Accomplishments/Planned Program

	<u>FY 2004</u>	<u>FY 2005</u>	<u>FY 2006</u>	<u>FY 2007</u>
JOINT EFFECTS MODEL	0	8131	22752	1782
RDT&E Articles (Quantity)	0	0	0	0

FY 2005 Planned Program:

- 1554 JEM Block I - Continue conduct of Independent Validation and Verification (IV&V). Prepare for and achieve Class Accreditation.

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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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FY 2005 Planned Program (Cont):

- 4591 JEM Block I - Continue software development and initiate Government developmental testing. Finalize operational test plans. Initiate Operational Testing (OT). Provide program financial management, scheduling, planning and reporting.
- 1986 JEM Block I - Perform software maintenance in support of Developmental Testing (DT) and OT. Initiate establishment of the Software Support Activity (SSA).

Total 8131

FY 2006 Planned Program:

- 2252 JEM Block I - Perform software maintenance through Initial Operational Capability (IOC).
- 2798 JEM Block I - Initiate long-term field trials, in conjunction with other programs, to obtain highly characterized CBRN dispersion patterns across the spectrum of operational scenarios critical to fill known data gaps.
- 3403 JEM Block I - Conduct MS C. Finalize Computer Based Training and courseware. Complete infrastructure and stand up of Software Support Activity and 24/7 capable Help Desk.
- 1832 JEM Block I - Implement and certify the CBRN Database. Provide program financial management, scheduling, planning and reporting.
- 4131 JEM Block I - Accomplish full system interoperability with JWARN. Complete interoperability, network and system security certifications on 12 different Service C4I/host Systems and two computer operating systems (Windows NT and Unix). Conduct Follow-on Operational Test and Evaluation.
- 1676 JEM Block II - Revalidate Block II technology analysis from FY04 (See JEM portion of Project CA5), develop prototype options for down-select and prepare for Block II MS B.

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FY 2006 Planned Program (Cont):

- 5713 JEM Block II - Initiate and complete Block II system development and demonstration, incorporating Urban Missile Defense, Missile Intercept, Backtracking to Source, STRATCOM Support and Human Effects. Migrate Block II technologies into Block I design (Urban Missile Defense, Missile Intercept, Backtrack to Source, STRATCOM Requirements, effects to 180 days, and a 10% improvement in speed and accuracy. Initiate IV&V.
- 947 JEM Block II - Initiate Pre-planned Product Improvement (P3I).

Total 22752

FY 2007 Planned Program:

- 1782 JEM Block I - Provide for software upgrades after initial system fielding. Provide program financial management, scheduling, planning and reporting. Continue initial system training. Support system-of-system testing with JWARN. Support requests for operation on special configurations (NORAD/NORTHCOM, PFFPA, etc.).

Total 1782

	<u>FY 2004</u>	<u>FY 2005</u>	<u>FY 2006</u>	<u>FY 2007</u>
JOINT OPERATIONAL EFFECTS FEDERATION	0	0	13563	8329
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 IS5
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FY 2006 Planned Program:

- 2041 JOEF Block 1 - Continue SPODs, APODs and automated TTPs software development.
- 5311 JOEF Block 1 - Initiate the development of mobile force capability to meet the Services' requirements.
- 804 JOEF Block 1 - Continue the integration with JEM, JWARN and data base management systems.
- 1992 JOEF Block 1 - Continue APODs, SPODs and automated TTPs, and initiate mobile force software development for crisis planning for operational levels of war.
- 807 JOEF Block 1 - Develop COE interfaces for above functions.
- 2157 JOEF Block 1 - Develop test, validation and verification plans, start Development Testing (DT) and begin software validation and verification.
- 249 JOEF Block 1 - Conduct Systems Engineering, Warfighter, T&E, and logistics IPTs.
- 202 JOEF Block 1 - Conduct market research for capabilities that can provide additional capabilities for JOEF and develop training material.

Total 13563

FY 2007 Planned Program:

- 5205 JOEF Block I - Complete software development for APODs, SPODs, automated TTPs and Mobile Force requirements for the Services for strategic level of war.
- 737 JOEF Block I - Develop COE interface.
- 1691 JOEF Block I - Complete developmental testing and start operational testing.

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FY 2007 Planned Program (Cont):

- 446 JOEF Block I - Continue software validation and verification.
- 147 JOEF Block I - Continue to conduct Systems Engineering, Warfighter, T&E, and logistics IPTs.
- 103 JOEF Block I - Complete development of training material.

Total 8329

	<u>FY 2004</u>	<u>FY 2005</u>	<u>FY 2006</u>	<u>FY 2007</u>
JOINT WARNING & REPORTING NETWORK (JWARN)	0	12136	40722	15473
RDT&E Articles (Quantity)	0	0	0	0

FY 2005 Planned Program:

- 6604 JWARN - Congressional Add of 2083. Continue Block II development.
- 3013 JWARN - Continue Block II DT/OA planning.
- 2519 JWARN - Continue program management and oversight.

Total 12136

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FY 2006 Planned Program:

- 7119 JWARN - Complete Block II development.
- 5475 JWARN - Conduct Block II Developmental Test (DT).
- 4008 JWARN - Conduct Block II Interoperability Tests (IOT).
- 4502 JWARN - Conduct Joint Component Interface Device (JCID) tests.
- 498 JWARN - Develop comprehensive DT test results and reports.
- 3499 JWARN - Conduct Multi-Service Operational Test & Evaluation (MOT&E) event planning.
- 2500 JWARN - Joint Component Interface Device (JCID) functionality - design & integration.
- 5600 JWARN - Stand alone variant development.
- 2102 JWARN - Network Centric Enterprise Services (NCES) / Net Ready (NR) / Key Performance Parameters (KPP) enhancements.
- 2419 JWARN - Continue program management and oversight.
- 2000 JWARN (T&E Capability) - Develop, design and integrate software and hardware for a functional Operational Test (OT) Stimulator demonstration system.
- 1000 JWARN (T&E Capability) - Develop a high bandwidth data transfer backbone to transmit and integrate test data for rapid analysis across multiple users and test sites.

Total 40722

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FY 2007 Planned Program:

- 504 JWARN - Generate comprehensive Operational Assessment (OA) report.
- 3974 JWARN - Conduct Block II OA.
- 898 JWARN - Conduct Milestone C review.
- 1802 JWARN - Coordinate JCID Low Rate Initial Production (LRIP).
- 1714 JWARN - Coordinate JCID First Article Test (FAT).
- 2162 JWARN - Conduct MOT&E event planning.
- 2419 JWARN - Continue program management and oversight.
- 1000 JWARN (T&E Capability) - Test and validate software and hardware for the Operational Test (OT) Stimulator demonstration system.
- 1000 JWARN (T&E Capability) - Integrate branched connections to the data transfer backbone to transmit and integrate test data for rapid analysis across multiple users and test sites.

Total 15473

	<u>FY 2004</u>	<u>FY 2005</u>	<u>FY 2006</u>	<u>FY 2007</u>
SBIR/STTR	0	167	0	0
RDT&E Articles (Quantity)	0	0	0	0

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FY 2005 Planned Program:

- 167 SBIR

Total 167

<u>C. Other Program Funding Summary:</u>	<u>FY 2004</u>	<u>FY 2005</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>To Compl</u>	<u>Total Cost</u>
G47101 JOINT WARNING & REPORTING NETWORK (JWARN)	1102	5913	5183	7151	21142	21254	22410	28576	Cont	Cont
JC0208 JOINT EFFECTS MODEL (JEM)	0	994	2024	2029	1031	0	0	0	0	6078
JC0209 JOINT OPERATIONAL EFFECTS FEDERATION (JOEF)	0	0	0	0	0	0	0	0	0	0

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D. Acquisition Strategy:

JEM The JEM program will use a three-block evolutionary acquisition approach for the design, development, testing and fielding of JEM. For Block I, upon completion of an Independent Model Analysis, JEM interface, credibility and performance requirements will be refined in an iterative process through a series of design reviews, using cost-effective graphical storyboarding prior to actual implementation of the algorithms and data harvested from the legacy Chemical, Biological, Radiological and Nuclear (CBRN) models. A cost-plus award/incentive fee contract is being used for Block I model development.

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

Block I will support deliberate planning for operational and strategic users in a Command, Control, Communications, Computers, Intelligence, Surveillance and Reconnaissance (C4ISR) common operating environment (COE) and crisis planning for the operational users in a COE.

Block II will support deliberate and crisis planning for the tactical users in COE, Non-COE, and Non-Networked environments; deliberate planning for operational and strategic users in a Non-COE; crisis planning for the operational users in a Non-COE; and crisis planning for the strategic users in a COE. Block II also supports planning for consequence management and development of consequence management for military capabilities.

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Block III will support deliberate planning for operational and strategic users in a Non-Networked environment; crisis planning for operational users in a Non-COE; and crisis planning for strategic users in a Non-COE and Non-Networked environment. Block III extends consequence management capabilities to include civilian facilities.

JWARN

The 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 through the concurrent integration of sensor connectivity initially planned for Block III. The revised strategy eliminates the Block II Milestone Decision process as well as Block II Development Testing/Operational Assessment (DT/OA). This shortens the delivery schedule for the full capability of JWARN by approximately 12 months.

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CBDP PROJECT COST ANALYSIS (R-3 Exhibit)	DATE February 2005
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IV. Management Services	Contract Method & Type	Performing Activity & Location	US NF CC	Total PYs Cost	FY2005 Cost	FY2005 Award Date	FY2006 Cost	FY2006 Award Date	FY2007 Cost	FY2007 Award Date	Cost to Complete	Total Cost	Target Value of Contract
JEM													
PM/MS S - Program Office - Planning & Programming	MIPR	SPAWARSSYSCOM, San Diego, CA	U	0	926	1Q FY05	892	1Q FY06	649	1Q FY07	100	2567	0
JOEF													
PM/MS S - Program Office - Planning and Programming	MIPR	Various	U	0	0	NONE	1706	1Q FY06	1839	1Q FY07	0	3545	0
JWARN													
PM/MS S - JWARN Management Support	MIPR	Various	U	0	2519	3Q FY05	3426	1Q FY06	3750	1Q FY07	0	9695	0
ZSBIR													
SBIR/STTR - Aggregated from ZSBIR-SBIR/STTR	PO	HQ, AMC Alexandria, VA	U	0	167	NONE	0	NONE	0	NONE	0	167	0
Subtotal IV. Management Services:				0	3612		6024		6238		100	15974	

Remarks:

TOTAL PROJECT COST:	0	20434		77037		25584		4563	127618
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D. <u>Schedule Profile:</u>	FY 2004				FY 2005				FY 2006				FY 2007				FY 2008				FY 2009				FY 2010				FY 2011			
	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																																
BLK I - Software Development	>>	————— 3Q																														
BLK I - Milestone B Decision	2Q																															
BLK I - Award System Development and Demonstration (SDD) Contract	2Q																															
BLK I - In Process Review (IPR)				4Q																												
BLK I - Developmental Testing (DT) (Contractor)					1Q	————— 3Q																										
BLK I - DT (Government)						2Q	————— 4Q																									
BLK I - Software Maintenance				4Q	—————			1Q																								
BLK I - Establish, Train, Stand Up Software Support Activity						3Q	—————		3Q																							
BLK I - Operational Testing (OT)								4Q	1Q																							
BLK I - Milestone C (Limited Deployment) and Full Rate Production (FRP)									2Q																							
BLK I - Production and Deployment									2Q	—————						2Q																
BLK I - Initial Operational Capability (IOC)																																
JOEF																																

Exhibit R-4a, Schedule Profile	DATE February 2005
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D. <u>Schedule Profile (cont):</u>	FY 2004				FY 2005				FY 2006				FY 2007				FY 2008				FY 2009				FY 2010				FY 2011			
	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)																																
Concept and Technology Development Phase	>>	—————			—————				4Q																							
Prototype Development	2Q	—————			—————				4Q																							
Focused Technology Assessment II (Mobile Forces)	2Q	3Q																														
Focused Technology Assessment III (Other Mobile Forces Models)					2Q																											
BLK I - Milestone B							3Q																									
BLK I - Award Systems Development and Demonstration (SDD) Contract							4Q																									
BLK I - Software Development									1Q	—————			3Q																			
BLK I - Early Operational Assessment (EOA)													3Q																			
BLK I - Interim Progress Review													4Q																			
BLK I - Developmental Testing (DT)													4Q																			
BLK I - Operational Testing (OT)													4Q	1Q																		
BLK I - Milestone C (Limited Deployment)																	2Q															
BLK I - Full Rate Production (FRP) Decision																					4Q											

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D. <u>Schedule Profile (cont):</u>	FY 2004				FY 2005				FY 2006				FY 2007				FY 2008				FY 2009				FY 2010				FY 2011				
	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)																																	
BLK I - Initial Operational Capability (IOC)																4Q																	
JWARN																																	
JWARN BLK II - System Design and Development (SDD) Performance	>>	—————											2Q																				
JWARN BLK II - Development Test											3Q	4Q																					
JWARN BLK II - Operational Assessment											4Q	—	2Q																				
JWARN BLK II - Milestone C													2Q	3Q																			
JWARN BLK II - Low Rate Initial Production (LRIP) Contract Award													3Q	—	1Q																		
JWARN BLK II - First Article Test													3Q	4Q																			
JWARN BLK II - Initial Operational Test and Evaluation (IOT&E)															1Q	2Q																	
JWARN BLK II - Multiservice Operational Test & Evaluation															1Q	2Q																	
JWARN BLK II - Full Rate Production Milestone Decision																	4Q																
JWARN BLK II - Full Rate Production															4Q	—————											4Q						

Exhibit R-4a, Schedule Profile							DATE February 2005
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D. <u>Schedule Profile (cont):</u>	FY 2004				FY 2005				FY 2006				FY 2007				FY 2008				FY 2009				FY 2010				FY 2011							
	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 BLK II - Full Operational Capability																																				

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COST (In Thousands)	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	Cost to	Total Cost
	Actual	Estimate	Estimate	Estimate	Estimate	Estimate	Estimate	Estimate	Complete	
MB5 MEDICAL BIOLOGICAL DEFENSE (SDD)	7053	10087	61448	72125	93784	94061	77023	60858	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, Plague, Vaccinia Immune Globulin, and Equine Encephalitis vaccines.

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The Critical Reagents Program (CRP) integrates and consolidates all Department of Defense (DoD) reagents/antibodies/biological threat agent and genomic reference materials, and DNA biological detection requirements from Technology Development through production. The CRP ensures the availability of 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. The CRP is a consolidation of all antibody/biological threat agent and genomic reference materials based identification requirements within the biological warfare (BW) detection program. Supported systems include the Biological Integrated Detection System (BIDS), Portal Shield, Joint Biological Agent and Identification System (JBAIDS), and the Joint Biological Point Detection System (JBPDs) Blocks I and II. This program also supports the development and manufacture of individual Handheld Immunochromatographic Assays (HHA), freeze-dried electrochemiluminescence (ECL) immunoassays, and the Department of Defense (DoD) biological sampling kit. This program results in improved identification performance and ensures comparable results across disparate systems.

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. Blocks II and III technologies will be selected based on their reliability, technological maturity, and supportability.

B. Accomplishments/Planned Program

	<u>FY 2004</u>	<u>FY 2005</u>	<u>FY 2006</u>	<u>FY 2007</u>
CRITICAL REAGENTS PROGRAM	3476	3003	10098	3258
RDT&E Articles (Quantity)	0	0	0	0

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FY 2004 Accomplishments:

- 700 CRP - Completed insertion of International Task Force (ITF)-6A agents into polymerase chain reaction (PCR) and electrochemiluminescence (ECL) formats.
- 780 CRP - Continued antibody development of ITF-6B targets.
- 1560 CRP - Continued expansion of select agent reference material, validation of assays, and scale up of select agent reference material.
- 436 CRP - Developed and instituted automation technology solutions to improve processes and operations of the clinical laboratory.

Total 3476

FY 2005 Planned Program:

- 802 CRP - Continue antibody development of ITF-6B targets.
- 1460 CRP - Continue expansion of select agent reference material, validation of assays, and scale up of select agent reference material.
- 741 CRP - Initiate development of PCR and ECL assays to ITF-6B.

Total 3003

FY 2006 Planned Program:

- 2179 CRP - Complete development of PCR and ECL assays, and antibodies to ITF-6B.

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FY 2006 Planned Program (Cont):

- 4400 CRP - Continue expansion of select agent reference material, validation of assays, and scale up of select agent reference material. Initiate expansion of unified cell culture collection (UCC).
- 3519 CRP - Initiate and complete a formal Quality Assurance/Quality Control (QA/QC), validation, Developmental Testing (DT), and Operational Testing (OT) program to encompass the transition and fielding of biological detection assays.

Total 10098

FY 2007 Planned Program:

- 1121 CRP - Continue to expand UCC, select agent reference material, validation of assays, and scale up of select agent reference material.
- 1212 CRP - Initiate immunoassay and genomic assay validation for ITF-6A, ITF-6B, and ITF-6C agents.
- 925 CRP - Integrate current Good Manufacturing Practices (cGMP) antibodies in support of medical diagnostics.

Total 3258

	<u>FY 2004</u>	<u>FY 2005</u>	<u>FY 2006</u>	<u>FY 2007</u>
JOINT BIOLOGICAL AGENT IDENT AND DIAG SYSTEM	3577	4571	0	0
RDT&E Articles (Quantity)	0	0	0	0

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FY 2004 Accomplishments:

- 1011 JBAIDS Block I - Continued Developmental Testing (DT).
- 1638 JBAIDS Block I - Developed hardware and assays; delivered test articles; conducted hardware qualification testing; and continued hardware engineering change proposal (ECP) process; initiated hardware upgrading and biological warfare (BW) assay development.
- 928 JBAIDS Block I - Completed Operational Assessment (OA).

Total 3577

FY 2005 Planned Program:

- 2191 JBAIDS Blk I - Complete DT, hardware ECP process and upgrading, and BW assay development. Initiate and complete OT. Achieve Milestone C/LRIP.
- 970 JBAIDS Blk I - Develop contract ECPs.
- 560 JBAIDS Blk I - Conduct New Equipment Training (NET) of systems.
- 850 JBAIDS Blk I - Conduct FDA clinical trials and submit FDA 510(k) for Anthrax.

Total 4571

	<u>FY 2004</u>	<u>FY 2005</u>	<u>FY 2006</u>	<u>FY 2007</u>
JOINT BIOLOGICAL AGENT IDENT AND DIAG SYSTEM INCREMENT II	0	0	8323	10374
RDT&E Articles (Quantity)	0	0	0	0

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<p>FY 2006 Planned Program:</p> <ul style="list-style-type: none"> • 5200 JBAIDS Blk II - Award developmental contract to support purchase of development prototype articles, developmental and operational testing, technical manual development, contractor logistics support, FDA 510(k) activities, and test plans/procedures. Achieve Milestone B. • 923 JBAIDS Blk II - Initiate Developmental Testing (DT), Operational Assessment (OA), and Operational Testing (OT). • 856 JBAIDS Blk II - Initiate Government Furnished Material (GFM) manufacturing support of toxin test sample manufacturing. • 592 JBAIDS Blk II - Initiate and complete toxin Food and Drug Administration (FDA) interface planning efforts to determine pre-marketing approval (PMA)/510(k) applicability. • 752 JBAIDS Blk II - Initiate system DT training efforts. <p>Total 8323</p> <p>FY 2007 Planned Program:</p> <ul style="list-style-type: none"> • 1632 JBAIDS Blk II - Complete DT, OA, and OT. • 7268 JBAIDS Block II - Provide developmental contract incremental funding to support developmental and operational testing, technical manual development, contractor logistics support, FDA 510(k) activities, and test plans/procedures. • 448 JBAIDS Block II - Continue GFM manufacturing support of toxin test sample manufacturing. • 513 JBAIDS Block II - Continue DT system training efforts. • 513 JBAIDS Block II - Initiate FDA toxin 510(k) submittals and clinical trials. <p>Total 10374</p>		
Project MB5/Line No: 088		Exhibit R-2a (PE 0604384BP)

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	<u>FY 2004</u>	<u>FY 2005</u>	<u>FY 2006</u>	<u>FY 2007</u>
BOTULINUM VACCINE	0	0	27743	18904
RDT&E Articles (Quantity)	0	0	0	0

FY 2006 Planned Program:

- 15537 JVAP - Recombinant Botulinum Vaccine - Initiate Phase 2 clinical trial.
- 1820 JVAP - Recombinant Botulinum Vaccine - Continue non-clinical studies and stability testing.
- 10386 JVAP - Recombinant Botulinum Vaccine - Complete manufacturing process validation and initiate consistency lot production.

Total 27743

FY 2007 Planned Program:

- 10168 JVAP - Recombinant Botulinum Vaccine - Continue Phase 2 clinical trial.
- 3160 JVAP - Recombinant Botulinum Vaccine - Continue non-clinical studies and stability testing.
- 5576 JVAP - Recombinant Botulinum Vaccine - Complete consistency lot production.

Total 18904

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	<u>FY 2004</u>	<u>FY 2005</u>	<u>FY 2006</u>	<u>FY 2007</u>
ENCEPHALITIS VACCINE	0	0	5000	0
RDT&E Articles (Quantity)	0	0	0	0

FY 2006 Planned Program:

- 2000 JVAP - Equine Encephalitis Vaccine - Initiate Phase 2 clinical trial immunological testing.
- 3000 JVAP - Equine Encephalitis Vaccine - Initiate passive transfer studies with samples from the Phase 2 clinical trial.

Total 5000

	<u>FY 2004</u>	<u>FY 2005</u>	<u>FY 2006</u>	<u>FY 2007</u>
PLAGUE VACCINE	0	0	10284	39589
RDT&E Articles (Quantity)	0	0	0	0

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FY 2006 Planned Program:

- 9394 JVAP - Plague Vaccine - Continue Phase 2 clinical trial of US candidate.
- 341 JVAP - Plague Vaccine - Continue non-clinical studies of US candidate.
- 549 JVAP - Plague Vaccine - Continue full-scale manufacturing process development of US candidate.

Total 10284

FY 2007 Planned Program:

- 3051 JVAP - Plague Vaccine - Complete Phase 2 clinical trial of US candidate.
- 4964 JVAP - Plague Vaccine - Continue non-clinical studies of US candidate.
- 10985 JVAP - Plague Vaccine - Complete full-scale manufacturing process development of US candidate.
- 20489 JVAP - Plague Vaccine - Initiate Phase 3 clinical trial of US candidate.
- 100 JVAP - Plague Vaccine - Continue stability testing of US candidate.

Total 39589

	<u>FY 2004</u>	<u>FY 2005</u>	<u>FY 2006</u>	<u>FY 2007</u>
BIOLOGICAL VACCINES	0	2430	0	0
RDT&E Articles (Quantity)	0	0	0	0

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FY 2005 Planned Program:

- 2430 Congressional Add. Conduct ParalellaVax Rapid Vaccine Testing Technology study.

Total 2430

	<u>FY 2004</u>	<u>FY 2005</u>	<u>FY 2006</u>	<u>FY 2007</u>
SBIR/STTR	0	83	0	0
RDT&E Articles (Quantity)	0	0	0	0

FY 2005 Planned Program:

- 83 SBIR

Total 83

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C. <u>Other Program Funding Summary:</u>	<u>FY 2004</u>	<u>FY 2005</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>To Compl</u>	<u>Total Cost</u>
JM0001 JOINT BIO AGENT IDENTIFICATION AND DIAGNOSTIC SYS (JBAIDS)	9873	18386	21188	5650	14690	11162	8476	0	0	89425
JX0005 DOD BIOLOGICAL VACCINE PROCUREMENT	59706	80478	38930	39466	40741	43498	46080	52906	Cont	Cont
JX0210 CRITICAL REAGENTS PROGRAM (CRP)	1799	1843	2223	2274	2350	2379	2586	2695	Cont	Cont

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D. Acquisition Strategy:

CRP The Critical Reagents Program (CRP) is designed along a stepwise strategy. After successful end item scale-up, end items are transitioned to full-scale production in support of the detection platforms that are supported. Reagents have been developed to meet baseline BIDS, Portal Shield, JBAIDS, and JBPDS Block I requirements. Performance improvements in those reagents must be pursued. A large portion of the FY05-09 development activity will focus on antibody and immunoassay development against JBAIDS and JBPDS Block II requirements. This includes roughly tripling the inventory of agents that can be detected using antibody based methods. The antibody components of the critical reagents are Government Furnished Equipment (GFE) to the HHA ECL manufacturer. The CRP also seeks to improve the performance and producibility of the current reagent inventory through a program-wide testing and science and technology (S&T) transition strategy with the end goal of horizontally integrated reagent improvements. Expansion of biological threat agent and genomic reference materials in support of ongoing detection reagent validation will be a major focus between FY05 and FY10.

JBAIDS JBAIDS is an evolutionary development program. Block I 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. Block I development effort focuses on militarizing and hardening of critical identification technologies based on a commercial off-the-shelf (COTS) item and FDA clearance for the assays and hardware.

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JBAIDS II	JBAIDS is an evolutionary development program. Block II will be a rapid development and fielding effort to deliver critical capability to identify toxins to the field in the shortest time. Block II development effort focuses on militarizing and hardening of critical toxin identification technologies based on a commercial off-the-shelf (COTS)/Non-Developmental Item (NDI) candidate system.
VAC BOT	A prime systems contractor will function as the "responsible head" and license holder and will perform all ancillary, regulatory, quality assurance, and data management as required by the FDA. The current budget supports initial development through FDA licensure.
VAC ENC	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 initial development (to Milestone B) of a Venezuelan Equine Encephalitis vaccine, a requirement in the Joint Chiefs of Staff threat list.
VAC PLG	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 initial development through FDA licensure.

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I. Product Development	Contract Method & Type	Performing Activity & Location	US NF CC	Total PYs Cost	FY2005 Cost	FY2005 Award Date	FY2006 Cost	FY2006 Award Date	FY2007 Cost	FY2007 Award Date	Cost to Complete	Total Cost	Target Value of Contract
CRP													
CRP - Scale Up of Select Agent Reference Material	MIPR	USAMRIID, Fort Detrick, MD & Dugway Proving Grounds, DPG, UT	U	636	450	1Q FY05	1536	2Q FY06	610	2Q FY07	0	3232	0
CRP - Development of Select Agent Reference Material	MIPR	Naval Medical Research Center, Silver Spring, MD	U	205	180	1Q FY05	1206	2Q FY06	205	2Q FY07	0	1796	0
CRP - Development of Select Agent Reference Material	MIPR	USAMRIID Vet Sci Division, Fort Detrick, MD	U	167	225	2Q FY05	1296	3Q FY06	425	2Q FY07	0	2113	0
JBAIDS													
SW SB - JBAIDS Blk I - Assay Development	C/FFP	Idaho Technology, Inc., Salt Lake City, UT	C	9252	330	1Q FY05	0	NONE	0	NONE	0	9582	0
JBAIDS II													
HW/SW C - JBAIDS Blk II - Development Prototype Article Production	C/CPFF	TBS	C	0	0	NONE	3329	1Q FY06	6878	1Q FY07	0	10207	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	0	NONE	8610	1Q FY06	5893	1Q FY07	0	14503	0

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I. Product Development - Cont.	Contract Method & Type	Performing Activity & Location	US NF CC	Total Pys Cost	FY2005 Cost	FY2005 Award Date	FY2006 Cost	FY2006 Award Date	FY2007 Cost	FY2007 Award Date	Cost to Complete	Total Cost	Target Value of Contract
VAC ENC													
HW S - Vaccine Development - Includes Phase 2 clinical trial immunological testing and passive transfer studies	C/CPAF	DynPort Vaccine Company, Frederick, MD	C	0	0	NONE	2000	1Q FY06	0	NONE	0	2000	0
VAC PLG													
HW S - Includes validation and consistency lot production	C/CPAF	DynPort Vaccine Company, Frederick, MD	C	0	0	NONE	3191	1Q FY06	12340	1Q FY07	0	15531	0
VACCINES													
HW S - ParallelaVax Rapid Vaccine Testing Technology	SS/FP	TBD	C	0	972	4Q FY05	0	NONE	0	NONE	0	972	0
Subtotal I. Product Development:				10260	2157		21168		26351		0	59936	

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 MB5
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II. Support Costs	Contract Method & Type	Performing Activity & Location	US NF CC	Total PYs Cost	FY2005 Cost	FY2005 Award Date	FY2006 Cost	FY2006 Award Date	FY2007 Cost	FY2007 Award Date	Cost to Complete	Total Cost	Target Value of Contract
CRP													
CRP - Conformance Testing and Select Agent Reference Material Validation	MIPR	Aberdeen Proving Ground, Edgewood, MD	U	217	520	2Q FY05	785	2Q FY06	720	2Q FY07	0	2242	0
CRP - Select Agent Reference Material Regulatory/Quality Assurance (QA) Support	MIPR	Dugway Proving Ground, Dugway, UT	U	0	230	2Q FY05	415	2Q FY06	350	2Q FY07	0	995	0
CRP - Select Agent Reference Material Validation	C/CPFF	TBS	C	0	414	2Q FY05	315	2Q FY06	0	NONE	0	729	0
JBAIDS													
TD/D SB - JBAIDS Blk I - Joint Services Training	MIPR	AMEDD, Fort Sam Houston, TX	U	310	470	1Q FY05	0	NONE	0	NONE	0	780	0
TD/D SB - JBAIDS Blk I - Government Labs Support	MIPR	USAMRIID, AFIOH, AFIP, and DPG	U	612	565	2Q FY05	0	NONE	0	NONE	0	1177	0
TD/D SB - JBAIDS Blk I - 510(k) Package, Test Plans, Technical Data/Manuals, Assay Patents	C/FFP	Idaho Technology, Inc., Salt Lake City, UT	C	1119	155	1Q FY05	0	NONE	0	NONE	0	1274	0
JBAIDS II													
TD/D C - JBAIDS Block II - Government Labs/Regulatory Support	MIPR	Dugway Proving Ground, DPG, UT	U	0	0	NONE	720	2Q FY06	218	2Q FY07	0	938	0
TD/D C - JBAIDS Blk II - Government Labs/Regulatory Support	MIPR	TBS (Various)	U	0	0	NONE	306	3Q FY06	213	3Q FY07	0	519	0

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II. Support Costs - Cont.	Contract Method & Type	Performing Activity & Location	US NF CC	Total PYs Cost	FY2005 Cost	FY2005 Award Date	FY2006 Cost	FY2006 Award Date	FY2007 Cost	FY2007 Award Date	Cost to Complete	Total Cost	Target Value of Contract
TD/D C - JBAIDS Block II - FDA, 510(k) Package, Test Plans, and Technical Data Manuals	C/CPFF	TBS	C	0	0	NONE	121	3Q FY06	287	3Q FY07	0	408	0
TD/D C - JBAIDS Blk II - Training Efforts	MIPR	AMEDD Center & School, Ft. Sam Houston, TX	U	0	0	NONE	262	2Q FY06	273	2Q FY07	0	535	0
VAC BOT													
TD/D S - Includes Regulatory Integration (Environmental and FDA Documentation) and Delivery System	C/CPAF	DynPort Vaccine Company, Frederick, MD	C	0	0	NONE	4100	1Q FY06	2788	1Q FY07	0	6888	0
VAC ENC													
TD/D S - Includes Regulatory Integration (Environmental and FDA Documentation)	C/CPAF	DynPort Vaccine Company, Frederick, MD	C	0	0	NONE	750	1Q FY06	0	NONE	0	750	0
VAC PLG													
TD/D S - Vaccine Development - Includes Regulatory Integration (Environmental and FDA Documentation) and Delivery System.	C/CPAF	DynPort Vaccine Company, Frederick, MD	C	0	0	NONE	1520	1Q FY06	5839	1Q FY07	0	7359	0
VACCINES													
TD/D SB - ParallelaVax Rapid Vaccine Testing Technology	SS/FP	TBD	C	0	365	4Q FY05	0	NONE	0	NONE	0	365	0

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II. Support Costs - Cont.	Contract Method & Type	Performing Activity & Location	US NF CC	Total PYs Cost	FY2005 Cost	FY2005 Award Date	FY2006 Cost	FY2006 Award Date	FY2007 Cost	FY2007 Award Date	Cost to Complete	Total Cost	Target Value of Contract
Subtotal II. Support Costs:				2258	2719		9294		10688		0	24959	

Remarks:

III. Test and Evaluation	Contract Method & Type	Performing Activity & Location	US NF CC	Total PYs Cost	FY2005 Cost	FY2005 Award Date	FY2006 Cost	FY2006 Award Date	FY2007 Cost	FY2007 Award Date	Cost to Complete	Total Cost	Target Value of Contract
CRP													
CRP - Conformance Testing of Select Agent Reference Material	MIPR	Naval Medical Research Center, Silver Spring, MD	U	264	398	1Q FY05	1169	1Q FY06	446	1Q FY07	0	2277	0
CRP - Test & Evaluation of Select Agent Reference Material	MIPR	USAMRIID Vet Sci Division, Frederick, MD	U	155	122	1Q FY05	918	3Q FY06	170	2Q FY07	0	1365	0
CRP - Test & Evaluation of Select Agent Reference Material	MIPR	Aberdeen Proving Ground, Edgewood, MD	U	296	207	1Q FY05	942	1Q FY06	0	NONE	0	1445	0
JBAIDS													
OTHT SB - JBAIDS Blk I - Conduct DT	MIPR	USAMRIID, Fort Detrick, MD & AFIOH, Brooks City Base, TX	U	1183	320	1Q FY05	0	NONE	0	NONE	0	1503	0
DTE SB - JBAIDS Blk I - Conduct OT	MIPR	AFOTEC, Kirtland AFB, NM	U	1111	1343	1Q FY05	0	NONE	0	NONE	0	2454	0
DTE SB - JBAIDS Blk I - Assay and Protocol Testing	MIPR	Dugway Proving Ground, UT	U	778	250	1Q FY05	0	NONE	0	NONE	0	1028	0

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III. Test and Evaluation - Cont.	Contract Method & Type	Performing Activity & Location	US NF CC	Total PYs Cost	FY2005 Cost	FY2005 Award Date	FY2006 Cost	FY2006 Award Date	FY2007 Cost	FY2007 Award Date	Cost to Complete	Total Cost	Target Value of Contract
DTE C - JBAIDS Blk I - Conduct DT and OT	C/FFP	Idaho Technology, Inc., Salt Lake City, UT	C	0	440	1Q FY05	0	NONE	0	NONE	0	440	0
JBAIDS II													
DTE C - JBAIDS Blk II - Conduct DT, OA, OT, and Clinical Trials	MIPR	TBS (Various)	U	0	0	NONE	2497	1Q FY06	1367	3Q FY07	0	3864	0
VAC BOT													
OTHT S - Testing, evaluation and clinical trials	C/CPAF	DynPort Vaccine Company, Frederick, MD	C	0	0	NONE	10386	1Q FY06	7063	1Q FY07	0	17449	0
VAC ENC													
OTHT S - Testing, evaluation, and clinical trials	C/CPAF	DynPort Vaccine Company, Frederick, MD	C	0	0	NONE	1500	1Q FY06	0	NONE	0	1500	0
VAC PLG													
OTHT S - Vaccine Development - Includes Testing, Evaluation, and Clinical Trials.	C/CPAF	DynPort Vaccine Company, Frederick, MD	C	0	0	NONE	3850	1Q FY06	14792	1Q FY07	0	18642	0
VACCINES													
OTHT S - ParallelaVax Rapid Vaccine Testing Technology	SS/FP	TBD		0	729	4Q FY05	0	NONE	0	NONE	0	729	0
Subtotal III. Test and Evaluation:				3787	3809		21262		23838		0	52696	

Remarks:

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IV. Management Services	Contract Method & Type	Performing Activity & Location	US NF CC	Total PYs Cost	FY2005 Cost	FY2005 Award Date	FY2006 Cost	FY2006 Award Date	FY2007 Cost	FY2007 Award Date	Cost to Complete	Total Cost	Target Value of Contract
CRP													
PM/MS S - Program Management Support	C/CPFF	TBS	C	672	71	1Q FY05	826	3Q FY06	172	3Q FY07	0	1741	0
PM/MS S - Chem Bio Medical Systems Office	Allot	CBMS, Frederick, MD	U	187	93	4Q FY05	488	4Q FY06	96	4Q FY07	0	864	0
PM/MS S - Joint Program Executive Office	Allot	JPEO, Falls Church, VA	U	63	93	4Q FY05	202	4Q FY06	64	4Q FY07	0	422	0
JBAIDS													
PM/MS S - Chem Bio Medical Systems Office	Allot	CBMS, Frederick, MD	U	177	141	4Q FY05	0	NONE	0	NONE	0	318	0
PM/MS S - Joint Program Executive Office	Allot	JPEO, Falls Church, VA	U	178	94	4Q FY05	0	NONE	0	NONE	0	272	0
PM/MS S - Program Management Support	C/FFP	TBS	C	482	463	3Q FY05	0	NONE	0	NONE	0	945	0
JBAIDS II													
PM/MS S - JBAIDS Blk II - Joint Program Executive Office	Allot	JPEO, Falls Church, VA	U	0	0	NONE	164	4Q FY06	204	4Q FY07	0	368	0
PM/MS S - JBAIDS Blk II - Chem Bio Medical Systems	Allot	CBMS, Frederick, MD	U	0	0	NONE	589	4Q FY06	702	4Q FY07	0	1291	0
PM/MS S - JBAIDS Blk II - Program Management Support	C/FFP	TBS	C	0	0	NONE	335	3Q FY06	232	3Q FY07	0	567	0
VAC BOT													
PM/MS S - Vaccine Development - Program Management/Program Manager Support	Allot	JPEO, Falls Church, VA	U	0	0	NONE	547	4Q FY06	372	4Q FY07	0	919	0

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IV. Management Services - Cont.	Contract Method & Type	Performing Activity & Location	US NF CC	Total PYs Cost	FY2005 Cost	FY2005 Award Date	FY2006 Cost	FY2006 Award Date	FY2007 Cost	FY2007 Award Date	Cost to Complete	Total Cost	Target Value of Contract
PM/MS S - Vaccine Development - Joint Vaccine Acquisition Program Management Office	Allot	CBMS, Frederick, MD	U	0	0	NONE	820	4Q FY06	558	4Q FY07	0	1378	0
PM/MS S - Contractor Systems Engineering/Program Management Support	C/FFP	TBS	C	0	0	NONE	1367	1Q FY06	929	1Q FY07	0	2296	0
PM/MS S - Award Fee (Maximum 10.5%)	C/CPAF	DynPort Vaccine Company, Frederick, MD	C	0	0	NONE	1913	1Q FY06	1301	1Q FY07	0	3214	0
VAC ENC													
PM/MS S - Vaccine Development - Program Management/Program Manager Support	Allot	JPEO, Falls Church, VA	U	0	0	NONE	90	4Q FY06	0	NONE	0	90	0
PM/MS S - Vaccine Development - Joint Vaccine Acquisition Program Management Office	Allot	CBMS, Frederick, MD	U	0	0	NONE	135	4Q FY06	0	NONE	0	135	0
PM/MS S - Contractor Systems Engineering/Program Management Support	C/CPFF	TBS	C	0	0	NONE	225	1Q FY06	0	NONE	0	225	0
PM/MS S - Award Fee (Maximum 10.5%)	C/CPAF	DynPort Vaccine Company, Frederick, MD	C	0	0	NONE	300	1Q FY06	0	NONE	0	300	0
VAC PLG													
PM/MS S - Vaccine Development - Program Management/Program Manager Support	Allot	JPEO, Falls Church, VA	U	0	0	NONE	203	4Q FY06	779	4Q FY07	0	982	0

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IV. Management Services - Cont.	Contract Method & Type	Performing Activity & Location	US NF CC	Total PYs Cost	FY2005 Cost	FY2005 Award Date	FY2006 Cost	FY2006 Award Date	FY2007 Cost	FY2007 Award Date	Cost to Complete	Total Cost	Target Value of Contract
PM/MS S - Vaccine Development - Joint Vaccine Acquisition Program Management Office	Allot	CBMS, Frederick, MD	U	0	0	NONE	304	4Q FY06	1168	4Q FY07	0	1472	0
PM/MS S - Contractor Systems Engineering/Program Management Support.	C/FFP	TBS	C	0	0	NONE	507	1Q FY06	1946	1Q FY07	0	2453	0
PM/MS S - Award Fee (Maximum 10.5%)	C/CPAF	DynPort Vaccine Company, Frederick, MD	C	0	0	NONE	709	3Q FY06	2725	3Q FY07	0	3434	0
VACCINES													
PM/MS S - ParallelaVax Rapid Vaccine Testing Technology	SS/FP	TBD	C	0	364	4Q FY05	0	NONE	0	NONE	0	364	0
ZSBIR													
SBIR/STTR - Aggregated from ZSBIR-SBIR/STTR	PO	HQ, AMC Alexandria, VA	U	0	83	NONE	0	NONE	0	NONE	0	83	0
Subtotal IV. Management Services:				1759	1402		9724		11248		0	24133	

Remarks:

TOTAL PROJECT COST:	18064	10087		61448		72125		0	161724
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D. <u>Schedule Profile:</u>	FY 2004				FY 2005				FY 2006				FY 2007				FY 2008				FY 2009				FY 2010				FY 2011									
	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 - Antibody Development of ITF-6B Agents	>>	—————												4Q																								
CRP - Select Agent Reference Material Efforts to ITF-6A and ITF-6B	>>	—————												2Q																								
CRP - Development and Upgrade of PCR and ECL Assays to ITF-6A and ITF-6B Agents	1Q	—————												1Q																								
CRP - Assay Validation & Quality Assurance/Quality Control of ITF-6A, ITF-6B, and ITF-6B									1Q	—————												2Q																
CRP - Integrate Current Good Manufacturing Practices (cGMP) Antibodies													1Q	—————												4Q												
CRP - Initiate Immunoassay and Genomic Assay Validation																	2Q	—————												3Q								
JBAIDS																																						
JBAIDS Block I - Procure Systems for Engineering Design Test (EDT)/Developmental Test (DT)	>>	2Q																																				

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D. <u>Schedule Profile (cont):</u>	FY 2004				FY 2005				FY 2006				FY 2007				FY 2008				FY 2009				FY 2010				FY 2011							
	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				
JBAIDS (Cont)																																				
JBAIDS Block I - EDT, DT, Qualification Testing, and Assay Development		2Q						2Q																												
JBAIDS Block I - Conduct OA				4Q																																
JBAIDS Block I - Milestone C/Low Rate Initial Production (LRIP) Decision								1Q																												
JBAIDS Block I - Conduct FDA Clinical Trials and Submit 510(k) for Anthrax								1Q																												
JBAIDS Block I - Initial Operational T&E																																				
JBAIDS Block I - Full Rate Production (FRP) Decision												4Q																								
JBAIDS II																																				
JBAIDS Block II - Milestone B												1Q																								
JBAIDS Block II - FDA Toxin 510(k) Submittal and Clinical Trials																2Q																4Q				
JBAIDS Block II - FDA Clearance of 5 Toxins																																4Q				
JBAIDS Block II - Developmental Testing (DT), Operational Assessment (OA), and Operational Testing (OT)																																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 MB5
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D. <u>Schedule Profile (cont):</u>	FY 2004				FY 2005				FY 2006				FY 2007				FY 2008				FY 2009				FY 2010				FY 2011			
	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
JBAIDS II (Cont)																																
JBAIDS Block II - JBAIDS DT and OT Training											3Q																					
JBAIDS Block II - Milestone C (Low Rate Initial Production [LRIP]) Decision															1Q																	
JBAIDS Block II - Full Rate Production (FRP) Decision															2Q																	
VAC BOT																																
Non-Clinical Testing		>>														4Q																
Milestone B							3Q																									
Phase 2 Clinical Trial (A/B)										1Q						1Q																
Consistency Lot Production											4Q					3Q																
Phase 3 Clinical Trial (A/B)															2Q																3Q	
Biological Licensure Application																																3Q
Milestone C																																4Q
VAC ENC																																
Milestone B										1Q																						
Initiate Phase 2 Immunological Testing											2Q	4Q																				
Initiate Passive Transfer Studies											3Q	4Q																				

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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
MB5

D. Schedule Profile (cont):	FY 2004				FY 2005				FY 2006				FY 2007				FY 2008				FY 2009				FY 2010				FY 2011				
	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																																	
Non-Clinical Studies	>>	-----			-----				-----				-----				4Q																
Current Good Manufacturing Practices (cGMP) Pilot Lot	1Q	-----																															
Milestone B									1Q																								
Phase 2 Clinical Trial								4Q	-----				4Q																				
Milestone C																				1Q													
Phase 3 Clinical Trial													3Q	-----				4Q															
Consistency Lot Production													3Q	-----				2Q															
Biological Licensure Application (BLA) Submission																													1Q				
Full Scale Manufacturing Process Development		2Q	-----			-----				-----				4Q																			
VAC SPX																																	
VIG-Clinical Trials	1Q																																
VIG-Biological Licensure Application (BLA) Submission			3Q	-----		4Q																											
VIG-FDA Licensure/Full Rate Production In Process Review (IPR)								4Q																									

CBDP BUDGET ITEM JUSTIFICATION SHEET (R-2a Exhibit)	DATE February 2005
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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 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	Cost to	Total Cost
		Actual	Estimate	Estimate	Estimate	Estimate	Estimate	Estimate	Estimate	Complete	
MC5	MEDICAL CHEMICAL DEFENSE (SDD)	1402	1391	6509	6529	38669	29081	13962	11952	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) Soman Nerve Agent Pyridostigmine Pretreatment (SNAPP) used as a pretreatment against nerve agent poisoning; 2) Skin Exposure Reduction Paste Against Chemical Warfare Agents (SERPACWA), which is a topical skin protectant; 3) Antidote Treatment, Nerve Agent, Autoinjector (ATNAA), which is a multi-chambered autoinjector for delivery of atropine and an oxime; and 4) Advanced Anticonvulsant System (AAS), which will be used as a treatment for seizures from exposure to nerve agents.

B. Accomplishments/Planned Program

	<u>FY 2004</u>	<u>FY 2005</u>	<u>FY 2006</u>	<u>FY 2007</u>
ADVANCED ANTICONVULSANT SYSTEM	0	0	6509	6529
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 MC5
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FY 2006 Planned Program:

- 2884 AAS - Complete pre-clinical and acute toxicology studies (optimum serum levels of midazolam and neuropathological analysis studies).
- 1360 AAS - Initiate Phase 2 clinical safety studies (definitive clinical efficacy/status epilepticus).
- 2265 AAS - Continue process development/current Good Manufacturing Practices (cGMP) requirements.

Total 6509

FY 2007 Planned Program:

- 3373 AAS - Continue Phase 2 clinical studies (definitive clinical efficacy/status epilepticus).
- 3008 AAS - Continue process development/cGMP requirements.
- 148 AAS - Initiate Developmental Testing/Operational Testing (DT/OT) of packaging.

Total 6529

	<u>FY 2004</u>	<u>FY 2005</u>	<u>FY 2006</u>	<u>FY 2007</u>
MEDICAL CHEMICAL DEFENSE	1402	1380	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 MC5

FY 2004 Accomplishments:

- 68 SERPACW agents - Completed production line process validation and field trials.
- 143 SERPACW agents - Continued FDA manufacturing requirements, redesigned packaging for field durability, and shelf-life monitoring.
- 150 SERPACW agents - Conducted packaging engineering study.
- 232 ATNAA - Completed four-year shelf-life submission to FDA.
- 96 ATNAA - Initiated fifth-year shelf-life studies and FDA required post-marketing studies.
- 713 SNAPP - Continued FDA required post approval studies.

Total 1402

FY 2005 Planned Program:

- 174 SERPACW agents - Complete FDA manufacturing requirements, redesign packaging for field durability and shelf-life monitoring.
- 366 SERPACW agents - Complete FDA required post-marketing studies (including compatibility study with M291).
- 290 ATNAA - Complete fifth-year shelf-life studies and FDA required post-marketing studies.
- 550 SNAPP - Complete FDA required post approval studies.

Total 1380

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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 2004</u>	<u>FY 2005</u>	<u>FY 2006</u>	<u>FY 2007</u>
SBIR/STTR	0	11	0	0
RDT&E Articles (Quantity)	0	0	0	0

FY 2005 Planned Program:

- 11 SBIR

Total 11

C. Other Program Funding Summary: N/A

CBDP BUDGET ITEM JUSTIFICATION SHEET (R-2a Exhibit)		DATE February 2005
BUDGET ACTIVITY RDT&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) acts as the system integrator during the Technology Development Phase that includes pre-clinical animal studies and Phase 1 human clinical studies. After Milestone B, during the System Development and Demonstration Phase, MITS or a commercial partner (product dependent) will serve as the systems 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.

* Starting in FY06, all Medical Chemical Defense Program products transition to individual product line items under their respective Program Elements.

BSCAV Medical Identification and Treatment Systems (MITS) acts as the system integrator during the Technology Development Phase that includes pre-clinical animal studies and Phase 1 human clinical studies. After Milestone B, during the System Development and Demonstration Phase, MITS or a commercial partner (product dependent) will serve as the systems 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 2005
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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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* Starting in FY06, all Medical Chemical Defense Program products transition to individual product line items under their respective Program Elements.

INATS

Medical Identification and Treatment Systems (MITS) acts as the system integrator during the Technology Development Phase that includes pre-clinical animal studies and Phase 1 human clinical studies. After Milestone B, during the System Development and Demonstration Phase, MITS or a commercial partner (product dependent) will serve as the systems 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.

* Starting in FY06, all Medical Chemical Defense Program products transition to individual product line items under their respective Program Elements.

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CBDP BUDGET ITEM JUSTIFICATION SHEET (R-2a Exhibit)		DATE February 2005
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MEDCHEM

Medical Identification and Treatment Systems (MITS) acts as the system integrator during the Technology Development Phase that includes pre-clinical animal studies and Phase 1 human clinical studies. After Milestone B, during the System Development and Demonstration Phase, MITS or a commercial partner (product dependent) will serve as the systems 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.

* Starting in FY06, all Medical Chemical Defense Program products transition to individual product line items under their respective Program Elements.

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CBDP PROJECT COST ANALYSIS (R-3 Exhibit)	DATE February 2005
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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	FY2005 Cost	FY2005 Award Date	FY2006 Cost	FY2006 Award Date	FY2007 Cost	FY2007 Award Date	Cost to Complete	Total Cost	Target Value of Contract
AAS													
AAS - Test & Evaluation of Animal Efficacy and Clinical Studies	C/CPFF	TBS	C	0	0	NONE	2597	2Q FY06	2610	2Q FY07	0	5207	0
MEDCHEM													
SERPACWA - Durability Study	MIPR	Aberdeen Proving Ground, Edgewood, MD	U	122	38	3Q FY05	0	NONE	0	NONE	0	160	0
SERPACWA - FDA Required Post Marketing Studies (Stability Testing)	C/FFP	McKesson BioServices, Rockville, MD	C	0	169	2Q FY05	0	NONE	0	NONE	0	169	0
SERPACWA - FDA Required Post Marketing Studies	MIPR	USAMMDA, Fort Detrick, MD	U	0	145	3Q FY05	0	NONE	0	NONE	0	145	0
ATNAA Shelf-life Studies	MIPR	USAMMDA, Fort Detrick, MD	U	644	248	1Q FY05	0	NONE	0	NONE	0	892	0
SNAPP - FDA Required Post Marketing Studies	MIPR	USAMRAA, Fort Detrick, MD; USAMRICD, Edgewood, MD; WRAIR, SS, MD	U	932	412	3Q FY05	0	NONE	0	NONE	0	1344	0
SNAPP - FDA Required Post Marketing Studies	MIPR	USAMMDA, Fort Detrick, MD	U	253	62	2Q FY05	0	NONE	0	NONE	0	315	0
Subtotal III. Test and Evaluation:				1951	1074		2597		2610		0	8232	

Remarks:

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CBDP PROJECT COST ANALYSIS (R-3 Exhibit)	DATE February 2005
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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	FY2005 Cost	FY2005 Award Date	FY2006 Cost	FY2006 Award Date	FY2007 Cost	FY2007 Award Date	Cost to Complete	Total Cost	Target Value of Contract
AAS													
AAS - Joint Program Executive Office	Allot	JPEO, Falls Church, VA	U	0	0	NONE	128	4Q FY06	128	4Q FY07	0	256	0
AAS - Chem Bio Medical Systems	Allot	CBMS, Frederick, MD	U	0	0	NONE	192	4Q FY06	193	4Q FY07	0	385	0
AAS - Program Management Support	C/FFP	TBS	C	0	0	NONE	642	1Q FY06	641	1Q FY07	0	1283	0
MEDCHEM													
Chem Bio Medical Systems Office	Allot	CBMS, Frederick, MD	U	18	17	4Q FY05	0	NONE	0	NONE	0	35	0
Joint Program Executive Office	Allot	JPEO, Falls Church, VA	U	56	43	4Q FY05	0	NONE	0	NONE	0	99	0
Program Management Support	C/FFP	TBS	C	315	73	1Q FY05	0	NONE	0	NONE	0	388	0
ZSBIR													
SBIR/STTR - Aggregated from ZSBIR-SBIR/STTR	PO	HQ, AMC Alexandria, VA	U	0	11	NONE	0	NONE	0	NONE	0	11	0
Subtotal IV. Management Services:													
				389	144		962		962		0	2457	

Remarks:

TOTAL PROJECT COST:	3186	1391		6509		6529		0	17615
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Project MC5

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Exhibit R-3 (PE 0604384BP)

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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D. <u>Schedule Profile:</u>	FY 2004				FY 2005				FY 2006				FY 2007				FY 2008				FY 2009				FY 2010				FY 2011				
	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 - Pre-Clinical Studies	>>	_____			_____				3Q																								
AAS - Phase 1 Clinical Studies					2Q	_____			4Q																								
AAS - Investigational New Drug (IND)	1Q	_____			1Q																												
AAS - cGMP Manufacturing Processes					1Q	_____				1Q																							
AAS - Milestone B									1Q																								
AAS - New Drug Application (NDA) Submission																					3Q												
AAS - Phase 2 Clinical Studies									3Q	_____				4Q																			
MEDCHEM																																	
SNAPP - FDA Required Post Marketing Studies	>>	_____			_____				4Q																								
SERPACWA - FDA Required Post Marketing Studies	>>	_____			_____				2Q																								
ATNAA - Shelf-life Extension/Stability Studies	>>	_____			_____				4Q																								