

UNCLASSIFIED

CBDP BUDGET ITEM JUSTIFICATION SHEET (R-2 Exhibit)

DATE
February 2002

BUDGET ACTIVITY

**RDT&E DEFENSE-WIDE/
BA4 - Demonstration and Validation**

PE NUMBER AND TITLE

0603884BP CHEMICAL/BIOLOGICAL DEFENSE (DEMVAL)

COST (In Thousands)	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	Cost to	Total Cost
	Actual	Estimate	Estimate	Estimate	Estimate	Estimate	Estimate	Complete	
Total Program Element (PE) Cost	82315	89756	144790	100512	66662	45394	43976	Continuing	Continuing
BJ4 BIOLOGICAL DEFENSE (DEMVAL)	5765	1560	3661	19163	19329	0	0	0	49478
CA4 CONTAMINATION AVOIDANCE (DEMVAL)	8866	16274	16963	0	0	0	0	0	42103
CO4 COLLECTIVE PROTECTION (DEMVAL)	1454	0	4390	0	0	0	0	0	5844
CP4 COUNTERPROLIFERATION SUPPORT (DEMVAL)	15709	15243	13423	20442	21137	24459	25516	Continuing	Continuing
DE4 DECONTAMINATION SYSTEMS (DEMVAL)	3368	6143	6972	12378	14220	3997	3992	Continuing	Continuing
HS4 HOMELAND SECURITY (DEMVAL)	0	0	55000	0	0	0	0	0	55000
IP4 INDIVIDUAL PROTECTION (DEMVAL)	16610	14317	0	0	0	0	0	0	30927
MB4 MEDICAL BIOLOGICAL DEFENSE (DEMVAL)	28465	34343	42617	46775	10271	14874	12361	Continuing	Continuing
MC4 MEDICAL CHEMICAL DEFENSE (DEMVAL)	2078	1876	1764	1754	1705	2064	2107	Continuing	Continuing

A. Mission Description and Budget Item Justification: Operational forces have an immediate need to survive, safely operate, and sustain operations in a chemical and biological (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 System Development and Demonstration (SDD) 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.

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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. SDD is conducted for: an array of chemical/biological/toxin detection and warning systems to include ARTEMIS, (formerly known as the Artemis Joint Service Warning and Identification Light Detection and Ranging (LIDAR) Detector (formerly known as JSWILD)); decontamination capabilities to include the sorbent technology, the Joint Service Fixed Site Decontamination (JSFXD) and the Joint Service Sensitive Equipment Decontamination (JSSED) programs. System development and demonstration 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, Joint Biological Standoff Detection System, (JBSDS) and Joint Biological Tactical Detection System (JBTDS).

In the medical chemical/biological defense area, SDD 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.

The Homeland Security System Development and Demonstration program is focused on supporting a dual use operational capability for integrated biological-surveillance, detection, and alerting in the National Capital Region (NCR) with technology insertions for improved performance and response.

This Program Element focuses on efforts associated with advanced technology development used to demonstrate general military utility to include SDD in the area of chemical/biological defense equipment and is correctly placed in Budget Activity 4.

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B. Program Change Summary:

	<u>FY 2001</u>	<u>FY 2002</u>	<u>FY 2003</u>
Previous President's Budget (FY 2002 PB)	84992	82636	68042
Appropriated Value	89800	90336	0
Adjustments to Appropriated Value	0	0	0
a. Congressional General Reductions	-627	-580	0
b. SBIR/STTR	-1438	0	0
c. Omnibus or Other Above Threshold Reductions	0	0	0
d. Below Threshold Reprogramming	-5236	0	0
e. Rescissions	-184	0	0
Adjustments to Budget Years Since FY 2002 PB	0	0	76748
Current Budget Submission (FY 2003 PB)	82315	89756	144790

Change Summary Explanation:

Funding: FY03 - Increase to the development program to fund a Homeland Security Support effort identified in the new Project HS4 (+\$55,000K); realignment of the JBPDS Block II program (\$3,000K) in project BJ4; vaccine programs realigned into Budget Activity 4 (MB4) from Budget Activity 5 (MB5) and production (+\$10,801K); realignment of the CBDP program to support ARTEMIS and Joint Effects Model (+\$8,376K); adjustment for inflation assumptions (-\$429K).

Schedule:

Technical:

C. Other Program Funding Summary: See section B in the R2A's

CBDP BUDGET ITEM JUSTIFICATION SHEET (R-2A Exhibit)	DATE February 2002
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BUDGET ACTIVITY RDT&E DEFENSE-WIDE/ BA4 - Demonstration and Validation	PE NUMBER AND TITLE 0603884BP CHEMICAL/BIOLOGICAL DEFENSE (DEMVAl)	PROJECT BJ4
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COST (In Thousands)	FY 2001 Actual	FY 2002 Estimate	FY 2003 Estimate	FY 2004 Estimate	FY 2005 Estimate	FY 2006 Estimate	FY 2007 Estimate	Cost to Complete	Total Cost
BJ4 BIOLOGICAL DEFENSE (DEMVAl)	5765	1560	3661	19163	19329	0	0	0	49478

A. Mission Description and Budget Item Justification:

Project BJ4 BIOLOGICAL DEFENSE (DEMVAl): The Department of Defense (DoD) Biological Defense mission area requires the detection and identification of biological threat agents to provide early warning capabilities at high value mobile and fixed site locations. Collection, detection, and identification of biological warfare (BW) agents are among the highest Commander in Chief/Joint Requirements Oversight Council (CINC/JROC) Counterproliferation priorities. Next generation biological detection systems will provide detection, identification, warning, and sample collection for verification of large area and/or point source biological attacks. This project supports the Technology Transition (TT) Bio program and Joint Biological Point Detection System (JBPDS) Blk II. The TT Bio program initiates the system development and integration of lightweight early warning candidates for the Joint Biological Standoff Detection System (JBSDS) program.

FY 2001 Accomplishments:

- 2098 JBPDS Block II - Initiated modeling, design, fabrication, and test of next generation Biological Aerosol Warning System (BAWS) prototype (one prototype at \$150K).
- 2461 TT Bio - Initiated system development and integration of a lightweight early warning system candidate for the Joint Biological Standoff Detection System (JBSDS).
- 846 TT Bio - Continued development of critical reagents for fielded biological detection systems.

CBDP BUDGET ITEM JUSTIFICATION SHEET (R-2A Exhibit)		DATE February 2002
BUDGET ACTIVITY	PE NUMBER AND TITLE	PROJECT
RDT&E DEFENSE-WIDE/ BA4 - Demonstration and Validation	0603884BP CHEMICAL/BIOLOGICAL DEFENSE (DEMVAL)	BJ4
FY 2001 Accomplishments (Cont):		
•	360 TT Bio - Initiated development of a lightweight short range biological detection system as a candidate for the Joint Biological Standoff Detection System (JBSDS).	
Total	5765	
FY 2002 Planned Program:		
•	990 TT Bio - Continue system development and integration of the lightweight, early warning, JBSDS system.	
•	544 TT Bio - Initiate testing of the integrated, lightweight, early warning JBSDS system.	
•	26 SBIR - Small Business Innovative Research.	
Total	1560	
FY 2003 Planned Program:		
•	1603 JBPDS Block II - Develop software and hardware advances to BAWs algorithms that will provide increased reliability and enhance the JBPDS Block II ability to discriminate background environment aerosol components, without sacrificing sensitivity and responsiveness to biological warfare attacks.	
•	1382 JBPDS Block II - Establish core and Joint service IPTs and initiate product improvements of Line Replaceable Units (LRUs), through design, procurement, fabrication, and critical item testing.	
•	676 TT Bio - Initiate the system development of enhanced environmental and military hardening packages for lightweight early warning JBSDS candidate systems.	
Total	3661	
Project BJ4	Page 5 of 112 Pages	Exhibit R-2 (PE 0603884BP)

CBDP BUDGET ITEM JUSTIFICATION SHEET (R-2A Exhibit)	DATE February 2002
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BUDGET ACTIVITY RDT&E DEFENSE-WIDE/ BA4 - Demonstration and Validation	PE NUMBER AND TITLE 0603884BP CHEMICAL/BIOLOGICAL DEFENSE (DEMVAL)	PROJECT BJ4
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<u>B. Other Program Funding Summary:</u>	<u>FY 2001</u>	<u>FY 2002</u>	<u>FY 2003</u>	<u>FY 2004</u>	<u>FY 2005</u>	<u>FY 2006</u>	<u>FY 2007</u>	<u>To Compl</u>	<u>Total Cost</u>
BJ5 BIOLOGICAL DEFENSE (EMD)	7575	12803	14660	17977	17315	37632	35708	Cont	Cont
CP4 COUNTERPROLIFERATION SUPPORT (DEMVAL)	15709	15243	13423	20442	21137	24459	25516	Cont	Cont
JP0100 JOINT BIO POINT DETECTION SYSTEM (JBPDS)	27260	36324	67528	75245	73514	56735	50879	Cont	Cont
JPO210 CRITICAL REAGENTS PROGRAM (CRP)	4284	1913	2010	1850	1894	2251	2301	Cont	Cont

CBDP BUDGET ITEM JUSTIFICATION SHEET (R-2A Exhibit)DATE
February 2002

BUDGET ACTIVITY

**RDT&E DEFENSE-WIDE/
BA4 - Demonstration and Validation**

PE NUMBER AND TITLE

**0603884BP CHEMICAL/BIOLOGICAL DEFENSE
(DEMVAL)**

PROJECT

BJ4**C. Acquisition Strategy:**

TT Bio

This program initiates the system development and integration of modified commercial off the shelf (COTS) technologies as JBSDS candidate systems. The program focuses on the rapid development, testing, and fielding of leading systems to meet urgent warfighter needs for early warning of Biological Warfare (BW) agent attacks.

JBPDS Block II

A spiral development effort, initiated with a government run concept analysis in FY00, MS B/Development Contract Award, FY04, and MS C, Low Rate Initial Production in FY07, and Full Rate Production in FY08. A concept analysis consisting of modeling and simulation results will be given to one or more contractors for brassboard development and testing. A preferred design will be carried through System Development by a prime systems contractor. Throughout System Development, the program will advance biological point detection capabilities (smaller, lighter, lower power, dry detection technologies, etc.) for operational level systems, and spiral incremental improvements into the Block I production program as they become available.

CBDP BUDGET ITEM JUSTIFICATION SHEET (R-2A Exhibit)	DATE February 2002
--	------------------------------

BUDGET ACTIVITY RDT&E DEFENSE-WIDE/ BA4 - Demonstration and Validation	PE NUMBER AND TITLE 0603884BP CHEMICAL/BIOLOGICAL DEFENSE (DEMVAL)	PROJECT BJ4
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D. <u>Schedule Profile:</u>	FY 2000				FY 2001				FY 2002				FY 2003				FY 2004				FY 2005				FY 2006				FY 2007			
	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
JBPDSBLK2																																
Concept Development/Hardware Exploration Phase I					1Q	—			4Q																							
Initial Overarching Integrated Process Team (IT) Convened: February 18, 1999													1Q	2Q																		
Analysis of Alternatives/Concept Studies					1Q	—			1Q																							
Solicitation for EMD Contract													1Q	2Q																		
Milestone B																	1Q															
JBSDS																																
Component Advanced Development					1Q	—							2Q																			
TT Bio																																
Transition Lightweight, Environmentally Enhanced, and Hardened JBSDS Components into SD & D													1Q																			

UNCLASSIFIED

CBDP PROJECT COST ANALYSIS (R-3 Exhibit)

DATE
February 2002

BUDGET ACTIVITY RDT&E DEFENSE-WIDE/ BA4 - Demonstration and Validation	PE NUMBER AND TITLE 0603884BP CHEMICAL/BIOLOGICAL DEFENSE (DEMVAL)	PROJECT BJ4
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I. Product Development	Contract Method & Type	Performing Activity & Location	US NF CC	Total PYs Cost	FY2001 Cost	FY2001 Award Date	FY2002 Cost	FY2002 Award Date	FY2003 Cost	FY2003 Award Date	Cost to Complete	Total Cost	Target Value of Contract
JBPDSBLK2													
BAWS Detector Algorithm Improvement Studies	MIPR	Hanscom AFB/MIT-Lexington, MA	F	0	0	NONE	0	NONE	100	1Q FY03	2673	2773	0
Adv LRUs and Breadboard	MIPR	Hanscom AFB/MIT-Lexington, MA	F	0	0	NONE	0	NONE	1162	1Q FY03	0	1162	0
HW S - Design Advanced Prototype BAWS	MIPR	Hanscom AFB/MIT-Lexington, MA	F	0	1238	1Q FY01	0	NONE	517	1Q FY03	1932	3687	0
TT Bio													
HW S - TT Bio JBSDS LIDAR	C/CPFF	Science and Engineering Services, Inc., Burtonsville, MD	C	0	2461	Jan-01	1410	Jan-02	500	Jan-03	0	4371	0
HW C - TT Bio	MIPR	USAMRIID, Ft. Detrick, MD	U	469	246	Jan-01	0	NONE	0	NONE	0	715	0
SW SB - TT Bio	MIPR	NMRI, Bethesda, MD	U	214	200	Jan-01	0	NONE	0	NONE	0	414	0
HW C - TT Bio	MIPR	SBCCOM, Edgewood, MD	U	0	100	Jan-01	0	NONE	0	NONE	0	100	0
HW C - TT Bio	MIPR	Dugway Proving Ground, UT	U	150	150	Jan-01	0	NONE	0	NONE	0	300	0
HW S - TT Bio Modified Short Range Biological Standoff Detection System	C/CPFF	Fibertek Inc., Herndon, VA		0	360	Aug-01	0	NONE	0	NONE	0	360	0
Subtotal I. Product Development:				833	4755		1410		2279		4605	13882	

Remarks: HW S - FY01 - 1 prototype at \$150K

CBDP PROJECT COST ANALYSIS (R-3 Exhibit)	DATE February 2002
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BUDGET ACTIVITY RDT&E DEFENSE-WIDE/ BA4 - Demonstration and Validation	PE NUMBER AND TITLE 0603884BP CHEMICAL/BIOLOGICAL DEFENSE (DEMVAL)	PROJECT BJ4
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II. Support Costs	Contract Method & Type	Performing Activity & Location	US NF CC	Total PYs Cost	FY2001 Cost	FY2001 Award Date	FY2002 Cost	FY2002 Award Date	FY2003 Cost	FY2003 Award Date	Cost to Complete	Total Cost	Target Value of Contract
JBPDSBLK2													
ES S - BAWS Integration	MIPR	Hanscom AFB/MIT-Lexington, MA	F	0	498	1Q FY01	0	NONE	0	NONE	0	498	0
Engineering Support	MIPR	Various	U	0	0	NONE	0	NONE	308	1Q FY03	3578	3886	0
RFP Development and Evaluation	MIPR	Various	U	0	0	NONE	0	NONE	426	1Q FY03	691	1117	0
Subtotal II. Support Costs:													
				0	498		0		734		4269	5501	

Remarks:

III. Test and Evaluation	Contract Method & Type	Performing Activity & Location	US NF CC	Total PYs Cost	FY2001 Cost	FY2001 Award Date	FY2002 Cost	FY2002 Award Date	FY2003 Cost	FY2003 Award Date	Cost to Complete	Total Cost	Target Value of Contract
JBPDSBLK2													
Early Test and Evaluation of Design	PO	SBCCOM, APG, MD	U	0	0	NONE	0	NONE	332	1Q FY03	1435	1767	0
OTE SB - Early Operational Assessment for Block II	MIPR	Various	U	0	362	1Q FY01	0	NONE	0	NONE	1649	2011	0
Subtotal III. Test and Evaluation:													
				0	362		0		332		3084	3778	

Remarks:

CBDP PROJECT COST ANALYSIS (R-3 Exhibit)	DATE February 2002
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BUDGET ACTIVITY RDT&E DEFENSE-WIDE/ BA4 - Demonstration and Validation	PE NUMBER AND TITLE 0603884BP CHEMICAL/BIOLOGICAL DEFENSE (DEMVAL)	PROJECT BJ4
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IV. Management Services	Contract Method & Type	Performing Activity & Location	US NF CC	Total PYs Cost	FY2001 Cost	FY2001 Award Date	FY2002 Cost	FY2002 Award Date	FY2003 Cost	FY2003 Award Date	Cost to Complete	Total Cost	Target Value of Contract
JBPDSBLK2													
HW C - Design Advanced Bio-Suite Hardware	MIPR	Various	U	0	0	NONE	0	NONE	140	1Q FY03	2479	2619	0
TT Bio													
PM/MS S - TT Bio	Various	JPO-BD, Falls Church, VA	U	51	150	Oct-00	124	Oct-01	176	Oct-02	0	501	0
ZSBIR													
SBIR/STTR - Aggregated from ZSBIR-SBIR/STTR	PO	HQ AMC, Alexandria, VA	U	0	0	NONE	26	2Q FY02	0	NONE	0	26	0
Subtotal IV. Management Services:													
				51	150		150		316		2479	3146	

Remarks:

TOTAL PROJECT COST:	884	5765		1560		3661		14437	26307
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Project BJ4

CBDP BUDGET ITEM JUSTIFICATION SHEET (R-2A Exhibit)	DATE February 2002
--	------------------------------

BUDGET ACTIVITY RDT&E DEFENSE-WIDE/ BA4 - Demonstration and Validation	PE NUMBER AND TITLE 0603884BP CHEMICAL/BIOLOGICAL DEFENSE (DEMVAL)	PROJECT CA4
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COST (In Thousands)	FY 2001 Actual	FY 2002 Estimate	FY 2003 Estimate	FY 2004 Estimate	FY 2005 Estimate	FY 2006 Estimate	FY 2007 Estimate	Cost to Complete	Total Cost
CA4 CONTAMINATION AVOIDANCE (DEMVAL)	8866	16274	16963	0	0	0	0	0	42103

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CBDP BUDGET ITEM JUSTIFICATION SHEET (R-2A Exhibit)		DATE February 2002
BUDGET ACTIVITY RDT&E DEFENSE-WIDE/ BA4 - Demonstration and Validation	PE NUMBER AND TITLE 0603884BP CHEMICAL/BIOLOGICAL DEFENSE (DEMVAL)	PROJECT CA4
<p>A. <u>Mission Description and Budget Item Justification:</u></p> <p>Project CA4 CONTAMINATION AVOIDANCE (DEMVAL): This DEMVAL funding supports Component Advanced Development and System Integration (CAD/SI) of reconnaissance, detection, and identification equipment. Items of equipment in this project are: (1) Nuclear, Biological and Chemical Reconnaissance System (NBCRS) Fox Training System, (2) Artemis (formerly known as JSWILD), (3) the Chemical Biological Mass Spectrometer (CBMS), (4) the Joint Effects Model (JEM), and the Mobile Chemical Agent Detector (MCAD). The NBCRS Fox Training System will operate on virtual terrain and simulate Nuclear, Biological and Chemical threat to allow integrated training of NBCRS Fox crews. Artemis will be a near-real time, modular, on-the-move, standoff Chemical Warfare (CW) agent detection and identification capability, with 360-degree coverage, from a variety of platforms, at ranges on the order of 20 kilometers (km) or more. Fiscal Year (FY) 2001 is addressed within item CP4 - Counterproliferation Support (DEMVAL). The CBMS is a detector capable of both biological and chemical agent detection and identification. The CBMS Block I system is a component of the P3I Biological Integrated Detection System (BIDS). The CBMS Block II system is an improved system that is being developed for inclusion in the NBCRS Block II system (IAV-NBCRV) and the Joint Service Lightweight NBCRS system. The CBMS II is being further enhanced to allow operation as a stand-alone system. JEM will be a general-purpose, accredited model for predicting NBC hazards associated with the release of contaminants into the environment. JEM will be developed in blocks and will be capable of modeling hazards in a variety of scenarios including: counterforce, passive defense, accident and/or incidents (Block I), high altitude releases, urban NBC environments (Block II) and building interiors, and human performance degradation (Block III). The MCAD is a commercially available remote sensing chemical vapor detector being evaluated in FY02 for possible applications in urban or military situations.</p>		
Project CA4	Page 13 of 112 Pages	Exhibit R-2 (PE 0603884BP)

CBDP BUDGET ITEM JUSTIFICATION SHEET (R-2A Exhibit)		DATE February 2002
BUDGET ACTIVITY	PE NUMBER AND TITLE	PROJECT
RDT&E DEFENSE-WIDE/ BA4 - Demonstration and Validation	0603884BP CHEMICAL/BIOLOGICAL DEFENSE (DEMVAL)	CA4
FY 2001 Accomplishments:		
<ul style="list-style-type: none"> • 1502 ARTEMIS - Completed Analysis of Alternatives (AoA) (including modeling and simulation) to validate technology alternatives. Completed independent Total Ownership Cost (TOC) analysis. • 458 ARTEMIS - Supported initiation of the Joint Service Integration Group (JSIG) Contamination Avoidance (CA) Mission Needs Analysis (MNA). • 888 ARTEMIS - Initiated program acquisition strategy and documentation. Joint AoA Integrated Product Team (IPT) provided support, oversight and coordination of AoA. • 1923 CBMS - Initiated design and planning to update CBMS Block II for fixed site and stand-alone applications. • 250 JEM - Initiated IPT to evaluate hazard prediction technologies. Initiated program planning. • 3745 NBCRS Blk I Fox (Training System) - Developed two NBCRS Fox Training Systems for installation at Fort Polk, LA (\$1.8M each). • 100 NBCRS Blk I Fox (Training System) - Tested NBCRS Fox Training Systems. Testing included software validation, technical tests on all system components, a Limited User Test, and a maintenance evaluation. Trainers were designed and tested uniquely for each facility installation. 		
Total	8866	

CBDP BUDGET ITEM JUSTIFICATION SHEET (R-2A Exhibit)		DATE February 2002
BUDGET ACTIVITY RDT&E DEFENSE-WIDE/ BA4 - Demonstration and Validation	PE NUMBER AND TITLE 0603884BP CHEMICAL/BIOLOGICAL DEFENSE (DEMVAL)	PROJECT CA4
FY 2002 Planned Program:		
<ul style="list-style-type: none"> • 1274 ARTEMIS - Prepare source documentation for Milestone (MS) B. Maintain document library and information network for all data, research, and other program information. Issue draft Request for Proposal (RFP) for System Development and Demonstration (SDD) prototypes. Perform financial management, scheduling, planning, and reporting. • 990 ARTEMIS - Develop initial systems architecture and draft systems specification through a Joint Systems Engineering Integrated Product Team (IPT). Conduct risk analyses and develop risk mitigation plan. • 446 ARTEMIS - Conduct, as an integral part of the systems engineering process, a supportability analysis. Conduct initial Joint Training Planning Process Methodology and develop initial Joint System Training Plan. Develop acquisition logistics support plan for MS B through a Joint Product Support IPT. • 1351 ARTEMIS - Establish test strategy and develop test methodology. Develop initial Test & Evaluation Master Plan (TEMP) through a Joint Test & Evaluation IPT. • 3665 ARTEMIS - Continue development of key components of an active emitter multi-wave Light Detecting and Ranging (LIDAR) technology to develop a system architecture and to reduce overall programmatic risk by utilizing Component Advanced Development (CAD). Key components considered high risk are solid state lasers, non-consumable detectors, and advanced detection algorithms. Demonstrate and validate performance of these components. • 750 ARTEMIS - Support Systems Engineering IPT through Simulation Based Acquisition (SBA) 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. • 250 MCAD - Conduct initial agent and interference trials. • 1750 MCAD - Conduct interference and operational trials in an urban environment. 		
Project CA4	Page 15 of 112 Pages	Exhibit R-2 (PE 0603884BP)

CBDP BUDGET ITEM JUSTIFICATION SHEET (R-2A Exhibit)	DATE February 2002
--	------------------------------

BUDGET ACTIVITY RDT&E DEFENSE-WIDE/ BA4 - Demonstration and Validation	PE NUMBER AND TITLE 0603884BP CHEMICAL/BIOLOGICAL DEFENSE (DEMVAL)	PROJECT CA4
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FY 2002 Planned Program (Cont):

- 4154 MCAD - Evaluate capability of MCAD to meet operational requirements of all Services and emerging National Defense requirements for remote detection of chemical agents and other hazardous materials. NOTE: Defense Emergency Response Fund (DERF) Enhanced Force Protection - \$1018K received to be utilized in support of MCAD purchase, testing, and evaluation in the National Capital Region (NCR).
- 1368 NBCRS Blk I Fox (Training System) - Initiated planning and equipment design for two Fox Training Systems for U.S. Forces Korea (USFK).
- 276 SBIR - Small Business Innovative Research.

Total 16274

CBDP BUDGET ITEM JUSTIFICATION SHEET (R-2A Exhibit)		DATE February 2002
BUDGET ACTIVITY RDT&E DEFENSE-WIDE/ BA4 - Demonstration and Validation	PE NUMBER AND TITLE 0603884BP CHEMICAL/BIOLOGICAL DEFENSE (DEMVAL)	PROJECT CA4
<p>FY 2003 Planned Program:</p> <ul style="list-style-type: none"> • 2679 ARTEMIS - Complete source documentation for MS B. Finalize and issue RFP, conduct source selection, award contract for System Development and Demonstration (SDD) prototypes. Conduct Integrated Baseline Review (IBR) and System Requirement Review (SRR) with SDD contractor. • 4555 ARTEMIS - Initiate design, build, and integrate SDD prototypes for use in developmental testing. • 2000 ARTEMIS - Initiate design, documentation, development of Artemis system software. In addition, initiate effort to develop interface between Artemis and Joint Warning and Reporting Network (JWARN). • 2255 ARTEMIS - Develop detailed test support plan. Purchase additional test equipment to support range and chamber testing of a long range active LIDAR standoff detection system. • 1640 JEM Block I - Complete transition from tech base. Integrate counterforce, passive defense, and hazard/incident software models into a complete system. Develop logistics documentation, initiate Post Deployment Software Support planning, and establish online document library and information network for all data, research, and other program information. Update MS B program documentation and conduct MS B decision. Conduct source selection for development of a standardized hazard prediction model. Perform financial management, scheduling, planning, and reporting. 		
Project CA4	Page 17 of 112 Pages	Exhibit R-2 (PE 0603884BP)

CBDP BUDGET ITEM JUSTIFICATION SHEET (R-2A Exhibit)	DATE February 2002
--	------------------------------

BUDGET ACTIVITY RDT&E DEFENSE-WIDE/ BA4 - Demonstration and Validation	PE NUMBER AND TITLE 0603884BP CHEMICAL/BIOLOGICAL DEFENSE (DEMVAL)	PROJECT CA4
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FY 2003 Planned Program (Cont):

- 819 JEM Block I - Develop Test and Evaluation Master Plan (TEMP) and Verification, Validation, and Accreditation Plan. Complete analysis of existing field test data associated with the hazard prediction models Vapor, Liquid and Solid Tracking (VLSTRACK), Hazard Prediction and Assessment Capability (HPAC), and Personal Computing Program for the Chemical Hazard Prediction (D2PC) and identify data gaps. Prepare for and conduct Early Operational Assessment (EOA). Initiate Independent Validation and Verification (IV&V) effort. Develop and refine warfighter use cases. Perform engineering analysis and evaluation of software design documentation. Establish and conduct Change Control Board. Continue technical data transition of HPAC, VLSTRACK, and D2PC models.
- 3015 JEM Block I - Award contract for development of engineering builds (software only) in support of the Block I effort.

Total 16963

CBDP BUDGET ITEM JUSTIFICATION SHEET (R-2A Exhibit)

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BA4 - Demonstration and Validation**

PE NUMBER AND TITLE

**0603884BP CHEMICAL/BIOLOGICAL DEFENSE
(DEMVAL)**

PROJECT

CA4

B. Other Program Funding Summary:

	<u>FY 2001</u>	<u>FY 2002</u>	<u>FY 2003</u>	<u>FY 2004</u>	<u>FY 2005</u>	<u>FY 2006</u>	<u>FY 2007</u>	<u>To Compl</u>	<u>Total Cost</u>
CA5 CONTAMINATION AVOIDANCE (EMD)	59268	71421	58341	36689	18929	30581	13468	Cont	Cont
G47101 JOINT WARNING & REPORTING NETWORK (JWARN)	9018	0	0	0	12194	15956	31916	Cont	Cont
JA0001 ARTEMIS ACTIVE STANDOFF CW DETECTION SYSTEM	0	0	0	0	0	0	7979	Cont	Cont
JCA208 JOINT EFFECTS MODEL	0	0	0	0	990	988	987	Cont	Cont
JF0100 JOINT CHEM AGENT DETECTOR (JCAD)	0	0	6031	19411	20437	26991	30273	Cont	Cont
M98801 AUTO CHEMICAL AGENT ALARM (ACADA), M22	68877	591	1035	0	0	0	0	0	70503
MA0601 RECON SYSTEM, FOX NBC (NBCRS) MODS	57651	6312	16474	24295	25268	24931	997	Cont	Cont
MC0100 JT SVC LTWT NBC RECON SYS (JSLNBCRS)	0	0	28345	50623	66594	74019	81867	Cont	Cont
N00041 SHIPBOARD DETECTOR MODIFICATIONS	4696	4670	4673	0	0	0	0	0	14039

CBDP BUDGET ITEM JUSTIFICATION SHEET (R-2A Exhibit)	DATE February 2002
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BUDGET ACTIVITY RDT&E DEFENSE-WIDE/ BA4 - Demonstration and Validation	PE NUMBER AND TITLE 0603884BP CHEMICAL/BIOLOGICAL DEFENSE (DEMVAL)	PROJECT CA4
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<u>B. Other Program Funding Summary (Cont):</u>	<u>FY 2001</u>	<u>FY 2002</u>	<u>FY 2003</u>	<u>FY 2004</u>	<u>FY 2005</u>	<u>FY 2006</u>	<u>FY 2007</u>	<u>To Compl</u>	<u>Total Cost</u>
	S10801 JS LTWT STANDOFF CW AGT DETECTOR (JSLSCAD)	0	10327	0	15386	23230	39891	44881	Cont

CBDP BUDGET ITEM JUSTIFICATION SHEET (R-2A Exhibit)		DATE February 2002
BUDGET ACTIVITY RDT&E DEFENSE-WIDE/ BA4 - Demonstration and Validation	PE NUMBER AND TITLE 0603884BP CHEMICAL/BIOLOGICAL DEFENSE (DEMVAL)	PROJECT CA4
C. <u>Acquisition Strategy:</u>		
NBCRS BLK I	Fox (Training System) Task order to ITT Industries to develop, deliver, and install two NBCRS Fox Trainers to Fort Hood, TX, and two NBCRS Fox Trainers to Fort Polk, LA. Trainers operate on virtual terrain and simulate Nuclear, Biological, and Chemical threat to allow integrated training of NBCRS Fox crews. The FY02 task order will be awarded to develop, deliver, and install two NBCRS Fox Trainers for U.S. Forces Korea (USFK).	
ARTEMIS	Formerly known as JSWILD. The Artemis program will use an evolutionary acquisition (Block) approach for design, development, testing, and fielding. Develop a system specification and issue a draft Request for Proposal (RFP) prior to Milestone (MS) B to resolve industry comments. Award a cost-plus type contract after MS B, for engineering development models in support of the System Development and Demonstration (SDD) phase. Conduct developmental testing and early operational assessments of engineering development models to ensure compliance with the Operational Requirements Document (ORD). After MS C, award a fixed-fee contract for Low Rate Initial Production (LRIP) units to support Initial Operational Test & Evaluation (IOT&E). A Full Rate Production (FRP) option to this contract will be exercised after the FRP Decision Review.	
CBMS I	System Development and Demonstration (SDD) phase was developed under a task order contract with Bruker Industries. The system was type-classified as part of the P3I BIDS system. The CBMS II was developed under an interagency agreement with Oak Ridge National Lab, with Orbital Sciences Corp as the main subcontractor. The system will be type classified as a component of the Fox Block II system (IAV-NBCRV) and the Joint Service Lightweight NBCRS system. An effort is being initiated to configure the system as a stand-alone.	
Project CA4	Page 21 of 112 Pages	Exhibit R-2 (PE 0603884BP)

CBDP BUDGET ITEM JUSTIFICATION SHEET (R-2A Exhibit)		DATE February 2002
BUDGET ACTIVITY RDT&E DEFENSE-WIDE/ BA4 - Demonstration and Validation	PE NUMBER AND TITLE 0603884BP CHEMICAL/BIOLOGICAL DEFENSE (DEMVAL)	PROJECT CA4
JEM	<p>The JEM program will use a three block evolutionary acquisition approach for the design, development, testing, and fielding of JEM (Blocks I, II, and III). 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 Nuclear, Biological, and Chemical (NBC) models. A cost plus award/incentive fee contract will be used for model development.</p>	
MCAD	<p>The MCAD evaluation will be conducted as a one-year effort. The program will utilize sole-source contracting and other expedited acquisition procedures to permit an accurate and rapid determination of MCAD capability to fit emerging National Defense and military requirements.</p>	
Project CA4	Page 22 of 112 Pages	Exhibit R-2 (PE 0603884BP)

CBDP BUDGET ITEM JUSTIFICATION SHEET (R-2A Exhibit)	DATE February 2002
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BUDGET ACTIVITY RDT&E DEFENSE-WIDE/ BA4 - Demonstration and Validation	PE NUMBER AND TITLE 0603884BP CHEMICAL/BIOLOGICAL DEFENSE (DEMVAL)	PROJECT CA4
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D. <u>Schedule Profile (cont):</u>	FY 2000				FY 2001				FY 2002				FY 2003				FY 2004				FY 2005				FY 2006				FY 2007			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
JEM (Cont)																																
BLK I Independent Model Analysis (CB3-TBNM)									1Q	2Q																						
Component Advanced Development (CAD) Review (CB3-TBNM)										3Q																						
BLK I Storyboard Development (CB3-TBNM)									3Q	—	1Q																					
Final Test Evaluation Master Plan (TEMP)											1Q																					
BLK I Milestone B Decision												2Q																				
BLK I Award System Development and Demonstration (SDD) Contract													2Q																			
BLK I Software Development (Engineering builds)													2Q	—	4Q																	
BLK I Early Operational Assessment (EOA)															4Q																	
BLK I Software Development (Block I Formal)															4Q	—	3Q															
BLK I Developmental Testing																	2Q															
BLK I Operational Assessment (OA)																	2Q															
BLK I Milestone C Decision																				3Q												

CBDP BUDGET ITEM JUSTIFICATION SHEET (R-2A Exhibit)	DATE February 2002
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BUDGET ACTIVITY RDT&E DEFENSE-WIDE/ BA4 - Demonstration and Validation	PE NUMBER AND TITLE 0603884BP CHEMICAL/BIOLOGICAL DEFENSE (DEMVAL)	PROJECT CA4
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D. <u>Schedule Profile (cont):</u>	FY 2000				FY 2001				FY 2002				FY 2003				FY 2004				FY 2005				FY 2006				FY 2007			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
JEM (Cont)																																
BLK I Technical Evaluation (TECHEVAL)																				4Q												
BLK I Operational Testing (OT)																				1Q												
BLK I Initial Operational Capability (IOC)																				2Q												
MCAD																																
Conduct agent and interference trials											2Q	3Q																				
Conduct urban interference trials											3Q	4Q																				
NBCRSBLKI																																
Fox Trainer Hardware Fabrication and Procurement, Fort Polk Systems											3Q	3Q																				
Fox Trainer Software Development, Fort Polk Systems											4Q	3Q																				
Fox Trainer Installation at Fort Polk											3Q																					
Fox Trainer System Engineering Study											2Q	3Q																				
Operational Assessment 2 (OA II)											3Q																					

UNCLASSIFIED

CBDP PROJECT COST ANALYSIS (R-3 Exhibit)	DATE February 2002
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BUDGET ACTIVITY RDT&E DEFENSE-WIDE/ BA4 - Demonstration and Validation	PE NUMBER AND TITLE 0603884BP CHEMICAL/BIOLOGICAL DEFENSE (DEMVAL)	PROJECT CA4
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I. Product Development	Contract Method & Type	Performing Activity & Location	US NF CC	Total PYs Cost	FY2001 Cost	FY2001 Award Date	FY2002 Cost	FY2002 Award Date	FY2003 Cost	FY2003 Award Date	Cost to Complete	Total Cost	Target Value of Contract
ARTEMIS													
HW S - Early Prototype - Development	C/CPFF	TBS	C	0	0	NONE	0	NONE	3480	Oct-02	2678	6158	6158
SW S - Early Prototype - Development	C/CPFF	TBS	C	0	0	NONE	0	NONE	1500	Oct-02	1887	3387	3387
SW SB - Multiwave LIDAR - Component Advanced Development Task	MIPR	SBCCOM, APG, MD	U	0	0	NONE	1235	Oct-01	0	NONE	0	1235	1235
HW S - Early Prototype - System Integration	C/CPFF	TBS	C	0	0	NONE	0	NONE	500	Oct-02	2200	2700	2700
HW SB - Multiwave LIDAR - Component Advanced Development Task	MIPR	SBCCOM, APG, MD	U	0	0	NONE	1930	Oct-01	0	NONE	0	1930	1930
CBMS													
HW S - CBMS - Initiate and Upgrade CBMS Block II for Fixed Site and Stand Alone Application	C/CPFF	Oak Ridge National Lab, Oak Ridge, TN (OSC, Pomona, CA - sub)	C	0	1226	Oct-01	0	NONE	0	NONE	0	1226	0
JEM													
SW S - Engineering Builds - Prototyping, Design and Code	C/CPIF	TBS	C	0	0	NONE	0	NONE	3015	Jan-03	5000	8015	8015
SW GFPR - HPAC, VLSTRACK & D2PC Source Code/Development Environment - SPAWARSSYSCOM	MIPR	Various	U	0	0	NONE	0	NONE	60	Oct-02	0	60	60

UNCLASSIFIED

UNCLASSIFIED

CBDP PROJECT COST ANALYSIS (R-3 Exhibit)	DATE February 2002
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BUDGET ACTIVITY RDT&E DEFENSE-WIDE/ BA4 - Demonstration and Validation	PE NUMBER AND TITLE 0603884BP CHEMICAL/BIOLOGICAL DEFENSE (DEMVAL)	PROJECT CA4
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I. Product Development - Cont.	Contract Method & Type	Performing Activity & Location	US NF CC	Total PYs Cost	FY2001 Cost	FY2001 Award Date	FY2002 Cost	FY2002 Award Date	FY2003 Cost	FY2003 Award Date	Cost to Complete	Total Cost	Target Value of Contract
NBCRSBLKI													
SW SB - Fabricate/Integrate NBCRS Fox Training Systems	SS/CPFF	ITT Industries, Alexandria, VA	C	3138	3423	Mar-01	946	Mar-02	0	NONE	0	7507	0
SW SB - Install NBCRS Fox Training Systems	C/CPFF	ITT Industries, Alexandria, VA	C	200	200	Mar-01	200	Mar-02	0	NONE	0	600	0
Subtotal I. Product Development:													
				3338	4849		4311		8555		11765	32818	

Remarks: NBCRSBLKI - Training systems at Ft. Polk, LA. FY02 Training Systems planned for Korea.

UNCLASSIFIED

CBDP PROJECT COST ANALYSIS (R-3 Exhibit)	DATE February 2002
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BUDGET ACTIVITY RDT&E DEFENSE-WIDE/ BA4 - Demonstration and Validation	PE NUMBER AND TITLE 0603884BP CHEMICAL/BIOLOGICAL DEFENSE (DEMVAL)	PROJECT CA4
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II. Support Costs	Contract Method & Type	Performing Activity & Location	US NF CC	Total PYs Cost	FY2001 Cost	FY2001 Award Date	FY2002 Cost	FY2002 Award Date	FY2003 Cost	FY2003 Award Date	Cost to Complete	Total Cost	Target Value of Contract
ARTEMIS													
ES S - IPT - Joint Test and Evaluation Plan	MIPR	Various	U	0	0	NONE	615	Oct-01	380	Oct-02	2400	3395	3395
ES S - IPT - Test Support	MIPR	DPG, Dugway, UT	U	0	0	NONE	350	Oct-01	100	Oct-02	950	1400	1400
ES S - IPT - Test Methodology	C/CPFF	Battelle, Arlington, VA	N	0	0	NONE	300	Oct-01	125	Oct-02	395	820	820
ILS S - IPT - Product Support	MIPR	Various	U	0	0	NONE	188	Oct-01	157	Oct-02	1500	1845	1845
ILS S - IPT - Product Support	C/CPFF	Battelle, Arlington, VA	N	0	0	NONE	258	Oct-01	112	Oct-02	900	1270	1270
ES S - Early Prototype - Simulation Support Plan	WR	NSWCDD, Dahlgren, VA	U	0	0	NONE	750	Oct-01	0	NONE	200	950	950
ES S - IPT - Systems Engineering	MIPR	Various	U	0	0	NONE	690	Oct-01	450	Oct-02	1688	2828	2828
ES S - IPT - Systems Engineering Support	C/CPFF	Battelle, Arlington, VA	N	0	0	NONE	300	Oct-01	150	Oct-02	563	1013	1013
TD/D S - Early Prototype - Drawings	C/CPFF	TBS	C	0	0	NONE	0	NONE	150	Oct-02	450	600	600
ES S - IPT - Test Strategy Development Support	C/CPFF	Battelle, Arlington, VA	N	0	0	NONE	86	Oct-01	0	NONE	0	86	86
ES S - MNA - Engineering Support	MIPR	Various	U	0	56	Aug-01	112	Oct-01	0	NONE	0	168	112
ES SB - Sample Identification Unit In-service Engineering	C/CPFF	TBS	C	0	0	NONE	0	NONE	425	Oct-02	0	425	425
ES S - AoA - Report	C/CPFF	Battelle, Arlington, VA	N	0	1235	Dec-00	0	NONE	0	NONE	0	1235	0
ES S - IPT - AoA Oversight	MIPR	Various	U	0	267	Dec-00	0	NONE	0	NONE	0	267	0
ES S - MNA - Report	C/CPFF	Battelle, Arlington, VA	N	0	402	Aug-01	0	NONE	0	NONE	0	402	0

UNCLASSIFIED

CBDP PROJECT COST ANALYSIS (R-3 Exhibit)	DATE February 2002
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BUDGET ACTIVITY RDT&E DEFENSE-WIDE/ BA4 - Demonstration and Validation	PE NUMBER AND TITLE 0603884BP CHEMICAL/BIOLOGICAL DEFENSE (DEMVAL)	PROJECT CA4
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III. Test and Evaluation	Contract Method & Type	Performing Activity & Location	US NF CC	Total PYs Cost	FY2001 Cost	FY2001 Award Date	FY2002 Cost	FY2002 Award Date	FY2003 Cost	FY2003 Award Date	Cost to Complete	Total Cost	Target Value of Contract
ARTEMIS													
OTHT SB - Multiwave LIDAR - Demonstrate Component Advance Development Tasks	MIPR	SBCCOM, APG, MD	U	0	0	NONE	500	Oct-01	0	NONE	0	500	500
DTE S - Early Prototype - Purchase Additional Ground Equipment	MIPR	DPG, Dugway, UT	U	0	0	NONE	0	NONE	1650	Oct-02	0	1650	1650
DTE S - Early Prototype - Developmental Testing	C/CPFF	TBS	C	0	0	NONE	0	NONE	500	Oct-02	1250	1750	1750
CBMS													
DTE S - CBMS - Conduct Environmental Testing to Verify Stand Alone Performance	C/CPFF	Oak Ridge National Lab, Oak Ridge, TN (OSC, Pomona, CA - sub)	C	0	250	Oct-00	0	NONE	0	NONE	0	250	0
MCAD													
OTHT S - Agent and Interference Trials	SS/FP	Northrop/Grumann, VA	C	0	0	NONE	100	2Q FY02	0	NONE	0	100	0
OTHT S - Urban area operation testing	MIPR	PM NBCDS, SBCCOM, APG, MD	C	0	0	NONE	1750	3Q FY02	0	NONE	0	1750	0
OTHT S - Test Support	MIPR	PM NBCDS, SBCCOM, APG, MD	U	0	0	NONE	150	2Q FY02	0	NONE	0	150	0
OTHT S - Interference and capability testing in various scenarios	PO	PM NBCDS, SBCCOM, APG, MD	U	0	0	NONE	4000	4Q FY02	0	NONE	0	4000	0

UNCLASSIFIED

CBDP PROJECT COST ANALYSIS (R-3 Exhibit)	DATE February 2002
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BUDGET ACTIVITY RDT&E DEFENSE-WIDE/ BA4 - Demonstration and Validation	PE NUMBER AND TITLE 0603884BP CHEMICAL/BIOLOGICAL DEFENSE (DEMVAL)	PROJECT CA4
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III. Test and Evaluation - Cont.	Contract Method & Type	Performing Activity & Location	US NF CC	Total PYs Cost	FY2001 Cost	FY2001 Award Date	FY2002 Cost	FY2002 Award Date	FY2003 Cost	FY2003 Award Date	Cost to Complete	Total Cost	Target Value of Contract
NBCRSBLKI													
TD/D C - Analysis to Integrate JS Air/Ground Requirements and Insert Block I Glove Data.	SS/CPFF	ITT Industries, Alexandria, VA	C	100	100	Mar-01	100	Mar-02	0	NONE	0	300	200
Subtotal III. Test and Evaluation:				100	350		6600		2150		1250	10450	

Remarks: NBCRSBLK1 (Training System) - Testing includes software validation, a Limited User Test, and a maintenance evaluation. Trainers are designed and tested uniquely for each installation. This includes systems integration with the Close Combat Tactical Training Center.

UNCLASSIFIED

CBDP PROJECT COST ANALYSIS (R-3 Exhibit)	DATE February 2002
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BUDGET ACTIVITY RDT&E DEFENSE-WIDE/ BA4 - Demonstration and Validation	PE NUMBER AND TITLE 0603884BP CHEMICAL/BIOLOGICAL DEFENSE (DEMVAL)	PROJECT CA4
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IV. Management Services	Contract Method & Type	Performing Activity & Location	US NF CC	Total PYs Cost	FY2001 Cost	FY2001 Award Date	FY2002 Cost	FY2002 Award Date	FY2003 Cost	FY2003 Award Date	Cost to Complete	Total Cost	Target Value of Contract
ARTEMIS													
PM/MS S - Program Office - Planning & Programming	WR	NSWCDD, Dahlgren, VA	U	0	618	Oct-00	583	Oct-01	793	Oct-02	7200	9194	8576
PM/MS S - Program Office - Program Support	C/CPFF	Battelle, Arlington, VA	N	0	270	Oct-00	472	Oct-01	918	Oct-02	8100	9760	9545
PM/MS S - IPT - Management	MIPR	Various	U	0	0	NONE	107	Oct-01	99	Oct-02	500	706	706
CBMS													
PM/MS C - Program Management	Various	Oak Ridge National Lab, Oak Ridge, TN (OSC, Pomona, CA - sub)	U	0	154	Oct-00	0	NONE	0	NONE	0	154	0
JEM													
PM/MS S - Program Office - Planning & Programming	WR	SPAWARSYSCOM, San Diego, CA	U	0	150	Sep-01	0	NONE	214	Oct-02	480	844	720
PM/MS S - - Program Support	C/CPFF	Battelle, Arlington, VA	N	0	50	Sep-01	0	NONE	0	NONE	0	50	0
PM/MS S - Program Support	C/CPFF	SAIC, San Diego, CA		0	50	Sep-01	0	NONE	0	NONE	0	50	0
MCAD													
PM/MS S - MCAD Evaluation	MIPR	PM NBCDS, SBCCOM, APG, MD	U	0	0	NONE	154	3Q FY02	0	NONE	0	154	0
NBCRSBLKI													
PM/MS S - Conduct Program/Project Management	PO	PM NBCDS, APG, MD & Fort Monmouth, NJ	U	122	122	Oct-00	122	Oct-01	0	NONE	0	366	122
ZSBIR													
SBIR/STTR - Aggregated from ZSBIR-SBIR/STTR	PO	HQ AMC, Alexandria, VA	U	0	0	NONE	276	2Q FY02	0	NONE	0	276	0

CBDP PROJECT COST ANALYSIS (R-3 Exhibit)	DATE February 2002
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BUDGET ACTIVITY RDT&E DEFENSE-WIDE/ BA4 - Demonstration and Validation	PE NUMBER AND TITLE 0603884BP CHEMICAL/BIOLOGICAL DEFENSE (DEMVAL)	PROJECT CA4
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IV. Management Services - Cont.	Contract Method & Type	Performing Activity & Location	US NF CC	Total PYs Cost	FY2001 Cost	FY2001 Award Date	FY2002 Cost	FY2002 Award Date	FY2003 Cost	FY2003 Award Date	Cost to Complete	Total Cost	Target Value of Contract
Subtotal IV. Management Services:				122	1414		1714		2024		16280	21554	

Remarks:

TOTAL PROJECT COST:	3560	8866		16274		16963		44081	89744	
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Project CA4	Page 34 of 112 Pages	Exhibit R-3 (PE 0603884BP)
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CBDP BUDGET ITEM JUSTIFICATION SHEET (R-2A Exhibit)							DATE February 2002					
BUDGET ACTIVITY RDT&E DEFENSE-WIDE/ BA4 - Demonstration and Validation				PE NUMBER AND TITLE 0603884BP CHEMICAL/BIOLOGICAL DEFENSE (DEMVAL)				PROJECT CO4				
COST (In Thousands)				FY 2001 Actual	FY 2002 Estimate	FY 2003 Estimate	FY 2004 Estimate	FY 2005 Estimate	FY 2006 Estimate	FY 2007 Estimate	Cost to Complete	Total Cost
CO4	COLLECTIVE PROTECTION (DEMVAL)			1454	0	4390	0	0	0	0	0	5844
A. <u>Mission Description and Budget Item Justification:</u>												
Project CO4 COLLECTIVE PROTECTION (DEMVAL): This DEMVAL funding supports Component Advanced Development and System Integration (CAD/SI) of CB collective protection systems that are smaller, lighter, less costly and more easily supported logistically at the crew, unit, ship, and aircraft level.												
The Joint Transportable Collective Protection System (JTCOPS) will use the latest technologies to provide the next generation of lightweight, modular, and self-supporting collective protection shelter systems. JTCOPS Block I will backfit selected existing standard military tent systems with a collective protection capability beyond that which is currently available. JTCOPS Block II will fully integrate next-generation collective protection into future military tent systems to provide NBC protection that is integral to the system.												
FY 2001 Accomplishments:												
<ul style="list-style-type: none"> 1454 JTCOPS - Revised the acquisition strategy to a block approach to align the program with user priorities. Revised the Milestone B documentation and the development contract request for proposals (RFP) for Block I. 												
Total 1454												
FY 2002 Planned Program: No planned program												
Project CO4				Page 35 of 112 Pages				Exhibit R-2 (PE 0603884BP)				

CBDP BUDGET ITEM JUSTIFICATION SHEET (R-2A Exhibit)	DATE February 2002
--	------------------------------

BUDGET ACTIVITY RDT&E DEFENSE-WIDE/ BA4 - Demonstration and Validation	PE NUMBER AND TITLE 0603884BP CHEMICAL/BIOLOGICAL DEFENSE (DEMVAL)	PROJECT CO4
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FY 2003 Planned Program:

- 4390 JTCOPS - Conduct Milestone B Decision Review for Block I. Release a Request for Proposals, evaluate proposals and award a development contract for Block I. Begin the design phase of the contract.

Total 4390

<u>B. Other Program Funding Summary:</u>	<u>FY 2001</u>	<u>FY 2002</u>	<u>FY 2003</u>	<u>FY 2004</u>	<u>FY 2005</u>	<u>FY 2006</u>	<u>FY 2007</u>	<u>To Compl</u>	<u>Total Cost</u>
CO5 COLLECTIVE PROTECTION (EMD)	3137	3987	4301	8122	6690	4239	4718	Cont	Cont
JN0017 JOINT COLLECTIVE PROTECTION EQUIPMENT	1038	2378	1377	1927	2235	2095	1846	Cont	Cont
JN0022 JT TRANSPORTABLE COLLECTIVE PROTECTION SHELTER	0	0	0	0	2020	1995	1995	Cont	Cont

C. Acquisition Strategy:

JTCOPS Block I will develop a new collective protection capability for existing DoD shelters. A competitive contract will be awarded for the design and prototype fabrication phase, with options for Low Rate Initial Production (LRIP) and production. After successful completion of Development Testing and the Milestone C decision, the LRIP option will be exercised to obtain prototypes for Operational Testing (OT). After completion of OT and the Full Rate Production decision, the production option on the contract will be exercised. Block II is scheduled to begin in FY05.

CBDP BUDGET ITEM JUSTIFICATION SHEET (R-2A Exhibit)	DATE February 2002
--	------------------------------

BUDGET ACTIVITY RDT&E DEFENSE-WIDE/ BA4 - Demonstration and Validation	PE NUMBER AND TITLE 0603884BP CHEMICAL/BIOLOGICAL DEFENSE (DEMVAL)	PROJECT CO4
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D. <u>Schedule Profile:</u>	FY 2000				FY 2001				FY 2002				FY 2003				FY 2004				FY 2005				FY 2006				FY 2007			
	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
JTCOPS																																
Conduct Planning Efforts for Milestone B					1Q			4Q																								
Milestone B - Block I													2Q																			
Design and Fabricate Prototypes for Development Test (DT) - Block I																	3Q															

CBDP PROJECT COST ANALYSIS (R-3 Exhibit)	DATE February 2002
---	------------------------------

BUDGET ACTIVITY RDT&E DEFENSE-WIDE/ BA4 - Demonstration and Validation	PE NUMBER AND TITLE 0603884BP CHEMICAL/BIOLOGICAL DEFENSE (DEMVAL)	PROJECT CO4
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II. Support Costs	Contract Method & Type	Performing Activity & Location	US NF CC	Total PYs Cost	FY2001 Cost	FY2001 Award Date	FY2002 Cost	FY2002 Award Date	FY2003 Cost	FY2003 Award Date	Cost to Complete	Total Cost	Target Value of Contract
JTCOPS													
ES S - Block I Proposal Evaluations and Design Reviews	MIPR	See remarks	U	0	0	NONE	0	NONE	300	1Q FY03	0	300	0
ILS S - Block I ILS Management Activities	MIPR	SBCCOM - Rock Island, IL	U	0	40	1Q FY01	0	NONE	300	1Q FY03	0	340	0
TD/D S - Block I Integrated Logistic Support Data	C/CPFF	TBS	C	0	0	NONE	0	NONE	100	1Q FY03	0	100	0
Subtotal II. Support Costs:				0	40		0		700		0	740	

Remarks: JTCOPS - Performing Activities & Locations: SBCCOM - Natick, MA; SBCCOM - Edgewood, MD; Brooks AFB - San Antonio, TX; NSWCDD - Dahlgren, VA; MARCORSYSCOM - Quantico, VA; CECOM - Ft. Belvoir, VA

III. Test and Evaluation: Not applicable

UNCLASSIFIED

CBDP PROJECT COST ANALYSIS (R-3 Exhibit)	DATE February 2002
---	------------------------------

BUDGET ACTIVITY RDT&E DEFENSE-WIDE/ BA4 - Demonstration and Validation	PE NUMBER AND TITLE 0603884BP CHEMICAL/BIOLOGICAL DEFENSE (DEMVAL)	PROJECT CO4
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IV. Management Services	Contract Method & Type	Performing Activity & Location	US NF CC	Total PYs Cost	FY2001 Cost	FY2001 Award Date	FY2002 Cost	FY2002 Award Date	FY2003 Cost	FY2003 Award Date	Cost to Complete	Total Cost	Target Value of Contract
JTCOPS													
PM/MS S - Block I Overall Program Management and Integrated Product Team Chair Responsibilities	Allot	SBCCOM - Natick, MA	U	0	470	1Q FY01	0	NONE	200	1Q FY03	0	670	0
PM/MS SB - Block I Integrated Product Team Participation	PO	See Remarks	U	0	944	1Q FY01	0	NONE	290	1Q FY03	0	1234	0
Subtotal IV. Management Services:				0	1414		0		490		0	1904	

Remarks: JTCOPS - Performing Activities & Locations: SBCCOM - Edgewood, MD; Brooks AFB - San Antonio, TX; NSWCDD - Dahlgren, VA; MARCORSSYSCOM - Quantico, VA

TOTAL PROJECT COST:	0	1454		0		4390		0	5844	
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Project CO4	Page 40 of 112 Pages	Exhibit R-3 (PE 0603884BP)
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CBDP BUDGET ITEM JUSTIFICATION SHEET (R-2A Exhibit)							DATE February 2002					
BUDGET ACTIVITY RDT&E DEFENSE-WIDE/ BA4 - Demonstration and Validation				PE NUMBER AND TITLE 0603884BP CHEMICAL/BIOLOGICAL DEFENSE (DEMVAL)				PROJECT CP4				
COST (In Thousands)				FY 2001 Actual	FY 2002 Estimate	FY 2003 Estimate	FY 2004 Estimate	FY 2005 Estimate	FY 2006 Estimate	FY 2007 Estimate	Cost to Complete	Total Cost
CP4	COUNTERPROLIFERATION SUPPORT (DEMVAL)			15709	15243	13423	20442	21137	24459	25516	Continuing	Continuing

A. Mission Description and Budget Item Justification:

Project CP4 COUNTERPROLIFERATION SUPPORT (DEMVAL): Providing full dimensional protection to deployed forces and critical fixed sites, to include Aerial Ports of Debarkation (APODs) and Sea Ports of Debarkation (SPODs), under threat of chemical or biological attack is one of the highest Commanders-in-Chief (CINC) priorities. Joint Vision 2010 states that power projection from the U.S. - achieved through rapid strategic mobility and enabled by overseas presence - will likely remain the fundamental concept of our future force. Fixed installations (seaports, aerial ports, logistics nodes, etc.) are critical to this mode of operation and are especially vulnerable to attack with Chemical and Biological (CB) weapons. Future adversaries will likely use CB weapons to deny U.S. and Allied 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 CINCs through the Advanced Concept Technology Demonstration (ACTD) process.

The Joint Biological Remote Early Warning System (JBREWS) ACTD, completed in FY01, attempted to address the need for an early warning, detection and identification of Biological Warfare (BW) agents in assembly areas. The primary requirement of the sponsoring CINC was to have an interim residual capability to detect, identify, and warn forces who may be exposed to BW agents. The JBREWS ACTD Military Utility Assessment was conducted by USEUCOM in September 2000. The JBREWS components did not demonstrate sufficient maturity and reliability to justify residual status. Technologies and detection strategies were transitioned to other biological detection systems in development and acquisition.

CBDP BUDGET ITEM JUSTIFICATION SHEET (R-2A Exhibit)	DATE February 2002
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BUDGET ACTIVITY RDT&E DEFENSE-WIDE/ BA4 - Demonstration and Validation	PE NUMBER AND TITLE 0603884BP CHEMICAL/BIOLOGICAL DEFENSE (DEMVAL)	PROJECT CP4
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The Restoration of Operations (RestOps) ACTD investigates the impact of technology and CONOPS on restoring operating tempo at an airfield following a CB attack. RestOps are those pre/during/post attack actions necessary to protect against and then immediately react to the consequences of a CB attack on an airfield so that the facility can resume functioning with a minimum of down time. This ACTD will provide technology, software support, and techniques and procedures so that an air base commander can minimize the impact of a CB attack on military operations.

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 Joint Multi-Mission Advanced NBC system (JMANS) program, also an ACTD candidate for FY01 which was not approved, was to provide Joint Task Force Commanders with an early entry NBC detection, warning and reporting capability.

CBDP BUDGET ITEM JUSTIFICATION SHEET (R-2A Exhibit)		DATE February 2002
BUDGET ACTIVITY	PE NUMBER AND TITLE	PROJECT
RDT&E DEFENSE-WIDE/ BA4 - Demonstration and Validation	0603884BP CHEMICAL/BIOLOGICAL DEFENSE (DEMVAL)	CP4
FY 2001 Accomplishments:		
<ul style="list-style-type: none"> • 407 JBREWS ACTD - Conducted in-service engineering for product improvement of the JBREWS Sample Identification Unit (SIU), power systems, and C4I, and support with modeling. • 724 JBREWS ACTD - Provided operational and training SIU assay cartridges for the Operational Testing Period. • 1927 JMANS - Initiated multi-mission sensor field trials to demonstrate CB detection capabilities with radar systems. • 3400 RestOps ACTD - Completed Joint Chemical Field Trials (development tests) and technology assessments on RestOps selected technologies at Dugway Proving Ground. • 1400 RestOps ACTD - Conducted CONOPS validation for future use in the RestOps preliminary and final demonstrations. • 1871 RestOps ACTD - Began procurement on selected decontamination, detection, protection, medical countermeasures, and sensor integration equipment/systems for the RestOps limited utility assessments, preliminary, and final demonstrations. • 2218 RestOps ACTD - Conducted the RestOps Air Base baseline exercise. • 1443 RestOps ACTD - Conducted user Operational/Functional Testing for Limited Utility Assessment (LUA) of the RestOps selected technologies satisfactorily making it through the Joint Chemical Field Trials at Dugway Proving Ground. • 2319 RestOps ACTD - Continued technology selection support, initiate procurement activity support, begin policy initiatives, continue information technology integration efforts and initiate planning for the RestOps technology transition. 		
Total	15709	
Project CP4	Page 43 of 112 Pages	Exhibit R-2 (PE 0603884BP)

CBDP BUDGET ITEM JUSTIFICATION SHEET (R-2A Exhibit)		DATE February 2002
BUDGET ACTIVITY	PE NUMBER AND TITLE	PROJECT
RDT&E DEFENSE-WIDE/ BA4 - Demonstration and Validation	0603884BP CHEMICAL/BIOLOGICAL DEFENSE (DEMVAL)	CP4
FY 2002 Planned Program:		
<ul style="list-style-type: none"> • 550 RestOps ACTD - Initiate user training on new technologies in preparation for RestOps preparatory and final demonstrations. • 620 RestOps ACTD - Conduct user preliminary demonstrations at RestOps Operational Manager selected Air Bases. • 610 RestOps ACTD - Complete procurement of selected technologies for decontamination, detection, protection, medical countermeasures, and sensor integration hardware and software. • 4980 RestOps ACTD - Continue procurement support, policy initiatives, transition planning, and information technology integration support. • 2725 RestOps ACTD - Conduct technology systems integration and systems tests, final CONOPS evaluation, and complete Limited Utility Assessment reports. • 1833 CASPOD ACTD - Develop the Management Plan, management structure, and methodologies for technology selection analysis, chemical field-test assessment, and operational capability assessment for use during CASPOD. Begin procurement on selected decontamination, detection, protection, medical countermeasures and sensor integration equipment/systems for the CASPOD limited utility assessments, preliminary and final demonstrations. And Conduct technology selection support, initiate procurement activity support, begin policy initiatives, continue information technology integration efforts and initiate planning for the CASPOD technology transition. • 1833 CASPOD ACTD - Develop site chemical and biological exercise scenario in preparation for the CASPOD baselining exercise. Conduct scenario and evaluation development for use in the CASPOD baselining exercise, preliminary and final demonstrations. Conduct CONOPS validation for future use in the CASPOD preliminary and final demonstrations. Conduct a series of tabletop exercises to establish the CASPOD baseline. 		
Project CP4	Page 44 of 112 Pages	Exhibit R-2 (PE 0603884BP)

CBDP BUDGET ITEM JUSTIFICATION SHEET (R-2A Exhibit)		DATE February 2002
BUDGET ACTIVITY RDT&E DEFENSE-WIDE/ BA4 - Demonstration and Validation	PE NUMBER AND TITLE 0603884BP CHEMICAL/BIOLOGICAL DEFENSE (DEMVAL)	PROJECT CP4
FY 2002 Planned Program (Cont):		
<ul style="list-style-type: none"> • 1834 CASPOD ACTD - Conduct user operational/functional testing for limited utility assessments (LUA) of the CASPOD selected technologies satisfactorily making it through the Joint Chemical Field Trials at Dugway Proving Ground. • 258 SBIR - Small Business Innovative Research. 		
Total	15243	
FY 2003 Planned Program:		
<ul style="list-style-type: none"> • 959 CASPOD - Conduct user preliminary demonstration at CASPOD Operational Manager selected seaports. • 959 CASPOD - Conduct the CASPOD final user demonstration on new technologies taking it through the preliminary demonstration. • 959 CASPOD - Complete procurement of selected technologies for decontamination, detection, protection, medical countermeasures, and sensor integration hardware and software. • 959 CASPOD - Continue procurement support, policy initiatives, transition planning, and information technology integration support. • 959 CASPOD - Conduct technology systems integration and systems tests, final CONOPs evaluation, and complete Limited Utility Assessment reports. • 958 CASPOD - Initiate user training on new technologies in preparation for preliminary and final demonstrations. Complete user training for final demonstrations at the OM selected seaports. • 550 RestOps ACTD - Complete user training for final demonstrations at the Operational Manager selected airbases. 		
Project CP4	Page 45 of 112 Pages	Exhibit R-2 (PE 0603884BP)

CBDP BUDGET ITEM JUSTIFICATION SHEET (R-2A Exhibit)		DATE February 2002
BUDGET ACTIVITY	PE NUMBER AND TITLE	PROJECT
RDT&E DEFENSE-WIDE/ BA4 - Demonstration and Validation	0603884BP CHEMICAL/BIOLOGICAL DEFENSE (DEMVAL)	CP4
FY 2003 Planned Program (Cont):		
<ul style="list-style-type: none"> • 2100 RestOps ACTD - Conduct the RestOps final user demonstration on new technologies taking it through the preliminary demonstration. • 2603 RestOps ACTD - Initiate planning, procurement, and contractor logistics support services for residual support on Operational Manager selected technologies. • 1500 RestOps ACTD - Finalize policy initiatives and complete information technology integration. • 917 RestOps ACTD - Develop and complete Military Utility Assessment (MUA) report and complete CONOPS documents. 		
Total	13423	
<p>Project CP4</p> <p style="text-align: center;">Page 46 of 112 Pages</p> <p style="text-align: right;">Exhibit R-2 (PE 0603884BP)</p>		

CBDP BUDGET ITEM JUSTIFICATION SHEET (R-2A Exhibit)

DATE
February 2002

BUDGET ACTIVITY

**RDT&E DEFENSE-WIDE/
BA4 - Demonstration and Validation**

PE NUMBER AND TITLE

**0603884BP CHEMICAL/BIOLOGICAL DEFENSE
(DEMVAL)**

PROJECT

CP4

B. Other Program Funding Summary:

	<u>FY 2001</u>	<u>FY 2002</u>	<u>FY 2003</u>	<u>FY 2004</u>	<u>FY 2005</u>	<u>FY 2006</u>	<u>FY 2007</u>	<u>To Compl</u>	<u>Total Cost</u>
BJ4 BIOLOGICAL DEFENSE (DEMVAL)	5765	1560	3661	19163	19329	0	0	0	49478
BJ5 BIOLOGICAL DEFENSE (EMD)	7575	12803	14660	17977	17315	37632	35708	Cont	Cont
CP3 COUNTERPROLIFERATION SUPPORT (ADV TECH DEV)	9944	12492	11738	5327	5368	4697	4242	Cont	Cont
CP5 COUNTERPROLIFERATION SUPPORT (EMD)	0	0	0	0	0	0	0	0	0
JPO210 CRITICAL REAGENTS PROGRAM (CRP)	4284	1913	2010	1850	1894	2251	2301	Cont	Cont
JPO230 PORTAL SHIELD EQUIPMENT	26192	3865	0	0	0	0	0	0	30057

C. Acquisition Strategy:

ACTDs

Utilize non-traditional acquisition Advanced Concept Technology Demonstration (ACTD) to rapidly provide the CINC with operational capabilities to counter the battlefield effects of chemical and biological attacks, to include the development of concepts of operation and doctrine.

ARTEMIS

Moved to Contamination Avoidance.

CBDP BUDGET ITEM JUSTIFICATION SHEET (R-2A Exhibit)	DATE February 2002
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BUDGET ACTIVITY RDT&E DEFENSE-WIDE/ BA4 - Demonstration and Validation	PE NUMBER AND TITLE 0603884BP CHEMICAL/BIOLOGICAL DEFENSE (DEMVAL)	PROJECT CP4
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D. <u>Schedule Profile (cont):</u>	FY 2000				FY 2001				FY 2002				FY 2003				FY 2004				FY 2005				FY 2006				FY 2007			
	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 (Cont)																																
BLK I - System Function Requirements (SFR)																3Q																
BLK I - Early Prototypes Delivered																				3Q												
BLK I - Prototype Developmental Testing (DT I)																				3Q 4Q												
BLK I - Early Operational Assessment																								1Q								
BLK I - Advanced Prototypes Delivered																								2Q								
BLK I - Prototype Developmental Testing (DT II)																								2Q								
BLK I - Operational Assessment (OA)																								3Q								
Developmental Test I (DT I) LAV variant																												2Q				
BLK I - Award Low Rate Initial Production (LRIP) Contract / Option																												2Q				
INTCBATD																																
Scenario/Exercise Development												4Q																				
Joint Chemical Fields Trials												3Q																				
Concept of Operations (CONOPS) Development												4Q																				

CBDP BUDGET ITEM JUSTIFICATION SHEET (R-2A Exhibit)	DATE February 2002
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BUDGET ACTIVITY RDT&E DEFENSE-WIDE/ BA4 - Demonstration and Validation	PE NUMBER AND TITLE 0603884BP CHEMICAL/BIOLOGICAL DEFENSE (DEMVAL)	PROJECT CP4
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D. <u>Schedule Profile (cont):</u>	FY 2000				FY 2001				FY 2002				FY 2003				FY 2004				FY 2005				FY 2006				FY 2007			
	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
INTCBATD (Cont)																																
Concept of Operations (CONOPS) Validation													1Q	2Q																		
Baseline Exercise											3Q																					
Procurement											3Q				4Q																	
Training														2Q					2Q													
Preliminary Demonstration															4Q																	
Joint Warfighting Experiment (JWE)/Final Demonstration																			4Q													
JBREWS																																
Conduct JBREWS Advanced Concept Technology Demonstration (ACTD) Demonstration											4Q	1Q																				
JMANS																																
Advanced Concept Technology Demonstration (ACTD) Development											1Q				4Q																	
Conduct Radar Multimission Sensor Field Trials															3Q	4Q																
RESTOPS																																
Scenario/Exercise Development											2Q																					

CBDP BUDGET ITEM JUSTIFICATION SHEET (R-2A Exhibit)	DATE February 2002
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BUDGET ACTIVITY RDT&E DEFENSE-WIDE/ BA4 - Demonstration and Validation	PE NUMBER AND TITLE 0603884BP CHEMICAL/BIOLOGICAL DEFENSE (DEMVAL)	PROJECT CP4
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D. <u>Schedule Profile (cont):</u>	FY 2000				FY 2001				FY 2002				FY 2003				FY 2004				FY 2005				FY 2006				FY 2007			
	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
RESTOPS (Cont)																																
Joint Chemical Field Trials			3Q		1Q																											
Concept of Operations (CONOPS) Development									1Q																							
Concept of Operations (CONOPS) Validation					1Q	2Q																										
Functional Test						2Q					2Q																					
Baseline Exercise					2Q																											
Procurement							3Q		1Q																							
Training									2Q				1Q																			
Osan AB Demonstration Vignette									3Q																							
DPG Decon Demonstration Vignette									3Q																							
DPG Medical Demonstration Vignette											4Q																					
Joint Warfighting Experiment (JWE)/Final Demonstration													2Q																			
Fielding Support (CLS)													2Q																4Q			

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CBDP PROJECT COST ANALYSIS (R-3 Exhibit)	DATE February 2002
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BUDGET ACTIVITY RDT&E DEFENSE-WIDE/ BA4 - Demonstration and Validation	PE NUMBER AND TITLE 0603884BP CHEMICAL/BIOLOGICAL DEFENSE (DEMVAL)	PROJECT CP4
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II. Support Costs	Contract Method & Type	Performing Activity & Location	US NF CC	Total PYs Cost	FY2001 Cost	FY2001 Award Date	FY2002 Cost	FY2002 Award Date	FY2003 Cost	FY2003 Award Date	Cost to Complete	Total Cost	Target Value of Contract
INTCBATD													
ILS S - Training for Preliminary and Final Demonstrations	Allot	Army - US Army Chemical School, Ft Leonard Wood, MO	U	0	0	NONE	0	NONE	250	1Q FY03	0	250	0
JBREWS													
ES SB - Sample Identification Unit Inservice Engineering	MIPR	NSWC, Dahlgren, VA	U	0	407	1Q FY01	0	NONE	0	NONE	0	407	0
JMANS													
TD/D SB - JMANS CONOPS Development	SS/CPFF	SOBRAN, Edgewood, MD	C	0	100	2Q FY01	0	NONE	0	NONE	0	100	0
ES S - JMANS CONOPS Development	MIPR	NSWC, Dahlgren, VA	U	0	180	1Q FY02	0	NONE	0	NONE	0	180	0
ES SB - JMANS CONOPS Development	MIPR	CECOM, Ft. Monmouth, NJ	U	0	150	1Q FY02	0	NONE	0	NONE	0	150	0
RESTOPS													
ILS S - Training for Preliminary and Final Demonstrations	Allot	Army - US Army Chemical School, Ft Leonard Wood, MO	U	0	0	NONE	550	Oct-01	550	Oct-02	0	1100	0
ILS S - Residual Support	Allot	Army - Soldier Biological Chemical Command, APG. MD	U	0	0	NONE	0	NONE	2603	Oct-02	0	2603	0
ES S - Systems Integration and Integration Testing	Allot	Army - Soldier Biological Chemical Command, APG, MD	U	0	0	NONE	1667	Oct-01	0	NONE	0	1667	0

UNCLASSIFIED

CBDP PROJECT COST ANALYSIS (R-3 Exhibit)	DATE February 2002
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BUDGET ACTIVITY RDT&E DEFENSE-WIDE/ BA4 - Demonstration and Validation	PE NUMBER AND TITLE 0603884BP CHEMICAL/BIOLOGICAL DEFENSE (DEMVAL)	PROJECT CP4
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II. Support Costs - Cont.	Contract Method & Type	Performing Activity & Location	US NF CC	Total PYs Cost	FY2001 Cost	FY2001 Award Date	FY2002 Cost	FY2002 Award Date	FY2003 Cost	FY2003 Award Date	Cost to Complete	Total Cost	Target Value of Contract
TD/D S - Military Utility Assessment Report and CONOPS Documents	Allot	Air Force - AF Operational Test Center, Albuquerque, NM	U	0	0	NONE	0	NONE	917	Oct-02	0	917	0
Subtotal II. Support Costs:				0	837		2217		4320		0	7374	

Remarks:

III. Test and Evaluation	Contract Method & Type	Performing Activity & Location	US NF CC	Total PYs Cost	FY2001 Cost	FY2001 Award Date	FY2002 Cost	FY2002 Award Date	FY2003 Cost	FY2003 Award Date	Cost to Complete	Total Cost	Target Value of Contract
INTCBATD													
OTHT SB - Complete Tests on Selected Technologies in Joint Chemical Field Trials	MIPR	Army-Dugway Proving Ground, Dugway, Utah	U	0	0	NONE	0	NONE	1000	1Q FY03	0	1000	0
OTHT S - Conduct Operational and Functional Tests During Limited Utility Tests	PO	Air Force - AF Operational Test Center, Albuquerque, NM		0	0	NONE	0	NONE	339	1Q FY03	0	339	0
OTHT SB - Conduct CASPOD Chemical Biological Defense Concepts of Operations Validation	MIPR	US Central Command, MacDill AFB, Tampa, FL	U	0	0	NONE	0	NONE	250	1Q FY03	0	250	0
OTHT SB - Conduct Preliminary Demonstration at Blount Is, FL and Final Demonstration at Mina Sulma, Bahrain	PO	Air Force - AF Operational Test Center, Albuquerque, NM	U	0	0	NONE	0	NONE	1500	1Q FY03	0	1500	0

UNCLASSIFIED

CBDP PROJECT COST ANALYSIS (R-3 Exhibit)	DATE February 2002
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BUDGET ACTIVITY RDT&E DEFENSE-WIDE/ BA4 - Demonstration and Validation	PE NUMBER AND TITLE 0603884BP CHEMICAL/BIOLOGICAL DEFENSE (DEMVAL)	PROJECT CP4
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III. Test and Evaluation - Cont.	Contract Method & Type	Performing Activity & Location	US NF CC	Total PYs Cost	FY2001 Cost	FY2001 Award Date	FY2002 Cost	FY2002 Award Date	FY2003 Cost	FY2003 Award Date	Cost to Complete	Total Cost	Target Value of Contract
JBREWS													
OTE S - Purchase Operational Testing Period Assay Cartridges	C/FFP	ACS Defense Inc., Alexandria, VA	C	0	724	Oct-00	0	NONE	0	NONE	0	724	0
JMANS													
ES S - Contract Support for SDD Phase	MIPR	CECOM, Ft. Monmouth, NJ	U	0	374	2Q FY01	0	NONE	0	NONE	0	374	0
OTHT SB - Field Trials for the Radar Multimission Sensor	SS/CPFF	TAMSCO, Edgewood, MD	C	0	192	2Q FY01	0	NONE	0	NONE	0	192	0
OTHT SB - Field Trials for Radar Multimission Sensor	SS/CPFF	DYCOR, Havre de Grace, MD	C	0	51	2Q FY01	0	NONE	0	NONE	0	51	0
RESTOPS													
OTHT SB - Complete Tests on Selected Technologies in Joint Chemical Field Trials	MIPR	Army- Dugway Proving Ground, Dugway, Utah	U	0	3400	Oct-00	0	NONE	0	NONE	0	3400	0
OTHT S - Conduct Operational and Functional Tests During Limited Utility Tests	Allot	Air Force - AF Operational Test Center, Albuquerque, NM	U	0	1443	Oct-00	339	Oct-01	0	NONE	0	1782	0
OTHT S - Conduct Baselineing Exercise on Airbase Operations	Allot	Air Force - AF Operational Test Center, Albuquerque, NM	U	0	2218	Oct-00	0	NONE	0	NONE	0	2218	0
OTHT SB - Conduct Airbase Chemical Biological Defense Concepts of Operation Validation	MIPR	Air Force - Pacifica Air Forces, Hickam AF, Hawaii	U	0	1400	Oct-00	250	Oct-01	0	NONE	0	1650	0

UNCLASSIFIED

CBDP PROJECT COST ANALYSIS (R-3 Exhibit)	DATE February 2002
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BUDGET ACTIVITY RDT&E DEFENSE-WIDE/ BA4 - Demonstration and Validation	PE NUMBER AND TITLE 0603884BP CHEMICAL/BIOLOGICAL DEFENSE (DEMVAL)	PROJECT CP4
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IV. Management Services	Contract Method & Type	Performing Activity & Location	US NF CC	Total PYs Cost	FY2001 Cost	FY2001 Award Date	FY2002 Cost	FY2002 Award Date	FY2003 Cost	FY2003 Award Date	Cost to Complete	Total Cost	Target Value of Contract
INTCBATD													
PM/MS S - Perform Program Management for CASPOD ACTD	C/FP	Defense Group Incorporated, Alexandria, VA	C	0	0	NONE	0	NONE	300	Oct-02	0	300	0
PM/MS S - Perform Program Management for CASPOD	Allot	DTRA, Alexandria, VA	U	0	0	NONE	0	NONE	214	1Q FY03	0	214	0
JMANS													
PM/MS S - JMANS Multiservice Program Administration	PO	SBCCOM, APG, MD	U	0	880	1Q FY01	0	NONE	0	NONE	0	880	0
RESTOPS													
PM/MS S - Perform Program Management for RESTOPS ACTD	C/FP	Defense Group Incorporated, Alexandria, VA	C	0	1625	Oct-00	3000	Oct-01	0	NONE	0	4625	0
PM/MS S - Perform Program Management for RestOps	Allot	DTRA, Alexandria, VA	U	0	694	Oct-00	479	Oct-01	1500	Oct-02	0	2673	0
Advanced LRUs and Breadboard	Allot	Defense Group Incorporated, Alexandria, VA	C	0	0	NONE	1625	1Q FY02	0	NONE	0	1625	0
PM/MS S - Perform Program Management for CASPOD ACTD	Allot	DTRA, Alexandria, VA	U	0	0	NONE	694	2Q FY02	0	NONE	0	694	0
ZSBIR													
SBIR/STTR - Aggregated from ZSBIR-SBIR/STTR	PO	HQ AMC, Alexandria, VA	U	0	0	NONE	258	2Q FY02	0	NONE	0	258	0

CBDP PROJECT COST ANALYSIS (R-3 Exhibit)	DATE February 2002
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BUDGET ACTIVITY RDT&E DEFENSE-WIDE/ BA4 - Demonstration and Validation	PE NUMBER AND TITLE 0603884BP CHEMICAL/BIOLOGICAL DEFENSE (DEMVAL)	PROJECT CP4
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IV. Management Services - Cont.	Contract Method & Type	Performing Activity & Location	US NF CC	Total PYs Cost	FY2001 Cost	FY2001 Award Date	FY2002 Cost	FY2002 Award Date	FY2003 Cost	FY2003 Award Date	Cost to Complete	Total Cost	Target Value of Contract
Subtotal IV. Management Services:				0	3199		6056		2014		0	11269	

Remarks:

TOTAL PROJECT COST:	0	15709		15243		13423		0	44375	
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CBDP BUDGET ITEM JUSTIFICATION SHEET (R-2A Exhibit)	DATE February 2002
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BUDGET ACTIVITY RDT&E DEFENSE-WIDE/ BA4 - Demonstration and Validation	PE NUMBER AND TITLE 0603884BP CHEMICAL/BIOLOGICAL DEFENSE (DEMVAL)	PROJECT DE4
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COST (In Thousands)	FY 2001 Actual	FY 2002 Estimate	FY 2003 Estimate	FY 2004 Estimate	FY 2005 Estimate	FY 2006 Estimate	FY 2007 Estimate	Cost to Complete	Total Cost
DE4 DECONTAMINATION SYSTEMS (DEMVAL)	3368	6143	6972	12378	14220	3997	3992	Continuing	Continuing

A. Mission Description and Budget Item Justification:

Project DE4 DECONTAMINATION SYSTEMS (DEMVAL): This DEMVAL funding supports Component Advanced Development and System Integration (CAD/SI) 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 with reduced operational impact, reduced logistics burden, reduced costs, increased safety, and minimized environmental effect over currently fielded decontaminants. This funding supports the Joint Service Fixed Site Decontamination (JSFXD) and the Joint Service Sensitive Equipment Decontamination (JSSSED) programs.

The JSFXD system consists of a family of decontaminants and family of applicators that provide each service with the capability to decontaminate fixed sites to restore mission operations. These items will be used to decontaminate equipment, personnel, and vital areas to sustain critical cargo flow and operation tempo at ports, airfields, logistic nodes, and key command and control centers. The program is divided into four blocks. Block I will field decontaminants that will be used with integral or existing applicators. Block II will field any additional applicators and containment systems required to provide the full fixed site decontamination capability (excluding Block III). Block III will provide a Food and Drug Administration (FDA) approved capability to decontaminate skin/casualties with open wounds. Block IV will address requirements that have been trade-offs or are currently ill defined, inserting technology as it matures to the point of being cost effective.

CBDP BUDGET ITEM JUSTIFICATION SHEET (R-2A Exhibit)		DATE February 2002
BUDGET ACTIVITY	PE NUMBER AND TITLE	PROJECT
RDT&E DEFENSE-WIDE/ BA4 - Demonstration and Validation	0603884BP CHEMICAL/BIOLOGICAL DEFENSE (DEMVAL)	DE4
<p>The JSSED system will fill an immediate need to decontaminate chemical and biological warfare agents from sensitive equipment, vehicle/aircraft interiors, and associated cargo, as defined in the draft Joint Service Operational Requirements Document (JSORD) for the JSSED. The JSSED will be a dual technology development program; one technology to decontaminate sensitive items/equipment and a second technology to decontaminate vehicle/aircraft interiors. The JSSED will utilize a three block approach to address individual key capabilities to reduce program risk and support production schedule. Block I will do sensitive equipment/items decontamination; Block II will do aircraft/vehicle interior decontamination; and, Block III will do aircraft/vehicle interior decontamination "on-the-move."</p> <p>SORBDECON provides a reactive sorbent powder technology and a family of applicators for immediate decontamination. Sorbent replaces the XE555 resin in the M295 Decontamination Kit for wipe down procedures. The sorbent and a dispenser system will replace M11's and M13's used for immediate decontamination, and associated Decontaminating Solution 2 (DS2) in operator spray down procedures. The Sorbent Decon System will be more reactive towards Chemical Warfare (CW) agents than the M295 Kit using XE555 Resin, therefore reducing the hazard associated with the spent decontaminant. The sorbent will be more compatible with Mission Oriented Protective Posture (MOPP) and other materials than the currently fielded DS2. This program completed the RDTE phase in FY2001.</p>		
Project DE4	Page 60 of 112 Pages	Exhibit R-2 (PE 0603884BP)

CBDP BUDGET ITEM JUSTIFICATION SHEET (R-2A Exhibit)	DATE February 2002
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BUDGET ACTIVITY RDT&E DEFENSE-WIDE/ BA4 - Demonstration and Validation	PE NUMBER AND TITLE 0603884BP CHEMICAL/BIOLOGICAL DEFENSE (DEMVAL)	PROJECT DE4
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FY 2001 Accomplishments:

- 568 JSFXD - Completed performance specifications to support procurement for all blocks and technical documentation (Test Reports and Test Plans) to support a MS B decision for Block I.
- 336 JSFXD - Initiated MS B documentation for Block II. Prepared solicitation package Block III.
- 976 JSFXD - Initiated test methodology development and initial toxicology testing to support downselect and FDA approval of Block III skin/casualty decontaminants.
- 420 JSSED - Completed performance specifications and Request for Proposal to support development contract for Block I.
- 379 JSSED - Conducted source selection evaluation board to select Block I candidate systems.
- 232 JSSED - Prepared and submitted Block I Milestone documentation, which included Test and Evaluation Master Plan, System Acquisition Master Plan, and Acquisition Program Baseline.
- 201 SORBDECON - Completed baseline toxicity testing of sorbent material.
- 256 SORBDECON - Completed development and support of Milestone III decision documentation for operator's spray down system on equipment.

Total 3368

CBDP BUDGET ITEM JUSTIFICATION SHEET (R-2A Exhibit)		DATE February 2002
BUDGET ACTIVITY	PE NUMBER AND TITLE	PROJECT
RDT&E DEFENSE-WIDE/ BA4 - Demonstration and Validation	0603884BP CHEMICAL/BIOLOGICAL DEFENSE (DEMVAL)	DE4
FY 2002 Planned Program:		
<ul style="list-style-type: none"> • 577 JSFXD - Continue toxicology testing and other evaluations necessary for FDA approval to support downselect of Block III skin/casualty decontaminants. • 1430 JSFXD - Award system integration contract(s) for Block II family of applicators system to develop prototype applicator and containment systems for evaluation (15 systems at average cost of \$100K). • 941 JSFXD - Perform Early Operational Assessment and initiate Developmental Testing (DT) of Block II family of applicator systems. • 2500 JSSED - Award Block I competitive contract to deliver three system models from each of two contractors and investigate design improvements to meet military requirements. (Total of six prototypes at \$150K each). • 591 JSSED - Conduct assessments evaluating performance and procedures in a chemical environment. Conduct assessments of the effectiveness of interior building areas for use as chemical rest and relief areas. • 104 SBIR - Small Business Innovative Research. 		
Total	6143	
FY 2003 Planned Program:		
<ul style="list-style-type: none"> • 248 JSSED - Conduct Block I program Interim Progress Review (IPR) to finalize Block I technology and system design. • 3457 JSSED - Award contract to fabricate Block I developmental test systems which implement design improvements from the prior year competitive prototypes. • 2667 JSSED - Initiate pre-production Block I system test design. 		
Project DE4	Page 62 of 112 Pages	Exhibit R-2 (PE 0603884BP)

CBDP BUDGET ITEM JUSTIFICATION SHEET (R-2A Exhibit)	DATE February 2002
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BUDGET ACTIVITY RDT&E DEFENSE-WIDE/ BA4 - Demonstration and Validation	PE NUMBER AND TITLE 0603884BP CHEMICAL/BIOLOGICAL DEFENSE (DEMVAL)	PROJECT DE4
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FY 2003 Planned Program (Cont):

- 500 JSSED - Prepare and submit Block II/III Milestone B documentation, which includes Test and Evaluation Master Plan, System Acquisition Master Plan, and Acquisition Program Baseline.
- 100 JSSED - Prepare Request for Proposal for Block II/III combined development effort.

Total 6972

B. Other Program Funding Summary:

		<u>FY 2001</u>	<u>FY 2002</u>	<u>FY 2003</u>	<u>FY 2004</u>	<u>FY 2005</u>	<u>FY 2006</u>	<u>FY 2007</u>	<u>To Compl</u>	<u>Total Cost</u>
DE5 DECONTAMINATION SYSTEMS (EMD)		3746	2498	4981	4925	897	4996	2993	Cont	Cont
G47001 MODULAR DECON SYSTEM		2450	4997	5007	5098	4973	4987	0	0	27512
JN0010 JOINT SERVICE FIXED SITE DECON (JSFXD)		0	1515	2001	7508	6579	0	0	0	17603
JN0016 JOINT SERVICE SENSITIVE EQUIPMENT DECON		0	0	0	0	0	6074	12234	Cont	Cont
JN0018 SORBENT DECON		2726	8578	8553	266	0	0	0	0	20123

CBDP BUDGET ITEM JUSTIFICATION SHEET (R-2A Exhibit)		DATE February 2002
BUDGET ACTIVITY	PE NUMBER AND TITLE	PROJECT
RDT&E DEFENSE-WIDE/ BA4 - Demonstration and Validation	0603884BP CHEMICAL/BIOLOGICAL DEFENSE (DEMVAL)	DE4
C. <u>Acquisition Strategy:</u>		
JSFXD	Block I: competitively procure COTS/NDI decontaminants and where required, integral applicators for government/contractor test with options for production. Block II: competitive contract to develop applicator and containment systems for government/contractor testing with options for production. Block III: competitive procurement of COTS/NDI decontaminants with potential to meet FDA requirements for government testing with options for production. Block IV provides the warfighter with capabilities that were traded off during Blocks I-III, or to meet those requirements that are currently ill defined or underdefined, by inserting technology as it matures to the point of being cost effective.	
JSSSED	Utilize a three block approach to address individual key capabilities to reduce program risk and support production schedule. Block I: provide for sensitive equipment/items decontamination; Block II: provide for aircraft/vehicle interior decontamination; and, Block III: provide for aircraft/vehicle interior decontamination "on-the-move." Blocks I-III: in-house/contractor development and testing. Competitive contractor manufacture of production units.	
SORBDECON	In-house/contractor development and testing. Competitive contractor manufacture of production units.	
Project DE4	Page 64 of 112 Pages	Exhibit R-2 (PE 0603884BP)

CBDP BUDGET ITEM JUSTIFICATION SHEET (R-2A Exhibit)	DATE February 2002
--	------------------------------

BUDGET ACTIVITY RDT&E DEFENSE-WIDE/ BA4 - Demonstration and Validation	PE NUMBER AND TITLE 0603884BP CHEMICAL/BIOLOGICAL DEFENSE (DEMVAL)	PROJECT DE4
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D. <u>Schedule Profile (cont):</u>	FY 2000				FY 2001				FY 2002				FY 2003				FY 2004				FY 2005				FY 2006				FY 2007			
	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
SORBDECON (Cont)																																
M100 SORBDECON Production Contract Award								4Q																								

CBDP PROJECT COST ANALYSIS (R-3 Exhibit)	DATE February 2002
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BUDGET ACTIVITY RDT&E DEFENSE-WIDE/ BA4 - Demonstration and Validation	PE NUMBER AND TITLE 0603884BP CHEMICAL/BIOLOGICAL DEFENSE (DEMVAL)	PROJECT DE4
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I. Product Development	Contract Method & Type	Performing Activity & Location	US NF CC	Total PYs Cost	FY2001 Cost	FY2001 Award Date	FY2002 Cost	FY2002 Award Date	FY2003 Cost	FY2003 Award Date	Cost to Complete	Total Cost	Target Value of Contract
JSFXD													
OTHT SB - Multiwave LIDAR - Demonstrate Component Advance Development Tasks	C/FPI	TBS	C	0	0	NONE	1130	Feb-02	0	NONE	0	1130	0
JSSED													
SW SB - JSSED - Block I Prototype Systems (2 Contractors - 3 Systems Each)	C/CPFF	TBS	C	0	0	NONE	2000	Feb-02	3457	Feb-03	0	5457	0
Subtotal I. Product Development:													
				0	0		3130		3457		0	6587	

Remarks:

II. Support Costs	Contract Method & Type	Performing Activity & Location	US NF CC	Total PYs Cost	FY2001 Cost	FY2001 Award Date	FY2002 Cost	FY2002 Award Date	FY2003 Cost	FY2003 Award Date	Cost to Complete	Total Cost	Target Value of Contract
JSFXD													
ES S - Contractor Support for Family of Applicators Block II	C/FFP	SVERDRUP, Woodbridge, VA.	C	0	0	NONE	300	Dec-01	0	NONE	0	300	0
Subtotal II. Support Costs:													
				0	0		300		0		0	300	

Remarks:

UNCLASSIFIED

CBDP PROJECT COST ANALYSIS (R-3 Exhibit)	DATE February 2002
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BUDGET ACTIVITY RDT&E DEFENSE-WIDE/ BA4 - Demonstration and Validation	PE NUMBER AND TITLE 0603884BP CHEMICAL/BIOLOGICAL DEFENSE (DEMVAL)	PROJECT DE4
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IV. Management Services	Contract Method & Type	Performing Activity & Location	US NF CC	Total PYs Cost	FY2001 Cost	FY2001 Award Date	FY2002 Cost	FY2002 Award Date	FY2003 Cost	FY2003 Award Date	Cost to Complete	Total Cost	Target Value of Contract
JSFXD													
PM/MS C - Joint IPT Support	MIPR	Various	U	0	918	Nov-00	341	Nov-01	0	NONE	0	1259	0
JSSSED													
PM/MS S - JSSSED - Service IPT Support	MIPR	Various	U	0	1031	1Q FY01	500	1Q FY02	848	1Q FY03	0	2379	0
SORBDECON													
PM/MS S - Develop and Support Milestone (MS) III Documentation for Operator Spray Down Systems	MIPR	SBCCOM, APG, MD	U	1734	257	1Q FY01	0	NONE	0	NONE	0	1991	1834
ZSBIR													
SBIR/STTR - Aggregated from ZSBIR-SBIR/STTR	PO	HQ AMC, Alexandria, VA	U	0	0	NONE	104	2Q FY02	0	NONE	0	104	0
Subtotal IV. Management Services:				1734	2206		945		848		0	5733	

Remarks: SORBDECON - Milestone III included integration of the sorbent powder into an applicator; a market survey; testing of commercial applicators; and area coverage testing.

TOTAL PROJECT COST:	1734	3368		6143		6972		0	18217
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Project DE4

CBDP BUDGET ITEM JUSTIFICATION SHEET (R-2A Exhibit)	DATE February 2002
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BUDGET ACTIVITY RDT&E DEFENSE-WIDE/ BA4 - Demonstration and Validation	PE NUMBER AND TITLE 0603884BP CHEMICAL/BIOLOGICAL DEFENSE (DEMVAL)	PROJECT HS4
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COST (In Thousands)	FY 2001 Actual	FY 2002 Estimate	FY 2003 Estimate	FY 2004 Estimate	FY 2005 Estimate	FY 2006 Estimate	FY 2007 Estimate	Cost to Complete	Total Cost
HS4 HOMELAND SECURITY (DEMVAL)	0	0	55000	0	0	0	0	0	55000

A. Mission Description and Budget Item Justification:

Project HS4 HOMELAND SECURITY (DEMVAL): The Homeland Security System Development and Demonstration program is focused on supporting a dual use operational capability for integrated biological surveillance, detection, and warning in the National Capital Region (NCR) with technology insertions for improved performance and response. The biological surveillance system will be used to detect and alert to a biological attack upon US urban assets, thus gaining time for an earlier, more informed public health and law enforcement response (e.g., start treatment, secure hospital beds, etc.). This capability will be achieved primarily through the fusion of environmental sampling/sensors and non-traditional detection using health, plant, and animal indicators. There are two approaches for early detection of a covert release of biological warfare pathogens. The first uses sensors and environmental sampling to identify biological agents within minutes to several hours, depending on the analysis processes used. The second approach consists of looking for early signs and symptoms of disease in human, animal, and plant populations. The purpose of the program described here is to integrate the two approaches to obtain seamless early alerting benefits for military and civilian populations in the area under surveillance.

FY 2001 Accomplishments: None

FY 2002 Planned Program: No planned program

CBDP BUDGET ITEM JUSTIFICATION SHEET (R-2A Exhibit)		DATE February 2002
BUDGET ACTIVITY	PE NUMBER AND TITLE	PROJECT
RDT&E DEFENSE-WIDE/ BA4 - Demonstration and Validation	0603884BP CHEMICAL/BIOLOGICAL DEFENSE (DEMVAL)	HS4
FY 2003 Planned Program:		
<ul style="list-style-type: none"> • 6000 Homeland Security (Dev/Prod/Mgt) - Initiate system demonstration and testing of networked sensor ensemble to include next generation camera assay reader. • 4000 Homeland Security (Dev/Prod/Mgt) - Initiate system integration and demonstration of the next generation UV trigger device for enhanced biological generic detection. • 5000 Homeland Security (Dev/Prod/Mgt) - Demonstrate internal building surveillance using Mass Spectrometer chemical and biological detection. • 4000 Homeland Security (Dev/Prod/Mgt) - Demonstrate integration and testing of advanced aerosol collectors and an automated dry filter collector concentrator. • 8000 Homeland Security (Dev/Prod/Mgt) - Initiate system integration and demonstration of the JBPDS Block II upgrade breadboard. • 6500 Homeland Security (Dev/Prod/Mgt) - Initiate system integration and testing of UV standoff candidates for fixed site protection. • 1000 Homeland Security (Dev/Prod/Mgt) - Conduct ambient breeze tunnel (ABT) testing of systems and components. • 1000 Homeland Security (Dev/Prod/Mgt) - Conduct background aerosol measurements and characterization. • 1000 Homeland Security (Dev/Prod/Mgt) - Conduct indoor building flow characterization and testing. • 1000 Homeland Security (Dev/Prod/Mgt) - Fabricate ABT for system and component testing. • 3000 Homeland Security (Dev/Prod/Mgt) - Initiate systems engineering studies for deployment of sensors in the NCR. • 1000 Homeland Security (Dev/Prod/Mgt) - Conduct wargames/tabletop exercises for CONOPS development. 		
Project HS4	Page 72 of 112 Pages	Exhibit R-2 (PE 0603884BP)

CBDP BUDGET ITEM JUSTIFICATION SHEET (R-2A Exhibit)		DATE February 2002
BUDGET ACTIVITY	PE NUMBER AND TITLE	PROJECT
RDT&E DEFENSE-WIDE/ BA4 - Demonstration and Validation	0603884BP CHEMICAL/BIOLOGICAL DEFENSE (DEMVAL)	HS4
FY 2003 Planned Program (Cont):		
<ul style="list-style-type: none"> • 3000 Homeland Security (Dev/Prod/Mgt) - Initiate system integration and development of an automated biological agent testing system for laboratory analysis. • 3000 Homeland Security (Dev/Prod/Mgt) - Initiate system development of core antibodies for ORIGEN and HHA devices. • 4000 Homeland Security (Dev/Prod/Mgt) - Initiate system development and testing of improved reagent taggants (UCP, Quantum, Fluorescent, Dentrimer) and multiplex assays and readers. • 3500 Homeland Security (Dev/Prod/Mgt) - Initiate system development of PCR reagents QA/QC and validation testing protocols, and conduct downselect small scale fabrication and testing. 		
Total	55000	
B. <u>Other Program Funding Summary:</u> N/A		
<p>C. <u>Acquisition Strategy:</u> The Bio Surveillance system will be used to detect and alert to a biological attack upon US urban assets, thus gaining time for an earlier, more informed public health and law enforcement response (e.g., start treatment, clear hospital beds, etc.). This capability will be achieved primarily through the fusion of environmental sampling/sensors and non-traditional detection using health, plant, and animal indicators. This program will utilize and leverage ongoing efforts in advanced development and existing procurement efforts, executed by the Program Executive Office for Chemical and Biological Defense (PEOCBD) as well as promising technologies identified by the Defense Threat Reduction Agency (DTRA) and the DoD Combating Terrorism Technology Task Force. The Chemical Biological Defense Program will provide guidance and oversight to ensure a comprehensive and fully coordinated effort.</p>		
Project HS4	Page 73 of 112 Pages	Exhibit R-2 (PE 0603884BP)

CBDP BUDGET ITEM JUSTIFICATION SHEET (R-2A Exhibit)	DATE February 2002
--	------------------------------

BUDGET ACTIVITY RDT&E DEFENSE-WIDE/ BA4 - Demonstration and Validation	PE NUMBER AND TITLE 0603884BP CHEMICAL/BIOLOGICAL DEFENSE (DEMVAL)	PROJECT HS4
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D. <u>Schedule Profile:</u>	FY 2000				FY 2001				FY 2002				FY 2003				FY 2004				FY 2005				FY 2006				FY 2007							
	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	1	2	3	4
HLS																																				
System Integration, Testing and Demonstration of Bio Detection Systems and Reagents													1Q			4Q																				

UNCLASSIFIED

CBDP PROJECT COST ANALYSIS (R-3 Exhibit)	DATE February 2002
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BUDGET ACTIVITY RDT&E DEFENSE-WIDE/ BA4 - Demonstration and Validation	PE NUMBER AND TITLE 0603884BP CHEMICAL/BIOLOGICAL DEFENSE (DEMVAL)	PROJECT HS4
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I. Product Development	Contract Method & Type	Performing Activity & Location	US NF CC	Total PYs Cost	FY2001 Cost	FY2001 Award Date	FY2002 Cost	FY2002 Award Date	FY2003 Cost	FY2003 Award Date	Cost to Complete	Total Cost	Target Value of Contract
HLS													
HW C - Network Esembler	MIPR	NSWC - Dahlgren, Dahlgren, VA	U	0	0	NONE	0	NONE	6000	1Q FY03	0	6000	0
HW C - UV Trigger Upgrade	C/CPFF	MIT Lincoln Lab, Boston, MA	F	0	0	NONE	0	NONE	4000	1Q FY03	0	4000	0
HW C - Mass Spectrometer Internal Building Surveillance	C/CPFF	TBS		0	0	NONE	0	NONE	5000	NONE	0	5000	0
HW C - Advanced Aerosol Collectors demonstration	C/CPFF	SENTEL Corp., Alexandria, VA & TBS	C	0	0	NONE	0	NONE	4000	1Q FY03	0	4000	0
SW SB - ES - Systems Engineering	MIPR	Institute for Defense Analysis, Alexandria, VA	F	0	0	NONE	0	NONE	1000	2Q FY03	0	1000	0
SW SB - ES Studies Modeling	C/CPFF	Johns Hopkins Applied Physics Laboratory, Scaggsville, MD	F	0	0	NONE	0	NONE	2000	1Q FY03	0	2000	0
HW S - Ambient Breeze Tunnel Construction	C/FFP	BATTELLE, Columbus, OH	N	0	0	NONE	0	NONE	1000	2Q FY03	0	1000	0
HW C - Background Aerosol Measurements	MIPR	TBS	U	0	0	NONE	0	NONE	1000	1Q FY03	0	1000	0
HW C - Indoor Building flow Characterization	MIPR	TBS	U	0	0	NONE	0	NONE	1000	1Q FY03	0	1000	0
HW C - UV Standoff/Fixed Site	C/CPFF	TBS	C	0	0	NONE	0	NONE	6000	2Q FY03	0	6000	0
HW C - JBPDs Block II	C/CPFF	TBS	C	0	0	NONE	0	NONE	6500	2Q FY03	0	6500	0

UNCLASSIFIED

CBDP PROJECT COST ANALYSIS (R-3 Exhibit)	DATE February 2002
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BUDGET ACTIVITY RDT&E DEFENSE-WIDE/ BA4 - Demonstration and Validation	PE NUMBER AND TITLE 0603884BP CHEMICAL/BIOLOGICAL DEFENSE (DEMVAL)	PROJECT HS4
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I. Product Development - Cont.	Contract Method & Type	Performing Activity & Location	US NF CC	Total PYs Cost	FY2001 Cost	FY2001 Award Date	FY2002 Cost	FY2002 Award Date	FY2003 Cost	FY2003 Award Date	Cost to Complete	Total Cost	Target Value of Contract
HW C - Automated Bio Testing System	MIPR	SBCCOM, Edgewood, MD	U	0	0	NONE	0	NONE	3000	1Q FY03	0	3000	0
HW C - Critical Reagent Development	MIPR	USAMRIID, Frederick, MD	U	0	0	NONE	0	NONE	3000	1Q FY03	0	3000	0
HW C - Reagent Taggants/Multiplex	C/CPFF	TBS	C	0	0	NONE	0	NONE	4000	2Q FY03	0	4000	0
HW C - PCR Reagents and Protocols	MIPR	TBS	U	0	0	NONE	0	NONE	3500	2Q FY03	0	3500	0
Subtotal I. Product Development:				0	0		0		51000		0	51000	

Remarks:

II. Support Costs	Contract Method & Type	Performing Activity & Location	US NF CC	Total PYs Cost	FY2001 Cost	FY2001 Award Date	FY2002 Cost	FY2002 Award Date	FY2003 Cost	FY2003 Award Date	Cost to Complete	Total Cost	Target Value of Contract
HLS													
TD/D C - Wargaming/Tabletop CONOPS Development	C/CPFF	TBS	C	0	0	NONE	0	NONE	1000	2Q FY03	0	1000	0
Subtotal II. Support Costs:				0	0		0		1000		0	1000	

Remarks:

CBDP PROJECT COST ANALYSIS (R-3 Exhibit)	DATE February 2002
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BUDGET ACTIVITY RDT&E DEFENSE-WIDE/ BA4 - Demonstration and Validation	PE NUMBER AND TITLE 0603884BP CHEMICAL/BIOLOGICAL DEFENSE (DEMVAL)	PROJECT HS4
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III. Test and Evaluation: Not applicable

IV. Management Services	Contract Method & Type	Performing Activity & Location	US NF CC	Total PYs Cost	FY2001 Cost	FY2001 Award Date	FY2002 Cost	FY2002 Award Date	FY2003 Cost	FY2003 Award Date	Cost to Complete	Total Cost	Target Value of Contract
HLS													
PM/MS C - PEOCBD Program Management Support	Allot	PEOCBD, Falls Church, VA	U	0	0	NONE	0	NONE	3000	1Q FY03	0	3000	0
Subtotal IV. Management Services:				0	0		0		3000		0	3000	

Remarks:

TOTAL PROJECT COST:	0	0	0	55000	0	55000
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Project HS4

CBDP BUDGET ITEM JUSTIFICATION SHEET (R-2A Exhibit)							DATE February 2002
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BUDGET ACTIVITY RDT&E DEFENSE-WIDE/ BA4 - Demonstration and Validation				PE NUMBER AND TITLE 0603884BP CHEMICAL/BIOLOGICAL DEFENSE (DEMVAL)				PROJECT IP4	
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COST (In Thousands)	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	Cost to	Total Cost
	Actual	Estimate	Estimate	Estimate	Estimate	Estimate	Estimate	Complete	
IP4 INDIVIDUAL PROTECTION (DEMVAL)	16610	14317	0	0	0	0	0	0	30927

A. Mission Description and Budget Item Justification:

Project IP4 INDIVIDUAL PROTECTION (DEMVAL):

This project funds System Acquisition of individual protection equipment aimed at improving current protection levels while reducing physiological and logistical burdens. The goal is to provide equipment that allows the individual soldier, sailor, airman, or marine to operate in a contaminated chemical and biological (CB) environment with no or minimal degradation to his/her performance. This project includes the Joint Service General Purpose Mask (JSGPM) and the Joint Service Aircrew Mask (JSAM). The JSGPM will reduce weight, bulk, and breathing resistance by as much as 50 percent over previously fielded masks. The JSGPM will also improve vision coupling, communication effectiveness, and comfort/wearability. The mask will significantly reduce total ownership cost/life cycle cost. The JSGPM will be low maintenance and priced to be classified as disposable/replaceable after decontamination. JSAM will provide rotary and fixed wing aircrew members with above-the-shoulder CB protection and, when integrated with a Pressure Breathing for G system, will provide anti-G protection in high performance aircraft. JSAM will integrate with existing aircrew life support systems equipment and support equipment.

CBDP BUDGET ITEM JUSTIFICATION SHEET (R-2A Exhibit)		DATE February 2002
BUDGET ACTIVITY	PE NUMBER AND TITLE	PROJECT
RDT&E DEFENSE-WIDE/ BA4 - Demonstration and Validation	0603884BP CHEMICAL/BIOLOGICAL DEFENSE (DEMVAL)	IP4
FY 2001 Accomplishments:		
<ul style="list-style-type: none"> • 5422 JSAM - Continued design, initial development, and contractor sub-system qualification testing in preparation for prototype fabrication. • 1452 JSAM - Continued risk reduction/system engineering/Cost As an Independent Variable (CAIV) analysis studies/program management activities. • 888 JSAM - Continued government test working group activities. The government test team conducted 13 Test Planning Working Group meetings to draft plans and procedures for Program Definition/Risk Reduction (PDRR) prototype testing. • 1201 JSGPM - Continued preparation for Interim Progress Review and transitioned to the System Demonstration acquisition phase. These activities included finalization of the Single Acquisition Management Plan (SAMP), Test and Evaluation Master Plan (TEMP), and the Manpower and Personnel Integration (MANPRINT) Plan. • 6245 JSGPM - Continued Program Definition and Risk Reduction contract for mask design and 800 prototypes at \$1500 each. Contractor initiated design of mask to Joint Service performance specifications with Joint Service input. • 1142 JSGPM - Conducted Engineering Design Test (EDT) planning. Testing ensured meeting Joint Service requirements for protection, communication, drinking, breathing resistance, and weight/bulk limitations. • 260 JSGPM - Continued sustainment study for logistics support. 		
Total	16610	
Project IP4	Page 79 of 112 Pages	Exhibit R-2 (PE 0603884BP)

CBDP BUDGET ITEM JUSTIFICATION SHEET (R-2A Exhibit)		DATE February 2002
BUDGET ACTIVITY	PE NUMBER AND TITLE	PROJECT
RDT&E DEFENSE-WIDE/ BA4 - Demonstration and Validation	0603884BP CHEMICAL/BIOLOGICAL DEFENSE (DEMVAL)	IP4
FY 2002 Planned Program:		
<ul style="list-style-type: none"> • 3317 JSAM - Completed PDRR test plans/procedures. The Government will evaluate the prototypes for chemical agent permeation, fit factor, positive pressure breathing for altitude, anti-G endurance (centrifuge), air crew life support equipment integration and aircraft interface checks, human factors and environmental factors. Initiate test planning for system demonstration phase. • 4452 JSAM - Completed contractor qualification test and fabricated prototypes (25 of each variant). Total number of variants and cost per prototype is competition sensitive information. Delivered prototypes to the government for PDRR testing on 30 Jan 2002. • 1858 JSAM - Continue system engineering and program management activities and support government PDRR prototype testing. Prepare for MS B Interim Progress Review (IPR) and transition to System Demonstration. • 739 JSGPM - Complete preparation for Interim Progress Review and transition to the System Demonstration acquisition phase. These activities will include finalization of the Single Acquisition Management Plan (SAMP), Test and Evaluation Master Plan (TEMP), and the Manpower and Personnel Integration (MANPRINT) Plan. • 1500 JSGPM - Complete Program Definition and Risk Reduction contract for mask design and 800 prototypes at \$1500 each. Contractor will design mask to Joint Service performance specifications with Joint Service input. • 2008 JSGPM - Conduct Engineering Design Test (EDT). Testing ensures meeting Joint Service requirements for protection, communication, drinking, breathing resistance, and weight/bulk limitations. • 200 JSGPM - Continue sustainment study for logistics support. • 243 SBIR - Small Business Innovative Research. 		
Total	14317	
Project IP4	Page 80 of 112 Pages	Exhibit R-2 (PE 0603884BP)

CBDP BUDGET ITEM JUSTIFICATION SHEET (R-2A Exhibit)

DATE
February 2002

BUDGET ACTIVITY RDT&E DEFENSE-WIDE/ BA4 - Demonstration and Validation	PE NUMBER AND TITLE 0603884BP CHEMICAL/BIOLOGICAL DEFENSE (DEMVAL)	PROJECT IP4
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FY 2003 Planned Program: No planned program

B. Other Program Funding Summary:

	<u>FY 2001</u>	<u>FY 2002</u>	<u>FY 2003</u>	<u>FY 2004</u>	<u>FY 2005</u>	<u>FY 2006</u>	<u>FY 2007</u>	<u>To Compl</u>	<u>Total Cost</u>
IP5 INDIVIDUAL PROTECTION (EMD)	8288	20711	39044	36195	12735	1411	0	0	118384
JA0002 JT SVC AVIATION MASK (JSAM)	0	0	0	0	0	10970	10971	Cont	Cont
JA0003 JOINT SERVICE GENERAL PURPOSE MASK (JSGPM)	0	0	0	0	15735	25518	34802	Cont	Cont
JN0011 AERP AIRCRAFT MODS	1574	2941	896	0	0	0	0	0	5411
JN0013 NAVY INDIVIDUAL PROTECTIVE GEAR	5379	2312	3186	0	0	0	0	0	10877
JSM001 JOINT SERVICE MASK LEAKAGE TESTER (JSMLT)	0	0	11859	4963	4931	4938	4933	Cont	Cont
JX0055 INDIVIDUAL PROTECTION (IP) ITEMS LESS THAN \$5M	4124	993	0	0	0	0	0	0	5117
M99501 MASK, AIRCRAFT M45	998	454	0	0	0	0	0	0	1452
M99601 MASK, CHEM-BIOLOGICAL PROTECTIVE FIELD: M40/M40A	1485	142	0	0	0	0	0	0	1627

CBDP BUDGET ITEM JUSTIFICATION SHEET (R-2A Exhibit)	DATE February 2002
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BUDGET ACTIVITY RDT&E DEFENSE-WIDE/ BA4 - Demonstration and Validation	PE NUMBER AND TITLE 0603884BP CHEMICAL/BIOLOGICAL DEFENSE (DEMVAL)	PROJECT IP4
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<u>B. Other Program Funding Summary (Cont):</u>	<u>FY 2001</u>	<u>FY 2002</u>	<u>FY 2003</u>	<u>FY 2004</u>	<u>FY 2005</u>	<u>FY 2006</u>	<u>FY 2007</u>	<u>To Compl</u>	<u>Total Cost</u>
MA0400 PROTECTIVE CLOTHING	96991	98531	91202	79913	89460	99584	92179	Cont	Cont
MA0480 SECOND SKIN, MASK MCU-2/P	918	3447	13183	0	0	0	0	0	17548

C. Acquisition Strategy:

JSGPM	The Acquisition Strategy requires a combined full-scale development and production contract including contractor logistics support (Program Definition and Risk Reduction, Engineering and Manufacturing Development, and Production). The development/production contract is based on a Joint Service performance specification with special emphasis on reducing weight, bulk, and breathing resistance by as much as 50 percent over current fielded protective masks, and lowest achievable total ownership cost.
JSAM	Acquisition strategy is to award dual contracts for PDRR with a full and open downselect to one contractor for System Demonstration with production options. Implementation of Cost As An Independent Variable (CAIV) is crucial to the PDRR phase with special emphasis on reducing Life Cycle Cost. JSAM prototypes tested during PDRR will be available to the JPACE program in Oct 02 for physical integration checks.

CBDP BUDGET ITEM JUSTIFICATION SHEET (R-2A Exhibit)	DATE February 2002
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BUDGET ACTIVITY RDT&E DEFENSE-WIDE/ BA4 - Demonstration and Validation	PE NUMBER AND TITLE 0603884BP CHEMICAL/BIOLOGICAL DEFENSE (DEMVAL)	PROJECT IP4
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D. <u>Schedule Profile:</u>	FY 2000				FY 2001				FY 2002				FY 2003				FY 2004				FY 2005				FY 2006				FY 2007			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
JSAM																																
Milestone I		2Q																														
Program Definition and Risk Reduction (PDRR)				4Q	—————				4Q																							
Program Definition and Risk Reduction (PDRR) Prototype Fabrication/Delivery								4Q	—				2Q																			
Program Definition and Risk Reduction (PDRR) Prototype Government Test											2Q	3Q																				
Milestone B In Process Review (IPR) (IP5)											3Q																					
JSGPM																																
Test Evaluation Master Plan (TEMP) Approved		>>	—————						1Q																							
Development Contract Award		2Q																														
Engineering Design Test (EDT) Planning							1Q	4Q	—————																							
Engineering Design Test (EDT)									1Q																							
First Prototype									1Q																							
Interim Progress Review (IPR) for Transition to Systems Demonstration Phase									2Q																							

UNCLASSIFIED

CBDP PROJECT COST ANALYSIS (R-3 Exhibit)	DATE February 2002
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BUDGET ACTIVITY RDT&E DEFENSE-WIDE/ BA4 - Demonstration and Validation	PE NUMBER AND TITLE 0603884BP CHEMICAL/BIOLOGICAL DEFENSE (DEMVAL)	PROJECT IP4
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IV. Management Services	Contract Method & Type	Performing Activity & Location	US NF CC	Total PYs Cost	FY2001 Cost	FY2001 Award Date	FY2002 Cost	FY2002 Award Date	FY2003 Cost	FY2003 Award Date	Cost to Complete	Total Cost	Target Value of Contract
JSAM													
PM/MS S - Mission Support	MIPR	Various	U	1086	1451	1Q FY01	1858	1Q FY02	0	NONE	0	4395	0
JSGPM													
PM/MS S - Conducted Joint Program/Project Management	PO	PM NBCDS, APG, MD	U	1260	1148	1Q FY01	239	1Q FY02	0	NONE	0	2647	2360
ZSBIR													
SBIR/STTR - Aggregated from ZSBIR-SBIR/STTR	PO	HQ AMC, Alexandria, VA	U	0	0	NONE	243	2Q FY02	0	NONE	0	243	0
Subtotal IV. Management Services:				2346	2599		2340		0		0	7285	

Remarks:

TOTAL PROJECT COST:	10924	16610		14317		0		0	41851
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CBDP BUDGET ITEM JUSTIFICATION SHEET (R-2A Exhibit)							DATE February 2002
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BUDGET ACTIVITY RDT&E DEFENSE-WIDE/ BA4 - Demonstration and Validation				PE NUMBER AND TITLE 0603884BP CHEMICAL/BIOLOGICAL DEFENSE (DEMVAL)				PROJECT MB4	
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COST (In Thousands)	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	Cost to	Total Cost
	Actual	Estimate	Estimate	Estimate	Estimate	Estimate	Estimate	Complete	
MB4 MEDICAL BIOLOGICAL DEFENSE (DEMVAL)	28465	34343	42617	46775	10271	14874	12361	Continuing	Continuing

A. Mission Description and Budget Item Justification:

Project MB4 MEDICAL BIOLOGICAL DEFENSE (DEMVAL): This project funds advanced development including Component Advanced Development (CAD) and Systems Development and Demonstration (SDD) 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 "shots" 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. Advanced development efforts are expected to be accomplished within four years. At the end of SDD, the product will transition to the Production and Deployment phase. Products being developed under this program include: Recombinant Botulinum, Next Generation Anthrax, Plague, Smallpox, Tularemia, Staphylococcal Enterotoxins, and Equine Encephalitis vaccines.

CBDP BUDGET ITEM JUSTIFICATION SHEET (R-2A Exhibit)		DATE February 2002
BUDGET ACTIVITY RDT&E DEFENSE-WIDE/ BA4 - Demonstration and Validation	PE NUMBER AND TITLE 0603884BP CHEMICAL/BIOLOGICAL DEFENSE (DEMVAL)	PROJECT MB4
FY 2001 Accomplishments:		
<ul style="list-style-type: none"> • 9372 JVAP - Tularemia Vaccine - Continued manufacturing process development for Tularemia vaccine including formulation studies. Conducted development and validation of assays for virulence and potency. Began development of efficacy testing method in animals. • 10288 JVAP - Recombinant Botulinum Vaccine - Continued manufacturing process development and purification refinement of Botulinum vaccines. Prepared master and working seed banks. Began preparation for manufacture of current Good Manufacturing Practices (cGMP) pilot lots. • 2807 JVAP - Equine Encephalitis Vaccines - Completed pilot lot manufacture. Conducted stability and formulation studies and performed assay development and validation for Venezuelan Equine Encephalitis (VEE) 1A vaccine. • 1622 JVAP - Smallpox Vaccine - Submitted IND application and executed clinical trial for Vaccinia Immune Globulin (VIG). Initiated assay development for Smallpox vaccine. Conducted clinical trial for smallpox vaccine licensure studies. • 2932 JVAP - Plague Vaccine - Continued component advanced development for a manufacturing process for combined F1+V Plague vaccine candidate. • 400 JVAP - Next Generation Anthrax Vaccine (NGAV) - Initiated technology transfer and process definition for a candidate recombinant protective antigen NGAV. • 1044 JVAP - Vaccine component advanced development - Initiated development of novel antigens (Ricin, Staphylococcal Enterotoxins), adjuvants, preservatives, and delivery systems for biological defense vaccines. This included formulation and process development studies; preclinical; initial safety and immunogenicity studies; and supported technology transfer from the research laboratories. 		
Total	28465	
Project MB4		

CBDP BUDGET ITEM JUSTIFICATION SHEET (R-2A Exhibit)		DATE February 2002
BUDGET ACTIVITY RDT&E DEFENSE-WIDE/ BA4 - Demonstration and Validation	PE NUMBER AND TITLE 0603884BP CHEMICAL/BIOLOGICAL DEFENSE (DEMVAL)	PROJECT MB4
FY 2002 Planned Program:		
<ul style="list-style-type: none"> • 10230 JVAP - Tularemia Vaccine - Continue efficacy testing and begin immunogenicity, toxicity, and potency studies for Tularemia vaccine. Begin pilot lot manufacturing and stability testing. Conduct pre-IND meeting with FDA. • 11951 JVAP - Recombinant Botulinum Vaccine - Continue manufacturing process refinement studies, including antigen and adjuvant characterization for both serotypes of the recombinant Botulinum vaccine. Begin pilot lot production of individual serotypes and conduct non-clinical testing of multivalent Recombinant Botulinum vaccine. • 2590 JVAP - Equine Encephalitis Vaccines - Conduct process development and safety studies for Venezuelan Equine Encephalitis (VEE) 1A component of the vaccine. • 5105 JVAP - Plague Vaccine - Conduct process development and conduct comparability studies in higher animal species for Plague vaccine. Initiate assay development and validation. • 3500 JVAP - Next Generation Anthrax Vaccine - Conduct process definition studies of candidate recombinant protective antigen NGAV including stability and formulation studies. • 386 JVAP - Vaccine component advanced development - Continue development of novel antigens (Staphylococcal Enterotoxins, Ricin), adjuvants, preservatives, and delivery systems for biological defense vaccines. This includes formulation and process development studies; preclinical; initial safety and immunogenicity studies; and supports technology transfer from the research laboratories. • 581 SBIR - Small Business Innovative Research. 		
Total	34343	
Project MB4	Page 90 of 112 Pages	Exhibit R-2 (PE 0603884BP)

CBDP BUDGET ITEM JUSTIFICATION SHEET (R-2A Exhibit)		DATE February 2002
BUDGET ACTIVITY RDT&E DEFENSE-WIDE/ BA4 - Demonstration and Validation	PE NUMBER AND TITLE 0603884BP CHEMICAL/BIOLOGICAL DEFENSE (DEMVAL)	PROJECT MB4
<p>FY 2003 Planned Program:</p> <ul style="list-style-type: none"> • 4684 JVAP - Recombinant Botulinum Vaccine - Continue manufacturing process development and begin process validation for recombinant Botulinum vaccine. Continue manufacturing pilot lots of serotypes A and B. • 5149 JVAP - Recombinant Botulinum Vaccine - Begin bulk stability and final container stability testing of pilot lot. • 2671 JVAP - Recombinant Botulinum Vaccine - Begin single serotype phase 1 clinical trial preparation. • 6688 JVAP - Equine Encephalitis Vaccines - Continue assay development and validation. Continue process optimization including demonstration runs. Begin process validation and pilot lot manufacturing for VEE IE component. • 3620 JVAP - Equine Encephalitis Vaccines - Begin efficacy testing and continue bulk stability testing. Begin container stability testing. Conduct higher animal species testing and equine safety study. • 1592 JVAP - Next Generation Anthrax Vaccine - Complete process definition work for a candidate recombinant protective antigen NGAV. Manufacture and characterize master seed and working seed banks. Conduct assay development and validation. • 4614 JVAP - Plague Vaccine - Manufacture and characterize master seed and working seed banks. Continue assay development and validation. • 1646 JVAP - Plague Vaccine - Complete process development work and conduct pilot lot manufacturing. • 1756 JVAP - Plague Vaccine - Begin process toxicity testing and immunogenicity studies. Begin bulk stability, container stability, and reconstitution stability testing. Conduct pre-IND preparation. • 2965 JVAP - Tularemia Vaccine - Complete characterization studies and surrogate marker of efficacy assay. • 6660 JVAP - Tularemia Vaccine - Begin Phase I clinical trial execution and monitoring. 		
Project MB4	Page 91 of 112 Pages	Exhibit R-2 (PE 0603884BP)

CBDP BUDGET ITEM JUSTIFICATION SHEET (R-2A Exhibit)	DATE February 2002
--	------------------------------

BUDGET ACTIVITY RDT&E DEFENSE-WIDE/ BA4 - Demonstration and Validation	PE NUMBER AND TITLE 0603884BP CHEMICAL/BIOLOGICAL DEFENSE (DEMVAL)	PROJECT MB4
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FY 2003 Planned Program (Cont):

- 572 JVAP - Tularemia Vaccine - Conduct bulk stability and final container stability testing of pilot lot. Prepare and submit IND application to FDA.

Total 42617

B. Other Program Funding Summary:

		<u>FY 2001</u>	<u>FY 2002</u>	<u>FY 2003</u>	<u>FY 2004</u>	<u>FY 2005</u>	<u>FY 2006</u>	<u>FY 2007</u>	<u>To Compl</u>	<u>Total Cost</u>
JX0005 DOD BIOLOGICAL VACCINE PROCUREMENT		50629	55684	43695	57626	62250	58108	58841	Cont	Cont
MB5 MEDICAL BIOLOGICAL DEFENSE (EMD)		15772	48500	44718	20284	35904	36056	39815	Cont	Cont

C. Acquisition Strategy:

JVAP The Prime Systems Contract (PSC) serves as the integrator for the advanced development, licensure, production, storage, testing, and distribution of medical biological defense vaccines and antisera. The PSC serves as the "responsible head" to the Food and Drug Administration for each product during the licensure process and becomes the license holder for the product. The JVAP oversees the PSC.

CBDP BUDGET ITEM JUSTIFICATION SHEET (R-2A Exhibit)	DATE February 2002
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BUDGET ACTIVITY RDT&E DEFENSE-WIDE/ BA4 - Demonstration and Validation	PE NUMBER AND TITLE 0603884BP CHEMICAL/BIOLOGICAL DEFENSE (DEMVAL)	PROJECT MB4
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D. <u>Schedule Profile (cont):</u>	FY 2000				FY 2001				FY 2002				FY 2003				FY 2004				FY 2005				FY 2006				FY 2007			
	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 SPX (Cont)																																
Non-Clinical Testing											3Q					3Q																
Investigational New Drug (IND) Application Submission											2Q																					
Milestone C											1Q																					
VAC TUL																																
Process Development		>>										2Q																				
cGMP Pilot Lot											3Q	4Q																				
Investigational New Drug (IND) Application Submission															2Q																	
Phase 1 Clinical Trial															3Q	4Q																
Phase 2a Clinical Trial																			1Q					1Q								
Milestone C																								2Q								

UNCLASSIFIED

CBDP PROJECT COST ANALYSIS (R-3 Exhibit)	DATE February 2002
---	------------------------------

BUDGET ACTIVITY RDT&E DEFENSE-WIDE/ BA4 - Demonstration and Validation	PE NUMBER AND TITLE 0603884BP CHEMICAL/BIOLOGICAL DEFENSE (DEMVAL)	PROJECT MB4
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I. Product Development	Contract Method & Type	Performing Activity & Location	US NF CC	Total PYs Cost	FY2001 Cost	FY2001 Award Date	FY2002 Cost	FY2002 Award Date	FY2003 Cost	FY2003 Award Date	Cost to Complete	Total Cost	Target Value of Contract
VAC BOT													
HW S - Vaccine Development - Includes Consistency Lot, Pilot Lot, and scale-up Production.	C/CPAF	DynPort Vaccine Company, Frederick, MD	C	0	0	NONE	0	NONE	2813	Nov-02	0	2813	0
VAC ENC													
HW S - Vaccine Development - Includes consistency lot, pilot lot, and scale-up production.	C/CPAF	DynPort Vaccine Company, Frederick, MD	C	0	0	NONE	0	NONE	3918	Nov-02	0	3918	0
VAC NGA													
HW S - Vaccine Development - Includes consistency Lot, Pilot Lot, and scale-up Production.	C/CPAF	DynPort Vaccine Company, Frederick, MD	C	0	0	NONE	0	NONE	1324	Nov-02	0	1324	0
VAC PLG													
HW S - Vaccine Development - Includes Consistency Lot, Pilot Lot, and Scale-up Production.	C/CPAF	DynPort Vaccine Company, Frederick, MD	C	0	0	NONE	0	NONE	3642	Nov-02	0	3642	0
VAC TUL													
HW S - Vaccine Development - Includes Consistency Lot, Pilot Lot, and Scale-up Production.	C/CPAF	DynPort Vaccine Company, Frederick, MD	C	0	0	NONE	0	NONE	1737	Nov-02	0	1737	0
VACCINES													
HW S - Vaccine Development - Includes Consistency Lot, Pilot Lot, and Scale-up Production.	C/CPAF	DynPort Vaccine Company, Frederick, MD	C	5536	9371	Nov-00	10987	Nov-01	0	NONE	0	25894	0
Subtotal I. Product Development:				5536	9371		10987		13434		0	39328	

CBDP PROJECT COST ANALYSIS (R-3 Exhibit)	DATE February 2002
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BUDGET ACTIVITY RDT&E DEFENSE-WIDE/ BA4 - Demonstration and Validation	PE NUMBER AND TITLE 0603884BP CHEMICAL/BIOLOGICAL DEFENSE (DEMVAL)	PROJECT MB4
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I. Product Development - Cont.
Remarks: Cost to Complete: "Continuing"

II. Support Costs	Contract Method & Type	Performing Activity & Location	US NF CC	Total PYs Cost	FY2001 Cost	FY2001 Award Date	FY2002 Cost	FY2002 Award Date	FY2003 Cost	FY2003 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	0	0	NONE	0	NONE	123	Nov-02	0	123	0
VAC NGA													
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	0	NONE	42	Nov-02	0	42	0
VAC PLG													
TD/D S - Vaccine Development - Includes Regulatory Integration (Environmental and FDA Documentation) and Delivery System.	C/CPAF	DynPort Vaccine Company, Frederick, MD	C	0	0	NONE	0	NONE	64	Nov-02	0	64	0

UNCLASSIFIED

CBDP PROJECT COST ANALYSIS (R-3 Exhibit)	DATE February 2002
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BUDGET ACTIVITY RDT&E DEFENSE-WIDE/ BA4 - Demonstration and Validation	PE NUMBER AND TITLE 0603884BP CHEMICAL/BIOLOGICAL DEFENSE (DEMVAL)	PROJECT MB4
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III. Test and Evaluation	Contract Method & Type	Performing Activity & Location	US NF CC	Total PYs Cost	FY2001 Cost	FY2001 Award Date	FY2002 Cost	FY2002 Award Date	FY2003 Cost	FY2003 Award Date	Cost to Complete	Total Cost	Target Value of Contract
VAC BOT													
DTE S - Vaccine Development - Includes Testing, Evaluation, and Clinical Trials.	C/CPAF	DynPort Vaccine Company, Frederick, MD	C	0	0	NONE	0	NONE	5174	Nov-02	0	5174	0
VAC ENC													
DTE S - Vaccine Development - Testing, Evaluation, and Clinical Trials.	C/CPAF	DynPort Vaccine Company, Frederick, MD	C	0	0	NONE	0	NONE	2869	Nov-02	0	2869	0
VAC NGA													
DTE S - Vaccine Development - Includes Clinical Trials, Non-Clinical Trials, Stability, and Efficacy Testing.	C/CPAF	DynPort Vaccine Company, Frederick, MD	C	0	0	NONE	0	NONE	26	Nov-02	0	26	0
VAC PLG													
DTE S - Vaccine Development - Testing, Evaluation, and Clinical Trials.	C/CPAF	DynPort Vaccine Company, Frederick, MD	C	0	0	NONE	0	NONE	1564	Nov-02	0	1564	0
VAC TUL													
DTE S - Vaccine Development - Testing, Evaluation, and Clinical Trials.	C/CPAF	DynPort Vaccine Company, Frederick, MD	C	0	0	NONE	0	NONE	4813	Nov-02	0	4813	0

CBDP PROJECT COST ANALYSIS (R-3 Exhibit)	DATE February 2002
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BUDGET ACTIVITY RDT&E DEFENSE-WIDE/ BA4 - Demonstration and Validation	PE NUMBER AND TITLE 0603884BP CHEMICAL/BIOLOGICAL DEFENSE (DEMVAL)	PROJECT MB4
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III. Test and Evaluation - Cont.	Contract Method & Type	Performing Activity & Location	US NF CC	Total PYs Cost	FY2001 Cost	FY2001 Award Date	FY2002 Cost	FY2002 Award Date	FY2003 Cost	FY2003 Award Date	Cost to Complete	Total Cost	Target Value of Contract
VACCINES													
DTE S - Vaccine Development - Includes Phase I/II Clinical and Non-clinical Trials, Tox Studies, Surrogate, and Assay Testing	C/CPAF	DynPort Vaccine Company, Frederick, MD	C	6836	10977	Nov-00	12943	Nov-01	0	NONE	0	30756	0
OTHT SB - Vaccine Development - Includes Stability, and Efficacy Testing	C/CPAF	DynPort Vaccine Company, Frederick, MD	C	1107	1439	Nov-00	2278	Nov-01	0	NONE	0	4824	0
Subtotal III. Test and Evaluation:				7943	12416		15221		14446		0	50026	

Remarks: Cost to Complete: "Continuing"

UNCLASSIFIED

CBDP PROJECT COST ANALYSIS (R-3 Exhibit)	DATE February 2002
---	------------------------------

BUDGET ACTIVITY RDT&E DEFENSE-WIDE/ BA4 - Demonstration and Validation	PE NUMBER AND TITLE 0603884BP CHEMICAL/BIOLOGICAL DEFENSE (DEMVAL)	PROJECT MB4
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IV. Management Services	Contract Method & Type	Performing Activity & Location	US NF CC	Total PYs Cost	FY2001 Cost	FY2001 Award Date	FY2002 Cost	FY2002 Award Date	FY2003 Cost	FY2003 Award Date	Cost to Complete	Total Cost	Target Value of Contract
VAC BOT													
ES C - Support of LR	C/CPAF	DynPort Vaccine Company, Frederick, MD	C	0	0	NONE	0	NONE	1474	Nov-02	0	1474	0
PM/MS S - Vaccine Development - Joint Vaccine Acquisition Program Management Office	Allot	JVAP, Fort Detrick, MD	U	0	0	NONE	0	NONE	490	Oct-02	0	490	0
PM/MS S - Vaccine Development - Program Management/Program Manager Support	Allot	PEOCBD, Falls Church, VA	U	0	0	NONE	0	NONE	879	Oct-02	0	879	0
PM/MS S - Contractor Systems Engineering/Program Management Support.	C/CPFF	Camber Corporation, Frederick, MD	C	0	0	NONE	0	NONE	250	Feb-03	0	250	0
PM/MS S - Contractor Systems Engineering/Program Management Support.	C/CPFF	SAIC, Frederick, MD	C	0	0	NONE	0	NONE	164	Feb-02	0	164	0
PM/MS S - Award Fee (Maximum 12.5%)	C/CPAF	DynPort Vaccine Company, Frederick, MD	C	0	0	NONE	0	NONE	1137	Jan-03	0	1137	0
VAC ENC													
PM/MS S - Vaccine Development - Program Management/Program Manager.	C/CPAF	DynPort Vaccine Company, Frederick, MD	C	0	0	NONE	0	NONE	1173	Nov-02	0	1173	0

UNCLASSIFIED

CBDP PROJECT COST ANALYSIS (R-3 Exhibit)	DATE February 2002
---	------------------------------

BUDGET ACTIVITY RDT&E DEFENSE-WIDE/ BA4 - Demonstration and Validation	PE NUMBER AND TITLE 0603884BP CHEMICAL/BIOLOGICAL DEFENSE (DEMVAL)	PROJECT MB4
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IV. Management Services - Cont.	Contract Method & Type	Performing Activity & Location	US NF CC	Total PYs Cost	FY2001 Cost	FY2001 Award Date	FY2002 Cost	FY2002 Award Date	FY2003 Cost	FY2003 Award Date	Cost to Complete	Total Cost	Target Value of Contract
PM/MS S - Vaccine Development - Joint Vaccine Acquisition Program Management Office	Allot	JVAP, Fort Detrick, MD	U	0	0	NONE	0	NONE	389	Oct-02	0	389	0
SBIR/STTR - Aggregated from ZSBIR-SBIR/STTR	Allot	Joint Program Office for Biological Defense, Falls Church, VA	U	0	0	NONE	0	NONE	725	Oct-02	0	725	0
PM/MS S - Contractor Systems Engineering/Program Management Support.	C/CPFF	Camber Corporation, Frederick, MD	C	0	0	NONE	0	NONE	199	Feb-03	0	199	0
PM/MS S - Contractor Systems Engineering/Program Management Support.	C/CPFF	SAIC, Frederick, MD	C	0	0	NONE	0	NONE	130	Feb-03	0	130	0
PM/MS S - Award Fee (12.5%)	C/CPAF	DynPort Vaccine Company, Frederick, MD	C	0	0	NONE	0	NONE	905	Jan-03	0	905	0
VAC NGA													
PM/MS S - Award Fee (12.5%)	C/CPAF	DynPort Vaccine Company, Frederick, MD	C	0	0	NONE	0	NONE	200	Jan-03	0	200	0
VAC PLG													
PM/MS S - Vaccine Development - Program Management/Program Manager Support.	C/CPAF	DynPort Vaccine Company, Frederick, MD	C	0	0	NONE	0	NONE	915	Nov-02	0	915	0

UNCLASSIFIED

CBDP PROJECT COST ANALYSIS (R-3 Exhibit)	DATE February 2002
---	------------------------------

BUDGET ACTIVITY RDT&E DEFENSE-WIDE/ BA4 - Demonstration and Validation	PE NUMBER AND TITLE 0603884BP CHEMICAL/BIOLOGICAL DEFENSE (DEMVAL)	PROJECT MB4
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IV. Management Services - Cont.	Contract Method & Type	Performing Activity & Location	US NF CC	Total PYs Cost	FY2001 Cost	FY2001 Award Date	FY2002 Cost	FY2002 Award Date	FY2003 Cost	FY2003 Award Date	Cost to Complete	Total Cost	Target Value of Contract
PM/MS S - Vaccine Development - Program Management/Program Manager Support.	Allot	Joint Program Office for Biological Defense, Falls Church, VA	U	0	0	NONE	0	NONE	564	Oct-02	0	564	0
PM/MS S - Vaccine Development - Joint Vaccine Acquisition Program Management Office	Allot	JVAP, Frederick, MD	U	0	0	NONE	0	NONE	304	Oct-02	0	304	0
PM/MS S - Contractor Systems Engineering/Program Management Support.	C/CPFF	Camber Corporation, Frederick, MD	C	0	0	NONE	0	NONE	155	Feb-03	0	155	0
PM/MS S - Contractor Systems Engineering/Program Management Support.	C/CPFF	SAIC, Frederick, MD	C	0	0	NONE	0	NONE	102	Feb-03	0	102	0
PM/MS S - Award Fee (12.5%)	C/CPAF	DynPort Vaccine Company, Frederick, MD	C	0	0	NONE	0	NONE	706	Jan-03	0	706	0
VAC TUL													
PM/MS S - Vaccine Development - Program Management/Program Manager Costs.	C/CPAF	DynPort Vaccine Company, Frederick, MD	C	0	0	NONE	0	NONE	1161	Nov-02	0	1161	0
PM/MS S - Vaccine Development - Joint Vaccine Acquisition Program Management Office	Allot	JVAP, Frederick, MD	U	0	0	NONE	0	NONE	385	Oct-02	0	385	0

UNCLASSIFIED

CBDP PROJECT COST ANALYSIS (R-3 Exhibit)	DATE February 2002
---	------------------------------

BUDGET ACTIVITY RDT&E DEFENSE-WIDE/ BA4 - Demonstration and Validation	PE NUMBER AND TITLE 0603884BP CHEMICAL/BIOLOGICAL DEFENSE (DEMVAL)	PROJECT MB4
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IV. Management Services - Cont.	Contract Method & Type	Performing Activity & Location	US NF CC	Total PYs Cost	FY2001 Cost	FY2001 Award Date	FY2002 Cost	FY2002 Award Date	FY2003 Cost	FY2003 Award Date	Cost to Complete	Total Cost	Target Value of Contract
PM/MS S - Vaccine Development - Program Management/Program Manager Support	Alлот	Joint Program Office for Biological Defense, Falls Church, VA	U	0	0	NONE	0	NONE	717	Oct-02	0	717	0
PM/MS S - Contractor Systems Engineering/Program Management Support.	C/CPFF	Camber Corporation, Frederick, MD	C	0	0	NONE	0	NONE	197	Feb-03	0	197	0
PM/MS S - Contractor Systems Engineering/Program Management Support.	C/CPFF	SAIC, Frederick, MD	C	0	0	NONE	0	NONE	129	Feb-03	0	129	0
PM/MS S - Award Fee (12.5%)	C/CPAF	DynPort Vaccine Company, Frederick, MD	C	0	0	NONE	0	NONE	895	Jan-03	0	895	0
VACCINES													
PM/MS S - Program management/program manager support.	Various	Joint Program Office for Biological Defense, Falls Church, VA	U	1931	2127	Oct-00	2022	Oct-01	0	NONE	0	6080	0
ZSBIR													
SBIR/STTR - Aggregated from ZSBIR-SBIR/STTR	PO	HQ AMC, Alexandria, VA	U	0	0	NONE	581	2Q FY02	0	NONE	0	581	0
Subtotal IV. Management Services:													
				1931	2127		2603		14345		0	21006	

Remarks: Cost to Complete: "Continuing"

CBDP BUDGET ITEM JUSTIFICATION SHEET (R-2A Exhibit)							DATE February 2002					
BUDGET ACTIVITY RDT&E DEFENSE-WIDE/ BA4 - Demonstration and Validation				PE NUMBER AND TITLE 0603884BP CHEMICAL/BIOLOGICAL DEFENSE (DEMVAL)				PROJECT MC4				
COST (In Thousands)				FY 2001 Actual	FY 2002 Estimate	FY 2003 Estimate	FY 2004 Estimate	FY 2005 Estimate	FY 2006 Estimate	FY 2007 Estimate	Cost to Complete	Total Cost
MC4 MEDICAL CHEMICAL DEFENSE (DEMVAL)				2078	1876	1764	1754	1705	2064	2107	Continuing	Continuing

A. Mission Description and Budget Item Justification:

Project MC4 MEDICAL CHEMICAL DEFENSE (DEMVAL): This project funds System Development and Demonstration (SDD) of countermeasures for chemical agents including life support equipment, diagnostic equipment, pretreatment 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 pretreatment 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.

FY 2001 Accomplishments:

- 327 Pyridostigmine Bromide - Completed clinical bioequivalence study.
- 950 Pyridostigmine Bromide - Initiated program in surrogate species to validate markers of efficacy.
- 519 Pyridostigmine Bromide - Initiated clinical program in humans to validate markers of efficacy.
- 99 Advanced Anticonvulsant - Conducted a Subject Matter Expert program review.
- 88 Advanced Anticonvulsant - Initiated a study to compare midazolam to FDA approved seizure drugs for nerve agent induced seizures.

CBDP BUDGET ITEM JUSTIFICATION SHEET (R-2A Exhibit)		DATE February 2002
BUDGET ACTIVITY	PE NUMBER AND TITLE	PROJECT
RDT&E DEFENSE-WIDE/ BA4 - Demonstration and Validation	0603884BP CHEMICAL/BIOLOGICAL DEFENSE (DEMVAL)	MC4
FY 2001 Accomplishments (Cont):		
•	95 Advanced Anticonvulsant - Conducted a review on the three leading anticonvulsant candidates for potential serious side effects.	
Total	2078	
FY 2002 Planned Program:		
•	303 Pyridostigmine Bromide - Continue clinical protocol to validate markers of efficacy.	
•	1064 Advanced Anticonvulsant - Complete 2-year study in surrogate species to validate markers of efficacy.	
•	419 Advanced Anticonvulsant - Start the development of the manufacturing processes, material requirements, formulation, and packaging for the advanced anticonvulsant to be used in clinical studies.	
•	58 Advanced Anticonvulsant - Complete a study to compare midazolam to FDA approved seizure drugs for nerve agent induced seizures.	
•	32 SBIR - Small Business Innovative Research.	
Total	1876	

CBDP BUDGET ITEM JUSTIFICATION SHEET (R-2A Exhibit)	DATE February 2002
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BUDGET ACTIVITY RDT&E DEFENSE-WIDE/ BA4 - Demonstration and Validation	PE NUMBER AND TITLE 0603884BP CHEMICAL/BIOLOGICAL DEFENSE (DEMVAL)	PROJECT MC4
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FY 2003 Planned Program:

- 213 Pyridostigmine Bromide - Complete clinical protocol to validate markers of efficacy.
- 468 Advanced Anticonvulsant - Prepare and submit documentation for Investigational New Drug application.
- 383 Advanced Anticonvulsant - Continue the development of the manufacturing processes, material requirements, formulation, and packaging for the advanced anticonvulsant to be used in clinical studies.
- 50 Advanced Anticonvulsant - Prepare documentation for and conduct Milestone II in-process review.
- 50 Advanced Anticonvulsant - Complete evaluation of FDA approved seizure drugs for nerve agent induced seizures.
- 50 Active Topical Skin Protectant (active TSP) - Prepare documentation for and conduct a Milestone Decision Review.
- 292 Active TSP - Conduct a safety evaluation study in animals.
- 50 Nerve Agent Scavenger - Prepare documentation for and conduct a Milestone Decision Review.
- 208 Nerve Agent Scavenger - Formulate for a pre-clinical toxicity study.

Total 1764

B. <u>Other Program Funding Summary:</u>	<u>FY 2001</u>	<u>FY 2002</u>	<u>FY 2003</u>	<u>FY 2004</u>	<u>FY 2005</u>	<u>FY 2006</u>	<u>FY 2007</u>	<u>To Compl</u>	<u>Total Cost</u>
MC5 MEDICAL CHEMICAL DEFENSE (EMD)	1050	1463	1973	1486	1448	1727	1763	Cont	Cont

CBDP BUDGET ITEM JUSTIFICATION SHEET (R-2A Exhibit)	DATE February 2002
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BUDGET ACTIVITY RDT&E DEFENSE-WIDE/ BA4 - Demonstration and Validation	PE NUMBER AND TITLE 0603884BP CHEMICAL/BIOLOGICAL DEFENSE (DEMVAL)	PROJECT MC4
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C. Acquisition Strategy:

Pyrido Bromide In-house/contractor development to FDA licensure, followed by sole source procurement.

Adv Anticonvuls In-house/contractor development to FDA licensure, followed by sole source procurement.

D. <u>Schedule Profile:</u>	FY 2000				FY 2001				FY 2002				FY 2003				FY 2004				FY 2005				FY 2006				FY 2007			
	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																																
Advanced Anticonvulsant - Milestone I				4Q																												
Advanced Anticonvulsant - Milestone II															3Q																	
Active TSP - Milestone A													1Q																			
Nerve Agent Scavenger - Milestone A													2Q																			
Advanced Anticonvulsant - Conduct studies and reviews								1Q — 4Q																								
Active TSP - Conduct safety studies													2Q — 4Q																			
Nerve Agent Scavenger - Conduct pre-clinical toxicity study													1Q — 3Q																			

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CBDP PROJECT COST ANALYSIS (R-3 Exhibit)	DATE February 2002
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BUDGET ACTIVITY RDT&E DEFENSE-WIDE/ BA4 - Demonstration and Validation	PE NUMBER AND TITLE 0603884BP CHEMICAL/BIOLOGICAL DEFENSE (DEMVAL)	PROJECT MC4
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I. Product Development	Contract Method & Type	Performing Activity & Location	US NF CC	Total PYs Cost	FY2001 Cost	FY2001 Award Date	FY2002 Cost	FY2002 Award Date	FY2003 Cost	FY2003 Award Date	Cost to Complete	Total Cost	Target Value of Contract
MEDCHEM													
HW S - Formulate Advanced Anticonvulsant in Autoinjector	C/CPFF	TBS	C	0	0	NONE	429	1Q FY02	381	1Q FY03	0	810	0
HW S - FDA Documentation for Advanced Anticonvulsant	Allot	USAMMDA, Ft Detrick, MD	U	0	0	NONE	0	NONE	467	1Q FY03	0	467	0
HW S - Milestone II IPR for Advanced Anticonvulsant	C/CPFF	Cambridge Consulting Corp, Reston, VA	C	0	0	NONE	0	NONE	50	1Q FY03	0	50	0
SW SB - Formulate Nerve Agent Scavenger for Pre-clinical Study	PO	TBS	C	0	0	NONE	0	NONE	209	1Q FY03	0	209	0
HW S - Milestone I IPR for Active TSP	PO	Cambridge Consulting Corp, Reston, VA	C	0	0	NONE	0	NONE	50	1Q FY03	0	50	0
HW S - Milestone I IPR for Nerve Agent Scavenger	PO	Cambridge Consulting Corp, Reston, VA	C	0	0	NONE	0	NONE	50	2Q FY03	0	50	0
HW C - Subject Matter Expert In-Process Review for Advanced Anticonvulsant	PO	Cambridge Consulting Corp, Reston, VA	C	0	99	3Q FY01	0	NONE	0	NONE	0	99	0
SW S - Data Search on Anticonvulsant Candidates - Advanced Anticonvulsant	PO	Cambridge Consulting Corp, Reston, VA	C	0	95	4Q FY01	0	NONE	0	NONE	0	95	0
Subtotal I. Product Development:				0	194		429		1207		0	1830	

Remarks:

Project MC4

CBDP PROJECT COST ANALYSIS (R-3 Exhibit)	DATE February 2002
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BUDGET ACTIVITY RDT&E DEFENSE-WIDE/ BA4 - Demonstration and Validation	PE NUMBER AND TITLE 0603884BP CHEMICAL/BIOLOGICAL DEFENSE (DEMVAL)	PROJECT MC4
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II. Support Costs: Not applicable

III. Test and Evaluation	Contract Method & Type	Performing Activity & Location	US NF CC	Total PYs Cost	FY2001 Cost	FY2001 Award Date	FY2002 Cost	FY2002 Award Date	FY2003 Cost	FY2003 Award Date	Cost to Complete	Total Cost	Target Value of Contract
MEDCHEM													
DTE S - Bioequivalence Studies of Pyridostigmine Bromide	PO	TBS	C	412	327	1Q FY01	0	NONE	0	NONE	0	739	370
DTE S - Preclinical Efficacy Study of Advanced Anticonvulsant	Allot	USA Medical Research Institute of Chemical Defense, APG, MD	U	0	0	NONE	1046	1Q FY02	0	NONE	0	1046	0
DTE S - Safety Evaluation Study of Active TSP in Animals	PO	TBS	C	0	0	NONE	0	NONE	293	1Q FY03	0	293	0
DTE S - Ex Vivo Rhesus Muscle Study for Pyridostigmine Bromide	SS/FFP	DTSL Chemical & Biological Sciences, United Kingdom	C	0	950	4Q FY01	0	NONE	0	NONE	0	950	0
DTE S - Clinical Protocol of Effects of Pyridostigmine on Excised Muscle	C/CPAF	University of California, Davis, CA	C	0	519	4Q FY01	310	1Q FY02	214	1Q FY03	0	1043	0
DTE S - Advanced Anticonvulsant - Evaluate FDA Approved Seizure Drugs	Allot	USA Medical Research Institute of Chemical Defense, APG, MD		0	88	1Q FY01	59	1Q FY02	50	1Q FY03	0	197	0
Subtotal III. Test and Evaluation:				412	1884		1415		557		0	4268	

Remarks:

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CBDP PROJECT COST ANALYSIS (R-3 Exhibit)	DATE February 2002
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BUDGET ACTIVITY RDT&E DEFENSE-WIDE/ BA4 - Demonstration and Validation	PE NUMBER AND TITLE 0603884BP CHEMICAL/BIOLOGICAL DEFENSE (DEMVAl)	PROJECT MC4
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IV. Management Services	Contract Method & Type	Performing Activity & Location	US NF CC	Total PYs Cost	FY2001 Cost	FY2001 Award Date	FY2002 Cost	FY2002 Award Date	FY2003 Cost	FY2003 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	0	NONE	32	2Q FY02	0	NONE	0	32	0
Subtotal IV. Management Services:				0	0		32		0		0	32	

Remarks:

TOTAL PROJECT COST:	412	2078		1876		1764		0	6130
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