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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/ BA4 - Advanced Component Development and Prototypes (ACD&P)	PE NUMBER AND TITLE 0603884BP CHEMICAL/BIOLOGICAL DEFENSE (ACD&P)
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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	128350	125718	100796	74392	69875	49619	46300	57627	Continuing	Continuing
CA4 CONTAMINATION AVOIDANCE (ACD&P)	20619	38299	22330	1017	8135	12214	5602	0	0	108216
CM4 HOMELAND DEFENSE (ACD&P)	961	0	2632	0	0	0	0	0	0	3593
CO4 COLLECTIVE PROTECTION (ACD&P)	0	0	7605	0	0	0	0	0	0	7605
CP4 COUNTERPROLIFERATION SUPPORT (ACD&P)	14368	16661	24678	25897	26496	14895	14289	27217	Continuing	Continuing
DE4 DECONTAMINATION SYSTEMS (ACD&P)	22270	17463	1015	2034	4576	2545	2269	4082	Continuing	Continuing
IS4 INFORMATION SYSTEMS (ACD&P)	0	4734	0	0	0	0	0	0	0	4734
MB4 MEDICAL BIOLOGICAL DEFENSE (ACD&P)	66489	34135	20379	0	0	0	8149	17348	Continuing	Continuing
MC4 MEDICAL CHEMICAL DEFENSE (ACD&P)	3643	14426	22157	38324	15417	4965	4991	4980	Continuing	Continuing
MR4 MEDICAL RADIOLOGICAL DEFENSE	0	0	0	7120	15251	15000	11000	4000	Continuing	Continuing

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<p>A. <u>Mission Description and Budget Item Justification:</u> Operational forces have an immediate need to survive, safely operate, and sustain operations in a chemical and biological (CB) agent threat environment across the continuum of global, contingency, special operations/low intensity conflict, counternarcotics, and other high risk missions. This program element supports the Advanced Component Development and Prototype (ACD&P) of CB defensive equipment, both medical and non-medical. DoD missions for Homeland Security and for civil support operations have recently expanded and have resulted in providing focus to develop technologies to support CB counterterrorism initiatives. These projects have been structured to consolidate Joint and Service-unique tasks within four commodity areas: contamination avoidance, force protection (individual and collective), decontamination, and medical countermeasures. This program is enhanced using Counterproliferation Support Program funding. ACD&P is conducted for an array of chemical/biological/toxin detection and warning systems to include ARTEMIS, decontamination capabilities to include the sorbent technology, the Joint Service Family of Decontamination Systems (JSFDS) and the Joint Service Sensitive Equipment Decontamination (JSSED) programs. ACD&P is also conducted for the transition of biological detection components (major thrusts include: (1) early warning; (2) collector concentrators; (3) generic detection; and (4) improved reagents) for the future Joint Biological Point Detection System (JBPDS) Block II, and Joint Biological Standoff Detection System, (JBSDS). In the medical chemical/biological defense area, ACD&P is conducted for improved medical equipment, vaccines, and drugs essential to counteracting lethal and human performance degrading effects of chemical and biological agent threats. Specific items include improvements to nerve agent antidotes, topical skin protectants, anticonvulsants, biological agent diagnostics, and vaccines to protect against various Biological Warfare (BW) agents. This Program Element focuses on efforts associated with advanced technology development used to demonstrate general military utility to include ACD&P in the areas of Non-Traditional Agents and chemical/biological defense equipment and is correctly placed in Budget Activity 4.</p>		
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B. <u>Program Change Summary:</u>	<u>FY 2004</u>	<u>FY 2005</u>	<u>FY 2006</u>	<u>FY 2007</u>
Previous President's Budget (FY 2005 PB)	131433	104195	85825	74886
Current Biennial Budget Estimates (FY 2006)	128350	125718	100796	74392
Total Adjustments	-3083	21523	14971	-494
a. Congressional General Reductions	-209	-2477	0	0
b. Congressional Increases	0	4000	0	0
c. Reprogrammings	-1297	20000	0	0
d. SBIR/STTR Transfer	-2225	0	0	0
e. Other Adjustments	648	0	14971	-494

Change Summary Explanation:

Funding: FY05 - Congressional increases to enhance development projects (+\$4,000K CA4). Congressional general reductions and other adjustments (-\$348K CA4; -\$414K CP4; -\$423K DE4; -\$105K IS4; -\$833K MB4; -\$354K MC4). Reprogramming to align developmental efforts (+\$20,000K CA4).

FY06 - Enhance test and evaluation capabilities (+\$18,000K CA4; +\$1,000K DE4). Enhance developmental efforts in areas of agent detection, early warning and battle management, decontamination, and biological medical countermeasures (+\$4,000K CA4; +\$7,500K CO4; +\$12,600K MB4; +\$8,500K MC4). Inflation adjustment (+\$330K CA4; +\$39K CM4; +\$105K CO4; +\$365K CP4; +\$15K DE4; +\$115K MB4; +\$335K MC5). Reprioritization of programs within the Chemical Biological Defense Program to provide full funding of high priority developmental items (-\$2,494K CA4; -\$6,798K DE4; -\$37,464K MB4; +\$8,823K MC4).

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BUDGET ACTIVITY
**RDT&E DEFENSE-WIDE/
BA4 - Advanced Component Development and Prototypes
(ACD&P)**

PE NUMBER AND TITLE
0603884BP CHEMICAL/BIOLOGICAL DEFENSE (ACD&P)

Schedule: N/A

Technical: N/A

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BUDGET ACTIVITY RDT&E DEFENSE-WIDE/ BA4 - Advanced Component Development and Prototypes (ACD&P)	PE NUMBER AND TITLE 0603884BP CHEMICAL/BIOLOGICAL DEFENSE (ACD&P)	PROJECT CA4
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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	
CA4 CONTAMINATION AVOIDANCE (ACD&P)	20619	38299	22330	1017	8135	12214	5602	0	0	108216

A. Mission Description and Budget Item Justification:

Project CA4 CONTAMINATION AVOIDANCE (ACD&P): This Advanced Component Development and Prototypes (ACD&P) funding supports Component Advanced Development and System Integration (CAD/SI) of reconnaissance, detection, identification, and hazard prediction equipment, hardware, and software. Individual projects are: (1) Artemis, (2) Joint Effects Model (JEM), (3) Joint Operational Effects Federation (JOEF), (4) Joint Biological Point Detection System (JBPDS), (5) Joint Biological Point Detection System Block II (JBPDS BLK II), (6) Joint Biological Tactical Detection System (JBTDS), (7) Joint Service Chemical/Biological Agent Water Monitor (JCBAWM), (8) Joint Service Light Nuclear, Biological, Chemical and Reconnaissance System (JSLNBCRS), (9) the Non-Traditional Agent (NTA) Detection Improvement Program, (10) Nuclear Biological Chemical Reconnaissance Vehicle (NBCRV), and (11) the Portable Area Warning and Surveillance System (PAWSS).

Artemis will provide near-real time, autonomous, standoff chemical warfare agent (CW agent) detection and identification capability with 360-degree coverage at ranges of 5 kilometers (km) or more. Full fielding of the operational capability is expected to occur in two increments. Increment I will provide CW agent vapor and aerosol standoff detection and identification capability for fixed sites. Increment II builds upon Increment I and will provide on-the-move CW agent standoff detection capability for platforms such as ground mobile vehicles, ships, rotary wing aircraft, Unmanned Aerial Vehicles (UAV), and Tactical Unmanned Ground Vehicles (TUGV).

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The Joint Biological Point Detection System (JBPDS) is the only joint service biological detector system for the services. The Army platforms include the JBPDS on the Biological Integrated Detection System (BIDS) and Stryker NBC Reconnaissance Vehicle. The Air Force and Marine Corps will include the JBPDS in the Lightweight NBC Reconnaissance vehicle platforms. The Navy has identified the Aegis class ships for installation of the JBPDS. 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 JBPDS Block II program uses spiral development with an evolutionary component/suite upgrade acquisition approach, to take advantage of emerging technologies and to provide the Services with enhanced detection performance at lower life cycle costs. In conformance with Director, Operational Test and Evaluation (DOT&E) Memorandum dated July 9, 2002, FY04 program funds will support the development of a Whole System Live Agent Testing (WSLAT) capability. DOT&E has directed the JBPDS program undergo WSLAT prior to a program Full Rate Production (FRP) decision being made.

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.

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JEM will be a general purpose, accredited software model for predicting Chemical, Biological, Radiological and Nuclear (CBRN) and Toxic Industrial Chemical (TIC)/Toxic Industrial Material (TIM) 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 including missile intercept, and urban NBC environments (Block II); and building interiors, human performance degradation, waterborne hazards and contagious disease modeling (Block III).

The JBTDS will be a lightweight biological agent detector that will detect, warn and provide a sample isolation capability. The sample isolation feature will collect and preserve a sample for evacuation and analysis. The detector can be networked to provide a cooperative detection capability to increase the probability of warning personnel and reduce the probability of false alarm. Each JBTDS will be capable of acting in two modes: a biological agent detector mode and/or a command module. The command module will be capable of receiving data from the arrayed detectors (3 or more) while being able to control the detectors and track information generated within the network. Control capability will consist of remotely resetting, enabling and disabling the detectors on the network and tracking information generated within the network. The network capabilities will include both hardware and wireless interfaces to provide maximum flexibility in fixed site and remote application. The required throughput of the system will be consistent with the alert data exchange and archiving requirements.

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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 (POs), Sea Ports of Debarkation (SPODs), mobile forces, medical and automated Tactics, Techniques and Procedures (TTPs) in various levels of fidelity. Block 1 will support deliberate planning for operational and strategic users in a Command, Control, Communications, Computers, Intelligence, Surveillance and Reconnaissance (C4ISR) common operating environment (COE); and crisis planning for the operational users in a COE. Block 2 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 3 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.

This program has been transitioned to IS4 beginning FY05.

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 NBCRV is a dedicated system of nuclear and chemical detection and warning equipment, and biological sampling equipment integrated into a high speed, high mobility armored carrier capable of performing NBC reconnaissance on primary, secondary, or cross country routes throughout the battlefield. The NBCRV will meet all requirements contained in the approved requirements document.

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NTA detection efforts will evaluate Non-Developmental Item (NDI) and developmental technologies to enhance legacy and developmental detection systems capability to detect non-traditional agents.

PAWSS is a technology demonstration to determine the utility of cascading detection methodology using radar and force protection surveillance to tip and cue dedicated chemical biological detection assets for detection and warning. PAWSS will integrate long and mid-range radar systems, force protection intrusion detectors, and an integrated CB data fusion system to augment the capabilities of traditional CB detection systems. Efforts include modeling and simulation, system development/integration, and limited technology demonstration.

EOS (Epidemic Outbreak Surveillance) Project Silent Guardian is to provide a surveillance tool to select USAF, USN, and U.S. Army Medical Treatment Facilities (MTFs) within the Military District Washington (MDW) National Capitol Region from December 2004 through March 2005. This detection capability from EOS uses the Respiratory Pathogen Microarray (RPM) to enable robust, rapid pathogen identification for a subset of pathogens that result in febrile respiratory illness, including bio-threat agents in a compressed time.

B. Accomplishments/Planned Program

	<u>FY 2004</u>	<u>FY 2005</u>	<u>FY 2006</u>	<u>FY 2007</u>
STANDOFF CHEMICAL AGENT DETECTION SYSTEM	4589	1752	0	0
RDT&E Articles (Quantity)	0	0	0	0

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FY 2004 Accomplishments:

- 845 ARTEMIS - Continued update of Milestone B program documentation. Performed financial management, scheduling, planning, and reporting. Continued Simulation Based Acquisition activities to reduce cost, schedule, and performance risks; increase the quality, military worth, and supportability of fielded systems; and reduce total ownership costs throughout the system life cycle. Initiated archiving of program documentation.
- 1382 ARTEMIS - Continued update of system architecture, system specification and risk mitigation plan through a Joint Systems Engineering IPT.
- 876 ARTEMIS - Continued test strategy and test methodology development to include simulant to real agent correlation, simulant and test range selection, aerosol and liquid spectra collection. Updated draft TEMP through a Joint T&E IPT.
- 855 ARTEMIS - Continued risk reduction efforts to further reduce overall risk in support of the development of key components of an active emitter multi-wavelength Light Detection and Ranging (LIDAR) technology. Key technology component risk areas are laser reliability with extended operating time, shift of basic LIDAR operating wavelength for optimum performance, and advanced detection/identification algorithms. Demonstrated and validated performance of these components.
- 631 ARTEMIS - Continued support for the development of standoff detection test infrastructure to provide the capability to adequately test ARTEMIS or any active standoff detection system. Supported development of an active standoff chamber for testing ARTEMIS or any active standoff detection system against chemical warfare simulants. Supported development of precise referee systems to support evaluation of ARTEMIS or any active standoff system in an open air simulant test.

Total 4589

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FY 2005 Planned Program:

- 607 ARTEMIS - Perform program close out and archive the products such as Component Advanced Development Reports, Liquid Agent Spectra Measurements, LIDAR Performance Model, Spectral Algorithm Stimulator Report and Simulant Selection Analysis. Develop reports of major program decisions and lessons learned. Coordinate with DTRA to establish Technology Readiness Level of Frequency Agile LIDAR components. Perform financial management, scheduling, planning and reporting.
- 730 ARTEMIS - Complete system performance modeling activities to evaluate LIDAR performance against the full range of threat agents and to ambient water density and ozone. Tailor the performance analyses to support the on going Standoff Chemical Detection Analysis being led by MIT Lincoln Laboratory. Included will be performance analysis efforts to support an Analysis of Alternatives. The performance analysis products will assist JPEO-CBD in crafting a technical and acquisition way ahead for standoff chemical detection of vapors, aerosols and rains.
- 415 ARTEMIS - Update the Analysis of Alternatives. Collect information from Industry, Academia, and Government agencies to develop an AoA for Standoff Chemical Detection. Integrate the products of the MIT Standoff Chemical Detection Analysis and associated DTRA TRL assessments into the AoA. Investigate alternative technology approaches, potential common solutions to general standoff needs, and system size/weight/cost/performance tradeoffs. Include both fixed site and on-the-move requirements as part of the evaluation.

Total 1752

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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)	0	5487	0	0
RDT&E Articles (Quantity)	0	0	0	0

FY 2005 Planned Program:

- 3000 JBPDS - Initiate and select spiral improvements to JBPDS Line Replaceable Units (LRUs).
- 1500 JBPDS - Validate system upgrade to Line Replaceable Unit (LRU).
- 987 JBPDS - Provide systems engineering support.

Total 5487

	<u>FY 2004</u>	<u>FY 2005</u>	<u>FY 2006</u>	<u>FY 2007</u>
JOINT BIO POINT DETECTOR SYSTEM BLK 2	1817	0	0	0
RDT&E Articles (Quantity)	0	0	0	0

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FY 2004 Accomplishments:

- 173 JBPDS BLK II - Conducted feasibility study for current and near-future biological point detection systems.
- 316 JBPDS BLK II - Conducted study to examine the additional value obtained through Whole System Live Agent Testing (WSLAT) on biological point detection systems.
- 381 JBPDS BLK II - Performed CB sensor and overarching technology architecture analyses with resultant models to provide cost benefit trade offs associated with the transition of technologies to guide future investments. Evaluated new concepts that would allow the use of emerging technologies for early warning and point detection within the architectural framework.
- 150 JBPDS BLK II - Conducted methodology work in support of WSLAT testing.
- 150 JBPDS BLK II - Conducted initial modeling and simulation efforts in support of WSLAT testing.
- 647 JBPDS BLK II - Provided government engineering, program management, and technical support of WSLAT testing.

Total 1817

	<u>FY 2004</u>	<u>FY 2005</u>	<u>FY 2006</u>	<u>FY 2007</u>
JOINT BIO TACTICAL DETECTION SYSTEM	0	0	0	1017
RDT&E Articles (Quantity)	0	0	0	0

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- FY 2007 Planned Program:**
- 500 JBTDS - Establish Program Office and perform Pre-milestone B activities for new program management start such as acquisition documentation and initiation of PM-IPTs.
 - 217 JBTDS - Develop network algorithm to incorporate use of heterogeneous Biological detector for initial JBTDS solution. This process will be leveraged by the Joint Biological Point Detection System and the Joint Point Portal Shield System to provide potential improvements in the probability of detection without changes in hardware.
 - 300 JBTDS - Initiate Concept Exploration phase and assess critical item technologies/Line Replaceable Units (LRUs).
- Total** 1017

	<u>FY 2004</u>	<u>FY 2005</u>	<u>FY 2006</u>	<u>FY 2007</u>
JS CHEMICAL/BIOLOGICAL AGENT WATER MONITOR	0	4000	4060	0
RDT&E Articles (Quantity)	0	24020	0	0

- FY 2005 Planned Program:**
- 2420 JCBAWM - Congressional Add. Initiate purchase of test items (24,000 test tickets at \$0.1K each, \$2.4M total; and 20 ticket readers at \$1K each, \$20K total. Vendors: TBS).
 - 1180 JCBAWM - Congressional Add. Establish Program Office and initiate test and evaluation efforts to include preparation of test methodology, design of test set-up and development of equipment specifications.

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FY 2005 Planned Program (Cont):

- 400 JCBAWM - Congressional Add. Initiate systems engineering support.

Total 4000

FY 2006 Planned Program:

- 3500 JCBAWM - Continue test and evaluation efforts. Initiate probability studies.
- 560 JCBAWM - Continue systems engineering support.

Total 4060

	<u>FY 2004</u>	<u>FY 2005</u>	<u>FY 2006</u>	<u>FY 2007</u>
JOINT EFFECTS MODEL	1000	0	0	0
RDT&E Articles (Quantity)	0	0	0	0

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CA4

FY 2004 Accomplishments:

- 1000 JEM Block I - Generated integrated architecture artifacts (operational, system, and technical views) and updated logistics documentation. Completed the Independent Verification and Validation (IV&V) plan. Continued IV&V activities including detailed physics-based comparison of software to published algorithms. Continued technical data transition of legacy software system models.

Total 1000

	<u>FY 2004</u>	<u>FY 2005</u>	<u>FY 2006</u>	<u>FY 2007</u>
JOINT OPERATIONAL EFFECTS FEDERATION	1875	0	0	0
RDT&E Articles (Quantity)	0	0	0	0

FY 2004 Accomplishments:

- 1875 JOEF Block I. Began transition from Advanced Technology Development (ATD). Awarded a BAA contract for prototype development. Developed JOEF prototype based on JOEF Operational Requirements Document (ORD), Concept of Operations (CONOPS), Conceptual Model and Focused Technology Assessment report on fixed sites and medical capabilities. Developed interoperability and integration specifications for interfacing to JEM, JWARN and database management system. Conducted Focused Technology Assessments on capabilities for mobile force missions. Established an earned value management system (EVMS) process.

Total 1875

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	<u>FY 2004</u>	<u>FY 2005</u>	<u>FY 2006</u>	<u>FY 2007</u>
JS LIGHT NBC RECON SYS (JSLNBCRS)	3579	0	0	0
RDT&E Articles (Quantity)	0	0	0	0

FY 2004 Accomplishments:

- 2225 JSLNBCRS - Continued LAV development, design, test site planning, development of integrated training package, and logistics planning.
- 1354 JSLNBCRS - Continued development/design of LAV enhancements, installation of automatic fire suppression system, LAV Generation II upgrades, and test support.

Total 3579

	<u>FY 2004</u>	<u>FY 2005</u>	<u>FY 2006</u>	<u>FY 2007</u>
NBC RECON VEHICLE	3000	0	0	0
RDT&E Articles (Quantity)	0	0	0	0

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FY 2004 Accomplishments:

- 2138 NBCRV - Initiated and completed software and hardware upgrades. Hardware upgrades included upgrade of the sensor processing group, and development of a laptop based computer. Software upgrades corrected deficiencies identified during Production Qualification Test (PQT) and Limited User Test (LUT).
- 862 NBCRV - Initiated and completed PQT re-testing to support a Low Rate Initial Production (LRIP) Interim Progress Review (IPR).

Total 3000

	<u>FY 2004</u>	<u>FY 2005</u>	<u>FY 2006</u>	<u>FY 2007</u>
NON TRADITIONAL AGENT DETECTION IMPROVEMENT PROGRAM	1439	2906	18270	0
RDT&E Articles (Quantity)	0	0	0	0

FY 2004 Accomplishments:

- 500 NTA - Initiated trade-off studies for Non-Traditional Agents (NTA) to select and test technologies for detection which can be used to augment or improve legacy and developmental detection systems.
- 939 NTA - Initiated the integration of existing NTA technologies into legacy and developmental detection systems. Initiated developmental testing using simulants and live agents.

Total 1439

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- FY 2005 Planned Program:**
- 200 NTA - Update trade-off studies to select and test technologies for detection of NTAs which can be used to augment or improve legacy and developmental detection systems.
 - 2406 NTA - Continue integration of existing selected NTA technologies into legacy and developmental detection systems. Continue developmental testing using simulants and live agents.
 - 300 NTA - Provide operational assessment/system engineering efforts for NTA enhanced detection systems.
- Total 2906**
- FY 2006 Planned Program:**
- 3027 NTA - (T&E Capability) Initiate and complete preparation of test methodology, to include design of test set-up and equipment specifications, to test all CBDP systems with non-traditional and emerging threat agents.
 - 8000 NTA - (T&E Capability) Initiate and complete purchase and assembly of test chamber fixture equipment and modification of existing chambers for multi-agent use.
 - 4000 NTA - (T&E Capability) Initiate and complete validation of test and sampling methods.
 - 2000 NTA - (T&E Capability) Complete integration of existing NTA technologies into legacy and developmental detection systems.
 - 1000 NTA - (T&E Capability) Initiate and complete development of standard operating procedures to include safety, surety, testing methods and data analysis.

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BUDGET ACTIVITY RDT&E DEFENSE-WIDE/ BA4 - Advanced Component Development and Prototypes (ACD&P)	PE NUMBER AND TITLE 0603884BP CHEMICAL/BIOLOGICAL DEFENSE (ACD&P)	PROJECT CA4
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FY 2006 Planned Program (Cont):

- 243 NTA - Continue operational assessment/system engineering efforts for NTA enhanced detection systems.

Total 18270

	<u>FY 2004</u>	<u>FY 2005</u>	<u>FY 2006</u>	<u>FY 2007</u>
PORTABLE AREA WARNING AND SURVEILLANCE SYSTEM	3320	2064	0	0
RDT&E Articles (Quantity)	0	0	0	0

FY 2004 Accomplishments:

- 682 PAWSS - Initiated Modeling and Simulation (M&S) effort of cascading detection methodology.
- 2340 PAWSS - Initiated systems engineering and integration efforts to include efforts for the Chemical and Biological Detection Radar. Initiated and completed initial phase of optical properties study for radar enhancements in algorithm development.
- 298 PAWSS - Initiated limited technology demonstration planning.

Total 3320

FY 2005 Planned Program:

- 225 PAWSS - Complete planning and execution of battlefield simulations.
- 779 PAWSS - Complete system engineering, integration and testing.

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FY 2005 Planned Program (Cont):

- 1060 PAWSS - Complete limited technology demonstration planning and execution.

Total 2064

	<u>FY 2004</u>	<u>FY 2005</u>	<u>FY 2006</u>	<u>FY 2007</u>
TECHNOLOGY TRANSFER FOR BIO SENSORS	0	21773	0	0
RDT&E Articles (Quantity)	0	0	0	0

FY 2005 Planned Program:

- 2000 TT Bio - Initiate technology transition, including developmental testing, of capabilities for early warning and detection, detection and identification of biological and chemical agents, including novel threat agents, and decision support tools.
- 1931 TT Bio - Congressional Add. Integrate data from existing biological sensors, medical surveillance, and mobile laboratory systems to detect and confirm releases of biological threat agents.
- 1142 TT Bio - Congressional Add. Integrate processes and report critical information through the Global Command and Control System (GCCS) and into the common operating pictures (COP).
- 2400 pBSCAV - Congressional Add. Initiate small-scale process development/assay qualification and test/evaluate medical defense products against traditional and non-traditional nerve agents.
- 1000 pBSCAV - Congressional Add. Initiate small-scale manufacturing.

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FY 2005 Planned Program (Cont):

- 300 pBSCAV - Congressional Add. Initiate Investigational New Drug (IND) application.
- 9893 EOS (Epidemic Outbreak Surveillance) Project Silent Guardian - Congressional Add. Initiate protocol development and assay optimization.
- 3000 EOS Project Silent Guardian - Congressional Add. Initiate confirmatory analysis, culturing and/or molecular testing in accordance with the gold-standard operating procedures.
- 70 EOS Project Silent Guardian - Congressional Add. Initiate program management/logistics management support.
- 37 EOS Project Silent Guardian - Congressional Add. Initiate confirmatory testing.

Total 21773

	<u>FY 2004</u>	<u>FY 2005</u>	<u>FY 2006</u>	<u>FY 2007</u>
SBIR/STTR	0	317	0	0
RDT&E Articles (Quantity)	0	0	0	0

FY 2005 Planned Program:

- 317 SBIR

Total 317

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BUDGET ACTIVITY RDT&E DEFENSE-WIDE/ BA4 - Advanced Component Development and Prototypes (ACD&P)	PE NUMBER AND TITLE 0603884BP CHEMICAL/BIOLOGICAL DEFENSE (ACD&P)	PROJECT CA4
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<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>
CA5 CONTAMINATION AVOIDANCE (SDD)	117476	65786	95085	83795	101159	59278	55821	14286	Cont	Cont
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
S10801 JS LTWT STANDOFF CW AGT DETECTOR (JSLSCAD)	2994	2721	17764	27000	29668	29086	37467	32306	Cont	Cont

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BUDGET ACTIVITY RDT&E DEFENSE-WIDE/ BA4 - Advanced Component Development and Prototypes (ACD&P)	PE NUMBER AND TITLE 0603884BP CHEMICAL/BIOLOGICAL DEFENSE (ACD&P)	PROJECT CA4
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D. Acquisition Strategy:

ARTEMIS This strategy could be implemented if there is a re-initiation of Artemis acquisition program activities. Develop a system specification for Increment I and provide it to industry prior to Milestone B (MS B) to obtain and resolve industry comments. Also brief industry before MS B. Issue a cost-type contract after MS B, for engineering development models in support of the System Development and Demonstration (SD&D) phase with fixed price options for Low Rate Initial Production (LRIP) and Full Rate Production (FRP). Conduct developmental testing and early operational assessments of engineering development models to ensure compliance with the Operational Requirements Document (ORD). After MS C, execute a fixed-price option for LRIP units to support Initial Operational Test & Evaluation (IOT&E). After the FRP Decision Review, execute a fixed price option for the initial production run.

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.

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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.

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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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>
JOEF	<p>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:</p> <p>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.</p> <p>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.</p>

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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.

JSLNBCRS

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.

NBCRV

Development of the Nuclear Biological Chemical Reconnaissance Vehicle consists of two parts. Part I is a sensor processing group (SPG) developmental effort, led by JPM NBC Contamination Avoidance. Part II is an integration effort of the SPG into the Stryker NBCRV variant, led by the PM SBCT. The NBCRV will improve the current ability of US forces to detect and report NBC threats. The design and development of the SPG is under contract to CACI Technologies, Inc. The contract is a single year (with four options), Time and Materials contract. Integration of the SPG and vehicle production is under contract to General Dynamics Land System (GDLS).

NTA

The NTA program will use an evolutionary development strategy to identify technologies capable of providing an NTA detection ability to both legacy and developmental detection systems. Tradeoff studies will be conducted, and the promising technologies identified will be tested using simulants and live agents. An initial investigation of the operational potential of the tested NTA detection technologies will also be conducted.

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PAWSS	Perform modeling and simulation, system integration, and limited technology demonstration to determine the validity of cascading detection methodology. Develop proposals for a follow-on acquisition program.	
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BUDGET ACTIVITY RDT&E DEFENSE-WIDE/ BA4 - Advanced Component Development and Prototypes (ACD&P)	PE NUMBER AND TITLE 0603884BP CHEMICAL/BIOLOGICAL DEFENSE (ACD&P)	PROJECT CA4
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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
ARTEMIS													
SW SB - Support TRA - Tradeoffs	MIPR	RDECOM, APG, MD	U	0	90	2Q FY05	0	NONE	0	NONE	0	90	0
HW SB - AoA	MIPR	Various	U	0	325	2Q FY05	0	NONE	0	NONE	0	325	0
JBPDS													
SW SB - Upgrade Trigger/Detector LRU	MIPR	MIT, Boston, MA	F	0	1000	3Q FY05	0	NONE	0	NONE	0	1000	0
HW SB - Upgrade Collector	SS/CPFF	Texas A&M, College Station, TX	N	0	2000	2Q FY05	0	NONE	0	NONE	0	2000	0
JBTDS													
SW SB - Network Algorithm development	C/CPFF	TBD	C	0	0	NONE	0	NONE	217	1Q FY07	0	217	0
JCBAWM													
HW C - Purchase Test Items	Reqn	TBD	C	0	2420	2Q FY05	0	NONE	0	NONE	0	2420	0
NTA													
HW C - Detector Enhancement	C/CPFF	TBD	C	250	1706	2Q FY05	1000	2Q FY06	0	NONE	0	2956	0
HW S - Technology Down-select Studies - Support	C/CPFF	TBD	C	319	200	2Q FY05	750	2Q FY06	0	NONE	0	1269	0
PAWSS													
SW S - Modeling and Simulation	MIPR	Various	U	682	150	2Q FY05	0	NONE	0	NONE	0	832	0
SW S - Radar Enhancements	MIPR	Various	U	1153	300	2Q FY05	0	NONE	0	NONE	0	1453	0
SW S - Software Integration	Reqn	Various	C	300	279	2Q FY05	0	NONE	0	NONE	0	579	0
TT Bio													
TT Bio - Initiate Technology Transition	C/FFP	TBD	C	1880	2000	2Q FY05	0	NONE	0	NONE	0	3880	0

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BUDGET ACTIVITY RDT&E DEFENSE-WIDE/ BA4 - Advanced Component Development and Prototypes (ACD&P)	PE NUMBER AND TITLE 0603884BP CHEMICAL/BIOLOGICAL DEFENSE (ACD&P)	PROJECT CA4
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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
TT Bio - Integrate data from sensors	MIPR	TBD	U	0	1931	2Q FY05	0	NONE	0	NONE	0	1931	0
TT Bio - Integrate processes	MIPR	TBD	U	0	1142	2Q FY05	0	NONE	0	NONE	0	1142	0
pBSCAV - Small-Scale Process Development/Assay Validation	C/CPFF	TBD	C	0	457	2Q FY05	0	NONE	0	NONE	0	457	0
pBSCAV - Small-Scale Manufacturing	C/CPFF	TBD	C	0	653	4Q FY05	0	NONE	0	NONE	0	653	0
Subtotal I. Product Development:				4584	14653		1750		217		0	21204	

Remarks: JCBAWM - JCBAWM - FY05 - 24,000 test tickets at \$0.1K each, \$2.4M total; and 20 ticket readers at \$1K each, \$20K total. Vendors: TBS.

TT Bio - pBSCAV funding continues in FY06 and FY07, but is located under MC4, Medical Chemical Defense.

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BUDGET ACTIVITY RDT&E DEFENSE-WIDE/ BA4 - Advanced Component Development and Prototypes (ACD&P)	PE NUMBER AND TITLE 0603884BP CHEMICAL/BIOLOGICAL DEFENSE (ACD&P)	PROJECT CA4
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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
ARTEMIS													
ES S - Perf Modeling Analysis	C/CPFF	Battelle, Arlington, VA	C	816	220	2Q FY05	0	NONE	0	NONE	0	1036	1305
ES S - Perf Modeling	MIPR	NSWC, Dahlgren, VA	U	0	250	2Q FY05	0	NONE	0	NONE	0	250	0
ES S - Modeling Support	MIPR	Various	U	0	260	2Q FY05	0	NONE	0	NONE	0	260	0
NTA													
TD/D C - Develop Standard Operating Procedures	MIPR	Various	U	0	0	NONE	1000	3Q FY06	0	NONE	0	1000	0
TT Bio													
pBSCAV - Regulatory Integration, Quality Assurance, & IND Support Efforts	C/CPFF	TBD	C	0	555	3Q FY05	0	NONE	0	NONE	0	555	0
EOS (Epidemic Outbreak Surveillance) - Confirmatory testing	MIPR	Brooks AFB, TX	U	0	37	2Q FY05	0	NONE	0	NONE	0	37	0
Subtotal II. Support Costs:													
				816	1322		1000		0		0	3138	

Remarks: TT Bio - pBSCAV funding continues in FY06 and FY07, but is located under MC4, Medical Chemical Defense.

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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													
OTHT SB - Validate System Upgrades	MIPR	DTC, APG, MD and DPG, UT	U	0	1500	3Q FY05	0	NONE	0	NONE	0	1500	0
JBTDS													
OTHT C - M&S for performance parameters	MIPR	DTRA, Ft. Belvoir, VA	U	0	0	NONE	0	NONE	500	1Q FY07	0	500	0
JCBAWM													
DTE S - Developmental/Operational Testing	MIPR	Various	U	0	1180	3Q FY05	3500	1Q FY06	0	NONE	0	4680	0
NTA													
DTE C - NTA Enhancement Testing	MIPR	Various	U	710	700	1Q FY05	0	NONE	0	NONE	0	1410	0
DTE C - Test Methodology and Design	MIPR	Various	U	0	0	NONE	3270	1Q FY06	0	NONE	0	3270	0
OTHT C - Purchase/Assembly of Test Equipment	PO	Various	C	0	0	NONE	8000	2Q FY06	0	NONE	0	8000	0
DTE C - Equipment/Chamber Validation	PO	Various	U	0	0	NONE	4000	3Q FY06	0	NONE	0	4000	0
PAWSS													
OTE S - Limited Technology Demonstration	MIPR	Various	U	298	885	3Q FY05	0	NONE	0	NONE	0	1183	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
TT Bio													
pBSCAV - Conduct Process Development/Assay Validation Efforts	C/CPFF	TBD	C	0	1480	4Q FY05	0	NONE	0	NONE	0	1480	0
EOS (Epidemic Outbreak Surveillance) - Protocol development	MIPR	Naval Research Laboratory, Washington, DC	U	0	9893	2Q FY05	0	NONE	0	NONE	0	9893	0
EOS (Epidemic Outbreak Surveillance) - Confirmatory analysis	MIPR	Naval Health Research Center, San Diego, CA	U	0	3000	2Q FY05	0	NONE	0	NONE	0	3000	0
Subtotal III. Test and Evaluation:				1008	18638		18770		500		0	38916	

Remarks: TT Bio - pBSCAV funding continues in FY06 and FY07, but is located under MC4, Medical Chemical Defense.

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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
ARTEMIS													
PM/MS S - Program Office Planning and Programming	MIPR	NSWCDD, Dahlgren, VA	U	1889	165	2Q FY05	0	NONE	0	NONE	0	2054	10076
PM/MS S - Program Office Program Support	MIPR	Various	U	0	442	2Q FY05	0	NONE	0	NONE	0	442	0
JBPDS													
PM/MS S - Engineering Support	MIPR	JPM NBC CA, APG, MD	U	0	987	2Q FY05	0	NONE	0	NONE	0	987	0
JBTDS													
PM/MS SB - Milestone B Preparation and Acquisition Documentation Development	MIPR	JPM NBC CA, APG, MD	U	0	0	NONE	0	NONE	300	1Q FY07	0	300	0
JCBAWM													
PM/MS S - Joint Service Support	MIPR	Various	U	0	400	2Q FY05	560	1Q FY06	0	NONE	0	960	0
NTA													
PM/MS SB - Support Services	MIPR	Various	U	160	300	1Q FY05	250	1Q FY06	0	NONE	0	710	0
PAWSS													
PM/MS S - Program Management	MIPR	JPM NBC CA, APG, MD	U	887	450	2Q FY05	0	NONE	0	NONE	0	1337	0
TT Bio													
pBSCAV - Program Management Support	Allot	Chemical Bio Medical Systems, Frederick, MD	U	0	555	2Q FY05	0	NONE	0	NONE	0	555	0
EOS (Epidemic Outbreak Surveillance) - Program management/logistics support.	MIPR	JPM-NBC-CA, APG, MD	U	0	70	2Q FY05	0	NONE	0	NONE	0	70	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
ZSBIR													
SBIR/STTR - Aggregated from ZSBIR-SBIR/STTR	PO	HQ, AMC Alexandria, VA	U	0	317	NONE	0	NONE	0	NONE	0	317	0
Subtotal IV. Management Services:				2936	3686		810		300		0	7732	

Remarks: TT Bio - pBSCAV funding continues in FY06 and FY07, but is located under MC4, Medical Chemical Defense.

TOTAL PROJECT COST:	9344	38299		22330		1017		0	70990
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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
ARTEMIS																																
Component Advanced Development				>> 4Q																												
Complete Input to MIT Chem Standoff Analysis							2Q																									
Provide Close Out Documentation							3Q																									
Complete Analysis of Alternatives							4Q																									
JBPDS																																
Select JBPDS LRUs For Upgrade							2Q																									
Design and Validate selected Upgrades							2Q 3Q																									
ECP/Sys Documentation for Upgrade via Spares											4Q																					
Multi-service Operational Test and Evaluation (IOT&E) (Phase VI) FOT&E											3Q																					
JBPDSBLK2																																
Conduct Engineering Studies of alternative WSLAT methods				2Q 4Q																												
Design and Development of WSLAT facilities				2Q 4Q																												

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BUDGET ACTIVITY RDT&E DEFENSE-WIDE/ BA4 - Advanced Component Development and Prototypes (ACD&P)	PE NUMBER AND TITLE 0603884BP CHEMICAL/BIOLOGICAL DEFENSE (ACD&P)	PROJECT CA4
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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	
JBTDS																																	
Milestone A Activities & Acq Document Preparation													1Q	—	3Q																		
Milestone A Decision																4Q																	
Technology Transfer													1Q	—	4Q																		
JCBAWM																																	
ICD approved				3Q																													
Milestone A Increment 1				4Q																													
Purchase Test Items							2Q	3Q																									
Initiate test and evaluation efforts							3Q	—	4Q																								
Milestone B Increment 1												4Q																					
JEM																																	
BLK I - Software Development				>>	—	—	—	3Q																									
BLK I - Milestone B Decision				2Q																													
JOEF																																	
Concept and Technology Development Phase				>>	—	—	—	4Q																									
Prototype Development				2Q	—	—	—	4Q																									

Exhibit R-4a, Schedule Profile	DATE February 2005
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BUDGET ACTIVITY RDT&E DEFENSE-WIDE/ BA4 - Advanced Component Development and Prototypes (ACD&P)	PE NUMBER AND TITLE 0603884BP CHEMICAL/BIOLOGICAL DEFENSE (ACD&P)	PROJECT CA4
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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)																																	
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																		
JSLNBCRS																																	
Continue Development, Design, and Logistics Planning		1Q	—————		4Q																												
NBCRSBLKI																																	
Fox Trainer Installation at FT Polk			2Q																														
NBCRV																																	
Production Qualification Test (PQT)		>>	—————		4Q																												
Limited User Test (LUT)		1Q																															

Exhibit R-4a, Schedule Profile	DATE February 2005
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BUDGET ACTIVITY RDT&E DEFENSE-WIDE/ BA4 - Advanced Component Development and Prototypes (ACD&P)	PE NUMBER AND TITLE 0603884BP CHEMICAL/BIOLOGICAL DEFENSE (ACD&P)	PROJECT CA4
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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
TT Bio (Cont)																																
pBSCAV - Conduct Process Development/Assay Validation Efforts					2Q	3Q	4Q																									
pBSCAV - Conduct Pre-Clinical Studies									1Q	2Q	3Q	4Q																				
pBSCAV - Conduct Phase 1 Clinical Safety Study											3Q	4Q	2Q																			
EOS - Development/Assay Validation Efforts					2Q	3Q																										

CBDP BUDGET ITEM JUSTIFICATION SHEET (R-2a Exhibit)	DATE February 2005
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BUDGET ACTIVITY RDT&E DEFENSE-WIDE/ BA4 - Advanced Component Development and Prototypes (ACD&P)	PE NUMBER AND TITLE 0603884BP CHEMICAL/BIOLOGICAL DEFENSE (ACD&P)	PROJECT CM4
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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	
CM4	HOMELAND DEFENSE (ACD&P)	961	0	2632	0	0	0	0	0	0	3593

A. Mission Description and Budget Item Justification:

Project CM4 HOMELAND DEFENSE (ACD&P): This project funds component level testing of Commercial off-the-shelf (COTS) chemical and biological detection equipment in support of Weapons of Mass Destruction Civil Support Team (WMD CST) operations. Complimentary development efforts continue into CM5 for the Analytical Laboratory System (ALS) Block I and Unified Command Suite (UCS) Increment I upgrades. In addition, this project funds the development of COTS Training Devices in support of the WMD CST mission.

B. Accomplishments/Planned Program

	<u>FY 2004</u>	<u>FY 2005</u>	<u>FY 2006</u>	<u>FY 2007</u>
WMD - CIVIL SUPPORT TEAMS	961	0	2632	0
RDT&E Articles (Quantity)	0	0	0	0

FY 2004 Accomplishments:

- 100 WMD CST - Initiated Phase II HAPSITE (Gas Chromatograph Mass Spectrometer) component testing.
- 486 WMD CST - Initiated component level testing for Unified Command Suite (UCS) Increment I.
- 375 WMD-CST - Initiated component level testing for Analytical Laboratory System (ALS) Block I.

CBDP BUDGET ITEM JUSTIFICATION SHEET (R-2a Exhibit)	DATE February 2005
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BUDGET ACTIVITY RDT&E DEFENSE-WIDE/ BA4 - Advanced Component Development and Prototypes (ACD&P)	PE NUMBER AND TITLE 0603884BP CHEMICAL/BIOLOGICAL DEFENSE (ACD&P)	PROJECT CM4
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FY 2004 Accomplishments (Cont):
Total 961

FY 2006 Planned Program:

- 2482 WMD-CST - Develop and test CBRN computer based training capability.
- 150 WMD-CST - Provide Government Engineering and Planning Support.

Total 2632

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>
CM5 HOMELAND DEFENSE (SDD)	945	17761	395	0	0	0	0	0	0	19101
CM6 HOMELAND DEFENSE (RDT&E MGT SUPPORT)	1525	1352	1557	1558	0	0	0	0	0	5992

CBDP BUDGET ITEM JUSTIFICATION SHEET (R-2a Exhibit)		DATE February 2005
BUDGET ACTIVITY RDT&E DEFENSE-WIDE/ BA4 - Advanced Component Development and Prototypes (ACD&P)	PE NUMBER AND TITLE 0603884BP CHEMICAL/BIOLOGICAL DEFENSE (ACD&P)	PROJECT CM4

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/ BA4 - Advanced Component Development and Prototypes (ACD&P)	PE NUMBER AND TITLE 0603884BP CHEMICAL/BIOLOGICAL DEFENSE (ACD&P)	PROJECT CM4
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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 - CBRN Computer Based Training Capability	C/FFP	TBS	C	0	0	NONE	1982	2Q FY06	0	NONE	0	1982	0
Subtotal I. Product Development:				0	0		1982		0		0	1982	

Remarks:

II. Support Costs: Not applicable

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													
OTHT SB - COTS Chem Bio Training Device	C/FFP	TBS	U	0	0	NONE	500	2Q FY06	0	NONE	0	500	0
Subtotal III. Test and Evaluation:				0	0		500		0		0	500	

Remarks:

Project CM4

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CBDP PROJECT COST ANALYSIS (R-3 Exhibit)	DATE February 2005
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BUDGET ACTIVITY RDT&E DEFENSE-WIDE/ BA4 - Advanced Component Development and Prototypes (ACD&P)	PE NUMBER AND TITLE 0603884BP CHEMICAL/BIOLOGICAL DEFENSE (ACD&P)	PROJECT CM4
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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 SB - COTS Chem Bio Training Device	MIPR	Aberdeen Proving Ground, MD	U	0	0	NONE	150	2Q FY06	0	NONE	0	150	0
Subtotal IV. Management Services:				0	0		150		0		0	150	

Remarks:

TOTAL PROJECT COST:	0	0	2632	0	0	2632
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BUDGET ACTIVITY
RDT&E DEFENSE-WIDE/
BA4 - Advanced Component Development and Prototypes
(ACD&P)

PE NUMBER AND TITLE
0603884BP CHEMICAL/BIOLOGICAL DEFENSE (ACD&P) **PROJECT**
CM4

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 - 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																													
COTS - GOTS PROGRAM	>>	—————												1Q																				
Testing - Phase II HAPSITE Multi-Service			4Q	—————	1Q																													

CBDP BUDGET ITEM JUSTIFICATION SHEET (R-2a Exhibit)	DATE February 2005
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BUDGET ACTIVITY RDT&E DEFENSE-WIDE/ BA4 - Advanced Component Development and Prototypes (ACD&P)	PE NUMBER AND TITLE 0603884BP CHEMICAL/BIOLOGICAL DEFENSE (ACD&P)	PROJECT CO4
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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	
CO4 COLLECTIVE PROTECTION (ACD&P)	0	0	7605	0	0	0	0	0	0	7605

A. Mission Description and Budget Item Justification:

Project CO4 COLLECTIVE PROTECTION (ACD&P): Funding supports component development and integration of Chemical and Biological (CB) collective protection systems that are smaller, lighter, less costly and more easily supported logistically at the crew, unit, ship, and aircraft level. Collective Protection Systems define a number of unique components that incorporate common basic principles and ensure that breathing air introduced into selected areas or zones is always clean and contaminated air cannot seep into those areas. Generally, Collective Protection technologies incorporate special filters for cleaning contaminated air and high pressure fans to deliver the clean air into the selected area. The fans also provide an over-pressure to prevent infiltration of contaminated outside air. Additionally, some protected areas like portable shelters, may require a special liner or material to be applied inside the shelter to prevent contaminants from infiltrating. In summary, Collective Protection provides a safe, shirt-sleeve environment for a single war-fighter or a group of war-fighters regardless of the contamination levels outside the protected area.

System funded under this project is: (1) Joint Expeditionary Collective Protection (JECP).

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BUDGET ACTIVITY RDT&E DEFENSE-WIDE/ BA4 - Advanced Component Development and Prototypes (ACD&P)	PE NUMBER AND TITLE 0603884BP CHEMICAL/BIOLOGICAL DEFENSE (ACD&P)	PROJECT CO4
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JECP - Results of a Baseline Capability Assessment conducted by the Joint Requirements Office (JRO) identified expeditionary Collective Protection (CP) as the highest priority capability gap within 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 Chemical, Biological, Radiological, and Nuclear (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 EXPEDITIONARY COLLECTIVE PROTECTION	0	0	7605	0
RDT&E Articles (Quantity)	0	0	0	0

FY 2006 Planned Program:

- 834 JECP - Establish a Project Management Office (PMO) and System Engineering, Product Support, and Test & Evaluation Integrated Product Teams (IPT). Institute associated charters identifying roles and responsibilities. Initiate development of a Single Acquisition Management Plan (SAMP), that will provide a permanent record of all relevant program information in a single document.

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BUDGET ACTIVITY RDT&E DEFENSE-WIDE/ BA4 - Advanced Component Development and Prototypes (ACD&P)	PE NUMBER AND TITLE 0603884BP CHEMICAL/BIOLOGICAL DEFENSE (ACD&P)	PROJECT CO4
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FY 2006 Planned Program (Cont):

- 1195 JECF - Conduct a tailored Analysis of Alternatives (AoA) leveraging the market survey, test results and lessons learned from the FY05 Collective Protection (ColPro) Technology Readiness Evaluation (TRE). Collaborate with the JRO Shield Integrator in preparing acquisition documentation and decision review package for Milestone (MS) A.
- 996 JECF - Provide PMO and subject matter expert support to the Joint Requirements Office (JRO) in development of the Concept of Operation (ConOps) and the Capability Development Document (CDD). Develop the Systems Engineering Management Plan (SEMP) and the initial Test & Evaluation Master Plan (TEMP) along with requisite MS B documentation, including but not limited to: the Acquisition Strategy, APB, Programmatic Environment Safety and Occupational Health Evaluation (PESHE), Logistics Analysis, Program Protection Plan, and a validated Life Cycle Cost Estimate.
- 4580 JECF - Translate the JRO/User developed ConOps and CDD into a Work Breakdown Structure leading to a Statement of Objectives (SOO) and a Performance Specification (P-Spec). Establish a Risk Management Plan and conduct an initial risk analysis. Award a prototype development contract. Initiate DT testing of prototypes.

Total 7605

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BUDGET ACTIVITY RDT&E DEFENSE-WIDE/ BA4 - Advanced Component Development and Prototypes (ACD&P)	PE NUMBER AND TITLE 0603884BP CHEMICAL/BIOLOGICAL DEFENSE (ACD&P)	PROJECT CO4
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<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>
CO5 COLLECTIVE PROTECTION (SDD)	2833	2534	671	11697	21738	27992	20371	19225	Cont	Cont
JN0017 JOINT COLLECTIVE PROTECTION EQUIPMENT (JCPE)	11825	2166	0	0	0	0	0	0	0	13991

D. Acquisition Strategy:

JECP 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/ BA4 - Advanced Component Development and Prototypes (ACD&P)	PE NUMBER AND TITLE 0603884BP CHEMICAL/BIOLOGICAL DEFENSE (ACD&P)	PROJECT CO4
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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
JECP													
HW S - Prototype Contract	C/CPIF	TBS	C	0	0	NONE	3975	3Q FY06	0	NONE	0	3975	0
Subtotal I. Product Development:				0	0		3975		0		0	3975	

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 - Milestone Documentation	MIPR	Various	U	0	0	NONE	2191	1Q FY06	0	NONE	0	2191	0
Subtotal II. Support Costs:				0	0		2191		0		0	2191	

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/ BA4 - Advanced Component Development and Prototypes (ACD&P)	PE NUMBER AND TITLE 0603884BP CHEMICAL/BIOLOGICAL DEFENSE (ACD&P)	PROJECT CO4
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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
JECP													
DTE S - Prototype Testing	C/CPIF	TBS	C	0	0	NONE	605	3Q FY06	0	NONE	0	605	0
Subtotal III. Test and Evaluation:				0	0		605		0		0	605	

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
JECP													
PM/MS S - Project Management Office (PMO) and IPT Support	MIPR	Dahlgren, VA	U	0	0	NONE	834	1Q FY06	0	NONE	0	834	0
Subtotal IV. Management Services:				0	0		834		0		0	834	

Remarks:

TOTAL PROJECT COST:	0	0		7605		0		0		0	7605	
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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																																
Develop Improved Liner-Mat/Constr/Closures	>>			4Q																												
Develop and Test Switchover/Pressure Regulator	>>			4Q																												
Develop and Test Dust and Sand Mtr/Blwr Hose Kit	>>			4Q																												
Develop and Test Timer-M28 CPE/CBPS Airlocks	>>			4Q																												
Develop and Test 100/200 CFM Gas Filters-TICs	1Q			4Q																												
Develop and Test Radiant Barrier Matl-TEMPER	>>			4Q																												
JECP																																
AoA									1Q																							
MS-A Decision									1Q																							
Complete CDD											2Q																					
SOO and P-Spec									1Q	2Q																						
Prototype Contract RFP											2Q	3Q																				

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BUDGET ACTIVITY RDT&E DEFENSE-WIDE/ BA4 - Advanced Component Development and Prototypes (ACD&P)	PE NUMBER AND TITLE 0603884BP CHEMICAL/BIOLOGICAL DEFENSE (ACD&P)	PROJECT CO4
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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)																																
MS-B TEMP									1Q			3Q																				
MS-B Decision												3Q																				
Prototype Contract Award												3Q																				
Prototype Development and DT									3Q																							

CBDP BUDGET ITEM JUSTIFICATION SHEET (R-2a Exhibit)	DATE February 2005
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BUDGET ACTIVITY RDT&E DEFENSE-WIDE/ BA4 - Advanced Component Development and Prototypes (ACD&P)	PE NUMBER AND TITLE 0603884BP CHEMICAL/BIOLOGICAL DEFENSE (ACD&P)	PROJECT CP4
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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	
CP4 COUNTERPROLIFERATION SUPPORT (ACD&P)	14368	16661	24678	25897	26496	14895	14289	27217	Continuing	Continuing

A. Mission Description and Budget Item Justification:

Project CP4 COUNTERPROLIFERATION SUPPORT (ACD&P): Providing full dimensional protection to deployed forces and critical fixed sites, to include Sea Ports of Debarkation (SPODs) under threat of chemical or biological attack is one of the highest Combatant Commanders' highest priorities. Future adversaries will likely use CB weapons to deny U.S. and allied forces use of these facilities. U.S. forces, both mobile and at fixed sites, must be able to survive CB attacks and quickly recover to continue operations. This project supports the accelerated fielding of operational capabilities (technology, Concept of Operations (CONOPS), and automation tools) to Combatant Commanders through Advanced Concept Technology Demonstrations (ACTDs) and Advanced Technology Demonstrations (ATDs).

The Contamination Avoidance at Sea Ports of Debarkation (CASPOD) ACTD provides technologies, tools, tactics and procedures for the recovery of throughput operations after a chemical or biological attack at a seaport during times of a major logistics operation. The CASPOD ACTD will demonstrate those mitigating actions needed before, during and after an attack to protect against and immediately react to the consequences of a CB attack. These actions are aimed at restoring operating tempo (OPTEMPO) in mission execution and the movement of individuals and materiel to support combat operations at a seaport in an overseas Central Command (CENTCOM) Area of Responsibility (AOR).

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BUDGET ACTIVITY RDT&E DEFENSE-WIDE/ BA4 - Advanced Component Development and Prototypes (ACD&P)	PE NUMBER AND TITLE 0603884BP CHEMICAL/BIOLOGICAL DEFENSE (ACD&P)	PROJECT CP4
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The Biological Warfare Countermeasures Initiatives (BWCI) effort began when the Commander of the Pacific Command (PACOM) requested assistance from Under Secretary for Defense Acquisition, Technology, and Logistics (DUSD (AT&L)) and the Chairman, Joint Chiefs of Staff (CJCS) to address Biological Warfare concerns in the PACOM area of operation. Recommended actions included conducting a risk assessment, providing planning guidance, assessing key lessons, and proposing a way ahead. The Deputy Under Secretary for Defense Advanced Systems and Concepts (DUSD (AS&C)) responded and identified a three-phase approach to be implemented over three fiscal years. The three-phased approach is as follows: (1) Phase I (FY03) - Defined the problem(s); (2) Phase II (FY04) - developed solutions to include a fusion cell approach and force protection initiatives; and (3) Phase III (FY05) - Implementation Advanced Technology Demonstrations (ATD) and experiments to demonstrate solution sets identified during Phase II such as fusion cell, medical surveillance, force protection condition triggers, infrared scanning devices and other concepts.

The Counterproliferation Support Program ACTD is executing an FY05 ACTD called Chemical Biological Radiological Nuclear (CBRN) Unmanned Ground Reconnaissance (CUGR). CUGR will address several critical operational issues to enhance the speed, effectiveness, capabilities, and automation of surface and area CBRN contamination detection and identification. The ACTD technologies will be used to enhance the Joint Service Light NBC Reconnaissance System (JSLNBCRS) and the FOX NBC Reconnaissance system by using a non-surface contacting optical system that provides both surface contamination detection and identification in near real time. Capabilities include traditional chemical agents, Non-Traditional Agents (NTAs) and Toxic Industrial Chemicals (TICs). The technology has the potential to detect biological warfare agents and offers a new capability to conduct unmanned CBRN reconnaissance. A new thrust area for ACTD small CBRN unmanned ground reconnaissance platform will be added to the JSLNBCRS. This unmanned platform will enable the reconnaissance crew to conduct CBRN reconnaissance in limited maneuver areas using a robotic platform carrying CBRN sensors that report findings to the operator using active telemetry.

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The Counterproliferation Support Program will initiate two ATDs in FY06. The Chemical Biological Training System will be demonstrated at Ft Leonard Wood and will demonstrate Commercial off-the-shelf systems in use in the United Kingdom for military training of soldiers on Chemical and Biological Defense. The Chemical Biological Networked Early Warning System (CBNEWS) ATD will test existing battlefield radar systems and demonstrate their use as Chemical detection and warning devices.

B. Accomplishments/Planned Program

	<u>FY 2004</u>	<u>FY 2005</u>	<u>FY 2006</u>	<u>FY 2007</u>
CONTAMINATION AVOIDANCE AT SEAPORTS OF DEBARKATION (CAS	10755	0	0	0
RDT&E Articles (Quantity)	0	0	0	0

FY 2004 Accomplishments:

- 2017 Contamination Avoidance at Seaports of Deparkation (CASPOD) ACTD (DTO JD23) - Finalized system integration and system test efforts of sensor, alarm, and warning device hardware with Command and Control software.
- 3200 (CASOPD) ACTD (DTO JD23) - Performed Military Utility Assessment (MUA) of CASPOD technologies during the CASPOD final demonstration.
- 1200 CASPOD - Completed techniques, tactics, and procedures for the use of the CASPOD ACTD technologies. Completed training plan and documentation for final demonstration. Conducted program integration tasks.

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FY 2004 Accomplishments (Cont):

- 938 CASPOD - Initiated transition and residual support planning. Provide logistic support for initial year of residual phase.
- 3400 CASPOD - Conducted final demonstration, acquired and transported test equipment, cargo containers, vehicles, sealift ship, and provided for travel of users and other logistics support items.

Total 10755

	<u>FY 2004</u>	<u>FY 2005</u>	<u>FY 2006</u>	<u>FY 2007</u>
COUNTERPROLIFERATION ACTD	0	16524	24678	25897
RDT&E Articles (Quantity)	0	0	0	0

FY 2005 Planned Program:

- 730 Chemical Biological Radiological Nuclear (CBRN) Unmanned Ground Reconnaissance (CUGR) ACTD - Initiate program management and planning, documentation, Integrated Product Team (IPT) meetings, technical liaisons and transition planning.
- 1412 CUGR ACTD - Initiate Concepts-of-Operations (CONOP) and techniques, tactics, and procedures (TTP) development, operational test planning and execution.
- 1119 CUGR ACTD - Initiate Joint Contaminated Surface Detector (JCSD) systems engineering and technical testing.
- 6435 CUGR ACTD - Initiate JCSD prototyping, technical testing and integration.

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FY 2005 Planned Program (Cont):

- 266 CUGR ACTD - Initiate modification of Joint Service Light Nuclear Biological And Chemical Reconnaissance System (JSLNBCRS) shelter design, fabricate and integrate on High Mobility Multipurpose Wheeled Vehicles (HMMWVs).
- 1784 CUGR ACTD - Initiate CBRN Unmanned Ground Vehicle (CUGV) systems engineering, prototyping, technical testing and integration.
- 1421 Contamination Avoidance at Seaports of Debarkation (CASPOD) ACTD (DTO JD23) (BCA#34) - Execute residual support for CASPOD fielded technologies.
- 1422 CASPOD ACTD (DTO JD23) (BCA#34) - Complete transition planning, acquire logistics support, and complete logistics support planning.
- 1935 Biological Warfare Countermeasures Initiatives (BWCI) - Support United States Pacific Command (PACOM) Biological Warfare Countermeasures Initiative. Conduct fusion cell concept exercise as it transitions from Advanced Technology Development.

Total 16524

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<p>FY 2006 Planned Program:</p> <ul style="list-style-type: none"> • 1491 Contamination Avoidance at Seaports of Debarkation (CASPOD) ACTD (DTO JD23) (BCA#34) - Complete procurement and contractor logistics support services for residual support on selected technologies. • 1491 CASPOD ACTD (DTO JD23) (BCA#34) - Finalize lessons learned, incorporate into ACTD final report, complete service doctrinal changes and techniques, tactics, and procedures changes. • 1341 (CUGR) ACTD - Continue program management and planning, documentation, IPT meetings, technical liaisons and transition planning. • 6300 CUGR ACTD - Continue Concepts-of-Operations (CONOP) and techniques, tactics, and procedures (TTP) development, operational test planning and execution. • 2545 CUGR ACTD - Continue Joint Contaminated Surface Detector (JCSD) systems engineering and technical testing. • 5711 CUGR ACTD - Complete JCSD prototyping, technical testing and integration. • 345 CUGR ACTD - Continue modification of JSLNBCRS shelter design, fabricate and integrate on HMMWVs. • 1682 CUGR ACTD - Continue CBRN Unmanned Ground Vehicle (CUGV) systems engineering, prototyping, technical testing and integration. • 263 CUGR ACTD - Initiate CUGR residual support for extended user evaluation. • 3509 Chemical Biological Training System (CBTS) ATD - Demonstrate Chemical Biological Training System for use at Ft. Leonard Wood. Initiate Chemical Biological Networked Early Warning System (CBNEWS) using tactical radar for early tactical warning of chemical attack. 		
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<p>FY 2006 Planned Program (Cont): Total 24678</p> <p>FY 2007 Planned Program:</p> <ul style="list-style-type: none"> • 965 Chemical Biological Radiological Nuclear (CBRN) Unmanned Ground Reconnaissance (CUGR) ACTD - Continue program management and planning, documentation, Integrated Product Team (IPT) meetings, technical liaisons and transition planning. • 5804 CUGR ACTD - Continue Concepts-of-Operations (CONOPs) and techniques, tactics, and procedures (TTPs) development, operational test planning and execution. • 327 CUGR ACTD - Complete Joint Contaminated Surface Detector (JCSD) systems engineering and technical testing. • 98 CUGR ACTD - Complete modification of JSLNBCRS shelter design, fabricate and integrate on HMMWVs. • 907 CUGR ACTD - Complete CBRN Unmanned Ground Vehicle (CUGV) systems engineering, prototyping, technical testing and integration. • 658 CUGR ACTD - Continue CUGR residual support for extended user evaluation. • 8859 Chemical Biological Networked Early Warning System (CBNEWS) ATD - Complete technology demonstration. • 8279 Situational Awareness and Response Network (STARNET) ACTD - Initiate Combatant Commands (COCOM) information technology system for biological defense fusion cell, that fuses medical, environmental, intelligence, law enforcement, and weather data for continuous situational awareness monitoring. <p>Total 25897</p>

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	<u>FY 2004</u>	<u>FY 2005</u>	<u>FY 2006</u>	<u>FY 2007</u>
RESTOPS ACTD	3613	0	0	0
RDT&E Articles (Quantity)	0	0	0	0

FY 2004 Accomplishments:

- 2368 Restoration of Operations (RestOps) ACTD - Completed procurement and contractor logistics support services for residual support on selected technologies.
- 1245 RestOps ACTD - Finalized Lessons learned, incorporated into ACTD final report, completed service doctrinal changes and Techniques, Tactics, and Procedures changes.

Total 3613

	<u>FY 2004</u>	<u>FY 2005</u>	<u>FY 2006</u>	<u>FY 2007</u>
SBIR/STTR	0	137	0	0
RDT&E Articles (Quantity)	0	0	0	0

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FY 2005 Planned Program:

- 137 SBIR

Total 137

C. Other Program Funding Summary: N/A

D. Acquisition Strategy:

CPSP ACTD This project is a generic block description for future ACTD and ATDs. The CUGR ACTD will execute its demonstration phase in FY05, FY06, and FY07. CUGR will transition laser detection technology into various reconnaissance vehicles that are currently in an Acquisition Program under Joint Program Executive Office (JPEO) Program Manager for Reconnaissance. No ACTD candidate was selected for FY06, in its place three leading candidates TCARS, STARNET, and CBNEWS ACTD proposals were revised to ATDs or experimentation to be coordinated with the BA6, O49, Joint Concept Development and Experimentation effort for FY06 and FY07. An additional ATD proposal for CB Training System is being planned for FY06 as an ATD. CBNEWS will be executed as a CBDP ATD vice and ACTD. STARNET and TCARS will be subject to more studies and experimentation with subsequent planning for STARNET as an FY07 ACTD.

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CBDP PROJECT COST ANALYSIS (R-3 Exhibit)	DATE February 2005
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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
CPSP ACTD													
HW C - CUGR - CSD System Design and Integration	C/CPFF	ITT, Colorado Springs, CO	C	0	1119	2Q FY05	2545	2Q FY06	327	2Q FY07	0	3991	0
HW C - CUGR CSD - Begin Prototype Shelter Assembly	Allot	Army - RDECOM, ECBC, Edgewood, MD	U	0	266	2Q FY05	345	2Q FY06	98	2Q FY07	0	709	0
HW C - CUGR - UGV - Initiate System Design and Integration	Allot	Army - RDECOM, ECBC, Edgewood, MD	U	0	1784	1Q FY05	1682	1Q FY06	907	1Q FY07	0	4373	0
HW S - Develop CB Training system	WR	DTRA, Alexandria, VA	U	0	0	NONE	1500	2Q FY06	0	NONE	0	1500	0
HW S - Develop STARNET system	Allot	Air Force - AFRL - Wright Patterson AFB, OH	U	0	0	NONE	0	NONE	8279	2Q FY07	0	8279	0
HW S - Complete CBNEWS ATD	Allot	Army - RDECOM, Aberdeen Proving Ground, MD	U	0	0	NONE	2009	2Q FY06	8859	2Q FY07	0	10868	0
HW C - CUGR - JCSD Prototyping	Allot	Army - RDECOM, Aberdeen Proving Ground, MD	U	0	6435	2Q FY05	5711	2Q FY06	0	NONE	0	12146	0
Subtotal I. Product Development:				0	9604		13792		18470		0	41866	

Remarks:

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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
CPSP ACTD													
PM/MS S - CUGR Program Management	Allot	Army - RDECOM, ECBC, Edgewood, MD	U	0	730	2Q FY05	1341	2Q FY06	965	2Q FY07	0	3036	0
PM/MS S - BWCI - Program Management	MIPR	PACOM - Camp Smith Hawaii	U	0	1935	1Q FY05	0	NONE	0	NONE	0	1935	0
ZSBIR													
SBIR/STTR - Aggregated from ZSBIR-SBIR/STTR	PO	HQ, AMC Alexandria, VA	U	0	137	NONE	0	NONE	0	NONE	0	137	0
Subtotal IV. Management Services:				0	2802		1341		965		0	5108	

Remarks:

TOTAL PROJECT COST:	0	16661		24678		25897		0	67236
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Exhibit R-4a, Schedule Profile

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BUDGET ACTIVITY
**RDT&E DEFENSE-WIDE/
BA4 - Advanced Component Development and Prototypes
(ACD&P)**

PE NUMBER AND TITLE
0603884BP CHEMICAL/BIOLOGICAL DEFENSE (ACD&P) PROJECT
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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
CASPOD																																
Training	>>			4Q																												
Demonstration				4Q																												
Residual Support	1Q							3Q																								
CPSP ACTD																																
CUGR JCSD Demonstration									3Q	4Q																						
CUGR JCSD Residual Support													1Q																			
CUGR CUGV Demonstration													3Q	4Q																		
CUGR CUGV Residual Support																	4Q															
CB Training System Demonstration									1Q			4Q																				
CBNEWS ATD Demonstration													3Q	4Q																		
RESTOPS																																
Fielding Support (CLS)	>>							3Q																								

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BUDGET ACTIVITY RDT&E DEFENSE-WIDE/ BA4 - Advanced Component Development and Prototypes (ACD&P)	PE NUMBER AND TITLE 0603884BP CHEMICAL/BIOLOGICAL DEFENSE (ACD&P) DE4	PROJECT DE4
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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	
DE4 DECONTAMINATION SYSTEMS (ACD&P)	22270	17463	1015	2034	4576	2545	2269	4082	Continuing	Continuing

A. Mission Description and Budget Item Justification:

Project DE4 DECONTAMINATION SYSTEMS (ACD&P): This ACD&P funding supports the development of decontamination systems utilizing solutions that will remove and/or detoxify contaminated material without damaging combat equipment, personnel, or the environment. Decontamination systems provide a force restoration capability for units that become contaminated. Development efforts will provide systems which reduce operational impact and logistics burden, reduce sustainment costs, increase safety, and minimize environmental effects over currently fielded decontaminants. This funding supports the following programs: Joint Service Sensitive Equipment Decontamination (JSSED), Joint Platform Interior Decontamination (JPID), and Joint Service Family of Decontamination Systems (JSFDS). The JSFDS program consists of the Joint Service Personnel/Skin Decontamination System (JSPDS), Joint Service Transportable Decontamination Systems, a Small-scale (JSTDS-SM) and a Large-scale (JSTDS-LG), Joint Portable Decontamination Systems (JPDS) (formerly known as Joint Service Man-Portable Decontamination System) and the Joint Service Stationary Decontamination System (JSSDS).

The initial increments for JSPDS and JSSDS will provide the warfighter with an enhanced fixed site and personnel decontamination capability. Follow-on increments will increase fielded capability through technology insertion.

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The JSSED program will perform sensitive equipment/item decontamination. The JPID program will fill an immediate need to decontaminate chemical and biological warfare agents from vehicle/aircraft interiors, and associated cargo. The JPID program will utilize an incremental spiral approach to address individual key capabilities to reduce program risk and support production schedule.

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)	7137	10882	1015	2034
RDT&E Articles (Quantity)	0	0	0	0

FY 2004 Accomplishments:

- 2025 JSFDS/JSTDS-SM - Performed market survey, finalized Test and Evaluation Master Plan (TEMP), performance specification, down-selection test methodology, System Acquisition Management Plan (SAMP) and Request for Proposal for JSTDS Small Scale to support Milestone (MS) B.
- 400 JSFDS/JSPDS - Performed compatibility testing of reactive skin decontamination lotion with currently fielded decontaminant to identify and mitigate safety risks to the user.
- 2048 JSFDS/JSPDS - Finalized TEMP, SAMP and other program documentation to support a MS B decision for transition to SDD.
- 540 JSFDS/JPDS - Reviewed feasibility of requirements and established acquisition strategy for the Joint Portable Decontamination System (JPDS).

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<p>FY 2004 Accomplishments (Cont):</p> <ul style="list-style-type: none"> • 595 JSFDS/JSTDS-LG - Reviewed feasibility of requirements and established acquisition strategy for the JSTDS Large Scale. • 521 JSFDS/JSSDS - Evaluated feasibility of meeting JSSDS requirements and established acquisition strategy. • 1008 JSFDS - Performed reliability testing of the multi-purpose decontamination system to support the Senior Readiness Oversight Council's urgent need. Performed simulant and live agent decontamination testing and shelf life testing of DF-200. <p>Total 7137</p> <p>FY 2005 Planned Program:</p> <ul style="list-style-type: none"> • 7282 JSFDS/JSTDS-SM - Perform down-selection testing (DT I) on four candidate JSTDS-SM decontamination systems for Low Rate Initial Production (LRIP) contract award. DT I includes live agent efficacy testing, material compatibility testing, and reliability testing. • 200 JSFDS/JSTDS-SM - Develop logistics documentation and perform training to support testing for JSTDS-SM. • 3400 JSFDS/JSTDS-SM - Update SAMP, TEMP and other program documentation to support MS C LRIP for JSTDS-SM. <p>Total 10882</p> <p>FY 2006 Planned Program:</p> <ul style="list-style-type: none"> • 215 JSFDS - Overarching Decontamination Model throughout RDT&E - Develop a model to predict contamination-caused hazards for all phases of chemical and biological threats. • 800 JSFDS (T&E Capability) - Develop and validate chemical decontamination test methods for full-system tests. <p>Project DE4/Line No: 072</p>
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FY 2006 Planned Program (Cont):
Total 1015

FY 2007 Planned Program:

- 334 JSPDS - Upgrade and Standardize Laboratory Decontamination Test Methods - Develop and validate standardized, common test and analysis methods that will yield performance data that can be used across DoD.
- 1700 JSSED/JPID (T&E Capability) - Certify chamber fixtures for use with biological agents, develop and validate biological decontamination methods for subsequent use in the Biological Decontamination Chamber.

Total 2034

	<u>FY 2004</u>	<u>FY 2005</u>	<u>FY 2006</u>	<u>FY 2007</u>
JS SENSITIVE EQUIP DECON	15133	6437	0	0
RDT&E Articles (Quantity)	0	0	0	0

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FY 2004 Accomplishments:

- 4272 JSSED - Completed optimization effort of primary solvent-based system.
- 1128 JSSED - Completed System Development & Demonstration (SDD) Statement of Work.
- 2000 JSSED - Finalized program and acquisition documentation to support Increment I of JSSED Operational Requirements Document (ORD).
- 1500 JSSED - Developed, coordinated and processed Increment I TEMP.
- 1360 JPID - Initiated TEMP, SAMP and other program documentation for Milestone (MS) B.
- 500 JPID - Initiated support for the IPT.
- 2073 JPID - Initiated identification of interior platform materials for testing.
- 700 JPID - Initiated market survey for commercial base.
- 100 JPID - Initiated analysis from the market survey to update Analysis of Alternatives (AoA).
- 800 JPID - Initiated Developmental Test (DT) planning.
- 700 JPID - Initiated planning for characteristic study.

Total 15133

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BUDGET ACTIVITY RDT&E DEFENSE-WIDE/ BA4 - Advanced Component Development and Prototypes (ACD&P)	PE NUMBER AND TITLE 0603884BP CHEMICAL/BIOLOGICAL DEFENSE (ACD&P)	PROJECT DE4
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- FY 2005 Planned Program:**
- 2700 JSSED - Design and fabricate prototypes for Limited Objective Experiment (LOE) (Six units at \$450K each).
 - 600 JSSED - Conduct LOE and government testing.
 - 1137 JSSED - Prepare program documentation for the award of a competitive contract for SDD.
 - 500 JPID - Continue support to the IPT including logistics support.
 - 900 JPID - Continue studies for interior platform material identification, characteristics analysis and market analysis.
 - 250 JPID - Develop the Technology Readiness Evaluation.
 - 350 JPID - Finalize program documentation for MS B and initiate program documents/package for MS C.

Total 6437

	<u>FY 2004</u>	<u>FY 2005</u>	<u>FY 2006</u>	<u>FY 2007</u>
SBIR/STTR	0	144	0	0
RDT&E Articles (Quantity)	0	0	0	0

- FY 2005 Planned Program:**
- 144 SBIR
- Total** 144

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<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>
DE5 DECONTAMINATION SYSTEMS (SDD)	5260	4264	19242	10638	5467	14885	15279	7521	Cont	Cont
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

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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.

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JSSSED

The JSSSED 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 JSSSED system. The second step is the System Integration of the JSSSED Increment I. The third step is the production phase of the JSSSED Increment I variant. The fourth and final step is the spiral development of the JSSSED 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.

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.

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CBDP PROJECT COST ANALYSIS (R-3 Exhibit)	DATE February 2005
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BUDGET ACTIVITY RDT&E DEFENSE-WIDE/ BA4 - Advanced Component Development and Prototypes (ACD&P)	PE NUMBER AND TITLE 0603884BP CHEMICAL/BIOLOGICAL DEFENSE (ACD&P)	PROJECT DE4
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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 - JSTDS-SM Down-selection Testing (DT I)	MIPR	Various	U	0	9382	2Q FY05	0	NONE	0	NONE	0	9382	0
DTE S - JSFDS - JSTDS-SM Down-selection Testing (DT I)	C/CPFF	Battelle, Columbus, OH	C	0	900	1Q FY05	0	NONE	0	NONE	0	900	0
OTHT S - JSFDS - JSTDS-SM test planning	MIPR	Various	U	250	50	1Q FY05	0	NONE	0	NONE	0	300	0
OTHT S - JSFDS - JSTDS-SM test planning	C/CPFF	Various	C	650	50	1Q FY05	0	NONE	0	NONE	0	700	0
OTHT S - JSTDS/JSSSED/JPID/JSPDS	MIPR	Various	U	0	0	NONE	1015	1Q FY06	2034	1Q FY07	0	3049	0
JSSSED													
OTHT SB - JSSSED - Block I Testing	MIPR	Various	U	684	202	1Q FY05	0	NONE	0	NONE	0	886	0
DTE S - JSSSED Developmental Planning	MIPR	AFOTEC, Kirtland AFB, NM	U	1337	500	2Q FY05	0	NONE	0	NONE	0	1837	0
OTHT S - JPID Developmental and Operational Testing	MIPR	Various	U	300	250	2Q FY05	0	NONE	0	NONE	0	550	0
Subtotal III. Test and Evaluation:				3221	11334		1015		2034		0	17604	

Remarks:

CBDP PROJECT COST ANALYSIS (R-3 Exhibit)	DATE February 2005
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BUDGET ACTIVITY RDT&E DEFENSE-WIDE/ BA4 - Advanced Component Development and Prototypes (ACD&P)	PE NUMBER AND TITLE 0603884BP CHEMICAL/BIOLOGICAL DEFENSE (ACD&P) DE4	PROJECT DE4
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TOTAL PROJECT COST:	8790	17463		1015		2034		0	29302
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Exhibit R-4a, Schedule Profile	DATE February 2005
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BUDGET ACTIVITY RDT&E DEFENSE-WIDE/ BA4 - Advanced Component Development and Prototypes (ACD&P)	PE NUMBER AND TITLE 0603884BP CHEMICAL/BIOLOGICAL DEFENSE (ACD&P) DE4
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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																									

CBDP BUDGET ITEM JUSTIFICATION SHEET (R-2a Exhibit)	DATE February 2005
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BUDGET ACTIVITY RDT&E DEFENSE-WIDE/ BA4 - Advanced Component Development and Prototypes (ACD&P)	PE NUMBER AND TITLE 0603884BP CHEMICAL/BIOLOGICAL DEFENSE (ACD&P) IS4	PROJECT IS4
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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	
IS4 INFORMATION SYSTEMS (ACD&P)	0	4734	0	0	0	0	0	0	0	4734

A. Mission Description and Budget Item Justification:

Project IS4 INFORMATION SYSTEMS (ACD&P): This Advanced Component Development and Prototypes (ACD&P) funding supports Component Advanced Development and System Integration (CAD/SI) for JOEF.

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) and 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.

CBDP BUDGET ITEM JUSTIFICATION SHEET (R-2a Exhibit)	DATE February 2005
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BUDGET ACTIVITY RDT&E DEFENSE-WIDE/ BA4 - Advanced Component Development and Prototypes (ACD&P)	PE NUMBER AND TITLE 0603884BP CHEMICAL/BIOLOGICAL DEFENSE (ACD&P) IS4	PROJECT IS4
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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 environments. The third block extends consequence management capabilities to include civilian facilities.

Note: JOEF was funded in FY04 under project CA4.

B. Accomplishments/Planned Program

	<u>FY 2004</u>	<u>FY 2005</u>	<u>FY 2006</u>	<u>FY 2007</u>
JOINT OPERATIONAL EFFECTS FEDERATION	0	4698	0	0
RDT&E Articles (Quantity)	0	0	0	0

FY 2005 Planned Program:

- 789 JOEF Block I - Conduct Interim Progress Review (IPR). Perform financial management, scheduling, planning, and financial and technical reporting. Use the EVMS process. Complete M/S B acquisition documentation.

CBDP BUDGET ITEM JUSTIFICATION SHEET (R-2a Exhibit)	DATE February 2005
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BUDGET ACTIVITY RDT&E DEFENSE-WIDE/ BA4 - Advanced Component Development and Prototypes (ACD&P)	PE NUMBER AND TITLE 0603884BP CHEMICAL/BIOLOGICAL DEFENSE (ACD&P) IS4	PROJECT IS4
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FY 2005 Planned Program (Cont):

- 1263 JOEF Block I - Continue development of prototype. Enhance Aerial Ports of Debarkation (APOD) and medical capabilities. Add Sea Ports of Debarkation (SPOD) capabilities. Design open C4ISR architecture. Interface with standard Geographic Information Systems (GIS). Begin process of generating data tables in support of mobile force assessments using models that support the operational commands. Fund the System Engineering, Test and Evaluation, Warfighter and Logistics IPTs.
- 2646 JOEF Block I - Initiate design of mobile force and automated TTP capabilities to the prototype. Begin development of Graphical User Interface (GUI) compatible with JEM and JWARN. Improve the post-process capabilities for the JOEF Measures of Effectiveness. Conduct MS B and transition program to system development and demonstration (SDD).

Total 4698

	<u>FY 2004</u>	<u>FY 2005</u>	<u>FY 2006</u>	<u>FY 2007</u>
SBIR/STTR	0	36	0	0
RDT&E Articles (Quantity)	0	0	0	0

FY 2005 Planned Program:

- 36 SBIR

Total 36

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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/ BA4 - Advanced Component Development and Prototypes (ACD&P)	PE NUMBER AND TITLE 0603884BP CHEMICAL/BIOLOGICAL DEFENSE (ACD&P) IS4	PROJECT IS4
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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>
G47101 JOINT WARNING & REPORTING NETWORK (JWARN)	1102	5913	5183	7151	21142	21254	22410	28576	Cont	Cont
IS5 INFORMATION SYSTEMS (SDD)	0	20434	77037	25584	17517	8714	5511	3343	Cont	Cont
JC0208 JOINT EFFECTS MODEL (JEM)	0	994	2024	2029	1031	0	0	0	0	6078

CBDP BUDGET ITEM JUSTIFICATION SHEET (R-2a Exhibit)		DATE February 2005
BUDGET ACTIVITY RDT&E DEFENSE-WIDE/ BA4 - Advanced Component Development and Prototypes (ACD&P)	PE NUMBER AND TITLE 0603884BP CHEMICAL/BIOLOGICAL DEFENSE (ACD&P)	PROJECT IS4

D. Acquisition Strategy:

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.

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.

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CBDP PROJECT COST ANALYSIS (R-3 Exhibit)	DATE February 2005
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BUDGET ACTIVITY RDT&E DEFENSE-WIDE/ BA4 - Advanced Component Development and Prototypes (ACD&P)	PE NUMBER AND TITLE 0603884BP CHEMICAL/BIOLOGICAL DEFENSE (ACD&P) IS4	PROJECT IS4
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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
JOEF													
SW S - Engineering Builds - Development, Design and Coding	C/CPIF	Cubic Applications, Inc., Lacy, WA	C	0	2024	1Q FY05	0	NONE	0	NONE	0	2024	0
SW S - Integration, Interoperability	MIPR	SPAWAR Systems Center, San Diego, CA	U	0	589	1Q FY05	0	NONE	0	NONE	0	589	0
Subtotal I. Product Development:													
				0	2613		0		0		0	2613	

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
JOEF													
ES S - Integrated Product Teams - System Engineering, Test, and Logistics	MIPR	Various	U	0	569	1Q FY05	0	NONE	0	NONE	0	569	0
Subtotal II. Support Costs:													
				0	569		0		0		0	569	

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/ BA4 - Advanced Component Development and Prototypes (ACD&P)	PE NUMBER AND TITLE 0603884BP CHEMICAL/BIOLOGICAL DEFENSE (ACD&P) IS4
PROJECT IS4	

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
JOEF													
DTE S - JOEF - Developmental Testing	MIPR	Various	U	0	392	3Q FY05	0	NONE	0	NONE	0	392	0
Subtotal III. Test and Evaluation:				0	392		0		0		0	392	

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
JOEF													
PM/MS S - Program Mgt Office - Planning and Programming	MIPR	Various	U	0	1124	1Q FY05	0	NONE	0	NONE	0	1124	0
ZSBIR													
SBIR/STTR - Aggregated from ZSBIR-SBIR/STTR	PO	HQ, AMC Alexandria, VA	U	0	36	NONE	0	NONE	0	NONE	0	36	0
Subtotal IV. Management Services:				0	1160		0		0		0	1160	

Remarks:

CBDP PROJECT COST ANALYSIS (R-3 Exhibit)	DATE February 2005
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BUDGET ACTIVITY RDT&E DEFENSE-WIDE/ BA4 - Advanced Component Development and Prototypes (ACD&P)	PE NUMBER AND TITLE 0603884BP CHEMICAL/BIOLOGICAL DEFENSE (ACD&P) IS4	PROJECT IS4
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TOTAL PROJECT COST:	0	4734	0	0	0	0	4734	4734
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Exhibit R-4a, Schedule Profile	DATE February 2005
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BUDGET ACTIVITY RDT&E DEFENSE-WIDE/ BA4 - Advanced Component Development and Prototypes (ACD&P)	PE NUMBER AND TITLE 0603884BP CHEMICAL/BIOLOGICAL DEFENSE (ACD&P) IS4
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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
JOEF																																
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																		

CBDP BUDGET ITEM JUSTIFICATION SHEET (R-2a Exhibit)	DATE February 2005
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BUDGET ACTIVITY RDT&E DEFENSE-WIDE/ BA4 - Advanced Component Development and Prototypes (ACD&P)	PE NUMBER AND TITLE 0603884BP CHEMICAL/BIOLOGICAL DEFENSE (ACD&P)	PROJECT MB4
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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	
MB4	MEDICAL BIOLOGICAL DEFENSE (ACD&P)	66489	34135	20379	0	0	0	8149	17348	Continuing	Continuing

A. Mission Description and Budget Item Justification:

Project MB4 MEDICAL BIOLOGICAL DEFENSE (ACD&P): This project funds Advanced Component Development and Prototypes for vaccines, drugs, and diagnostic medical devices that are directed against validated biological warfare (BW) agents to include bacteria, viruses, and toxins of biological origin. This project also funds special studies to develop, test, and evaluate novel vaccine formulations to reduce or eliminate injections and to protect U.S. forces from BW agents. Efforts for medical biological defense product development include establishing standards and reference material for manufacturing and preliminary safety studies in animals. This data (manufacturing process development, pilot lot manufacturing, and non-clinical safety/toxicology studies) are submitted in support of an Investigational New Drug (IND) application with the Food and Drug Administration (FDA) so that human studies to evaluate product safety and immunogenicity can be conducted. At the end of System Development and Demonstration (SDD), the product will transition to the Production and Deployment phase. Products being developed under the Joint Vaccine Acquisition Program (JVAP) include: Recombinant Botulinum, Next Generation Anthrax (NGA) vaccine, Plague (Yersinia Pestis), Equine Encephalitis and Ricin vaccines.

B. Accomplishments/Planned Program

	<u>FY 2004</u>	<u>FY 2005</u>	<u>FY 2006</u>	<u>FY 2007</u>
TECHNOLOGY TRANSFER FOR BIO SENSORS	1731	0	0	0
RDT&E Articles (Quantity)	0	0	0	0

CBDP BUDGET ITEM JUSTIFICATION SHEET (R-2a Exhibit)	DATE February 2005
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BUDGET ACTIVITY RDT&E DEFENSE-WIDE/ BA4 - Advanced Component Development and Prototypes (ACD&P)	PE NUMBER AND TITLE 0603884BP CHEMICAL/BIOLOGICAL DEFENSE (ACD&P)	PROJECT MB4
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FY 2004 Accomplishments:

- 1731 TT Bio - Developed technology to allow American troops to instantly identify chemical and biological hazards on the battlefield.

Total 1731

	<u>FY 2004</u>	<u>FY 2005</u>	<u>FY 2006</u>	<u>FY 2007</u>
TECHNOLOGY TRANSFER MEDICAL SYSTEMS	0	970	0	0
RDT&E Articles (Quantity)	0	0	0	0

FY 2005 Planned Program:

- 970 TT Med - Initiate medical technology transition, including clinical trials, of medical countermeasures against biological and chemical agents, including novel threat agents, for therapeutics, prophylaxes and pretreatments, and diagnostics capabilities.

Total 970

	<u>FY 2004</u>	<u>FY 2005</u>	<u>FY 2006</u>	<u>FY 2007</u>
BOTULINUM VACCINE	24692	23592	2033	0
RDT&E Articles (Quantity)	0	0	0	0

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BUDGET ACTIVITY RDT&E DEFENSE-WIDE/ BA4 - Advanced Component Development and Prototypes (ACD&P)	PE NUMBER AND TITLE 0603884BP CHEMICAL/BIOLOGICAL DEFENSE (ACD&P)	PROJECT MB4
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FY 2004 Accomplishments:

- 456 JVAP - Recombinant Botulinum Vaccine - Continued non-clinical studies and final container stability testing for serotypes A and B.
- 200 JVAP - Recombinant Botulinum Vaccine - Submitted IND application for serotypes A and B.
- 2048 JVAP - Recombinant Botulinum Vaccine - Initiated Phase 1 clinical trial execution and monitoring for serotypes A and B.
- 12882 JVAP - Recombinant Botulinum Vaccine - Initiated process validation, to include qualification and validation of fermentation and purification processes for the manufacture of serotypes A and B.
- 6229 JVAP - Recombinant Botulinum Vaccine - Initiated manufacturing scale-up on serotypes A and B. Performing manufacturing scale-up resulted in significant cost avoidance over the life of the program. Fewer lots will have to be produced and tested to meet the troop equivalent dose (TED) requirements.
- 2877 JVAP - Biological Process Development - Initiated polyclonal antibody production for proof of concept in non-clinical trials for botulinum antitoxin.

Total 24692

FY 2005 Planned Program:

- 15072 JVAP - Recombinant Botulinum Vaccine - Complete manufacturing process scale-up and continue process validation efforts for serotypes A and B.
- 6320 JVAP - Recombinant Botulinum Vaccine - Continue Phase 1 clinical trial for serotypes A and B and receive interim report in preparation for Milestone B.

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BUDGET ACTIVITY RDT&E DEFENSE-WIDE/ BA4 - Advanced Component Development and Prototypes (ACD&P)	PE NUMBER AND TITLE 0603884BP CHEMICAL/BIOLOGICAL DEFENSE (ACD&P)	PROJECT MB4
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FY 2005 Planned Program (Cont):

- 2200 JVAP - Recombinant Botulinum Vaccine - Continue non-clinical studies and continue stability testing for serotypes A and B.

Total 23592

FY 2006 Planned Program:

- 2033 JVAP - Recombinant Botulinum Vaccine - Complete Phase 1 clinical trial and continue non-clinical studies, which will transition to System Development and Demonstration (SDD).

Total 2033

	<u>FY 2004</u>	<u>FY 2005</u>	<u>FY 2006</u>	<u>FY 2007</u>
ENCEPHALITIS VACCINE	5847	0	7000	0
RDT&E Articles (Quantity)	0	0	0	0

FY 2004 Accomplishments:

- 1038 JVAP - Equine Encephalitis Vaccines - Completed assay development and qualification and completed lot release testing on the VEE 1 AB vaccine cGMP pilot lot.
- 1915 JVAP - Equine Encephalitis Vaccines - Completed VEE 1 AB vaccine cGMP lot for clinical use.
- 200 JVAP - Equine Encephalitis Vaccines - Submitted IND application for the VEE 1 AB vaccine.

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BUDGET ACTIVITY RDT&E DEFENSE-WIDE/ BA4 - Advanced Component Development and Prototypes (ACD&P)	PE NUMBER AND TITLE 0603884BP CHEMICAL/BIOLOGICAL DEFENSE (ACD&P)	PROJECT MB4
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FY 2004 Accomplishments (Cont):

- 2694 JVAP - Equine Encephalitis Vaccines - Initiated Phase 1 clinical trial on the VEE 1 AB vaccine.

Total 5847

FY 2006 Planned Program:

- 5800 JVAP - Equine Encephalitis Vaccines - Initiate manufacturing process validation.
- 1200 JVAP - Equine Encephalitis Vaccines - Complete Phase 1 clinical trial on the VEE 1 AB vaccine.

Total 7000

	<u>FY 2004</u>	<u>FY 2005</u>	<u>FY 2006</u>	<u>FY 2007</u>
NEXT GENERATION ANTHRAX VACCINE	6625	0	0	0
RDT&E Articles (Quantity)	0	0	0	0

FY 2004 Accomplishments:

- 4625 JVAP - NGA Vaccine - Completed initiation of Phase 1 clinical trial.
- 2000 JVAP - NGA Vaccine - Continued studies for alternative delivery systems including oral adjuvants and development of an orally delivered anthrax-plague vaccine.

Total 6625

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BUDGET ACTIVITY RDT&E DEFENSE-WIDE/ BA4 - Advanced Component Development and Prototypes (ACD&P)	PE NUMBER AND TITLE 0603884BP CHEMICAL/BIOLOGICAL DEFENSE (ACD&P)	PROJECT MB4
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	<u>FY 2004</u>	<u>FY 2005</u>	<u>FY 2006</u>	<u>FY 2007</u>
PLAGUE VACCINE	27594	9293	5746	0
RDT&E Articles (Quantity)	0	0	0	0

FY 2004 Accomplishments:

- 4040 JVAP - Plague Vaccine - Initiated full-scale manufacturing process development of US candidate.
- 475 JVAP - Plague Vaccine - Continued stability testing of US candidate.
- 3516 JVAP - Plague Vaccine - Continued non-clinical studies of the US candidate.
- 14594 JVAP - Plague Vaccine - Manufactured cGMP pilot lot of US candidate.
- 989 JVAP - Plague Vaccine - Prepared and submitted US candidate IND application to FDA in October 2004.
- 3980 JVAP - Plague Vaccine - Conducted animal safety studies to include repeat-dose toxicity and reactogenicity testing of the US candidate.

Total 27594

FY 2005 Planned Program:

- 6983 JVAP - Plague Vaccine - Conduct Phase 1 clinical trial of US candidate.
- 202 JVAP - Plague Vaccine - Continue non-clinical studies of US candidate.

CBDP BUDGET ITEM JUSTIFICATION SHEET (R-2a Exhibit)	DATE February 2005
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BUDGET ACTIVITY RDT&E DEFENSE-WIDE/ BA4 - Advanced Component Development and Prototypes (ACD&P)	PE NUMBER AND TITLE 0603884BP CHEMICAL/BIOLOGICAL DEFENSE (ACD&P)	PROJECT MB4
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FY 2005 Planned Program (Cont):

- 100 JVAP - Plague Vaccine - Continue stability testing of US candidate.
- 1010 JVAP - Plague Vaccine - Continue full-scale manufacturing process development of US candidate.
- 998 JVAP - Plague Vaccine - Initiate Phase 2 clinical trial of US candidate.

Total 9293

FY 2006 Planned Program:

- 100 JVAP - Plague Vaccine - Continue stability testing of US candidate.
- 4651 JVAP - Plague Vaccine - Continue full-scale manufacturing process development of US candidate.
- 995 JVAP - Plague Vaccine - Continue non-clinical studies of US candidate and transition into System Development and Demonstration (SDD).

Total 5746

	<u>FY 2004</u>	<u>FY 2005</u>	<u>FY 2006</u>	<u>FY 2007</u>
VACCINE RICIN	0	0	5600	0
RDT&E Articles (Quantity)	0	0	0	0

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BUDGET ACTIVITY RDT&E DEFENSE-WIDE/ BA4 - Advanced Component Development and Prototypes (ACD&P)	PE NUMBER AND TITLE 0603884BP CHEMICAL/BIOLOGICAL DEFENSE (ACD&P)	PROJECT MB4
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FY 2006 Planned Program:

- 1000 JVAP - Ricin Vaccine - Initiate technology transfer from the technology base to advanced development. Transfer will consider several possible candidates, to include genetically modified variants.
- 1600 JVAP - Ricin Vaccine - Initiate assay development for vaccine candidate.
- 3000 JVAP - Ricin Vaccine - Initiate manufacturing process development for vaccine candidate.

Total 5600

	<u>FY 2004</u>	<u>FY 2005</u>	<u>FY 2006</u>	<u>FY 2007</u>
SBIR/STTR	0	280	0	0
RDT&E Articles (Quantity)	0	0	0	0

FY 2005 Planned Program:

- 280 SBIR

Total 280

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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/ BA4 - Advanced Component Development and Prototypes (ACD&P)	PE NUMBER AND TITLE 0603884BP CHEMICAL/BIOLOGICAL DEFENSE (ACD&P)	PROJECT MB4
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<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>
JX0005 DOD BIOLOGICAL VACCINE PROCUREMENT	59706	80478	38930	39466	40741	43498	46080	52906	Cont	Cont
MB5 MEDICAL BIOLOGICAL DEFENSE (SDD)	7053	10087	61448	72125	93784	94061	77023	60858	Cont	Cont

CBDP BUDGET ITEM JUSTIFICATION SHEET (R-2a Exhibit)	DATE February 2005
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BUDGET ACTIVITY RDT&E DEFENSE-WIDE/ BA4 - Advanced Component Development and Prototypes (ACD&P)	PE NUMBER AND TITLE 0603884BP CHEMICAL/BIOLOGICAL DEFENSE (ACD&P)	PROJECT MB4
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D. Acquisition Strategy:

- 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 NGA 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 completion of NGA vaccine Phase 1 clinical trials.
- 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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BUDGET ACTIVITY RDT&E DEFENSE-WIDE/ BA4 - Advanced Component Development and Prototypes (ACD&P)	PE NUMBER AND TITLE 0603884BP CHEMICAL/BIOLOGICAL DEFENSE (ACD&P)	PROJECT MB4
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VAC RICIN

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 transition into advanced development and FY06 non-clinical and process development activities. Chemical Biological Medical Systems (CBMS) will consider the possibility of requesting funding under the BioShield Act of 2004, or transitioning this product to the Department of Health and Human Services for development and procurement under the BioShield Act, when the product in question meets both National and DoD requirements.

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BUDGET ACTIVITY RDT&E DEFENSE-WIDE/ BA4 - Advanced Component Development and Prototypes (ACD&P)	PE NUMBER AND TITLE 0603884BP CHEMICAL/BIOLOGICAL DEFENSE (ACD&P)	PROJECT MB4
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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
TT MED													
Initiate Technology Transition	C/FFP	TBS	C	0	570	2Q FY05	0	NONE	0	NONE	0	570	0
VAC BOT													
HW S - Vaccine Development - Includes Consistency Lot, Pilot Lot, and Scale-up Production	C/CPAF	DynPort Vaccine Company, Frederick, MD	C	19891	7078	1Q FY05	661	1Q FY06	0	NONE	0	27630	0
VAC ENC													
HW S - Vaccine Development - Includes Consistency Lot, Pilot Lot, and Scale-up Production	C/CPAF	DynPort Vaccine Company, Frederick, MD	C	5218	0	NONE	2100	1Q FY06	0	NONE	0	7318	0
VAC PLG													
HW S - Vaccine Development - Includes Consistency Lot, Pilot Lot, and Scale-up Production	C/CPAF	DynPort Vaccine Company, Frederick, MD	C	18135	2788	1Q FY05	1869	1Q FY06	0	NONE	0	22792	0
VAC RICIN													
HW S - Vaccine Development - Includes Consistency Lot, Pilot Lot, and Scale-up Production	C/CPAF	DynPort Vaccine Company, Frederick, MD	C	0	0	NONE	1680	2Q FY06	0	NONE	0	1680	0
Subtotal I. Product Development:													
				43244	10436		6310		0		0	59990	

Remarks:

Project MB4

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CBDP PROJECT COST ANALYSIS (R-3 Exhibit)	DATE February 2005
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BUDGET ACTIVITY RDT&E DEFENSE-WIDE/ BA4 - Advanced Component Development and Prototypes (ACD&P)	PE NUMBER AND TITLE 0603884BP CHEMICAL/BIOLOGICAL DEFENSE (ACD&P)	PROJECT MB4
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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
VAC BOT													
TD/D S - Vaccine Development - Includes Regulatory Integration (Environmental and FDA Documentation) and Delivery System	C/CPAF	DynPort Vaccine Company, Frederick, MD	C	4373	3539	1Q FY05	300	1Q FY06	0	NONE	0	8212	0
VAC ENC													
TD/D S - Vaccine Development - Includes Regulatory Integration (Environmental and FDA Documentation) and Delivery System	C/CPAF	DynPort Vaccine Company, Frederick, MD	C	951	0	NONE	1050	1Q FY06	0	NONE	0	2001	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	4817	1394	1Q FY05	849	1Q FY06	0	NONE	0	7060	0
VAC RICIN													
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	840	2Q FY06	0	NONE	0	840	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/ BA4 - Advanced Component Development and Prototypes (ACD&P)	PE NUMBER AND TITLE 0603884BP CHEMICAL/BIOLOGICAL DEFENSE (ACD&P)	PROJECT MB4
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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:				10141	4933		3039		0		0	18113	

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
TT MED													
Development Testing	MIPR	TBD	U	0	350	2Q FY05	0	NONE	0	NONE	0	350	0
VAC BOT													
OTHT S - Vaccine Development - Includes Testing, Evaluation, and Non-Clinical/Clinical Trials	C/CPAF	DynPort Vaccine Company, Frederick, MD	C	7917	9437	1Q FY05	701	1Q FY06	0	NONE	0	18055	0
VAC ENC													
OTHT S - Vaccine Development - Includes Testing, Evaluation, and Non-Clinical/Clinical Trials	C/CPAF	DynPort Vaccine Company, Frederick, MD	C	2367	0	NONE	2800	1Q FY06	0	NONE	0	5167	0
VAC PLG													
OTHT S - Vaccine Development - Includes Testing, Evaluation, and Non-Clinical/Clinical Trials	C/CPAF	DynPort Vaccine Company, Frederick, MD	C	7266	3172	1Q FY05	1981	1Q FY06	0	NONE	0	12419	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/ BA4 - Advanced Component Development and Prototypes (ACD&P)	PE NUMBER AND TITLE 0603884BP CHEMICAL/BIOLOGICAL DEFENSE (ACD&P)
	PROJECT MB4

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
TT MED													
Management Support and Planning	C/FFP	TBD	C	0	50	2Q FY05	0	NONE	0	NONE	0	50	0
VAC BOT													
PM/MS S - Vaccine Development - Joint Vaccine Acquisition Program Management Office	Allot	CBMS, Fort Detrick, MD	U	563	731	4Q FY05	60	4Q FY06	0	NONE	0	1354	0
PM/MS S - Vaccine Development - Program Management/Program Manager Support	Allot	JPEO, Falls Church, VA	U	621	487	4Q FY05	40	4Q FY06	0	NONE	0	1148	0
PM/MS S - Award Fee (Maximum 10%)	C/CPAF	DynPort Vaccine Company, Frederick, MD	C	2446	1706	1Q FY05	140	1Q FY06	0	NONE	0	4292	0
PM/MS S - Program Management	C/CPFF	TBS	C	0	614	1Q FY05	131	1Q FY06	0	NONE	0	745	0
VAC ENC													
PM/MS S - Vaccine Development - Joint Vaccine Acquisition Program Management Office	Allot	CBMS, Fort Detrick, MD	U	353	0	NONE	189	4Q FY06	0	NONE	0	542	0
PM/MS S - Vaccine Development - Program Management/Program Manager Support	Allot	JPEO, Falls Church, VA	U	259	0	NONE	126	4Q FY06	0	NONE	0	385	0
PM/MS S - Contractor Systems Engineering/Program Management Support	C/CPFF	Camber Corporation, Frederick, MD	C	107	0	NONE	42	1Q FY06	0	NONE	0	149	0

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BUDGET ACTIVITY RDT&E DEFENSE-WIDE/ BA4 - Advanced Component Development and Prototypes (ACD&P)	PE NUMBER AND TITLE 0603884BP CHEMICAL/BIOLOGICAL DEFENSE (ACD&P)	PROJECT MB4
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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 SB - Contractor Systems Engineering/Program Management Support	C/CPFF	SAIC, Frederick, MD	C	37	0	NONE	31	1Q FY06	0	NONE	0	68	0
PM/MS S - Program Management	C/CPFF	TBS	C	305	0	NONE	662	NONE	0	NONE	0	967	0
VAC PLG													
PM/MS S - Vaccine Development - Program Management/Program Manager Support	Allot	JPEO, Falls Church, VA	U	630	192	4Q FY05	113	4Q FY06	0	NONE	0	935	0
PM/MS S - Vaccine Development - Joint Vaccine Acquisition Program Management Office	Allot	CBMS, Fort Detrick, MD	U	499	288	4Q FY05	170	4Q FY06	0	NONE	0	957	0
PM/MS S - Award Fee (10%)	C/CPAF	DynPort Vaccine Company, Frederick, MD	C	2300	672	1Q FY05	396	1Q FY06	0	NONE	0	3368	0
PM/MS S - Program Management	C/CPFF	TBS	C	1282	787	1Q FY05	368	1Q FY06	0	NONE	0	2437	0
VAC RICIN													
PM/MS S - Vaccine Development - Joint Vaccine Acquisition Program Management Office	Allot	CBMS, Fort Detrick, MD	U	0	0	NONE	151	4Q FY06	0	NONE	0	151	0
PM/MS S - Vaccine Development - Program Management/Program Manager Support	Allot	JPEO, Falls Church, VA	U	0	0	NONE	101	4Q FY06	0	NONE	0	101	0
PM/MS S - Award Fee (Maximum 10%)	C/CPAF	DynPort Vaccine Company, Frederick, MD	C	0	0	NONE	336	1Q FY06	0	NONE	0	336	0

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BUDGET ACTIVITY RDT&E DEFENSE-WIDE/ BA4 - Advanced Component Development and Prototypes (ACD&P)	PE NUMBER AND TITLE 0603884BP CHEMICAL/BIOLOGICAL DEFENSE (ACD&P)	PROJECT MB4
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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 - Program Management	C/CPFF	TBS	C	0	0	NONE	252	1Q FY06	0	NONE	0	252	0
ZSBIR													
SBIR/STTR - Aggregated from ZSBIR-SBIR/STTR	PO	HQ, AMC Alexandria, VA	U	0	280	NONE	0	NONE	0	NONE	0	280	0
Subtotal IV. Management Services:				9402	5807		3308		0		0	18517	

Remarks:

TOTAL PROJECT COST:	80337	34135		20379		0		0	134851
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Exhibit R-4a, Schedule Profile	DATE February 2005
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BUDGET ACTIVITY RDT&E DEFENSE-WIDE/ BA4 - Advanced Component Development and Prototypes (ACD&P)	PE NUMBER AND TITLE 0603884BP CHEMICAL/BIOLOGICAL DEFENSE (ACD&P)	PROJECT MB4
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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	
TT Bio																																	
Developmental Testing (DT)					2Q	3Q																											
pBSCAV - Milestone A				4Q																													
pBSCAV - Conduct Process Development/Assay Validation Efforts					2Q	3Q	4Q																										
pBSCAV - Conduct Pre-Clinical Studies									1Q	2Q	3Q	4Q																					
pBSCAV - Conduct Phase 1 Clinical Safety Study											3Q	4Q	1Q	2Q																			
EOS - Development/Assay Validation Efforts					2Q	3Q																											
VAC BOT																																	
Non-Clinical Testing					>>	—————											4Q																
Investigational New Drug (IND) Application Submission				3Q																													
Phase 1 Clinical Trial (A/B)				3Q					1Q																								
Milestone B					3Q																												
VAC ENC																																	
Investigational New Drug (IND) Application				4Q																													

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Exhibit R-4a, Schedule Profile

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BUDGET ACTIVITY
RDT&E DEFENSE-WIDE/
BA4 - Advanced Component Development and Prototypes
(ACD&P)

PE NUMBER AND TITLE
0603884BP CHEMICAL/BIOLOGICAL DEFENSE (ACD&P) **PROJECT**
MB4

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 ENC (Cont)																																
Phase 1 Clinical Trial				4Q					1Q																							
Milestone B									1Q																							
Initiate Manufacturing Process Validation									1Q				4Q																			
VAC NGA																																
Non-Clinical Testing				>>				3Q																								
Process Development				>>			2Q																									
Phase 1 Clinical Trial				>>				1Q																								
VAC PLG																																
Process Development (Pilot Lot Scale)				>>			3Q																									
Non-Clinical Studies				>>												4Q																
Current Good Manufacturing Practices (cGMP) Pilot Lot				1Q				4Q																								
Investigational New Drug (IND) Application Submission								1Q																								
Phase 1 Clinical Trial								1Q				4Q																				
Milestone B									1Q																							

Exhibit R-4a, Schedule Profile	DATE February 2005
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BUDGET ACTIVITY RDT&E DEFENSE-WIDE/ BA4 - Advanced Component Development and Prototypes (ACD&P)	PE NUMBER AND TITLE 0603884BP CHEMICAL/BIOLOGICAL DEFENSE (ACD&P) MB4
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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
VAC PLG (Cont)																																
Full Scale Manufacturing Process Development		2Q														4Q																
VAC RICIN																																
Transition from Tech Base to Advanced Development								4Q				2Q																				
Non-Clinical Testing												2Q				4Q																
Process Development												3Q				4Q																

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BUDGET ACTIVITY RDT&E DEFENSE-WIDE/ BA4 - Advanced Component Development and Prototypes (ACD&P)	PE NUMBER AND TITLE 0603884BP CHEMICAL/BIOLOGICAL DEFENSE (ACD&P)	PROJECT MC4
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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	
MC4 MEDICAL CHEMICAL DEFENSE (ACD&P)	3643	14426	22157	38324	15417	4965	4991	4980	Continuing	Continuing

A. Mission Description and Budget Item Justification:

Project MC4 MEDICAL CHEMICAL DEFENSE (ACD&P): This project funds Technology Development of countermeasures for chemical agents including life support equipment, diagnostic equipment, prophylactic and therapeutic drugs, and individual/casualty decontamination compounds. A system of medical defense against chemical agents is required to provide protection, to sustain performance in a chemical environment, and to provide for self-aid and medical treatment of chemical casualties. Fielding of prophylactic and therapeutic drugs requires Food and Drug Administration (FDA) approval. Multiple long-term studies are required to obtain FDA approval resulting in longer program timelines and greater program cost than other non-pharmaceutical product programs. Efficacy testing of most candidate drugs against chemical warfare (CW) agents cannot be conducted in humans; therefore, animal surrogate models must be developed. The program currently funds the: 1) Advanced Anticonvulsant System (AAS), which will be used as a treatment for seizures from exposure to nerve agents; 2) Improved Nerve Agent Treatment System (INATS), which will be used as a treatment for nerve agent intoxication to include new indications for Pyridostigmine Bromide (PB) that will be integrated with current therapeutic regimens; 3) Plasma Bioscavenger (pBSCAV) and Recombinant Bioscavenger (rBSCAV), which will be used as a prophylaxis against nerve agents; 4) Vesicant antidotes (VES CM), which will be used to prevent and/or treat the devastating effects of vesicant CW agents (e.g., sulfur mustard); and 5) Chemical Surety Facility, which will be used to test and evaluate medical chemical defense products utilizing chemical agents under Good Laboratory Practices (GLP) conditions.

* Plasma Bioscavenger initiated in FY05. Data located under CA4, TT Bio.

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BUDGET ACTIVITY RDT&E DEFENSE-WIDE/ BA4 - Advanced Component Development and Prototypes (ACD&P)	PE NUMBER AND TITLE 0603884BP CHEMICAL/BIOLOGICAL DEFENSE (ACD&P)	PROJECT MC4
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B. Accomplishments/Planned Program

	<u>FY 2004</u>	<u>FY 2005</u>	<u>FY 2006</u>	<u>FY 2007</u>
BIO SCAVENGER	0	0	14011	28622
RDT&E Articles (Quantity)	0	0	0	0

FY 2006 Planned Program:

- 4651 rBSCAV - Initiate small-scale process development/assay qualification and test/evaluate medical defense products against traditional and non-traditional agents.
- 1421 rBSCAV - Initiate pre-clinical safety studies.
- 689 rBSCAV - Initiate Investigational New Drug (IND) application.
- 800 pBSCAV - Complete IND application.
- 3485 pBSCAV - Continue small-scale manufacturing.
- 500 pBSCAV - Initiate and complete pre-clinical safety studies.
- 1715 pBSCAV - Initiate Phase 1 clinical safety study.
- 750 Chemical Surety Facility - Continue test and evaluation of medical chemical defense products under Good Laboratory Practices (GLP) conditions in a chemical agent research and development facility.

Total 14011

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BUDGET ACTIVITY RDT&E DEFENSE-WIDE/ BA4 - Advanced Component Development and Prototypes (ACD&P)	PE NUMBER AND TITLE 0603884BP CHEMICAL/BIOLOGICAL DEFENSE (ACD&P)	PROJECT MC4
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- FY 2007 Planned Program:**
- 3253 rBSCAV - Complete small-scale process assay development/qualification and continue to test medical chemical defense products against traditional and non-traditional agents.
 - 1759 rBSCAV - Complete pre-clinical studies.
 - 723 rBSCAV - Complete and submit IND application.
 - 2729 rBSCAV - Initiate large-scale process development and assay validation.
 - 4378 rBSCAV - Initiate Phase 1 clinical safety study.
 - 12290 pBSCAV - Complete small-scale manufacturing.
 - 2105 pBSCAV - Complete Phase 1 clinical safety study.
 - 605 pBSCAV - Transition product to Department of Health and Human Services (DHHS).
 - 780 Chemical Surety Facility - Continue test and evaluation of medical chemical defense products under Good Laboratory Practices (GLP) conditions in a chemical agent research and development facility.

Total 28622

	<u>FY 2004</u>	<u>FY 2005</u>	<u>FY 2006</u>	<u>FY 2007</u>
IMPROVED NERVE AGENT TREATMENT	0	0	8146	9702
RDT&E Articles (Quantity)	0	0	0	0

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BUDGET ACTIVITY RDT&E DEFENSE-WIDE/ BA4 - Advanced Component Development and Prototypes (ACD&P)	PE NUMBER AND TITLE 0603884BP CHEMICAL/BIOLOGICAL DEFENSE (ACD&P)	PROJECT MC4
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FY 2006 Planned Program:

- 658 INATS - Continue IND application process.
- 1785 INATS - Continue cGMP process development.
- 2580 INATS - Continue non-human primate oxime, pre-clinical, acute toxicology, and stability studies.
- 3123 INATS - Initiate Phase 1 clinical safety study.

Total 8146

FY 2007 Planned Program:

- 1010 INATS - Complete non-human primate oxime studies and Phase 1 clinical studies, submit IND, and achieve Milestone B.
- 1529 INATS - Continue cGMP process development.
- 2282 INATS - Continue pre-clinical, acute toxicology, and stability studies.
- 2078 INATS - Initiate definitive animal efficacy studies.
- 2803 INATS - Initiate Phase 2 clinical safety studies.

Total 9702

	<u>FY 2004</u>	<u>FY 2005</u>	<u>FY 2006</u>	<u>FY 2007</u>
MEDICAL CHEMICAL DEFENSE	3643	9468	0	0
RDT&E Articles (Quantity)	0	0	0	0

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BUDGET ACTIVITY RDT&E DEFENSE-WIDE/ BA4 - Advanced Component Development and Prototypes (ACD&P)	PE NUMBER AND TITLE 0603884BP CHEMICAL/BIOLOGICAL DEFENSE (ACD&P)	PROJECT MC4
<p>FY 2004 Accomplishments:</p> <ul style="list-style-type: none"> • 568 AAS - Continued pre-clinical and acute toxicology studies. • 723 AAS - Initiated pre-clinical and acute toxicology studies. • 543 AAS - Initiated Phase 1 clinical study and Investigational New Drug (IND) application. • 699 INATS - Initiated process development and current Good Manufacturing Practices (cGMP) requirements. • 1110 INATS - Initiated pre-clinical, acute toxicology and stability studies. <p>Total 3643</p> <p>FY 2005 Planned Program:</p> <ul style="list-style-type: none"> • 596 AAS - Complete FDA IND/regulatory strategy and submit IND. • 753 AAS - Complete Phase 1 clinical studies. • 2744 AAS - Continue pre-clinical and acute toxicology studies. • 1194 AAS - Initiate process development/current Good Manufacturing Practices (cGMP) requirements. • 1809 INATS - Continue pre-clinical, acute toxicology and stability studies. • 1312 INATS - Continue process development and cGMP requirements. • 576 INATS - Initiate non-human primate oxime studies. • 484 INATS - Initiate preparation of IND application. <p>Total 9468</p>		
<p>Project MC4/Line No: 072</p> <p style="text-align: center;">Page 121 of 143 Pages</p> <p style="text-align: right;">Exhibit R-2a (PE 0603884BP)</p>		

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	<u>FY 2004</u>	<u>FY 2005</u>	<u>FY 2006</u>	<u>FY 2007</u>
NTA MEDICAL COUNTERMEASURES	0	4840	0	0
RDT&E Articles (Quantity)	0	0	0	0

FY 2005 Planned Program:

- 2393 Chemical Surety Facility - Initiate test and evaluation of medical chemical defense products under GLP conditions in a chemical agent research and development facility against non-traditional agents.
- 1449 INATS - Continue animal studies to demonstrate efficacy against non-traditional agents.
- 998 AAS - Complete Phase 1 clinical studies of anticonvulsant for treatment of non-traditional agent induced seizures.

Total 4840

	<u>FY 2004</u>	<u>FY 2005</u>	<u>FY 2006</u>	<u>FY 2007</u>
SBIR/STTR	0	118	0	0
RDT&E Articles (Quantity)	0	0	0	0

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BUDGET ACTIVITY RDT&E DEFENSE-WIDE/ BA4 - Advanced Component Development and Prototypes (ACD&P)	PE NUMBER AND TITLE 0603884BP CHEMICAL/BIOLOGICAL DEFENSE (ACD&P)	PROJECT MC4
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FY 2005 Planned Program:

- 118 SBIR

Total 118

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>
MC5 MEDICAL CHEMICAL DEFENSE (SDD)	1402	1391	6509	6529	38669	29081	13962	11952	Cont	Cont

CBDP BUDGET ITEM JUSTIFICATION SHEET (R-2a Exhibit)		DATE February 2005
BUDGET ACTIVITY RDT&E DEFENSE-WIDE/ BA4 - Advanced Component Development and Prototypes (ACD&P)	PE NUMBER AND TITLE 0603884BP CHEMICAL/BIOLOGICAL DEFENSE (ACD&P)	PROJECT MC4

D. Acquisition Strategy:

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.

* 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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BUDGET ACTIVITY RDT&E DEFENSE-WIDE/ BA4 - Advanced Component Development and Prototypes (ACD&P)	PE NUMBER AND TITLE 0603884BP CHEMICAL/BIOLOGICAL DEFENSE (ACD&P) MC4	PROJECT MC4
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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.

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.

CBDP BUDGET ITEM JUSTIFICATION SHEET (R-2a Exhibit)	DATE February 2005
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BUDGET ACTIVITY RDT&E DEFENSE-WIDE/ BA4 - Advanced Component Development and Prototypes (ACD&P)	PE NUMBER AND TITLE 0603884BP CHEMICAL/BIOLOGICAL DEFENSE (ACD&P)	PROJECT MC4
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* Starting in FY06, all Medical Chemical Defense Program products transition to individual product line items under their respective Program Elements.

NTA MED

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.

CBDP BUDGET ITEM JUSTIFICATION SHEET (R-2a Exhibit)	DATE February 2005
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BUDGET ACTIVITY RDT&E DEFENSE-WIDE/ BA4 - Advanced Component Development and Prototypes (ACD&P)	PE NUMBER AND TITLE 0603884BP CHEMICAL/BIOLOGICAL DEFENSE (ACD&P)	PROJECT MC4
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VES CM

The Medical Identification and Treatment Systems (MITS) Joint Product Management Office is responsible for the development, FDA approval, and fielding of prophylactic and therapeutic drugs and devices, diagnostic equipment, and other life support equipment for protection against and management of injuries caused by chemical, biological and radiological weapons. To accomplish its mission, 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. Also, FDA approval will be requested. 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/ BA4 - Advanced Component Development and Prototypes (ACD&P)	PE NUMBER AND TITLE 0603884BP CHEMICAL/BIOLOGICAL DEFENSE (ACD&P)	PROJECT MC4
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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
BSCAV													
rBSCAV - Pilot Lot & Small/Large Scale-Up Production	C/CPFF	TBS	C	0	0	NONE	2028	2Q FY06	3853	2Q FY07	0	5881	0
pBSCAV - Small Scale Manufacturing	C/CPFF	TBS	C	0	0	NONE	3165	1Q FY06	10127	1Q FY07	0	13292	0
INATS													
INATS - Pilot Lot & Small/Large Scale-Up Production	C/CPFF	TBS	C	0	0	NONE	1808	2Q FY06	1362	2Q FY07	0	3170	0
MEDCHEM													
AAS and INATS - Manufacturing Processes	C/CPFF	TBS	C	744	2856	2Q FY05	0	NONE	0	NONE	0	3600	0
Subtotal I. Product Development:													
				744	2856		7001		15342		0	25943	

Remarks: BSCAV - FY05 pBSCAV funding is located under CA4, TT Bio.

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CBDP PROJECT COST ANALYSIS (R-3 Exhibit)	DATE February 2005
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BUDGET ACTIVITY RDT&E DEFENSE-WIDE/ BA4 - Advanced Component Development and Prototypes (ACD&P)	PE NUMBER AND TITLE 0603884BP CHEMICAL/BIOLOGICAL DEFENSE (ACD&P)	PROJECT MC4
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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
BSCAV													
rBSCAV - Regulatory Integration, IND, and NDA Support Efforts	C/CPFF	TBS	C	0	0	NONE	906	2Q FY06	1854	2Q FY07	0	2760	0
pBSCAV - Regulatory Integration, Quality Assurance, & IND Support Efforts	C/CPFF	TBS	C	0	0	NONE	1082	1Q FY06	2250	1Q FY07	0	3332	0
INATS													
INATS - Regulatory Integration, IND, and NDA Support Efforts	C/CPFF	TBS	C	0	0	NONE	1099	2Q FY06	999	2Q FY07	0	2098	0
MEDCHEM													
AAS and INATS - IND Application and Regulatory Support	MIPR	Chemical Biological Information & Analysis Center, Edgewood, MD	U	268	700	1Q FY05	0	NONE	0	NONE	0	968	0
Subtotal II. Support Costs:													
				268	700		3087		5103		0	9158	

Remarks: BSCAV - FY05 pBSCAV funding is located under CA4, TT Bio.

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CBDP PROJECT COST ANALYSIS (R-3 Exhibit)	DATE February 2005
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BUDGET ACTIVITY RDT&E DEFENSE-WIDE/ BA4 - Advanced Component Development and Prototypes (ACD&P)	PE NUMBER AND TITLE 0603884BP CHEMICAL/BIOLOGICAL DEFENSE (ACD&P)	PROJECT MC4
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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
BSCAV													
rBSCAV - Test & Evaluation of Pre-Clinical, Animal Efficacy and Clinical Studies	C/CPFF	TBS	C	0	0	NONE	2418	2Q FY06	4945	2Q FY07	0	7363	0
pBSCAV - Conduct Pre-Clinical Studies	C/CPFF	TBS	C	0	0	NONE	487	1Q FY06	0	NONE	0	487	0
pBSCAV - Conduct Phase 1 Clinical Safety Study	C/CPFF	TBS	C	0	0	NONE	1655	3Q FY06	2105	1Q FY07	0	3760	0
CSF - Test & Evaluation of Med Chem Products Under GLP Conditions	MIPR	USAMRAA, Fort Detrick, MD	C	0	0	NONE	750	1Q FY06	780	1Q FY07	0	1530	0
INATS													
INATS - Conduct Pre-Clinical, Animal Efficacy and Clinical Studies	C/CPFF	TBS	C	0	0	NONE	4230	2Q FY06	6403	2Q FY07	0	10633	0
MEDCHEM													
AAS - Animal Efficacy, Serum Level and Neuropathological Studies, Non-Human Primate, & Pre-Clinical/Acute Toxicology Studies	MIPR	USAMRICD, Edgewood, MD	U	721	500	2Q FY05	0	NONE	0	NONE	0	1221	0
AAS - IND Application Required Studies	MIPR	Army Research Office, Raleigh, NC	U	0	492	3Q FY05	0	NONE	0	NONE	0	492	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/ BA4 - Advanced Component Development and Prototypes (ACD&P)	PE NUMBER AND TITLE 0603884BP CHEMICAL/BIOLOGICAL DEFENSE (ACD&P)	PROJECT MC4
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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
AAS - Phase 1 Clinical Studies	MIPR	Chemical Biological Information & Analysis Center, Edgewood, MD	U	0	1061	1Q FY05	0	NONE	0	NONE	0	1061	0
AAS - Conduct Animal Efficacy Studies	MIPR	USAMRAA, Frederick, MD	U	0	988	2Q FY05	0	NONE	0	NONE	0	988	0
INATS - Conduct Pre-Clinical/Acute Toxicology and Stability Testing	MIPR	USAMMDA, Fort Detrick, MD	U	607	501	3Q FY05	0	NONE	0	NONE	0	1108	0
INATS - Non-Human Primate and Oxime Studies	MIPR	USAMRAA, Fort Detrick, MD	U	0	1328	2Q FY05	0	NONE	0	NONE	0	1328	0
NTA MED													
Chemical Surety Facility of Med Chem Products Under GLP Conditions	MIPR	USAMRAA, Fort Detrick, MD	U	0	3184	2Q FY05	0	NONE	0	NONE	0	3184	0
AAS Phase I Clinical/Human Safety Studies	MIPR	Chemical Biological Information & Analysis Center, Edgewood, MD	U	0	945	2Q FY05	0	NONE	0	NONE	0	945	0
INATS Pre-Clinical Animal Safety Study	MIPR	USAMRICD, Edgewood, MD	U	0	711	2Q FY05	0	NONE	0	NONE	0	711	0
Subtotal III. Test and Evaluation:					1328	9710		9540		14233		0	34811

Remarks: BSCAV - FY05 pBSCAV funding is located under CA4, TT Bio.

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CBDP PROJECT COST ANALYSIS (R-3 Exhibit)	DATE February 2005
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BUDGET ACTIVITY RDT&E DEFENSE-WIDE/ BA4 - Advanced Component Development and Prototypes (ACD&P)	PE NUMBER AND TITLE 0603884BP CHEMICAL/BIOLOGICAL DEFENSE (ACD&P)	PROJECT MC4
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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
BSCAV													
PM/MS S - BSCAV - Joint Program Executive Office	Allot	JPEO, Falls Church, VA	U	0	0	NONE	280	4Q FY06	572	4Q FY07	0	852	0
PM/MS S - BSCAV - Chem Bio Medical Systems	Allot	CBMS, Frederick, MD	U	0	0	NONE	420	4Q FY06	858	4Q FY07	0	1278	0
PM/MS S - BSCAV - Program Management Support	C/FFP	TBS	C	0	0	NONE	820	3Q FY06	1278	3Q FY07	0	2098	0
INATS													
PM/MS S - INATS - Joint Program Executive Office	Allot	JPEO, Falls Church, VA	U	0	0	NONE	163	4Q FY06	194	4Q FY07	0	357	0
PM/MS S - INATS - Chem Bio Medical Systems	Allot	CBMS, Frederick, MD	U	0	0	NONE	244	4Q FY06	291	4Q FY07	0	535	0
PM/MS S - INATS - Program Management Support	C/FFP	TBS	C	0	0	NONE	602	3Q FY06	453	3Q FY07	0	1055	0
MEDCHEM													
PM/MS S - Chem Bio Medical Systems Office	Allot	CBMS, Frederick, MD	U	317	199	4Q FY05	0	NONE	0	NONE	0	516	0
PM/MS S - Joint Program Executive Office	Allot	JPEO, Falls Church, VA	U	417	196	4Q FY05	0	NONE	0	NONE	0	613	0
PM/MS S - Program Management Support	C/FFP	TBS	C	471	647	3Q FY05	0	NONE	0	NONE	0	1118	0

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BUDGET ACTIVITY RDT&E DEFENSE-WIDE/ BA4 - Advanced Component Development and Prototypes (ACD&P)	PE NUMBER AND TITLE 0603884BP CHEMICAL/BIOLOGICAL DEFENSE (ACD&P) MC4	PROJECT MC4
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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
ZSBIR													
SBIR/STTR - Aggregated from ZSBIR-SBIR/STTR	PO	HQ, AMC Alexandria, VA	U	0	118	NONE	0	NONE	0	NONE	0	118	0
Subtotal IV. Management Services:				1205	1160		2529		3646		0	8540	

Remarks:

TOTAL PROJECT COST:	3545	14426		22157		38324		0	78452
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Exhibit R-4a, Schedule Profile	DATE February 2005
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BUDGET ACTIVITY RDT&E DEFENSE-WIDE/ BA4 - Advanced Component Development and Prototypes (ACD&P)	PE NUMBER AND TITLE 0603884BP CHEMICAL/BIOLOGICAL DEFENSE (ACD&P) MC4	PROJECT MC4
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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
BSCAV																																
rBSCAV - Small Scale Manufacturing									2Q	—			1Q																			
rBSCAV - Conduct Pre-Clinical Studies												4Q	—				2Q															
rBSCAV - IND Application												4Q	—				4Q															
rBSCAV - Large-Scale Manufacturing													2Q	—														4Q				
rBSCAV - Conduct Phase 1 Clinical Trials													3Q	—			3Q															
rBSCAV - Milestone B																				4Q												
pBSCAV - Milestone A				4Q																												
pBSCAV - Conduct Process Development/Assay Validation Efforts						2Q	—		4Q																							
pBSCAV - IND Application								4Q	1Q																							
pBSCAV - Conduct Pre-Clinical Safety Studies									1Q	—			4Q																			
pBSCAV - Conduct Phase 1 Clinical Safety Study												3Q	—			2Q																
CSF - Maintain Chemical Surety Facility						2Q	—														4Q											
INATS																																
INATS - Milestone A				3Q																												

Exhibit R-4a, Schedule Profile

DATE **February 2005**

BUDGET ACTIVITY
**RDT&E DEFENSE-WIDE/
 BA4 - Advanced Component Development and Prototypes
 (ACD&P)**

PE NUMBER AND TITLE PROJECT
0603884BP CHEMICAL/BIOLOGICAL DEFENSE (ACD&P) MC4

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		
INATS (Cont)																																		
INATS - Conduct Pre-Clinical Studies				4Q	—————												2Q																	
INATS - Conduct Process Development and cGMP Requirements				4Q	—————												2Q																	
INATS - IND Application							3Q	—————		3Q																								
INATS - Conduct Phase 1 Clinical Studies									1Q	—————		2Q																						
INATS - Conduct Phase 2 Clinical Safety Study															3Q	—————		3Q																
INATS - Milestone B																	4Q																	
INATS - Conduct Animal Efficacy Studies																	4Q	—————												4Q				
MEDCHEM																																		
AAS - Pre-Clinical Studies				>>	—————												3Q																	
AAS - Investigational New Drug (IND) Application				1Q	—————		1Q																											
AAS - Conduct Phase 1 Clinical Studies				4Q	—————		4Q																											
AAS - Conduct Process Development/Current Good Manufacturing Practices (cGMP)							1Q	—————												1Q														

Exhibit R-4a, Schedule Profile	DATE February 2005
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BUDGET ACTIVITY RDT&E DEFENSE-WIDE/ BA4 - Advanced Component Development and Prototypes (ACD&P)	PE NUMBER AND TITLE 0603884BP CHEMICAL/BIOLOGICAL DEFENSE (ACD&P) MC4	PROJECT MC4
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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
MEDCHEM (Cont)																																
AAS - Milestone B									1Q																							
INATS - Milestone A			3Q																													
INATS - Conduct Pre-Clinical Studies				4Q	—————											2Q																
INATS - Conduct Process Development and cGMP Requirements				4Q	—————											2Q																
INATS - IND Application							3Q		—————							3Q																
CSF - Maintain Chemical Surety Facility							2Q		—————																							4Q

CBDP BUDGET ITEM JUSTIFICATION SHEET (R-2a Exhibit)	DATE February 2005
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BUDGET ACTIVITY RDT&E DEFENSE-WIDE/ BA4 - Advanced Component Development and Prototypes (ACD&P)	PE NUMBER AND TITLE 0603884BP CHEMICAL/BIOLOGICAL DEFENSE (ACD&P) MR4	PROJECT MR4
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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	
MR4	MEDICAL RADIOLOGICAL DEFENSE	0	0	0	7120	15251	15000	11000	4000	Continuing	Continuing

A. Mission Description and Budget Item Justification:

Project MR4 MEDICAL RADIOLOGICAL DEFENSE: The requirement for medical countermeasures against the effects of nuclear or radiological threats is supported in the Joint Mission Need Statement for the Department of Defense (DoD) Nuclear, Biological and Chemical Defense. A broad spectrum of medical countermeasures to include radiological medical prophylaxis and treatment that mitigates the consequences of nuclear or radiological attacks, thus fulfilling a critical need for force protection in this area. Medical Radiological Protectant supports the concept of improved joint force protection, allowing the joint force to operate safely, over the long term, and at near normal level of effectiveness while in a contaminated environment.

B. Accomplishments/Planned Program

	<u>FY 2004</u>	<u>FY 2005</u>	<u>FY 2006</u>	<u>FY 2007</u>
MEDICAL RADIOLOGICAL PROTECTANT	0	0	0	7120
RDT&E Articles (Quantity)	0	0	0	0

CBDP BUDGET ITEM JUSTIFICATION SHEET (R-2a Exhibit)	DATE February 2005
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BUDGET ACTIVITY RDT&E DEFENSE-WIDE/ BA4 - Advanced Component Development and Prototypes (ACD&P)	PE NUMBER AND TITLE 0603884BP CHEMICAL/BIOLOGICAL DEFENSE (ACD&P) MR4	PROJECT MR4
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- FY 2007 Planned Program:**
- 3750 RAD PROT - Initiate process development and cGMP (current Good Manufacturing Practices) small scale manufacturing.
 - 2250 RAD PROT - Initiate pre-clinical safety and toxicity studies.
 - 720 RAD PROT- Initiate Investigational New Drug (IND) Application.
 - 400 RAD PROT - Initiate FDA (Food and Drug Administration) approval documentation to support Phase I clinical study.

Total 7120

C. Other Program Funding Summary: N/A

CBDP BUDGET ITEM JUSTIFICATION SHEET (R-2a Exhibit)	DATE February 2005
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BUDGET ACTIVITY RDT&E DEFENSE-WIDE/ BA4 - Advanced Component Development and Prototypes (ACD&P)	PE NUMBER AND TITLE 0603884BP CHEMICAL/BIOLOGICAL DEFENSE (ACD&P)	PROJECT MR4
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D. Acquisition Strategy:

RAD PROT	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, that appropriate Phase 2 human clinical safety and definitive animal efficacy studies are conducted, and that 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. The Medical Radiological Protectant Drug will be developed using a single step to full capability strategy. Since a Key Performance Parameter (KPP) for this program is approval by the FDA for human use, a spiral evolutionary development strategy is not viable.
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CBDP PROJECT COST ANALYSIS (R-3 Exhibit)	DATE February 2005
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BUDGET ACTIVITY RDT&E DEFENSE-WIDE/ BA4 - Advanced Component Development and Prototypes (ACD&P)	PE NUMBER AND TITLE 0603884BP CHEMICAL/BIOLOGICAL DEFENSE (ACD&P) MR4	PROJECT MR4
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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
RAD PROT													
RAD PROT - Pilot Lot & Small Scale Up Production	C/CPFF	TBS	C	0	0	NONE	0	NONE	3750	2Q FY07	0	3750	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
RAD PROT													
RAD PROT - Regulatory Integration Support Efforts	C/CPFF	TBS	C	0	0	NONE	0	NONE	560	2Q FY07	0	560	0
Subtotal II. Support Costs:				0	0		0		560		0	560	

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/ BA4 - Advanced Component Development and Prototypes (ACD&P)	PE NUMBER AND TITLE 0603884BP CHEMICAL/BIOLOGICAL DEFENSE (ACD&P) MR4	PROJECT MR4
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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
RAD PROT													
RAD PROT - Test & Evaluation of Products	C/CPFF	TBS	C	0	0	NONE	0	NONE	2250	3Q FY07	0	2250	0
Subtotal III. Test and Evaluation:				0	0		0		2250		0	2250	

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
RAD PROT													
RAD PROT - Program Management Support	Allot	CBMS, Fort Detrick, MD	U	0	0	NONE	0	NONE	560	1Q FY07	0	560	0
Subtotal IV. Management Services:				0	0		0		560		0	560	

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/ BA4 - Advanced Component Development and Prototypes (ACD&P)	PE NUMBER AND TITLE 0603884BP CHEMICAL/BIOLOGICAL DEFENSE (ACD&P) MR4	PROJECT MR4
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TOTAL PROJECT COST:	0	0	0	7120	0	7120
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Exhibit R-4a, Schedule Profile	DATE February 2005
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BUDGET ACTIVITY RDT&E DEFENSE-WIDE/ BA4 - Advanced Component Development and Prototypes (ACD&P)	PE NUMBER AND TITLE 0603884BP CHEMICAL/BIOLOGICAL DEFENSE (ACD&P) MR4	PROJECT MR4
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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
RAD PROT																																
RAD PROT - Process Dev/Scale Manufacturing													1Q				1Q															
RAD PROT - Safety and Toxicological Studies															3Q				2Q													
RAD PROT - Milestone B																			3Q													
RAD PROT - Phase 1 Clinical Trials																			3Q					4Q								
RAD PROT - Phase 2 Clinical Trials																									1Q							4Q