Exhibit R-2, RDT&E Budget Item Justification: PB 2013 Chemical and Biological Defense Program										DATE: February 2012	
APPROPRIATION/BUDGET ACTIVITY 0400: *Research, Development, Test & Evaluation, Defense-Wide* BA 4: *Advanced Component Development & Prototypes (ACD&P)*				R-1 ITEM NOMENCLATURE PE 0603884BP: *CHEMICAL/BIOLOGICAL DEFENSE (ACD&P)*							
COST ($ in Millions)	**FY 2011**	**FY 2012**	**FY 2013 Base**	**FY 2013 OCO**	**FY 2013 Total**	**FY 2014**	**FY 2015**	**FY 2016**	**FY 2017**	**Cost To Complete**	**Total Cost**
Total Program Element	267.867	213.155	179.023	-	179.023	267.746	268.797	199.814	110.570	Continuing	Continuing
CA4: *CONTAMINATION AVOIDANCE (ACD&P)*	57.121	33.952	3.038	-	3.038	19.803	38.588	39.729	34.595	Continuing	Continuing
CM4: *HOMELAND DEFENSE (ACD&P)*	10.531	14.117	3.003	-	3.003	-	-	-	-	0.000	27.651
DE4: *DECONTAMINATION SYSTEMS (ACD&P)*	6.933	24.749	12.374	-	12.374	10.247	9.779	12.751	6.083	Continuing	Continuing
IP4: *INDIVIDUAL PROTECTION (ACD&P)*	2.200	-	1.102	-	1.102	3.708	6.811	4.680	0.300	Continuing	Continuing
IS4: *INFORMATION SYSTEMS (ACD&P)*	11.032	7.420	13.831	-	13.831	5.672	10.496	0.260	-	0.000	48.711
MB4: *MEDICAL BIOLOGICAL DEFENSE (ACD&P)*	129.682	116.653	133.254	-	133.254	194.502	155.024	81.188	23.593	Continuing	Continuing
MC4: *MEDICAL CHEMICAL DEFENSE (ACD&P)*	4.134	7.804	-	-	-	16.947	20.395	37.513	25.134	Continuing	Continuing
MR4: *MEDICAL RADIOLOGICAL DEFENSE (ACD&P)*	1.129	-	4.050	-	4.050	-	-	-	-	0.000	5.179
TE4: *TEST & EVALUATION (ACD&P)*	19.054	5.438	4.994	-	4.994	12.771	20.408	15.872	13.044	Continuing	Continuing
TT4: *TECHBASE TECHNOLOGY TRANSITION (ACD&P)*	26.051	3.022	3.377	-	3.377	4.096	7.296	7.821	7.821	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) threat environment across the continuum of global, contingency, special operations/low intensity conflict, counternarcotics, and other high-risk missions. This program element supports the Advanced Component Development and Prototypes (ACD&P) of medical and non-medical CB defensive equipment and materiel. Congress directed centralized management of Department of Defense (DoD) medical and non-medical CB Defense initiatives. DoD missions for civil support operations have recently expanded and have resulted in providing focus to develop technologies to support CB counterterrorism initiatives. Projects within BA4 are structured to consolidate Joint and Service-unique tasks within four commodity areas: contamination avoidance, individual and collective force protection, decontamination, and medical countermeasures. ADC&P is conducted for an array of chemical, biological, and toxin detection and warning systems providing early warning, collector concentrators, generic detection,

improved reagents, and decontamination systems using solutions that will remove and/or detoxify contaminated materiel without damaging combat equipment, personnel, or the environment. CB sensors and diagnostics enhance the Departments environmental and medical surveillance efforts by improving the monitoring and surveillance of threats and forces preparing for and engaged in military operations. These efforts are required to enable military commanders and the Military Health System to prevent, treat, and mitigate threats to individual Service Members and military units. Integration of CB sensor and diagnostic data from the programs in this ACD&P will also be usable within the homeland security and Federal public health common operating pictures.

The Secretary of Defense is responsible for research, development, acquisition, and deployment of medical countermeasures to prevent or mitigate the health effects of CB threats to the Armed Forces and directs strategic planning for and oversight of programs to support medical countermeasures development and acquisition for our Armed Forces personnel. The CB medical threat to the Armed Forces, in contrast with public health threats to U.S. citizens, encompasses all potential or continuing enemy actions that can render a Service Member combat ineffective. CB medical threats, because they apply as a whole to military units deployed on a specific mission and/or operations, may result in the unit being unable to complete its mission. CB medical countermeasures developed by DoD, unlike those developed to support U.S. population, must support military commanders practical operational requirements and deployment strategies and must emphasizes prevention of injury and illness and protection of the force. Preventive measures in this ACD&P, such as vaccines against the most likely biological threat agents and traditional / non-traditional chemical agent prophylaxis, conserves fighting strength, decreases the logistics burden by reducing the need for larger deployed hospital footprint and greater demand for tactical and strategic medical evacuation, and satisfies the need for greater flexibility in military planning and operations. When vaccines and other prophylactic medical countermeasures are not available, efforts on this ACD&P support pre-hospitalization treatment, en-route care, hospital care, and long-term clinical outcomes. Specific items in this category include improvements to CB diagnostics and therapeutics to mitigate the consequences of biologic agents and exposure to ionizing radiation due to nuclear or radiological attacks. DoD is the only Federal activity conducting ACD&P on these prophylactic, diagnostic, and therapeutic CB medical countermeasures.

The Department of Defense coordinates its efforts with the Departments of Health and Human Services to promote synergy and minimize redundancy. This Department of Defense ensures coordination by participating in the Public Health Emergency Medical Countermeasures Enterprise interagency strategic planning process ("One Portfolio"). The Department of Defense's longstanding experience and success in CB medical countermeasure research, development, acquisition, and deployment not only ensures protection of the Armed Forces, it also accelerate and improves the overall national efforts in CB medical countermeasure research, development, and acquisition because of its unique facilities, testing capabilities, and trained and experienced personnel.

ACD&P also supports the Product Director Test Equipment, Strategy and Support (PD TESS) providing for the development of updated test capabilities to evaluate Chemical, Biological, Radiological, and Nuclear Defense systems. Also included is the Techbase Technology Transition effort which validates high-risk/high-payoff technologies that could significantly improve Warfighter capabilities.

The projects in this program element support efforts in the technology development phase of the acquisition strategy and are therefore correctly placed in Budget Activity 4.

Exhibit R-2, RDT&E Budget Item Justification: PB 2013 Chemical and Biological Defense Program	DATE: February 2012
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B. Program Change Summary ($ in Millions)	FY 2011	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total
Previous President's Budget	277.062	261.143	251.988	-	251.988
Current President's Budget	267.867	213.155	179.023	-	179.023
Total Adjustments	-9.195	-47.988	-72.965	-	-72.965
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	1.429	-			
• SBIR/STTR Transfer	-3.246	-			
• Other Adjustments	-7.378	-47.988	-72.965	-	-72.965

Change Summary Explanation

Funding: FY12
-$47.988M Congressional Reductions (DE4 -$13,988K; MB4 -$21,000K; MC4 -$13,000K)

FY13
-$72,965M Other Adjustments
(-$75,176K) Other Adjustments (CA4 -$25,703K; DE4 -$18,387K; IS4 -$1,022K; MB4 -$18,518K; MC4 -$3,658K; MR4 +$4,000K; TE4 -$11,300K; TT4 -$588K)
(+$2,211) Inflation Adjustments (All Projects)

Schedule: N/A

Technical: N/A

Exhibit R-2A, RDT&E Project Justification: PB 2013 Chemical and Biological Defense Program			DATE: February 2012
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COST ($ in Millions)	FY 2011	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total	FY 2014	FY 2015	FY 2016	FY 2017	Cost To Complete	Total Cost
CA4: *CONTAMINATION AVOIDANCE (ACD&P)*	57.121	33.952	3.038	-	3.038	19.803	38.588	39.729	34.595	Continuing	Continuing
Quantity of RDT&E Articles											

A. Mission Description and Budget Item Justification

This Advanced Component Development and Prototypes (ACD&P) Project supports Component Advanced Development and System Integration (CAD/SI) of reconnaissance, detection, identification, and hazard prediction equipment, hardware, and software. Individual efforts are: (1) Chemical Biological Radiological Nuclear Dismounted Reconnaissance Systems (CBRN DRS); (2) Joint Biological Standoff Detector System (JBSDS); (3) Joint Biological Tactical Detection System (JBTDS); (4) Joint Chemical Agent Detector (JCAD); (5) Major Defense Acquisition Program (MDAP) Support; (6) Next Generation Chemical Point Detection (NGCPD); and (7) Next Generation Chemical Standoff Detection (NGCSD).

The CBRN Dismounted Reconnaissance Systems (CBRN DRS) consists of portable, commercial and government off-the-shelf equipment to provide personnel protection from current and emerging CBRN hazards and detection, identification, sample collection, decontamination, marking, and hazard reporting of CBRN threats. The system supports dismounted Reconnaissance, Surveillance, and CBRN Site Assessment missions to enable more detailed CBRN information reports for commanders.

The Joint Biological Standoff Detection (JBSDS) mission is to provide near real-time detection of biological attacks/incidents and standoff early detection/warning (Detect to Warn) of BWAs at fixed sites or in static mode on vehicles. This detect to warn capability will allow Commanders theater-wide initial early warning capability against BWA attacks. JBSDS 1 was the first standoff early warning biological detection system for the Joint Services. The system demonstrated the capability of providing standoff detection, ranging, tracking, discrimination (biological vs. non-biological), of BWA aerosol clouds for advanced warning, reporting and protection. The current JBSDS 1 systems will be used for training to support JBSDS 2 concept of operations (CONOPs) development and can be deployed upon receipt of an urgent need statement. JBSDS Increment 2 will address the requirements beyond the JBSDS 1 interim system. These key requirements are lower false alarm rate, day/night discrimination sensitivity, and a reduction in overall system size, weight, and power.

The Joint Biological Tactical Detection System (JBTDS) will integrate, test and produce the first lightweight (less than 37 lbs), low cost biological surveillance system that will detect, collect and identify biological warfare agent aerosols. JBTDS will provide warning through the Joint Warning And Reporting Network (JWARN) and archive sample for follow-on analyses. JBTDS will provide near real time local audio and visual alarm for use by any Military Occupational Specialty (MOS). JBTDS components will be man portable, battery operable and easy to employ. JBTDS will be used to provide notification of a hazard and enhanced battle space awareness to protect and preserve the force. When networked, JBTDS will augment existing biological detection systems to provide a theater-wide seamless array capable of biological detection, identification and warning. Units equipped with JBTDS will conduct biological surveillance missions to detect BWA aerosol clouds, collect a sample, and identify the agent to support time sensitive force protection decisions.

Exhibit R-2A, RDT&E Project Justification: PB 2013 Chemical and Biological Defense Program		DATE: February 2012
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The Joint Chemical Agent Detector (JCAD) efforts will evaluate current technologies focusing on capability gaps for emerging threats by performing testing and evaluation of existing fielded systems to characterize and optimize their capability to detect emerging threats.

The Major Defense Acquisition Program (MDAP) Support program will integrate System of Systems (SoS) solutions across the Armed Services for MDAPs having Chemical and Biological Radiological and Nuclear (CBRN) survivability requirements. The program will demonstrate modular, net-centric, "plug and play" capabilities for mounted and dismounted CBRN reconnaissance that will establish a common CBRN reconnaissance architecture across the services. This program does not continue beyond FY11.

The Next Generation Chemical Point Detection (NGCPD), a new start program, will detect and identify non-traditional agents, chemical warfare agents (CWAs), toxic industrial chemicals (TICs) in the air and on surfaces. The NGCPD will provide improved CWA/TIC selectivity and sensitivity on multiple platforms as well as multiple environments. This sensor will improve passive defense/detect capabilities, consequence management and reconnaissance, and weapons of mass destruction (WMD) interdiction.

The Next Generation Chemical Standoff Detection (NGCSD), a next generation chemical standoff effort that was initiated under the JSLSCAD program, will provide a technical assessment of the state of current standoff detection capabilities for both traditional and non-traditional chemical agent attacks at fixed sites, forward operating bases and on Service designated vehicles and ships. Evaluation of industry capabilities will support development of the future detection system. This program does not continue beyond FY11.

B. Accomplishments/Planned Programs ($ in Millions)	FY 2011	FY 2012	FY 2013
Title: 1) CBRN DRS ***FY 2011 Accomplishments:*** Initiated and completed personal protective equipment (PPE) swatch testing.	0.693	-	-
Title: 2) CBRN DRS ***FY 2011 Accomplishments:*** Initiated and completed program management and systems engineering support and completed preparation for Milestone B.	1.260	-	-
Title: 3) JBSDS Increment 2 ***FY 2011 Accomplishments:*** Provided strategic, tactical planning, government system engineering, program/financial management, costing, contracting, scheduling, acquisition oversight, technical support and milestone documentation. Conducted successful Milestone A review and released Competitive Prototyping Request for Proposals. ***FY 2012 Plans:***	6.683	4.688	-

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B. Accomplishments/Planned Programs ($ in Millions)	FY 2011	FY 2012	FY 2013
Provide strategic, tactical planning, government system engineering, program/financial management, costing, contracting, scheduling, acquisition oversight, technical support and milestone documentation.			
Title: 4) JBSDS Increment 2 ***FY 2011 Accomplishments:*** Continued agent performance assessment, cross section measurements, simulant variability testing and relative humidity testing. ***FY 2012 Plans:*** Continue agent performance assessment, cross section measurements and agent variability testing.	3.954	1.000	-
Title: 5) JBSDS Increment 2 ***FY 2011 Accomplishments:*** Continued Increment 2 Modeling and Simulation efforts supporting agent performance assessment and standardization of cloud modeling software. Continued cloud modeling testing and incorporated modeling and simulation capabilities with system algorithms. ***FY 2012 Plans:*** Continue Increment 2 Modeling and Simulation efforts supporting agent performance assessment and standardization of cloud modeling software. Mature system algorithms with continued testing and modeling and simulation results.	0.179	0.150	-
Title: 6) JBSDS Increment 2 ***FY 2011 Accomplishments:*** Continued Agent Performance Assessment analysis and Biological Safety Level (BSL) 3 Chamber development efforts. ***FY 2012 Plans:*** Continue Agent Performance Assessment analysis and BSL 3 Chamber development efforts.	2.161	2.278	-
Title: 7) JBSDS Increment 2 ***FY 2011 Accomplishments:*** Provided test planning and test support for simulant variability studies, aerosol modeling testing and initiate relative humidity testing). ***FY 2012 Plans:*** Provide test planning and test support(continued simulant variability testing, aerosol modeling testing and relative humidity testing).	5.142	4.582	-
Title: 8) JBSDS Increment 2	0.500	0.250	-

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B. Accomplishments/Planned Programs ($ in Millions)	FY 2011	FY 2012	FY 2013
FY 2011 Accomplishments: Continued the fusion of networked sensor data in support of future IS based requirements and service combat developer CONOPS. ***FY 2012 Plans:*** Complete the fusion of networked sensor data in support of future IS based requirements and service combat developer CONOPS.			
Title: 9) JBSDS Increment 2 ***FY 2012 Plans:*** Initiate and complete maturation of standoff technology options such as upgrading FAL, demonstrating high speed cloud mapping, and risk reduction efforts.	-	9.050	-
Title: 10) JBSDS Increment 2 ***FY 2011 Accomplishments:*** Initiate the transition of technologies within the CBD portfolio. ***FY 2012 Plans:*** Complete the transition of technologies within the CBD portfolio.	3.899	6.100	-
Title: 11) JBTDS ***FY 2011 Accomplishments:*** Conducted calibration effort for service requirements to measure degradation in Biological Warfare Agent detection sensors.	1.883	-	-
Title: 12) JBTDS ***FY 2011 Accomplishments:*** Awarded three (3) firm fixed price competitive prototyping contracts, each contractor providing ten (10) prototypes at an average cost of $250K per system.	7.883	-	-
Title: 13) JBTDS ***FY 2011 Accomplishments:*** Initiated Competitive Prototyping (CP) test and evaluation planning events. ***FY 2012 Plans:*** Continue CP test and evaluation events.	1.491	0.640	-
Title: 14) JBTDS	0.126	0.250	-

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B. Accomplishments/Planned Programs ($ in Millions)	FY 2011	FY 2012	FY 2013
FY 2011 Accomplishments: Initiated strategy to prepare and plan for an independent technology readiness assessment. ***FY 2012 Plans:*** Conduct technology readiness assessment of prototypes.			
Title: 15) JBTDS ***FY 2011 Accomplishments:*** Provided strategic/tactical planning, government systems engineering, program/financial management, costing, technology assessment, contracting, scheduling, acquisition oversight and technical support. ***FY 2012 Plans:*** Continue to provide strategic/tactical planning, government systems engineering, program/financial management, costing, technology assessment, contracting, scheduling, acquisition oversight and technical support. ***FY 2013 Plans:*** Complete Tech Demo phase strategic/tactical planning, government systems engineering, program/financial management, costing, technology assessment, contracting, scheduling, acquisition oversight and technical support.	3.803	3.490	1.519
Title: 16) JBTDS ***FY 2011 Accomplishments:*** Continued user representation and involvement (i.e., Integrated Product Teams and working groups). ***FY 2012 Plans:*** Continue user representation and involvement (i.e., Integrated Product Teams and working groups).	0.674	1.025	-
Title: 17) JCAD ***FY 2011 Accomplishments:*** Completed test and evaluation of existing fielded systems to characterize and optimize their ability to detect emerging threats.	0.734	-	-
Title: 18) JCAD ***FY 2011 Accomplishments:*** Completed program management, systems engineering, and Integrated Product Team (IPT) support.	0.695	-	-
Title: 19) JCAD ***FY 2011 Accomplishments:***	0.524	-	-

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B. Accomplishments/Planned Programs ($ in Millions)	FY 2011	FY 2012	FY 2013
Initiated and completed test development and evaluation efforts for low volatile sensors.			
Title: 20) MDAP SPRT ***Description:*** Catalytic Oxidation (CatOx) Technology Demonstration of improved air purification for the Abrams Main Battle Tank (MBT). ***FY 2011 Accomplishments:*** Provided project management and oversight. Conducted live-agent performance testing preparations for one prototype CatOx system.	0.308	-	-
Title: 21) MDAP SPRT ***Description:*** Chemical, Biological, and Radiological (CBR) Capabilities Analysis. ***FY 2011 Accomplishments:*** Conducted CBR Capabilities Analysis for Missile Defense Agency, DDG-51 FLT III, KC-46A Aerial Refueler, US Strategic Command (USSTRATCOM), and a special US Air Force program.	0.770	-	-
Title: 22) MDAP SPRT ***Description:*** Chemical, Biological, and Radiological (CBR) Material Solutions Analysis. ***FY 2011 Accomplishments:*** Conducted CBR Material Solutions Analyses for Missile Defense Agency, KC-46 Aerial Refueler, and a special US Air Force program. Completed CBR Material Solutions Analyses for Ground Combat Vehicle. Conducted individual protection equipment compatibility study for Ship to Shore Connector.	1.539	-	-
Title: 23) MDAP SPRT ***Description:*** Provide strategic tactical planning, government systems engineering, program/financial management, costing, technology assessment, contracting, scheduling, acquisition oversight and technical support. ***FY 2011 Accomplishments:*** Conducted strategic/tactical planning, government systems engineering, program/financial management, costing, technology assessment, contracting, scheduling, acquisition oversight, and technical support.	0.310	-	-
Title: 24) NGCPD ***FY 2013 Plans:***	-	-	1.519

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B. Accomplishments/Planned Programs ($ in Millions)	FY 2011	FY 2012	FY 2013
Initiate program management, systems engineering, and Integrated Product Team (IPT) support and prepare for MS A.			
Title: 25) NGCSD ***FY 2011 Accomplishments:*** Completed design and development of sensor algorithm.	0.500	-	-
Title: 26) NGCSD ***FY 2011 Accomplishments:*** Completed prototype purchase and provided technical support for Technology Evaluation (12 prototypes at a cost of $600K each).	7.200	-	-
Title: 27) NGCSD ***FY 2011 Accomplishments:*** Completed the strategic/tactical planning, systems engineering, program/financial management, and IPT support.	4.210	-	-
Title: 28) SBIR ***FY 2012 Plans:*** Small Business Innovative Research.	-	0.449	-
Accomplishments/Planned Programs Subtotals	57.121	33.952	3.038

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2011	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total	FY 2014	FY 2015	FY 2016	FY 2017	Cost To Complete	Total Cost
• CA5: *CONTAMINATION AVOIDANCE (SDD)*	122.354	52.114	33.018		33.018	37.385	45.882	30.029	44.953	Continuing	Continuing
• JF0100: *JOINT CHEMICAL AGENT DETECTOR (JCAD)*	39.372	35.172	15.212		15.212	19.130	50.985	57.966	47.758	Continuing	Continuing
• MC0101: *CBRN DISMOUNTED RECONNAISSANCE SYSTEMS (CBRN DRS)*	12.644	6.991	15.080		15.080	34.698	95.081	95.889	90.109	Continuing	Continuing

D. Acquisition Strategy

CBRN DRS

The Chemical Biological Radiological Nuclear Dismounted Reconnaissance Systems (CBRN DRS) program uses a government-off-the-shelf (GOTS)/commercial-off-the-shelf (COTS) non-developmental item (NDI) single step to full capability acquisition approach. Upon further review of the CBRN capabilities at the Materiel

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Development Decision (MDD), the program restructured in 4QFY10 to begin the acquisition process at Milestone (MS) B. Funding finalized the Analysis of Materiel Solutions (AMS), materiel/prototype testing, and design to provide the Services with enhanced full spectrum CBRN detection capability to support strategic, operational, and tactical objectives at lower life cycle costs. Dismounted Reconnaissance Sets, Kits, and Outfits (DR SKO) will enhance the Situational Awareness (SA) by providing a dismounted ability to detect chemical, biological and radiological hazards across the Range of Military Operations (ROMO) and employ contamination avoidance activities to prevent disruption to operations and organizations.

The Emerging Threat efforts develop, test, procure, and sustain dismounted reconnaissance and sensitive site analysis systems for urgent needs for Domestic Response Capability Systems and Advanced Threat Boxes. Funding also informs the Materiel Development Decision and requirements development for the CBRN DRS.

JBTDS

The Joint Biological Tactical Detection System (JBTDS) is an Acquisition Category III (ACAT III) program dedicated to developing a lightweight biological warfare agent system that will detect, warn, and provide presumptive identification and samples for follow-on confirmatory analysis. The JBTDS is being developed using an evolutionary acquisition strategy. The JBTDS program will incrementally design, develop, integrate, test, procure and field systems that improve biological detection, sampling and identification capabilities and reduce size, weight, power consumption and logistics footprint over current systems. JBTDS will make maximum use of commercial off-the-shelf (COTS) and Government off-the-shelf (GOTS) technology. The awards for competitive prototyping utilized best value approach via the competitive CBRNE mission support contract to three contractor teams. Full and open competition will be utilized at MS B for the EMD contract with options for Low Rate Initial Production and Full Rate Production. In addition the JPM-BD is coordinating with JPM Guardian and JPM CBMS on the Common Analytical Laboratory System and Next Generation Diagnostic System programs respectively to share information and leverage potential identification technology solutions common to the three programs.

This approach also provides capability to the warfighter in the shortest possible time. The JBTDS program will incrementally design, develop, integrate, test, procure and field systems that improve biological aerosol detection, sampling and identification capabilities and reduce size, weight, power consumption, and logistic footprint over current systems. Again, COTS and GOTS will be utilized to the fullest extent possible.

JCAD

The current strategy employs an improvement of the M4 JCAD to reduce Life Cycle costs, transition to a competitive procurement contract, and attain objective capability. Three competitive fixed-price contracts for the M4A1 were awarded in Sep 2007 for prototypes and options for full rate production. Competitive prototype testing was conducted and one system was selected for continued development. The VBSS JCAD exercised a contract option for VBSS-specific software. Upon completion of PVT and an Operational Assessment (under CBRN DRS), standard M4A1 JCADs will be reprogrammed to fill CBRN DRS VBSS needs. The low volatile sensor technology evaluation will purchase prototypes of commercial equipment to evaluate technologies for addressing capability gaps for emerging threats not addressed by M4 and M4A1 JCAD. The results of the low volatile sensor technology evaluation will be used to inform the Analysis of Alternatives for NGCPD.

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NGCPD

The next generation chemical point detection (NGCPD) program will target capability gaps for emerging threats not addressed by JCAD M4 and M4A1. The analysis of alternatives will be used to generate performance specifications that will support contracting for competitive prototype development. The goal for the initial stage of development will be to award three contracts for each variant of the NGCPD and down select to one contractor per variant by Milestone B.

E. Performance Metrics

N/A

Exhibit R-3, RDT&E Project Cost Analysis: PB 2013 Chemical and Biological Defense Program		DATE: February 2012
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Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	FY 2012 Cost	FY 2012 Award Date	FY 2013 Base Cost	FY 2013 Base Award Date	FY 2013 OCO Cost	FY 2013 OCO Award Date	FY 2013 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
** JBSDS - ES S - Modeling & Simulation Test Support	C/CPFF	John Hopkins Univ - Applied Physics Lab:Laurel, MD	2.550	0.500	Feb 2012	-		-		-	Continuing	Continuing	0.000
ES S - Modeling & Simulation Test Support	MIPR	Sandia National Laboratory:Albuquerque, NM	5.058	0.500	Feb 2012	-		-		-	Continuing	Continuing	0.000
ES S - FAL LWIR Upgrade & Demo	MIPR	ECBC:APG/DPG, UT	-	2.310	Feb 2012	-		-		-	Continuing	Continuing	0.000
ES S - FAL LWIR Upgrade & Demo #2	MIPR	JHU APL:Laurel, MD	-	0.460	Feb 2012	-		-		-	Continuing	Continuing	0.000
ES S - Optical Measurement Data Consolidation	MIPR	JHU APL:Laurel, MD	-	0.345	Feb 2012	-		-		-	Continuing	Continuing	0.000
ES S - CONOPS Modeling	MIPR	TBD:	-	0.435	Feb 2012	-		-		-	Continuing	Continuing	0.000
ES C - Technology Transition	MIPR	TBD:	3.900	6.100	May 2012	-		-		-	Continuing	Continuing	0.000
** JBTDS - ES S - User involvement	MIPR	Various:	1.655	1.025	Feb 2012	-		-		-	Continuing	Continuing	0.000
ES S - Technology Readiness Assessment	MIPR	ECBC:Aberdeen, MD	0.126	0.250	Feb 2012	-		-		-	Continuing	Continuing	0.000
		Subtotal	13.289	11.925		-		-		-			0.000

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	FY 2012 Cost	FY 2012 Award Date	FY 2013 Base Cost	FY 2013 Base Award Date	FY 2013 OCO Cost	FY 2013 OCO Award Date	FY 2013 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
** JBSDS - INCR 2 - OTHT SB - Developmental Testing Support	MIPR	Dugway Proving Ground (DPG):Dugway, UT	2.294	1.210	May 2012	-		-		-	Continuing	Continuing	0.000
INCR 2 - OTHT SB - Networking algorithm development and Aerosol Chamber Study	MIPR	MIT/Lincoln Lab:Lexington, MA	0.870	0.250	Aug 2012	-		-		-	Continuing	Continuing	0.000

Exhibit R-3, RDT&E Project Cost Analysis: PB 2013 Chemical and Biological Defense Program		DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 0400: *Research, Development, Test & Evaluation, Defense-Wide* BA 4: *Advanced Component Development & Prototypes (ACD&P)*	R-1 ITEM NOMENCLATURE PE 0603884BP: *CHEMICAL/BIOLOGICAL DEFENSE (ACD&P)*	PROJECT CA4: *CONTAMINATION AVOIDANCE (ACD&P)*

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	FY 2012 Cost	FY 2012 Award Date	FY 2013 Base Cost	FY 2013 Base Award Date	FY 2013 OCO Cost	FY 2013 OCO Award Date	FY 2013 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
INCR 2 - OTHT SB - Agent performance analysis and Technology Performance Analysis	MIPR	John Hopkins Univ - Applied Physics Lab:Laurel, MD	2.500	0.500	Feb 2012	-		-		-	Continuing	Continuing	0.000
INCR 2 - DTE S - Cloud Modeling Analysis	MIPR	Various:	0.179	0.150	Feb 2012	-		-		-	Continuing	Continuing	0.000
DTE C - DT test support	MIPR	SNL:Albuquerque, NM	1.333	2.226	Feb 2012	-		-		-	Continuing	Continuing	0.000
DTE C - DT test support #2	MIPR	JHU APL:Laurel, MD	1.035	0.403	Feb 2012	-		-		-	Continuing	Continuing	0.000
DTE C - Aerosol Chamber Maturation	MIPR	SNL:Albuquerque, NM	0.661	1.462	Feb 2012	-		-		-	Continuing	Continuing	0.000
DTE C - Aerosol Chamber Maturation #2	MIPR	JHU APL:Laurel, MD	-	0.316	Feb 2012	-		-		-	Continuing	Continuing	0.000
DTE C - DT Test Support #3	MIPR	ECBC:APG MD	1.311	0.331	Feb 2012	-		-		-	Continuing	Continuing	0.000
DTE C - DT Test Support #4	MIPR	Camber Corp:Hunstville, AL	0.215	0.412	Aug 2012	-		-		-	Continuing	Continuing	0.000
DTE C - Aerosol Cloud Mapping & Tracking	MIPR	TBD:	-	1.500	Feb 2012	-		-		-	Continuing	Continuing	0.000
DTE C - Technology Risk Reduction	MIPR	TBD:	-	4.000	Feb 2012	-		-		-	Continuing	Continuing	0.000
** JBTDS - DTE S - Competitive Prototyping Testing	MIPR	Dugway Proving Ground/ECBC:	1.491	0.640	Feb 2012	-		-		-	Continuing	Continuing	0.000
		Subtotal	11.889	13.400		-		-		-			0.000

Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	FY 2012 Cost	FY 2012 Award Date	FY 2013 Base Cost	FY 2013 Base Award Date	FY 2013 OCO Cost	FY 2013 OCO Award Date	FY 2013 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
** JBSDS - INCR 2 - PM/MS SB - JPM BD & JPEO CBD Management and Systems Engineering Support	MIPR	JPM BD/JPEO CBD:APG, MD	13.234	4.688	Feb 2012	-		-		-	Continuing	Continuing	0.000

Exhibit R-3, RDT&E Project Cost Analysis: PB 2013 Chemical and Biological Defense Program		DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 0400: *Research, Development, Test & Evaluation, Defense-Wide* BA 4: *Advanced Component Development & Prototypes (ACD&P)*	R-1 ITEM NOMENCLATURE PE 0603884BP: *CHEMICAL/BIOLOGICAL DEFENSE (ACD&P)*	PROJECT CA4: *CONTAMINATION AVOIDANCE (ACD&P)*

Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	FY 2012 Cost	FY 2012 Award Date	FY 2013 Base Cost	FY 2013 Base Award Date	FY 2013 OCO Cost	FY 2013 OCO Award Date	FY 2013 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
** JBTDS - PM/MS SB - JPM BD & JPEO CBD - Management and System Engineering Support	MIPR	JPM BD/JPEO CBD:APG, MD	7.794	3.490	Feb 2012	1.519	Nov 2012	-		1.519	Continuing	Continuing	0.000
** NGCPD - PM/MS S - Program Management and Systems Engineering Support	MIPR	JPM NBC CA:APG, MD	-	-		1.519	Nov 2012	-		1.519	Continuing	Continuing	0.000
** ZSBIR - SBIR/STTR - Aggregated from ZSBIR-SBIR/STTR	PO	HQ:AMC, Alexandria	-	0.449		-		-		-	Continuing	Continuing	0.000
		Subtotal	21.028	8.627		3.038		-		3.038			0.000

	Total Prior Years Cost	FY 2012 Cost	FY 2012 Award Date	FY 2013 Base Cost	FY 2013 Base Award Date	FY 2013 OCO Cost	FY 2013 OCO Award Date	FY 2013 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	46.206	33.952		3.038		-		3.038			0.000

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2013 Chemical and Biological Defense Program		DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 0400: *Research, Development, Test & Evaluation, Defense-Wide* BA 4: *Advanced Component Development & Prototypes (ACD&P)*	R-1 ITEM NOMENCLATURE PE 0603884BP: *CHEMICAL/BIOLOGICAL DEFENSE (ACD&P)*	PROJECT CA4: *CONTAMINATION AVOIDANCE (ACD&P)*

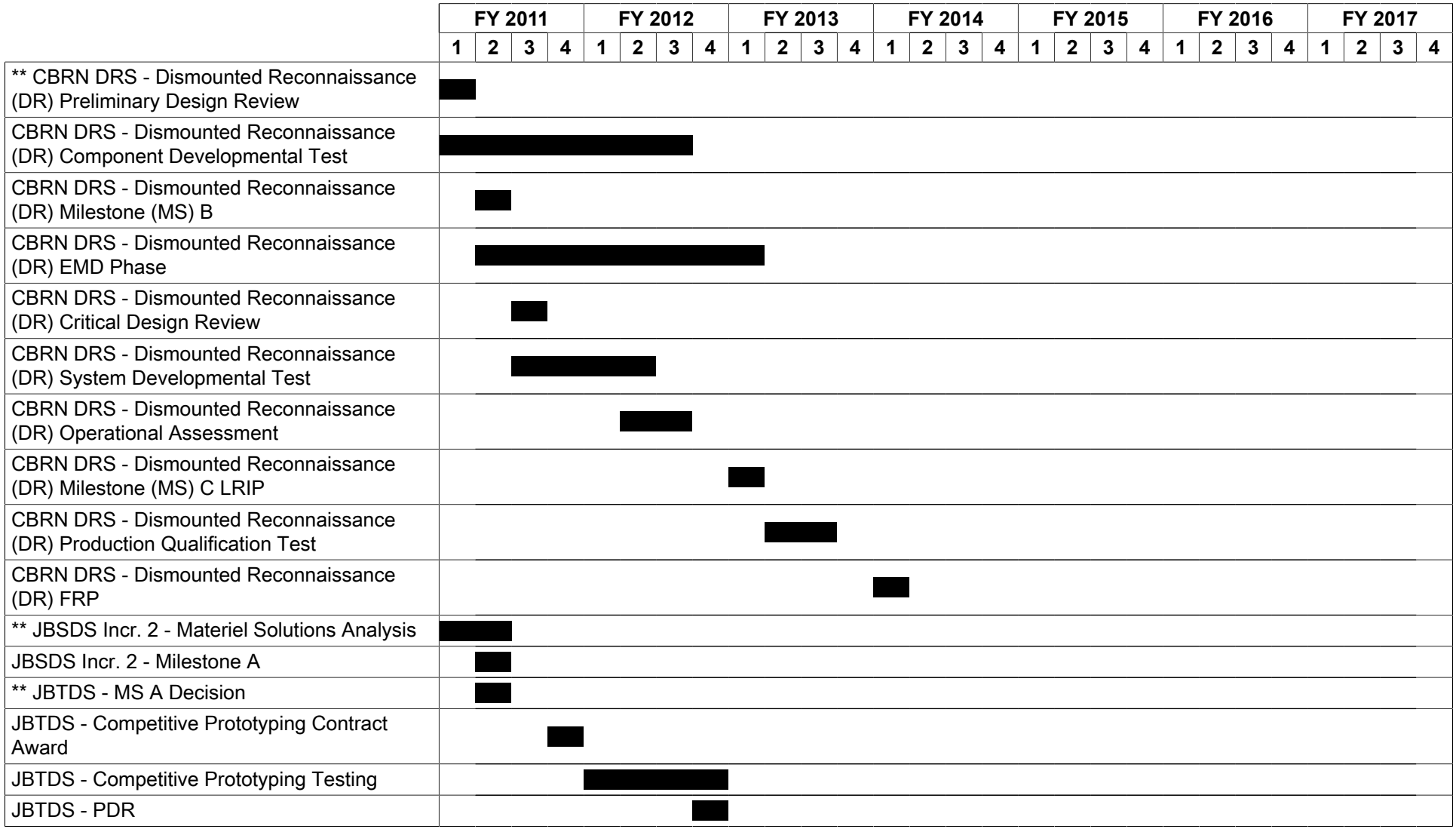

Exhibit R-4, RDT&E Schedule Profile: PB 2013 Chemical and Biological Defense Program		DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 0400: *Research, Development, Test & Evaluation, Defense-Wide* BA 4: *Advanced Component Development & Prototypes (ACD&P)*	R-1 ITEM NOMENCLATURE PE 0603884BP: *CHEMICAL/BIOLOGICAL DEFENSE (ACD&P)*	PROJECT CA4: *CONTAMINATION AVOIDANCE (ACD&P)*

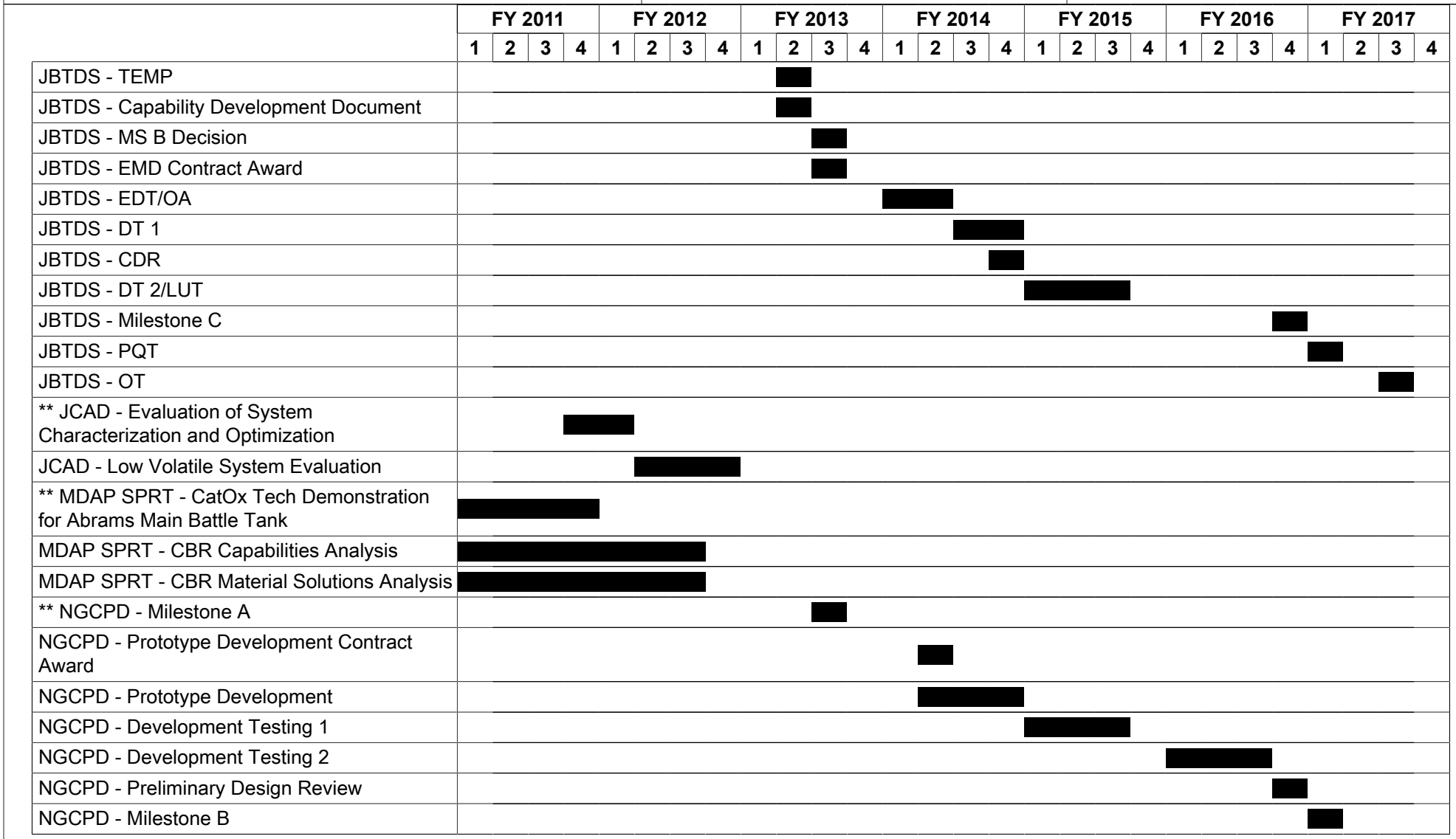

Exhibit R-4, RDT&E Schedule Profile: PB 2013 Chemical and Biological Defense Program		DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 0400: *Research, Development, Test & Evaluation, Defense-Wide* BA 4: *Advanced Component Development & Prototypes (ACD&P)*	R-1 ITEM NOMENCLATURE PE 0603884BP: *CHEMICAL/BIOLOGICAL DEFENSE (ACD&P)*	PROJECT CA4: *CONTAMINATION AVOIDANCE (ACD&P)*

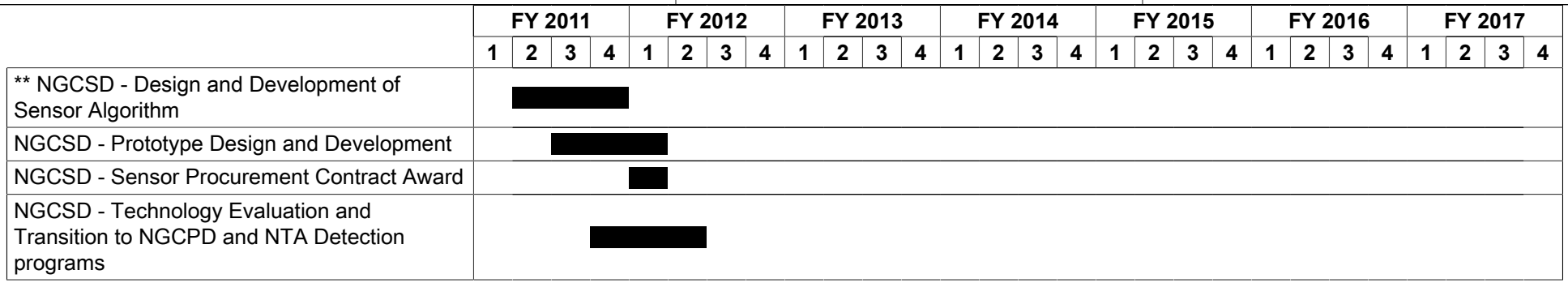

Exhibit R-4A, RDT&E Schedule Details: PB 2013 Chemical and Biological Defense Program		DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 0400: *Research, Development, Test & Evaluation, Defense-Wide* BA 4: *Advanced Component Development & Prototypes (ACD&P)*	**R-1 ITEM NOMENCLATURE** PE 0603884BP: *CHEMICAL/BIOLOGICAL DEFENSE (ACD&P)*	**PROJECT** CA4: *CONTAMINATION AVOIDANCE (ACD&P)*

Schedule Details

	Start		End	
Events	**Quarter**	**Year**	**Quarter**	**Year**
** CBRN DRS - Dismounted Reconnaissance (DR) Preliminary Design Review	1	2011	1	2011
CBRN DRS - Dismounted Reconnaissance (DR) Component Developmental Test	1	2011	3	2012
CBRN DRS - Dismounted Reconnaissance (DR) Milestone (MS) B	2	2011	2	2011
CBRN DRS - Dismounted Reconnaissance (DR) EMD Phase	2	2011	1	2013
CBRN DRS - Dismounted Reconnaissance (DR) Critical Design Review	3	2011	3	2011
CBRN DRS - Dismounted Reconnaissance (DR) System Developmental Test	3	2011	2	2012
CBRN DRS - Dismounted Reconnaissance (DR) Operational Assessment	2	2012	3	2012
CBRN DRS - Dismounted Reconnaissance (DR) Milestone (MS) C LRIP	1	2013	1	2013
CBRN DRS - Dismounted Reconnaissance (DR) Production Qualification Test	2	2013	3	2013
CBRN DRS - Dismounted Reconnaissance (DR) FRP	1	2014	1	2014
** JBSDS Incr. 2 - Materiel Solutions Analysis	1	2011	2	2011
JBSDS Incr. 2 - Milestone A	2	2011	2	2011
** JBTDS - MS A Decision	2	2011	2	2011
JBTDS - Competitive Prototyping Contract Award	4	2011	4	2011
JBTDS - Competitive Prototyping Testing	1	2012	4	2012
JBTDS - PDR	4	2012	4	2012
JBTDS - TEMP	2	2013	2	2013
JBTDS - Capability Development Document	2	2013	2	2013
JBTDS - MS B Decision	3	2013	3	2013
JBTDS - EMD Contract Award	3	2013	3	2013
JBTDS - EDT/OA	1	2014	2	2014
JBTDS - DT 1	3	2014	4	2014

Exhibit R-4A, RDT&E Schedule Details: PB 2013 Chemical and Biological Defense Program		DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 0400: *Research, Development, Test & Evaluation, Defense-Wide* BA 4: *Advanced Component Development & Prototypes (ACD&P)*	R-1 ITEM NOMENCLATURE PE 0603884BP: *CHEMICAL/BIOLOGICAL DEFENSE (ACD&P)*	PROJECT CA4: *CONTAMINATION AVOIDANCE (ACD&P)*

	Start		End	
Events	**Quarter**	**Year**	**Quarter**	**Year**
JBTDS - CDR	4	2014	4	2014
JBTDS - DT 2/LUT	1	2015	3	2015
JBTDS - Milestone C	4	2016	4	2016
JBTDS - PQT	1	2017	1	2017
JBTDS - OT	3	2017	3	2017
** JCAD - Evaluation of System Characterization and Optimization	4	2011	1	2012
JCAD - Low Volatile System Evaluation	2	2012	4	2012
** MDAP SPRT - CatOx Tech Demonstration for Abrams Main Battle Tank	1	2011	4	2011
MDAP SPRT - CBR Capabilities Analysis	1	2011	3	2012
MDAP SPRT - CBR Material Solutions Analysis	1	2011	3	2012
** NGCPD - Milestone A	3	2013	3	2013
NGCPD - Prototype Development Contract Award	2	2014	2	2014
NGCPD - Prototype Development	2	2014	4	2014
NGCPD - Development Testing 1	1	2015	3	2015
NGCPD - Development Testing 2	1	2016	3	2016
NGCPD - Preliminary Design Review	4	2016	4	2016
NGCPD - Milestone B	1	2017	1	2017
** NGCSD - Design and Development of Sensor Algorithm	2	2011	4	2011
NGCSD - Prototype Design and Development	3	2011	1	2012
NGCSD - Sensor Procurement Contract Award	1	2012	1	2012
NGCSD - Technology Evaluation and Transition to NGCPD and NTA Detection programs	4	2011	2	2012

Exhibit R-2A, RDT&E Project Justification: PB 2013 Chemical and Biological Defense Program			DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 0400: *Research, Development, Test & Evaluation, Defense-Wide* BA 4: *Advanced Component Development & Prototypes (ACD&P)*	R-1 ITEM NOMENCLATURE PE 0603884BP: *CHEMICAL/BIOLOGICAL DEFENSE (ACD&P)*	PROJECT CM4: *HOMELAND DEFENSE (ACD&P)*	

COST ($ in Millions)	FY 2011	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total	FY 2014	FY 2015	FY 2016	FY 2017	Cost To Complete	Total Cost
CM4: *HOMELAND DEFENSE (ACD&P)*	10.531	14.117	3.003	-	3.003	-	-	-	-	0.000	27.651
Quantity of RDT&E Articles											

A. Mission Description and Budget Item Justification

This Advanced Component Development and Prototypes (ACD&P) Project supports Component Advanced Development and System Integration (CAD/SI) for programs that provide a comprehensive, integrated and layered CBRN protection and response capability for military installations and specialized military consequence management units both at home and abroad. Particular emphasis is placed on improving military-civilian interoperability in CBRN detection and response capabilities; providing tiered levels of CBRN protection and response capabilities to military installations; and tailored modular and integrated Commercial off-the-shelf (COTS) solutions to consequence management units.

Included in this Project are: Initial development of the Common Analytical Laboratory System (CALS) to include evaluation and selection of subsystems (analytical detection, laboratory information management, data fusion, engineering controls) as well as development of a set of modular designed configurations for system level prototyping utilizing open system architecture. In addition, it provides for the validation and demonstration of desired functional capabilities.

B. Accomplishments/Planned Programs ($ in Millions)	FY 2011	FY 2012	FY 2013
Title: 1) CALS - System Engineering and Program Management	2.206	3.128	0.887
Description: System engineering and technical control, as well as the business management of the system/program. It encompasses the overall planning, direction, and control of the definition, development, and production of the system/program, including functions of logistics engineering and integrated logistics support (ILS) management(e.g., maintenance support, facilities, personnel, training, testing, and activation of the system.)			
FY 2011 Accomplishments: Continued System Engineering and Program Management Support at the initiation of the Technology Development Phase, provided Engineering support, System Integration Laboratory efforts, Modeling and Simulation, Oversight to Component Technology Down Select and Contract Development/Procurement actions.			
FY 2012 Plans: Continue System Engineering and Program Management to provide engineering support and program and technical guidance to ongoing System Integration Laboratory efforts, maintain oversight of component test completion, contract actions in support of modular design concepts and preparation for Preliminary Design Review.			
FY 2013 Plans:			

Exhibit R-2A, RDT&E Project Justification: PB 2013 Chemical and Biological Defense Program		DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 0400: *Research, Development, Test & Evaluation, Defense-Wide* BA 4: *Advanced Component Development & Prototypes (ACD&P)*	R-1 ITEM NOMENCLATURE PE 0603884BP: *CHEMICAL/BIOLOGICAL DEFENSE (ACD&P)*	PROJECT CM4: *HOMELAND DEFENSE (ACD&P)*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2011	FY 2012	FY 2013
Continue System Engineering and Program Management to provide engineering support and program and technical guidance to ongoing System Integration Laboratory efforts, maintain oversight of component test completion, contract actions in support of modular design concepts and preparation for Preliminary Design Review.			
Title: 2) CALS - System Integration Laboratory ***Description:*** Establishment of a System Integration laboratory to assist in the mitigation of programmatic risk and facilitate rapid evaluation of Technology, Technical approaches and constraints, configuration designs and logistical issues. ***FY 2011 Accomplishments:*** Continue efforts to mitigate program risk through the use of a system integration laboratory tool set designed to facilitate the rapid evaluation of technology, technical approaches and constraints. ***FY 2012 Plans:*** - Continue efforts to mitigate program risk through the use of a system integration laboratory tool set designed to facilitate the rapid evaluation of technology configuration designs and logistical issues.	0.250	0.355	-
Title: 3) CALS - Development Engineering - Component Evaluation and Subsystem Design ***Description:*** Studies, analysis, design development, evaluation, testing, and redesign for the system component(s) during system development. Includes the design efforts of preparing specifications, engineering drawings, parts lists, wiring diagrams, test planning and scheduling, analysis of test results, data reduction, report preparations and establishment of reliability, maintainability, and quality assurance control requirements. ***FY 2011 Accomplishments:*** Initiated subsystem component evaluation and began module design of alternative system module and system configurations. ***FY 2012 Plans:*** Complete subsystem component evaluation and module design of alternative system module and system configurations.	5.804	6.176	-
Title: 4) CALS - Production Engineering and Planning ***Description:*** Efforts to ensure the producibility of the developmental materiel system, item, or component. Involves engineering tasks necessary to ensure timely, efficient, and economic production of essential materiel and is primarily of a planning nature. Includes efforts related to development of the Technical Data Package (TDP), quality assurance (QA) plans, and special production processes to assess producibility. ***FY 2011 Accomplishments:***	1.421	0.704	-

Exhibit R-2A, RDT&E Project Justification: PB 2013 Chemical and Biological Defense Program		DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 0400: *Research, Development, Test & Evaluation, Defense-Wide* BA 4: *Advanced Component Development & Prototypes (ACD&P)*	R-1 ITEM NOMENCLATURE PE 0603884BP: *CHEMICAL/BIOLOGICAL DEFENSE (ACD&P)*	PROJECT CM4: *HOMELAND DEFENSE (ACD&P)*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2011	FY 2012	FY 2013
Initiated producibility, quality assurance and logistics studies required to support the development of modules for the CALS. ***FY 2012 Plans:*** Complete producibility, quality assurance and logistics studies required to support development of modules for the CALS.			
Title: 5) CALS - Subsystem (Module) Development Tooling ***Description:*** Planning, design, assembly, installation, and rework of all tools, inspection equipment, and test equipment supporting the development of each subsystem component (Module). Includes time expended in determining tool, inspection, and test equipment requirements; as well as, the costs of new materials used in the installation, modification, and rework of dies, jigs, fixtures, inspection equipment, handling equipment, work platforms, and test equipment used to develop each subsystem component (Module). ***FY 2011 Accomplishments:*** Initiated planning and preparation of tools, equipment, work platforms and new materials required to fabricate, integrate and assemble unique CALS subsystem modules for test and evaluation. ***FY 2012 Plans:*** Conduct and complete planning and preparation of tools, equipment, work platforms and new materials required to fabricate, integrate and assemble unique CALS subsystem modules for test and evaluation.	0.850	0.774	-
Title: 6) CALS - Subsystem (Module) Prototype Manufacturing ***Description:*** Development of Subsystem (Module) prototypes ensuring integration and connectivity between modules as a general system layout. This includes raw and semi-fabricated material plus purchased parts materials, fabrication, processing, subassembly, final assembly, reworking modification, and installation of parts and equipment, power plants, electronic equipment, and other items (including Government-Furnished equipment [GFE]), and the proving of such equipment and instruments for the specified subsystem prototype (Module). ***FY 2012 Plans:*** Initiate development and manufacture of CALS subsystem (Module) prototypes. ***FY 2013 Plans:*** Complete development and manufacture of CALS subsystem (Module) prototypes.	-	2.009	0.399
Title: 7) CALS - System Test and Evaluation ***Description:*** System-related test activities to include detailed planning, conduct, support, data reduction, and reports from such testing.	-	0.784	1.717

Exhibit R-2A, RDT&E Project Justification: PB 2013 Chemical and Biological Defense Program		DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 0400: *Research, Development, Test & Evaluation, Defense-Wide* BA 4: *Advanced Component Development & Prototypes (ACD&P)*	R-1 ITEM NOMENCLATURE PE 0603884BP: *CHEMICAL/BIOLOGICAL DEFENSE (ACD&P)*	PROJECT CM4: *HOMELAND DEFENSE (ACD&P)*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2011	FY 2012	FY 2013
FY 2012 Plans: Initiate test and evaluation of CALS Subsystem (Modules). ***FY 2013 Plans:*** Complete test and evaluation of CALS Subsystem (Modules).			
Title: 8) SBIR	-	0.187	-
FY 2012 Plans: Small Business Innovative Research.			
Accomplishments/Planned Programs Subtotals	10.531	14.117	3.003

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2011	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total	FY 2014	FY 2015	FY 2016	FY 2017	Cost To Complete	Total Cost
• CM5: *HOMELAND DEFENSE (SDD)*	0.000	9.109	9.952		9.952	7.425	3.606	1.981	1.981	Continuing	Continuing
• JS0004: *WMD - CIVIL SUPPORT TEAMS (WMD CST)*	39.166	15.900	24.025		24.025	13.237	11.657	5.069	5.069	Continuing	Continuing
• JS0005: *COMMON ANALYTICAL LABORATORY SYSTEM (CALS)*	0.000	0.000	0.000		0.000	14.957	34.991	59.411	64.946	Continuing	Continuing

D. Acquisition Strategy

CALS

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

E. Performance Metrics

N/A

Exhibit R-3, RDT&E Project Cost Analysis: PB 2013 Chemical and Biological Defense Program		DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 0400: *Research, Development, Test & Evaluation, Defense-Wide* BA 4: *Advanced Component Development & Prototypes (ACD&P)*	R-1 ITEM NOMENCLATURE PE 0603884BP: *CHEMICAL/BIOLOGICAL DEFENSE (ACD&P)*	PROJECT CM4: *HOMELAND DEFENSE (ACD&P)*

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	FY 2012 Cost	FY 2012 Award Date	FY 2013 Base Cost	FY 2013 Base Award Date	FY 2013 OCO Cost	FY 2013 OCO Award Date	FY 2013 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
** CALS - HW SB - CALS Subsystem Down Selection	C/CPIF	TBD:	0.300	0.150	Feb 2012	-		-		-	0.000	0.450	0.000
HW SB - CALS Subsystem Down Selection	MIPR	TBD:	0.229	0.350	Feb 2012	-		-		-	0.000	0.579	0.000
HW S - CALS Module Design	C/CPFF	TBD:	2.615	0.491	Feb 2012	-		-		-	0.000	3.106	0.000
HW S - CALS Module Design #2	MIPR	TBD:	-	0.216	Feb 2012	-		-		-	0.000	0.216	0.000
HW S - CALS Prototype Systems	C/CPFF	TBD:	-	2.009	Feb 2012	0.399	Nov 2012	-		0.399	0.000	2.408	0.000
		Subtotal	3.144	3.216		0.399		-		0.399	0.000	6.759	0.000

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	FY 2012 Cost	FY 2012 Award Date	FY 2013 Base Cost	FY 2013 Base Award Date	FY 2013 OCO Cost	FY 2013 OCO Award Date	FY 2013 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
** CALS - ES S - Engineering Support System - CALS	MIPR	Edgewood Chemical and Biological Center:Edgewood, MD	1.780	0.699	Feb 2012	0.237	Feb 2013	-		0.237	0.000	2.716	0.000
ES S - Modeling and Simulation Support	MIPR	Edgewood Chemical and Biological Center:Edgewood, MD	0.431	0.355	Feb 2012	-		-		-	0.000	0.786	0.000
ILS C - Retooling and Preparation for Module Manufacture	C/CPFF	TBD:	1.271	0.978	Feb 2012	-		-		-	0.000	2.249	0.000
		Subtotal	3.482	2.032		0.237		-		0.237	0.000	5.751	0.000

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	FY 2012 Cost	FY 2012 Award Date	FY 2013 Base Cost	FY 2013 Base Award Date	FY 2013 OCO Cost	FY 2013 OCO Award Date	FY 2013 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
** CALS - OTHT C - Analytical Detection Component Testing	C/CPIF	TBD:	3.000	5.250	Feb 2012	-		-		-	0.000	8.250	0.000

Exhibit R-3, RDT&E Project Cost Analysis: PB 2013 Chemical and Biological Defense Program		DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 0400: *Research, Development, Test & Evaluation, Defense-Wide* BA 4: *Advanced Component Development & Prototypes (ACD&P)*	R-1 ITEM NOMENCLATURE PE 0603884BP: *CHEMICAL/BIOLOGICAL DEFENSE (ACD&P)*	PROJECT CM4: *HOMELAND DEFENSE (ACD&P)*

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	FY 2012 Cost	FY 2012 Award Date	FY 2013 Base Cost	FY 2013 Base Award Date	FY 2013 OCO Cost	FY 2013 OCO Award Date	FY 2013 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
OTHT C - Analytical Detection Component Testing	MIPR	TBD:	0.660	0.220	Feb 2012	-		-		-	0.000	0.880	0.000
DTE SB - CALS Module Test and Evaluation	MIPR	TBD:	-	0.784	May 2012	1.717	Nov 2012	-		1.717	0.000	2.501	0.000
		Subtotal	3.660	6.254		1.717		-		1.717	0.000	11.631	0.000

Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	FY 2012 Cost	FY 2012 Award Date	FY 2013 Base Cost	FY 2013 Base Award Date	FY 2013 OCO Cost	FY 2013 OCO Award Date	FY 2013 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
** CALS - PM/MS S - Program Office - Planning and Programming	MIPR	Various:	4.532	1.351	Feb 2012	0.338	Nov 2012	-		0.338	0.000	6.221	0.000
PM/MS SB - Module Production Engr and Planning	C/CPFF	Various:	0.249	1.077	Feb 2012	0.312	Nov 2012	-		0.312	0.000	1.638	0.000
** ZSBIR - SBIR/STTR - Aggregated from ZSBIR-SBIR/STTR	PO	HQ:AMC, Alexandria	-	0.187		-		-		-	0.000	0.187	0.000
		Subtotal	4.781	2.615		0.650		-		0.650	0.000	8.046	0.000

	Total Prior Years Cost	FY 2012 Cost	FY 2012 Award Date	FY 2013 Base Cost	FY 2013 Base Award Date	FY 2013 OCO Cost	FY 2013 OCO Award Date	FY 2013 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	15.067	14.117		3.003		-		3.003	0.000	32.187	0.000

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2013 Chemical and Biological Defense Program		DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 0400: *Research, Development, Test & Evaluation, Defense-Wide* BA 4: *Advanced Component Development & Prototypes (ACD&P)*	R-1 ITEM NOMENCLATURE PE 0603884BP: *CHEMICAL/BIOLOGICAL DEFENSE (ACD&P)*	PROJECT CM4: *HOMELAND DEFENSE (ACD&P)*

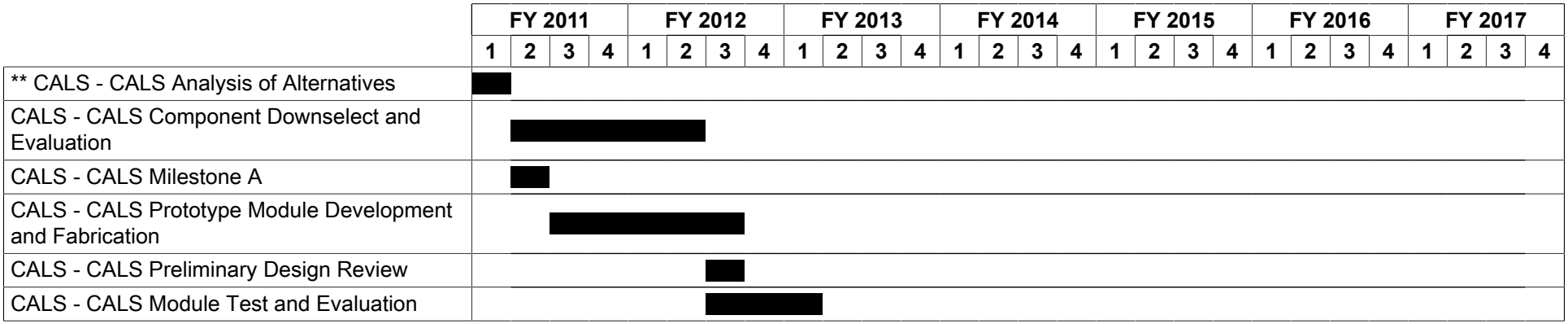

Exhibit R-4A, RDT&E Schedule Details: PB 2013 Chemical and Biological Defense Program		DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 0400: *Research, Development, Test & Evaluation, Defense-Wide* BA 4: *Advanced Component Development & Prototypes (ACD&P)*	**R-1 ITEM NOMENCLATURE** PE 0603884BP: *CHEMICAL/BIOLOGICAL DEFENSE (ACD&P)*	**PROJECT** CM4: *HOMELAND DEFENSE (ACD&P)*

Schedule Details

	Start		End	
Events	**Quarter**	**Year**	**Quarter**	**Year**
** CALS - CALS Analysis of Alternatives	1	2011	1	2011
CALS - CALS Component Downselect and Evaluation	2	2011	2	2012
CALS - CALS Milestone A	2	2011	2	2011
CALS - CALS Prototype Module Development and Fabrication	3	2011	3	2012
CALS - CALS Preliminary Design Review	3	2012	3	2012
CALS - CALS Module Test and Evaluation	3	2012	1	2013

Exhibit R-2A, RDT&E Project Justification: PB 2013 Chemical and Biological Defense Program			DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 0400: *Research, Development, Test & Evaluation, Defense-Wide* BA 4: *Advanced Component Development & Prototypes (ACD&P)*	R-1 ITEM NOMENCLATURE PE 0603884BP: *CHEMICAL/BIOLOGICAL DEFENSE (ACD&P)*	PROJECT DE4: *DECONTAMINATION SYSTEMS (ACD&P)*	

COST ($ in Millions)	FY 2011	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total	FY 2014	FY 2015	FY 2016	FY 2017	Cost To Complete	Total Cost
DE4: *DECONTAMINATION SYSTEMS (ACD&P)*	6.933	24.749	12.374	-	12.374	10.247	9.779	12.751	6.083	Continuing	Continuing
Quantity of RDT&E Articles											

A. Mission Description and Budget Item Justification

This ACD&P project supports the development of contamination mitigation systems utilizing solutions that will remove and/or detoxify contaminated material without damaging combat equipment, personnel, or the environment. Contamination mitigation systems provide a force restoration capability for units that become contaminated. Development efforts will provide systems that reduce operational impact and logistics burden, reduce sustainment costs, increase safety, and minimize environmental effects associated with decontamination and contamination mitigation operations.

This funding supports the Decontamination Family of Systems (DFoS) in FY13.

The Decontamination Family of Systems (DFoS) program facilitates the rapid transition of mature Science and Technology (S&T) research developments to existing Decontamination or Contamination Mitigation Initial Capabilities Document (ICD) Programs of Record and guides S&T community efforts toward meeting the needs of the Warfighter. Leveraging the outcome of the Materiel Development Decision (3QFY11) directed Analysis of Alternatives, DFoS will develop a Family of Systems, to include equipment, to improve decontamination processes, and decontaminant solutions to meet the capability gaps for decontaminating NTA and chemical and biological warfare agents from personnel, equipment, vehicle interiors/exteriors, terrain, and fixed facilities. DFoS has three initial efforts established to address some of the requirements of the Contamination Mitigation ICD: the Joint Sensitive Equipment Wipe (JSEW), the General Purpose Decontaminant (GPD) and the Contamination Indication/Decontamination Assurance System (CIDAS) programs.

The JSEW effort will provide immediate/operational decontamination capabilities for sensitive equipment in hostile and non-hostile environments that have been exposed to chemical agents/contamination. The JSEW will decrease the level of gross chemical agent contamination from 10 g/m2 to less than or equal to 1 g/m2 in support of thorough decontamination on sensitive equipment.

The GPD effort will provide thorough decontamination capabilities for tactical vehicles, shipboard surfaces, crew-served weapons, and individual/personal weapons in hostile and non-hostile environments that have been exposed to chemical and biological (CB) agents/contamination. In addition, the GPD program should also provide an immediate/operational decontamination capability for aircraft exterior against chemical contamination.

The CIDAS effort will provide a contamination indication/decontamination assurance technology and an applicator for use on tactical vehicles, shipboard surfaces, crew-served and individual weapons in hostile and non-hostile environments that have been exposed to chemical contamination.

Additionally, the DFoS Program funds the Contaminated Human Remains Pouch (CHRP) effort in FY12 which will provide a capability to protect personnel handling and processing human remains contaminated with Chemical, Biological, Radiological, or Nuclear contamination. CHRP transitions to its own funding line in FY13.

Exhibit R-2A, RDT&E Project Justification: PB 2013 Chemical and Biological Defense Program		DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 0400: *Research, Development, Test & Evaluation, Defense-Wide* BA 4: *Advanced Component Development & Prototypes (ACD&P)*	**R-1 ITEM NOMENCLATURE** PE 0603884BP: *CHEMICAL/BIOLOGICAL DEFENSE (ACD&P)*	**PROJECT** DE4: *DECONTAMINATION SYSTEMS (ACD&P)*

The Joint Platform Interior Decontamination (JPID) program will provide decontamination capabilities for interiors of vehicles, ships, fixed site facilities, mobile maintenance facilities, aircraft and sensitive equipment inherent to the platform during air, ground and sea operations in hostile and non-hostile environments that have been exposed to chemical, biological, radiological and nuclear (CBRN) agents/contamination. To accommodate the array of Service mission sets, the potential for varying system and/or technology configurations may be required. The JPID Preferred System Concept (PSC) may consist of multiple solution sets that provide increments of capability or one solution to address the various platforms and threats identified under the program. No funding beyond FY12.

B. Accomplishments/Planned Programs ($ in Millions)	FY 2011	FY 2012	FY 2013
Title: 1) DFoS - NTA	6.933	7.785	3.500
FY 2011 Accomplishments: Initiated engineering, testing and logistics planning and documentation to support non-traditional agent (NTA) test and evaluation (efficacy, materials compatibility, live agent tests) efforts for decontamination assurance spray, chemical decontaminant, decontamination wipes and effluent control in support of 20th Support Command.			
FY 2012 Plans: Conduct development of non-traditional agent (NTA) efforts to include initial studies and modeling for effluent decontamination and strippable/sealant coatings; conduct sensitivity efficacy for the decontamination assurance spray; conduct chemical efficacy and material compatibility for chemical decontaminants; evaluation of decontamination wipes for NTA decontamination on equipment.			
FY 2013 Plans: Continue NTA efforts to include material compatibility testing, environmental testing and accelerated aging for decontamination assurance spray, chemical decontaminant, decontamination wipes, effluent decontamination and strippable/sealant coatings.			
Title: 2) DFoS - CIDAS	-	0.861	1.819
FY 2012 Plans: Initiate engineering, testing and logistics planning and contract documentation to support technology development of Contamination Indicator Decontamination Assurance System (CIDAS).			
FY 2013 Plans: Begin developmental testing for the Contamination Indicator Decontamination Assurance System (CIDAS) program to include indication level, material compatibility and Environmental Safety Occupational Health (ESOH).			
Title: 3) DFoS - CIDAS	-	-	0.504
FY 2013 Plans:			

Exhibit R-2A, RDT&E Project Justification: PB 2013 Chemical and Biological Defense Program		DATE: February 2012
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B. Accomplishments/Planned Programs ($ in Millions)	FY 2011	FY 2012	FY 2013
Award contract(s) to purchase 1,920 gallons of Contamination Indicator/Decontamination Assurance Technology (at $200 per gallon) and 12 Contamination Indication/Decontamination Assurance Technology Applicators (at $10K each) for Competitive Prototype Testing.			
Title: 4) DFoS - JSEW ***FY 2012 Plans:*** Begin developmental testing for the Joint Sensitive Equipment Wipe (JSEW) program to include chemical efficacy, material compatibility, equipment degradation, durability and by-products analysis and Environmental Safety Occupational Health (ESOH). ***FY 2013 Plans:*** Continue developmental testing for the Joint Sensitive Equipment Wipe (JSEW) program to include efficacy (hot/cold/relative humidity), accelerated shelf life, Individual Protective Equipment (IPE) compatibility, detector compatibility and human factors assessment.	-	2.636	2.329
Title: 5) DFoS - JSEW ***FY 2012 Plans:*** Award contract(s) to deliver 1,770 prototype JSEW systems (at $17 each) for Competitive Prototype Testing. ***FY 2013 Plans:*** Purchase 2,600 prototype JSEW systems (at $17 each) for Competitive Prototype Testing and develop programmatic documentation.	-	0.230	0.450
Title: 6) DFoS - GPD ***FY 2012 Plans:*** Begin developmental testing for the General Purpose Decontaminant (GPD) program to include kinetics by products, material compatibility, thorough efficacy, immediate/operational efficacy, accelerated aging and Environmental Safety Occupational Health (ESOH). ***FY 2013 Plans:*** Continue developmental testing for the General Purpose Decontaminant (GPD) program to include high/low temperature kinetics, pot life, efficacy (complex surfaces), accelerated shelf life, Individual Protective Equipment (IPE) and detector compatibility.	-	4.692	3.302
Title: 7) DFoS - GPD ***FY 2012 Plans:*** Award contract(s) to purchase 12,800 gallons of prototype GPD(s) (at $35 per gallon) for Competitive Prototype Testing. ***FY 2013 Plans:***	-	0.450	0.470

Exhibit R-2A, RDT&E Project Justification: PB 2013 Chemical and Biological Defense Program		DATE: February 2012
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B. Accomplishments/Planned Programs ($ in Millions)	FY 2011	FY 2012	FY 2013
Purchase 13,280 gallons of prototype GPD(s) (at $35 per gallon) for Competitive Prototype Testing and develop programmatic documentation.			
Title: 8) DFoS - CHRP ***FY 2012 Plans:*** Award contract(s) to procure 125 CHRP prototypes (at $2K each) for Competitive Prototype Testing.	-	0.250	-
Title: 9) DFoS - CHRP ***FY 2012 Plans:*** Initiate Competitive Prototype Testing to include liquid and vapor live agent swatch, system permeation, durability, material compatibility, environmental effects testing and early user assessment of the Contaminated Human Remains Pouch (CHRP).	-	1.052	-
Title: 10) JPID ***FY 2012 Plans:*** Complete Hot Air Dry (HAD) and Bio-Thermal Decon (BTD) efficacy testing to support JPEO-CBD Joint Strike Fighter (JSF) Memorandum of Agreement (MOA) and JSF Live Fire Test and Evaluation (LFT&E).	-	4.089	-
Title: 11) JPID ***FY 2012 Plans:*** Closeout ECBC Large Scale Storage and Operations Area (LSSOA) test article effort and program management.	-	2.377	-
Title: 12) SBIR ***FY 2012 Plans:*** Small Business Innovative Research.	-	0.327	-
Accomplishments/Planned Programs Subtotals	6.933	24.749	12.374

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2011	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total	FY 2014	FY 2015	FY 2016	FY 2017	Cost To Complete	Total Cost
• DE5: *DECONTAMINATION SYSTEMS (SDD)*	7.594	0.000	9.324		9.324	8.652	10.938	9.129	9.466	Continuing	Continuing
• JD0050: *DECONTAMINATION FAMILY OF SYSTEMS (DFoS)*	0.000	0.000	0.506		0.506	2.127	4.612	17.401	24.198	Continuing	Continuing

Exhibit R-2A, RDT&E Project Justification: PB 2013 Chemical and Biological Defense Program		DATE: February 2012
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D. Acquisition Strategy

DFoS

The Decontamination Family of Systems (DFoS) will utilize an incremental acquisition strategy to transition various developmental technology efforts (COTS, Joint Science Technology Office (JSTO), Defense Threat Reduction Agency (DTRA) efforts, etc.) to meet high priority Warfighter capability gaps. DFoS will support Major Defense Acquisition Programs (MDAPs) and Programs of Record by guiding S&T efforts and transitioning mature technologies to meet program requirements. The DFoS acquisition will leverage differing technologies in each subsystem to fulfill Warfighter capability gaps. The JSEW, GPD, & CIDAS Programs will employ a CP effort to facilitate the identification and evaluation of technologies (at a minimum Technology Readiness Level (TRL) 4) that can meet the Contamination Mitigation ICD requirements. A multi-phased Analysis of Alternatives (AoA) will be conducted to identify and evaluate the operational effectiveness of potential material solutions to satisfy Service requirements. As each AoA phase is completed, individual systems and their respective phases of entry will be identified. Industry and government labs will be solicited and through competitive prototyping, materiel solutions will be down-selected for continued development and fielding as a new or enhanced joint force capability.

The CHRP effort will leverage Commercial-off-the shelf (COTS)/Non-developmental Item (NDI) technologies that will lead to a fielded capability to fulfill gaps as described in the ICD.

E. Performance Metrics

N/A

Exhibit R-3, RDT&E Project Cost Analysis: PB 2013 Chemical and Biological Defense Program		DATE: February 2012
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Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	FY 2012 Cost	FY 2012 Award Date	FY 2013 Base Cost	FY 2013 Base Award Date	FY 2013 OCO Cost	FY 2013 OCO Award Date	FY 2013 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
** DFoS - HW S - UNS NTA Decon Assurance Spray	C/FFP	TBD:	-	0.300	Feb 2012	-		-		-	Continuing	Continuing	0.000
HW S - UNS NTA Chemical Decon/Decon Wipes	C/CPFF	TDA Research Inc.:Wheat Ridge, CO	0.373	0.300	Feb 2012	-		-		-	Continuing	Continuing	0.000
HW S - UNS Effluent Decon for NTA Contaminated Run-off	C/FFP	TBD:	-	0.300	Feb 2012	0.200	Feb 2013	-		0.200	Continuing	Continuing	0.000
HW S - UNS NTA Strippable/ Sealant Coatings	C/FFP	TBD:	-	0.600	Feb 2012	0.200	Feb 2013	-		0.200	Continuing	Continuing	0.000
HW S - Contamination Indicator/Decon Assurance System (CIDAS)	C/FFP	Various:	-	-		0.504	Feb 2013	-		0.504	Continuing	Continuing	0.000
HW S - General Purpose Decon (GPD)	C/FFP	Various:	-	0.450	May 2012	0.470	Nov 2012	-		0.470	Continuing	Continuing	0.000
HW S - Joint Sensitive Equipment Wipes (JSEW)	C/FFP	Various:	-	0.230	Feb 2012	0.450	Feb 2013	-		0.450	Continuing	Continuing	0.000
HW S - Contaminated Human Remains Pouch (CHRP)	C/FFP	Various:	-	0.250	Feb 2012	-		-		-	Continuing	Continuing	0.000
		Subtotal	0.373	2.430		1.824		-		1.824			0.000

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	FY 2012 Cost	FY 2012 Award Date	FY 2013 Base Cost	FY 2013 Base Award Date	FY 2013 OCO Cost	FY 2013 OCO Award Date	FY 2013 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
** DFoS - ES S - DFOS IPT Technical Support	MIPR	Various:	0.388	1.000	Feb 2012	1.000	Feb 2013	-		1.000	Continuing	Continuing	0.000
ES S - CHRP IPT Technical Support	MIPR	Various:	-	0.150	Feb 2012	-		-		-	Continuing	Continuing	0.000
		Subtotal	0.388	1.150		1.000		-		1.000			0.000

Exhibit R-3, RDT&E Project Cost Analysis: PB 2013 Chemical and Biological Defense Program		DATE: February 2012
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Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	FY 2012 Cost	FY 2012 Award Date	FY 2013 Base Cost	FY 2013 Base Award Date	FY 2013 OCO Cost	FY 2013 OCO Award Date	FY 2013 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
** DFoS - DTE S - UNS NTA Decon Assurance Spray	C/CPFF	Battelle:Columbus, OH	1.124	2.000	Feb 2012	0.500	Feb 2013	-		0.500	Continuing	Continuing	0.000
DTE S - UNS NTA Chemical Decon	C/CPFF	Battelle:Columbus, OH	2.035	1.200	Feb 2012	0.800	Feb 2013	-		0.800	Continuing	Continuing	0.000
DTE S - UNS NTA Effluent Decon for NTA Contaminated Run-off	MIPR	TBD:	0.300	1.000	May 2012	0.800	May 2013	-		0.800	Continuing	Continuing	0.000
DTE S - UNS NTA Strippable / Sealant Coatings	MIPR	TBD:	-	1.000	Feb 2012	0.500	Nov 2012	-		0.500	Continuing	Continuing	0.000
DTE S - General Purpose Decon (GPD)	MIPR	TBD:	-	3.000	Feb 2012	1.906	Nov 2012	-		1.906	Continuing	Continuing	0.000
DTE S - Joint Sensitive Equipment Wipes (JSEW)	MIPR	TBD:	-	1.412	Feb 2012	1.048	Nov 2012	-		1.048	Continuing	Continuing	0.000
OTHT SB - Contamination Indication/Decontamination Assurance System (CIDAS)	MIPR	TBD:	-	-		0.838	Nov 2012	-		0.838	Continuing	Continuing	0.000
DTE S - CHRP	MIPR	TBD:	-	0.909	Feb 2012	-		-		-	Continuing	Continuing	0.000
** JPID - DTE S - JSF HAD and BTD Efficacy testing	MIPR	Various:	-	4.089	May 2012	-		-		-	Continuing	Continuing	0.000
		Subtotal	3.459	14.610		6.392		-		6.392			0.000

Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	FY 2012 Cost	FY 2012 Award Date	FY 2013 Base Cost	FY 2013 Base Award Date	FY 2013 OCO Cost	FY 2013 OCO Award Date	FY 2013 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
** DFoS - PM/MS S - DFoS Program Management Support, Integrated Product Team and Technical Support	MIPR	Various:	1.288	3.855	Feb 2012	3.158	Feb 2013	-		3.158	Continuing	Continuing	0.000
** JPID - PM/MS S - Program Management Support, Integrated Product Team and	MIPR	Various:	0.179	2.377	Nov 2011	-		-		-	Continuing	Continuing	0.000

Exhibit R-3, RDT&E Project Cost Analysis: PB 2013 Chemical and Biological Defense Program		DATE: February 2012
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Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	FY 2012 Cost	FY 2012 Award Date	FY 2013 Base Cost	FY 2013 Base Award Date	FY 2013 OCO Cost	FY 2013 OCO Award Date	FY 2013 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Technical Support and close-out LSSDA test article effort.													
** ZSBIR - SBIR/STTR - Aggregated from ZSBIR-SBIR/STTR	PO	HQ:AMC, Alexandria	-	0.327		-		-		-	Continuing	Continuing	0.000
		Subtotal	1.467	6.559		3.158		-		3.158			0.000

	Total Prior Years Cost	FY 2012		FY 2013 Base		FY 2013 OCO		FY 2013 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	5.687	24.749		12.374		-		12.374			0.000

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2013 Chemical and Biological Defense Program		DATE: February 2012
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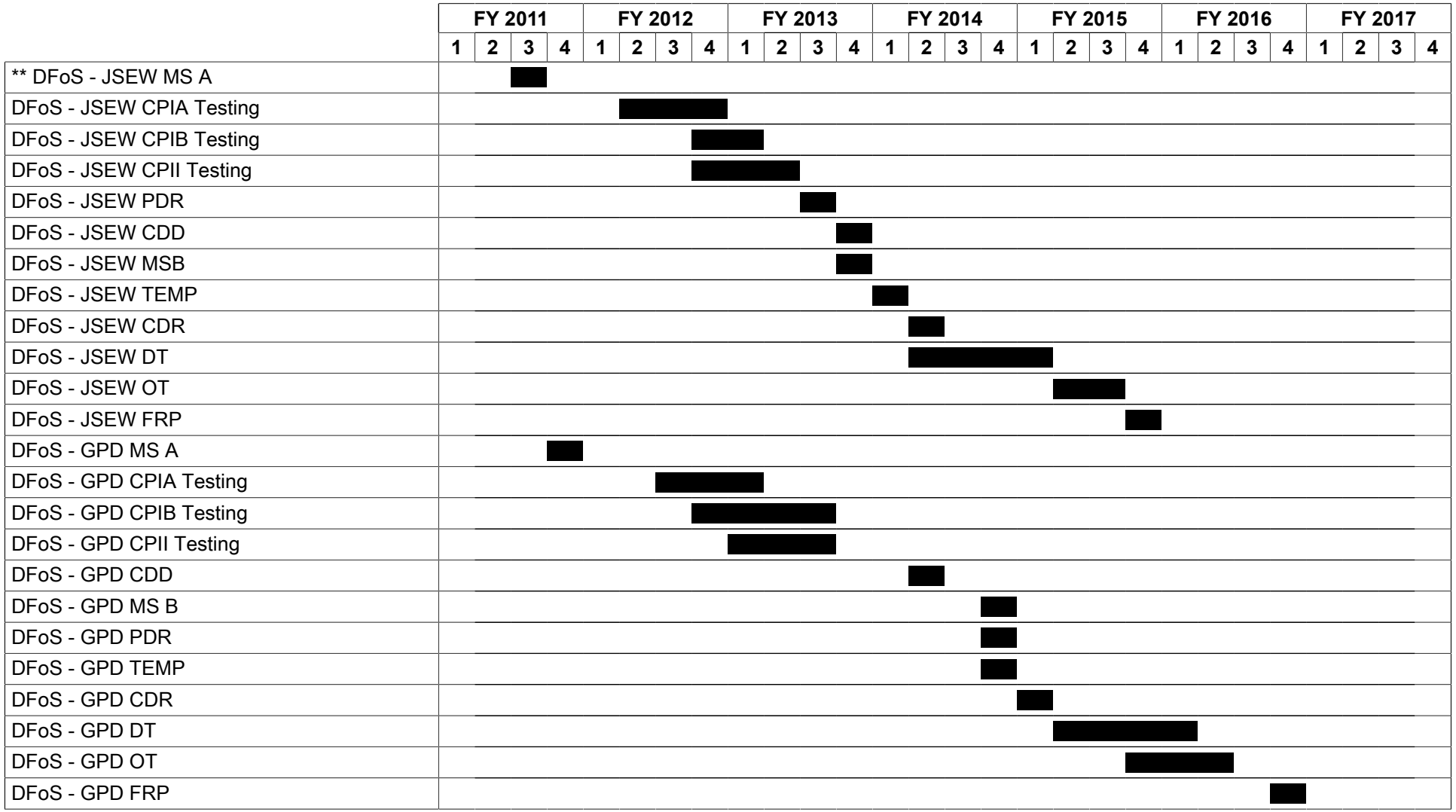

Exhibit R-4, RDT&E Schedule Profile: PB 2013 Chemical and Biological Defense Program		DATE: February 2012
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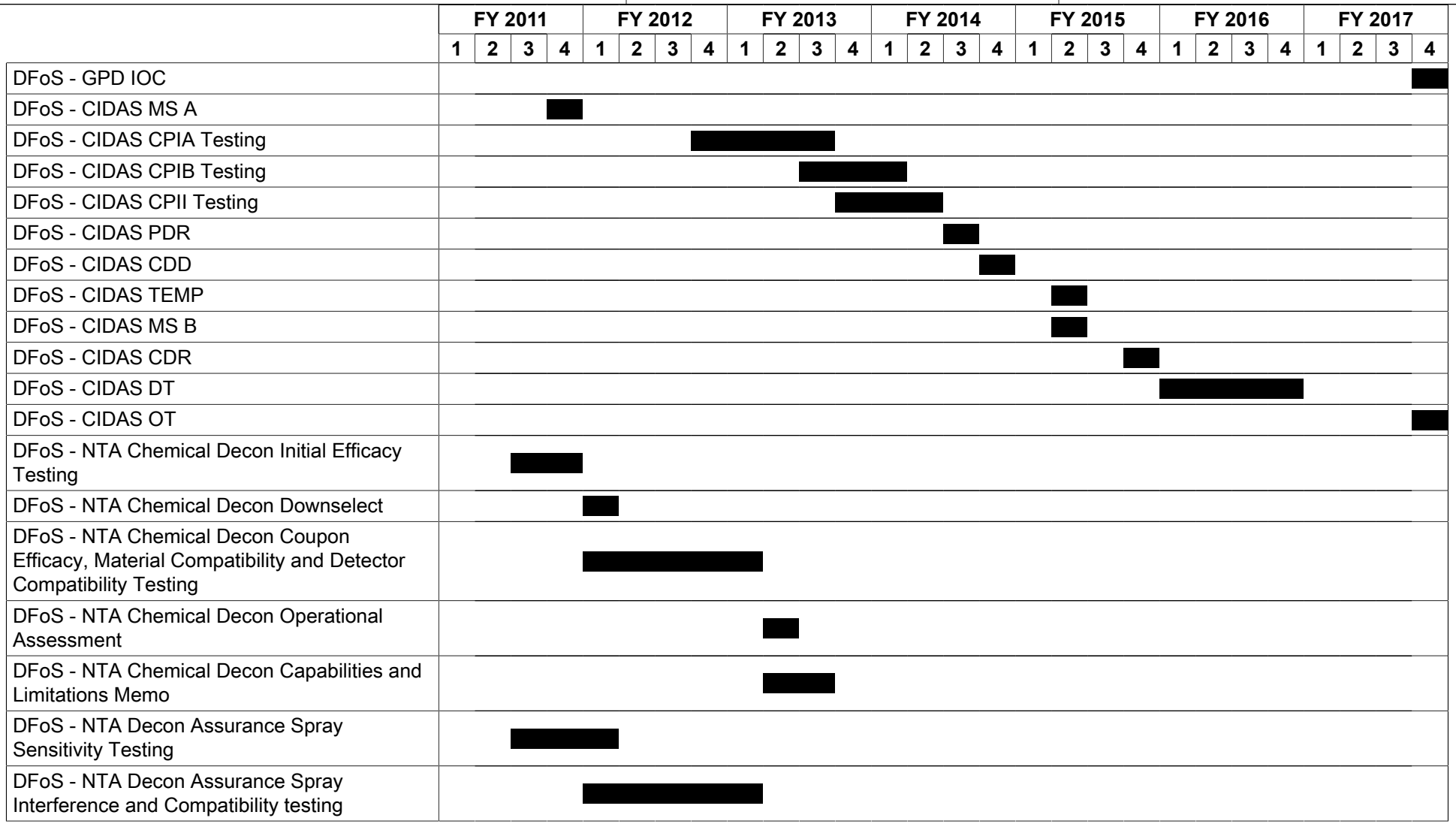

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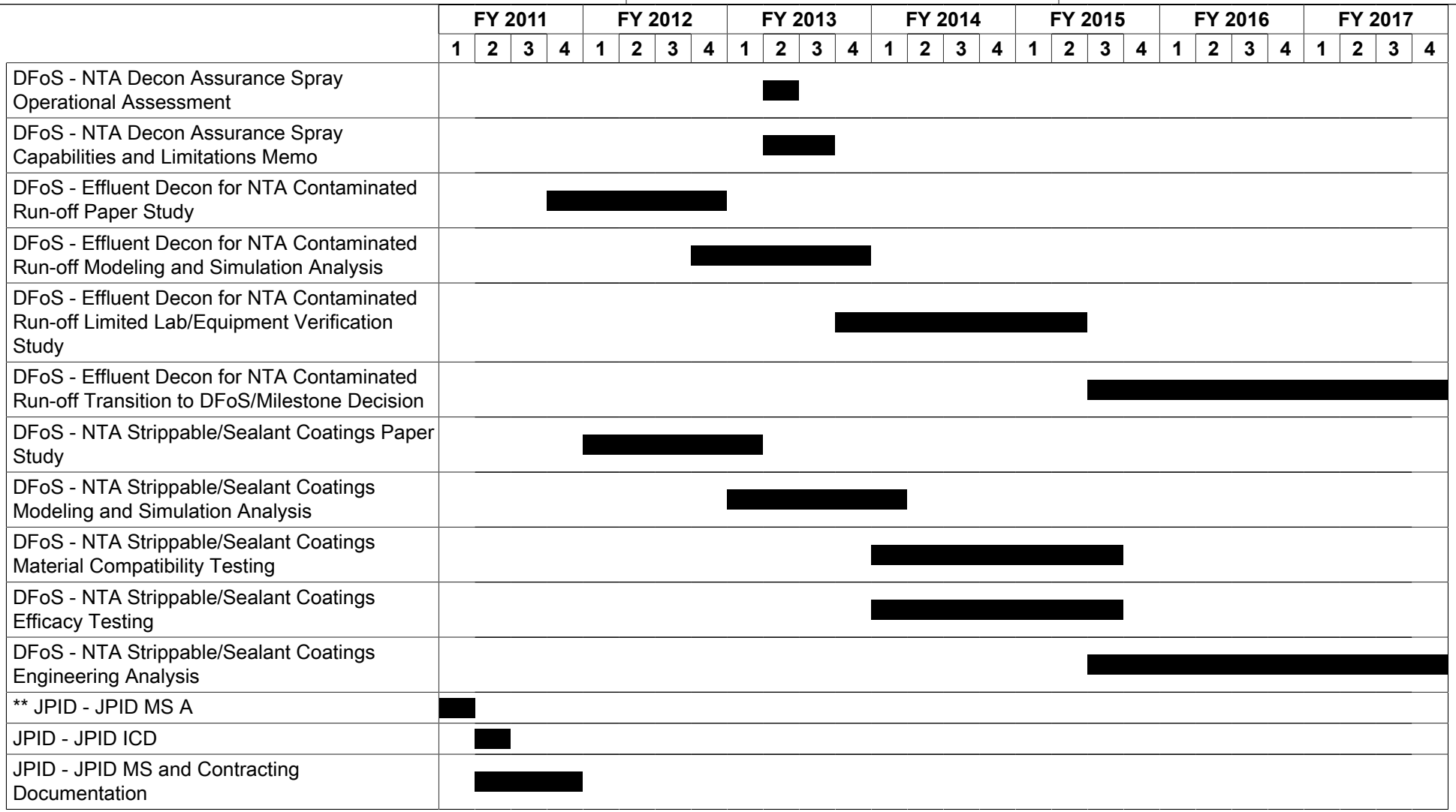

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Schedule Details

	Start		End	
Events	**Quarter**	**Year**	**Quarter**	**Year**
** DFoS - JSEW MS A	3	2011	3	2011
DFoS - JSEW CPIA Testing	2	2012	4	2012
DFoS - JSEW CPIB Testing	4	2012	1	2013
DFoS - JSEW CPII Testing	4	2012	2	2013
DFoS - JSEW PDR	3	2013	3	2013
DFoS - JSEW CDD	4	2013	4	2013
DFoS - JSEW MSB	4	2013	4	2013
DFoS - JSEW TEMP	1	2014	1	2014
DFoS - JSEW CDR	2	2014	2	2014
DFoS - JSEW DT	2	2014	1	2015
DFoS - JSEW OT	2	2015	3	2015
DFoS - JSEW FRP	4	2015	4	2015
DFoS - GPD MS A	4	2011	4	2011
DFoS - GPD CPIA Testing	3	2012	1	2013
DFoS - GPD CPIB Testing	4	2012	3	2013
DFoS - GPD CPII Testing	1	2013	3	2013
DFoS - GPD CDD	2	2014	2	2014
DFoS - GPD MS B	4	2014	4	2014
DFoS - GPD PDR	4	2014	4	2014
DFoS - GPD TEMP	4	2014	4	2014
DFoS - GPD CDR	1	2015	1	2015
DFoS - GPD DT	2	2015	1	2016

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	Start		End	
Events	**Quarter**	**Year**	**Quarter**	**Year**
DFoS - GPD OT	4	2015	2	2016
DFoS - GPD FRP	4	2016	4	2016
DFoS - GPD IOC	4	2017	4	2017
DFoS - CIDAS MS A	4	2011	4	2011
DFoS - CIDAS CPIA Testing	4	2012	3	2013
DFoS - CIDAS CPIB Testing	3	2013	1	2014
DFoS - CIDAS CPII Testing	4	2013	2	2014
DFoS - CIDAS PDR	3	2014	3	2014
DFoS - CIDAS CDD	4	2014	4	2014
DFoS - CIDAS TEMP	2	2015	2	2015
DFoS - CIDAS MS B	2	2015	2	2015
DFoS - CIDAS CDR	4	2015	4	2015
DFoS - CIDAS DT	1	2016	4	2016
DFoS - CIDAS OT	4	2017	4	2017
DFoS - NTA Chemical Decon Initial Efficacy Testing	3	2011	4	2011
DFoS - NTA Chemical Decon Downselect	1	2012	1	2012
DFoS - NTA Chemical Decon Coupon Efficacy, Material Compatibility and Detector Compatibility Testing	1	2012	1	2013
DFoS - NTA Chemical Decon Operational Assessment	2	2013	2	2013
DFoS - NTA Chemical Decon Capabilities and Limitations Memo	2	2013	3	2013
DFoS - NTA Decon Assurance Spray Sensitivity Testing	3	2011	1	2012
DFoS - NTA Decon Assurance Spray Interference and Compatibility testing	1	2012	1	2013
DFoS - NTA Decon Assurance Spray Operational Assessment	2	2013	2	2013
DFoS - NTA Decon Assurance Spray Capabilities and Limitations Memo	2	2013	3	2013
DFoS - Effluent Decon for NTA Contaminated Run-off Paper Study	4	2011	4	2012
DFoS - Effluent Decon for NTA Contaminated Run-off Modeling and Simulation Analysis	4	2012	4	2013

Exhibit R-4A, RDT&E Schedule Details: PB 2013 Chemical and Biological Defense Program		DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 0400: *Research, Development, Test & Evaluation, Defense-Wide* BA 4: *Advanced Component Development & Prototypes (ACD&P)*	R-1 ITEM NOMENCLATURE PE 0603884BP: *CHEMICAL/BIOLOGICAL DEFENSE (ACD&P)*	PROJECT DE4: *DECONTAMINATION SYSTEMS (ACD&P)*

	Start		End	
Events	**Quarter**	**Year**	**Quarter**	**Year**
DFoS - Effluent Decon for NTA Contaminated Run-off Limited Lab/Equipment Verification Study	4	2013	2	2015
DFoS - Effluent Decon for NTA Contaminated Run-off Transition to DFoS/Milestone Decision	3	2015	4	2017
DFoS - NTA Strippable/Sealant Coatings Paper Study	1	2012	1	2013
DFoS - NTA Strippable/Sealant Coatings Modeling and Simulation Analysis	1	2013	1	2014
DFoS - NTA Strippable/Sealant Coatings Material Compatibility Testing	1	2014	3	2015
DFoS - NTA Strippable/Sealant Coatings Efficacy Testing	1	2014	3	2015
DFoS - NTA Strippable/Sealant Coatings Engineering Analysis	3	2015	4	2017
** JPID - JPID MS A	1	2011	1	2011
JPID - JPID ICD	2	2011	2	2011
JPID - JPID MS and Contracting Documentation	2	2011	4	2011

Exhibit R-2A, RDT&E Project Justification: PB 2013 Chemical and Biological Defense Program			DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 0400: *Research, Development, Test & Evaluation, Defense-Wide* BA 4: *Advanced Component Development & Prototypes (ACD&P)*	R-1 ITEM NOMENCLATURE PE 0603884BP: *CHEMICAL/BIOLOGICAL DEFENSE (ACD&P)*	PROJECT IP4: *INDIVIDUAL PROTECTION (ACD&P)*	

COST ($ in Millions)	FY 2011	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total	FY 2014	FY 2015	FY 2016	FY 2017	Cost To Complete	Total Cost
IP4: *INDIVIDUAL PROTECTION (ACD&P)*	2.200	-	1.102	-	1.102	3.708	6.811	4.680	0.300	Continuing	Continuing
Quantity of RDT&E Articles											

A. Mission Description and Budget Item Justification

This project supports the ACD&P of the Joint Service General Purpose Mask (JSGPM) Advanced Respiratory Protection Initiative (ARPI), an improved filtration and protection capability against highest priority Toxic Industrial Chemical (TIC) threats. It addresses a current and significant capability gap to the operating force. The effort is supported by the Capabilities Production Document for the JSGPM, which outlines the need for a robust TIC/TIM protection capability. It is expected that new capabilities demonstrated through the activities in this project will be leveraged and integrated into future increments of UIPE. This Project also supports the Lightweight Chemical Biological Ensemble (LCBE) (renamed the Uniform Integrated Protection Ensemble (UIPE)), 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.

B. Accomplishments/Planned Programs ($ in Millions)	FY 2011	FY 2012	FY 2013
Title: 1) JSGPM (ARPI) ***FY 2013 Plans:*** Verification of technologies data transition of component base filter media from Tech Base. Verification of Toxic Industrial Chemicals (TIC) criteria and test methodology. Testing of performance specifications.	-	-	1.102
Title: 2) LCBE (UIPE) ***FY 2011 Accomplishments:*** LCBE (UIPE) - Prepared and released Request for Proposal (RFP). Initiated development evaluation testing on prototypes to assess performance envelope with respect to reduction of thermal burden and ability to enhance warfighter performance. Performed physical properties testing, chemical agent testing, human physiological testing, and human factors evaluations. Conducted Source Selection, Technology Readiness Assessment (TRA), and Manufacturing Readiness Assessment (MRA).	2.200	-	-
Accomplishments/Planned Programs Subtotals	2.200	-	1.102

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2011	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total	FY 2014	FY 2015	FY 2016	FY 2017	Cost To Complete	Total Cost
• IP5: *INDIVIDUAL PROTECTION (SDD)*	20.862	11.490	13.971		13.971	17.046	1.603	1.990	6.370	Continuing	Continuing

Exhibit R-2A, RDT&E Project Justification: PB 2013 Chemical and Biological Defense Program		DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 0400: *Research, Development, Test & Evaluation, Defense-Wide* BA 4: *Advanced Component Development & Prototypes (ACD&P)*	R-1 ITEM NOMENCLATURE PE 0603884BP: *CHEMICAL/BIOLOGICAL DEFENSE (ACD&P)*	PROJECT IP4: *INDIVIDUAL PROTECTION (ACD&P)*

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2011	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total	FY 2014	FY 2015	FY 2016	FY 2017	Cost To Complete	Total Cost
• JI0003: *JOINT SERVICE GENERAL PURPOSE MASK (JSGPM/JSCESM)*	51.265	58.523	48.466		48.466	46.657	99.151	70.882	123.496	Continuing	Continuing

D. Acquisition Strategy

JSGPM

JSGPM (ARPI): The Advanced Respiratory Protection Initiative (ARPI) will address improved masks protection, filter protection against TICs/TIMs and improved profile and breathing resistance; and wearability compatibility/integration. This will be accomplished by: 1) Class-Based Analysis, 2) Filtration Advanced Screening Test (FAST), Desorption Study; and Advanced CBRN Filtration efforts. Accomplishments to date include development of the prioritization approach and class based analysis; development of challenge levels for performance curve through modeling; FAST of ASZM-TDA, BSC, and EUMC against the priority TIC LIST; test of representative chemicals demonstrating the applicability of the class based analysis, and Scientific literature review of filter desorption.

LCBE

The LCBE program has been renamed as the Uniform Integrated Protection Ensemble (UIPE) program.

Strategy based on incremental development in accordance with prescribed Chemical Biological Radiological Nuclear Defense Joint Requirements Office (CBRND-JRO) approved capabilities documents. The objective of the UIPE is to fully integrate chemical, biological, radiological, nuclear (CBRN) and toxic industrial material (TIM) protection into an ensemble, identical in fit and form to the combat uniform (including mask - helmet integration, protective boots and gloves), thus negating the need for separate protective ensemble components. This integrated protection approach will result in increased warfighter operational performance in a CBRN environment.

UIPE is aimed specifically at providing enhanced individual protection capabilities to the warfighter through reduction of physiological and psychological effects associated with CBRN protective garment thermal burden, weight, and bulk. UIPE will pursue a Modified Commercial-Off-The-Shelf/Non-Developmental Item (COTS/NDI) Acquisition Strategy; full and open competition will be used. During the Technology Development (TD) phase UIPE will issue a Request for Proposal (RFP), conduct competitive prototyping, and down-select industry candidates demonstrating the greatest ability to meet UIPE requirements. Following Milestone (MS) B approval contracts will be awarded and integrated Developmental Test/Operational Test (DT/OT) will be initiated on selected candidate system(s). UIPE is supported by an Initial Capability Document (ICD), a Capability Development Document (CDD), and a MS A. UIPE will ultimately provide CB protective equipment with improved operational capability to the U.S. Navy and U.S. Special Operations Command.

Exhibit R-2A, RDT&E Project Justification: PB 2013 Chemical and Biological Defense Program		DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 0400: *Research, Development, Test & Evaluation, Defense-Wide* BA 4: *Advanced Component Development & Prototypes (ACD&P)*	R-1 ITEM NOMENCLATURE PE 0603884BP: *CHEMICAL/BIOLOGICAL DEFENSE (ACD&P)*	PROJECT IP4: *INDIVIDUAL PROTECTION (ACD&P)*

Future increments of UIPE shall be defined via separate capabilities documents. Each successive increment will follow a similar path/process from MS A or MS B through MS C and will leverage preceding efforts to the greatest extent possible, maintaining commonality and synergy across all increments.

E. Performance Metrics

N/A

Exhibit R-3, RDT&E Project Cost Analysis: PB 2013 Chemical and Biological Defense Program			DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 0400: *Research, Development, Test & Evaluation, Defense-Wide* BA 4: *Advanced Component Development & Prototypes (ACD&P)*	R-1 ITEM NOMENCLATURE PE 0603884BP: *CHEMICAL/BIOLOGICAL DEFENSE (ACD&P)*	PROJECT IP4: *INDIVIDUAL PROTECTION (ACD&P)*	

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	FY 2012 Cost	FY 2012 Award Date	FY 2013 Base Cost	FY 2013 Base Award Date	FY 2013 OCO Cost	FY 2013 OCO Award Date	FY 2013 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
** JSGPM - HW C - Filters	MIPR	ECBC:APG, MD	-	-		0.100	Feb 2013	-		0.100	Continuing	Continuing	0.000
		Subtotal	-	-		0.100		-		0.100			0.000

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	FY 2012 Cost	FY 2012 Award Date	FY 2013 Base Cost	FY 2013 Base Award Date	FY 2013 OCO Cost	FY 2013 OCO Award Date	FY 2013 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
** JSGPM - ES C - Filters	MIPR	ECBC:APG, MD	-	-		0.100	Feb 2013	-		0.100	Continuing	Continuing	0.000
		Subtotal	-	-		0.100		-		0.100			0.000

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	FY 2012 Cost	FY 2012 Award Date	FY 2013 Base Cost	FY 2013 Base Award Date	FY 2013 OCO Cost	FY 2013 OCO Award Date	FY 2013 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
** JSGPM - DTE C - Filters	MIPR	ECBC:APG, MD	-	-		0.514	Feb 2013	-		0.514	Continuing	Continuing	0.000
		Subtotal	-	-		0.514		-		0.514			0.000

Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	FY 2012 Cost	FY 2012 Award Date	FY 2013 Base Cost	FY 2013 Base Award Date	FY 2013 OCO Cost	FY 2013 OCO Award Date	FY 2013 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
** JSGPM - PM/MS C - Filters	MIPR	Various:	-	-		0.388	Feb 2013	-		0.388	Continuing	Continuing	0.000
		Subtotal	-	-		0.388		-		0.388			0.000

	Total Prior Years Cost	FY 2012 Cost	FY 2012 Award Date	FY 2013 Base Cost	FY 2013 Base Award Date	FY 2013 OCO Cost	FY 2013 OCO Award Date	FY 2013 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	-	-		1.102		-		1.102			0.000

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2013 Chemical and Biological Defense Program		DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 0400: *Research, Development, Test & Evaluation, Defense-Wide* BA 4: *Advanced Component Development & Prototypes (ACD&P)*	R-1 ITEM NOMENCLATURE PE 0603884BP: *CHEMICAL/BIOLOGICAL DEFENSE (ACD&P)*	PROJECT IP4: *INDIVIDUAL PROTECTION (ACD&P)*

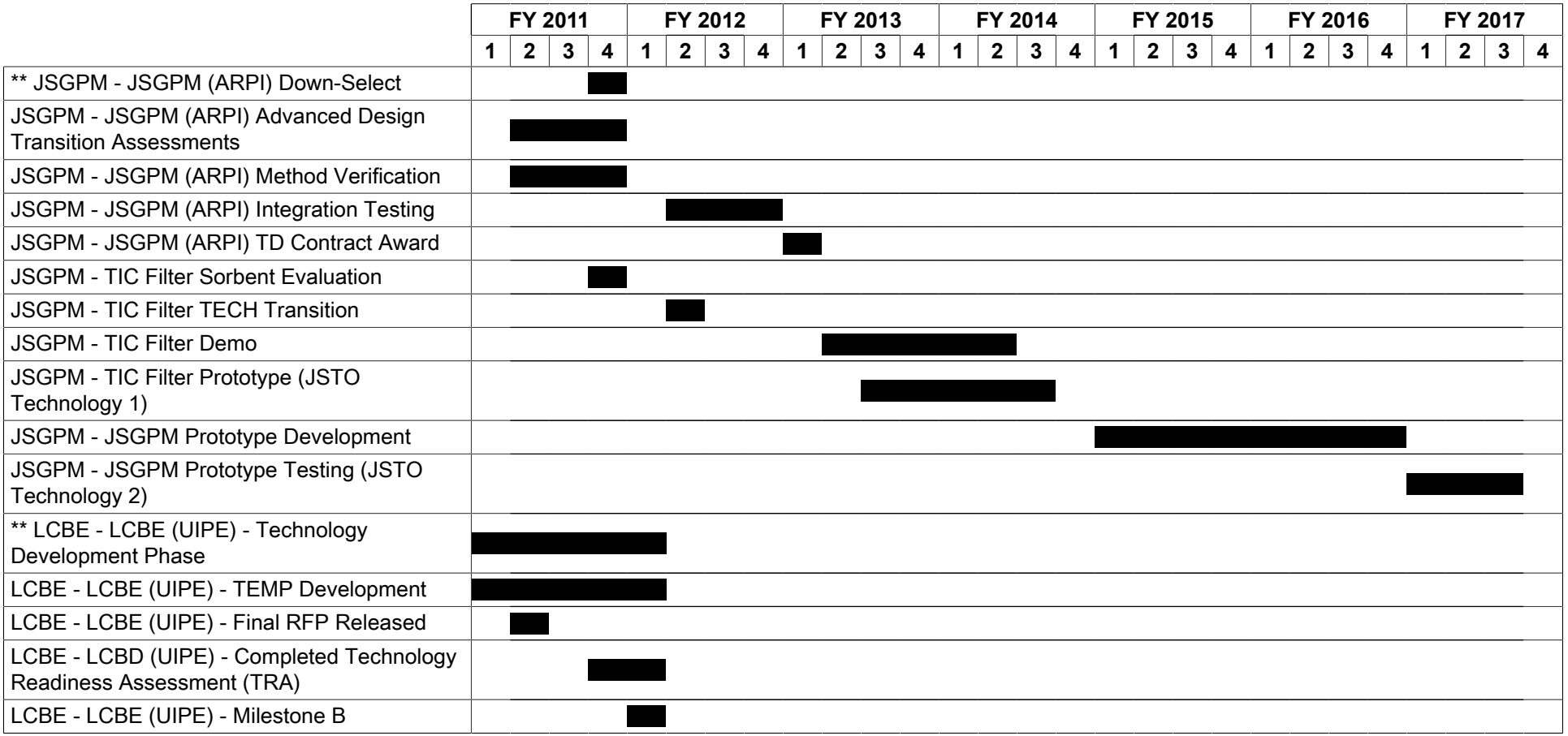

Exhibit R-4A, RDT&E Schedule Details: PB 2013 Chemical and Biological Defense Program		DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 0400: *Research, Development, Test & Evaluation, Defense-Wide* BA 4: *Advanced Component Development & Prototypes (ACD&P)*	R-1 ITEM NOMENCLATURE PE 0603884BP: *CHEMICAL/BIOLOGICAL DEFENSE (ACD&P)*	PROJECT IP4: *INDIVIDUAL PROTECTION (ACD&P)*

Schedule Details

	Start		End	
Events	**Quarter**	**Year**	**Quarter**	**Year**
** JSGPM - JSGPM (ARPI) Down-Select	4	2011	4	2011
JSGPM - JSGPM (ARPI) Advanced Design Transition Assessments	2	2011	4	2011
JSGPM - JSGPM (ARPI) Method Verification	2	2011	4	2011
JSGPM - JSGPM (ARPI) Integration Testing	2	2012	4	2012
JSGPM - JSGPM (ARPI) TD Contract Award	1	2013	1	2013
JSGPM - TIC Filter Sorbent Evaluation	4	2011	4	2011
JSGPM - TIC Filter TECH Transition	2	2012	2	2012
JSGPM - TIC Filter Demo	2	2013	2	2014
JSGPM - TIC Filter Prototype (JSTO Technology 1)	3	2013	3	2014
JSGPM - JSGPM Prototype Development	1	2015	4	2016
JSGPM - JSGPM Prototype Testing (JSTO Technology 2)	1	2017	3	2017
** LCBE - LCBE (UIPE) - Technology Development Phase	1	2011	1	2012
LCBE - LCBE (UIPE) - TEMP Development	1	2011	1	2012
LCBE - LCBE (UIPE) - Final RFP Released	2	2011	2	2011
LCBE - LCBD (UIPE) - Completed Technology Readiness Assessment (TRA)	4	2011	1	2012
LCBE - LCBE (UIPE) - Milestone B	1	2012	1	2012

Exhibit R-2A, RDT&E Project Justification: PB 2013 Chemical and Biological Defense Program			DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 0400: *Research, Development, Test & Evaluation, Defense-Wide* BA 4: *Advanced Component Development & Prototypes (ACD&P)*	R-1 ITEM NOMENCLATURE PE 0603884BP: *CHEMICAL/BIOLOGICAL DEFENSE (ACD&P)*	PROJECT IS4: *INFORMATION SYSTEMS (ACD&P)*	

COST ($ in Millions)	FY 2011	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total	FY 2014	FY 2015	FY 2016	FY 2017	Cost To Complete	Total Cost
IS4: *INFORMATION SYSTEMS (ACD&P)*	11.032	7.420	13.831	-	13.831	5.672	10.496	0.260	-	0.000	48.711
Quantity of RDT&E Articles											

A. Mission Description and Budget Item Justification

This Project provides for Advanced Component Development and Prototypes (ACD&P). Specifically it supports the Joint Effects Model (JEM) Program and the Joint Warning and Reporting Network (JWARN) Program.

The Joint Effects Model (JEM) is DoD's only accredited model for predicting hazards associated with the release of contaminants into the environment. JEM is a software-only, ACAT III program that is being developed in separate increments and is capable of modeling hazards in a variety of scenarios including: counterforce, passive defense, accident and/or incidents; high altitude releases, incident source prediction to include NTA events, urban CBRN/Toxic Industrial Hazard environments, human inhalation, contagious/infectious disease, population movements, efficacy of medical countermeasures, industrial transport; building interiors, and human performance degradation. Battlespace commanders and first responders must have a CBRN hazard prediction capability in order to make decisions that will minimize risks of CBRN contamination and enable them to continue mission operations. JEM operates in an integrated fashion with operational and tactical Command, Control, Communications, Computers, Intelligence, Surveillance and Reconnaissance (C4ISR) systems, and in a standalone mode. JEM interfaces and communicates with the other programs such as JWARN, weather systems, intelligence systems, and various databases.

The Joint Warning and Reporting Network (JWARN) will provide the Joint Forces with a comprehensive Integrated Early Warning, Analysis and Response capability to minimize the effects of hostile CBRN attacks, as well as accidents and incidents. It will provide the operational capability to employ CBRN warning technology which will collect, analyze, identify, locate, report, and disseminate warnings. JWARN will be compatible and integrated with Joint Service C4ISR Systems. JWARN will transition from platform specific Common Operating Environment (COE) standards to a Web-based Service Oriented Architecture (SOA). JWARN will also provide an expansion of sensors that will connect to JWARN, increased automation of message handling, improved false alarm filtering, integration of route-planning calculator, and interoperability with additional C2 systems. JWARN will be located in Command and Control Centers at the appropriate level and will be employed by CBRN defense specialists and other designated personnel. This employment will transfer data automatically from existing and future sensors to provide commanders with the capability to support operational decision making in a CBRN environment. JWARN will provide additional data processing to support the production of plans and reports, and access to specific CBRN information to improve the efficiency of limited CBRN personnel assets. JWARN will integrate existing sensors into a sensor network or host C2 system, but does not provide the sensors that will be employed in the operating environment. The JWARN capability described above will be developed utilizing an incremental approach based on Service requirements and host system architecture.

B. Accomplishments/Planned Programs ($ in Millions)	FY 2011	FY 2012	FY 2013
Title: 1) JEM Increment 2	0.689	-	-
Description: Analysis of Alternatives Support			

Exhibit R-2A, RDT&E Project Justification: PB 2013 Chemical and Biological Defense Program		DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 0400: *Research, Development, Test & Evaluation, Defense-Wide* BA 4: *Advanced Component Development & Prototypes (ACD&P)*	R-1 ITEM NOMENCLATURE PE 0603884BP: *CHEMICAL/BIOLOGICAL DEFENSE (ACD&P)*	PROJECT IS4: *INFORMATION SYSTEMS (ACD&P)*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2011	FY 2012	FY 2013
FY 2011 Accomplishments: Provided Chemical, Biological, Radiological and Nuclear subject matter experts to support the Analysis of Alternatives (AoA) on the next required increment of JEM capability.			
Title: 2) JEM Increment 2 ***Description:*** Prototyping ***FY 2011 Accomplishments:*** Initiated and completed prototyping of components for the next increment of JEM capability - modeling to support biological surveillance, medical incidents, urban modeling, source term estimation, population migration, and littoral/coastal zone weather. ***FY 2013 Plans:*** Award competitive prototyping contracts for development and integration of JEM Increment 2 capabilities.	4.863	-	4.301
Title: 3) JEM Increment 2 ***Description:*** Test & Evaluation (T&E) ***FY 2011 Accomplishments:*** Continued the development and staffing of the TES. Initiated development testing, analysis and provide input on source selection on competitive prototypes. Supported Technology Readiness Assessments of software transitioned from Science and Technology providers. Developed Test & Evaluation Master Plan (TEMP) for the next increment of capability of JEM. Supported Capabilities Development Document (CDD) generation. ***FY 2013 Plans:*** Initiate governmental development testing in support of competitive prototypes. Prepare Test & Evaluation documentation for the Preliminary Design Review (PDR) and down-select decision.	1.287	-	1.626
Title: 4) JEM Increment 2 ***Description:*** Administrative Preparation for Development and Prototyping Contracts ***FY 2011 Accomplishments:*** Completed the contractual planning efforts in preparation for MS A and Technology Development/prototyping phase. As a cost cutting measure, evaluated option to continue use of existing contract vehicle in support of Prototyping efforts. Initiated pre-MS B contractual efforts: developed proposal package, released draft Request for Proposal (RFP), prepared final Engineering and	0.836	-	-

Exhibit R-2A, RDT&E Project Justification: PB 2013 Chemical and Biological Defense Program		DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 0400: *Research, Development, Test & Evaluation, Defense-Wide* BA 4: *Advanced Component Development & Prototypes (ACD&P)*	R-1 ITEM NOMENCLATURE PE 0603884BP: *CHEMICAL/BIOLOGICAL DEFENSE (ACD&P)*	PROJECT IS4: *INFORMATION SYSTEMS (ACD&P)*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2011	FY 2012	FY 2013
Manufacturing Development (EM&D) phase request for proposal, released RFP, conduct source selection training, conducted source selection and completed proposal evaluations.			
Title: 5) JEM Increment 2 ***Description:*** Management Support ***FY 2011 Accomplishments:*** Continued efforts to provide strategic, tactical planning, program/financial management, costing, contracting, scheduling and acquisition oversight support. Assisted in the development of Capabilities Development Document (CDD) and other acquisition documents required for MS B. Perform Life-Cycle Cost Estimate. ***FY 2013 Plans:*** Provide program planning, financial management, contracting, schedule, and acquisition oversight support. Update JEM Integrated Master Schedule. Coordinate Preliminary Design Review (PDR) with stakeholders.	1.159	-	1.341
Title: 6) JEM Increment 2 ***Description:*** Technical Support ***FY 2011 Accomplishments:*** Continued risk-reduction efforts to demonstrate viability of the technology concepts proposed for the next increment of JEM capability. Developed preliminary design documentation in support of component prototyping. Provided technical support during the development of the Capabilities Development Document (CDD) and requirements analysis processes. ***FY 2013 Plans:*** Prepare technical documentation to support the Preliminary Design Review (PDR). Develop Verification and Validation Plan for the next increment of JEM capability. Provide technical support during the competitive prototyping phase and requirements analysis processes.	2.198	-	0.994
Title: 7) JWARN - Increment 2 ***Description:*** Analysis of Alternatives (AoA) Support and Analysis of Technical Alternatives (ATA) Evaluation ***FY 2012 Plans:*** Initiate programmatic and Chemical, Biological, Radiological and Nuclear (CBRN) subject matter expertise to support the next increment of JWARN capabilities during the AoA. Conduct and evaluate and assess results of AoA/ATA including a Technology	-	0.446	0.218

Exhibit R-2A, RDT&E Project Justification: PB 2013 Chemical and Biological Defense Program		DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 0400: *Research, Development, Test & Evaluation, Defense-Wide* BA 4: *Advanced Component Development & Prototypes (ACD&P)*	R-1 ITEM NOMENCLATURE PE 0603884BP: *CHEMICAL/BIOLOGICAL DEFENSE (ACD&P)*	PROJECT IS4: *INFORMATION SYSTEMS (ACD&P)*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2011	FY 2012	FY 2013
Readiness Assessment of the candidate technologies. Analyze impact of implementing the emerging technologies into the JWARN architecture. ***FY 2013 Plans:*** Continue programmatic and Chemical, Biological, Radiological and Nuclear (CBRN) subject matter expertise to support the next increment of JWARN capabilities during the AoA.			
Title: 8) JWARN Increment 2 ***Description:*** Prototyping ***FY 2012 Plans:*** Initiate competitive prototyping contracting efforts for JWARN to reduce technical risk, validate design and cost estimates as well as refine requirements. ***FY 2013 Plans:*** Continue competitive prototyping contracting efforts for JWARN and select candidate for advancement.	-	4.172	1.607
Title: 9) JWARN Increment 2 ***Description:*** Technology Demonstrations and User Assessments ***FY 2012 Plans:*** Prepare for and conduct JWARN Technology Demonstrations and User Assessments to evaluate and prove component and subsystem maturity of critical science and technology, system performance, and validate requirements within the developed software prototype(s). ***FY 2013 Plans:*** Continue JWARN Technology Demonstrations and User Assessments to evaluate and prove component and subsystem maturity of critical science and technology, system performance, and validate requirements within the developed software prototype(s).	-	0.526	0.598
Title: 10) JWARN Increment 2 ***Description:*** Test and Evaluation ***FY 2012 Plans:*** Initiate government developmental testing and analysis of component and subsystem maturity, to include Technology Readiness Assessment(s), of software submitted for evaluation during competitive prototyping. ***FY 2013 Plans:***	-	0.668	0.891

Exhibit R-2A, RDT&E Project Justification: PB 2013 Chemical and Biological Defense Program		DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 0400: *Research, Development, Test & Evaluation, Defense-Wide* BA 4: *Advanced Component Development & Prototypes (ACD&P)*	R-1 ITEM NOMENCLATURE PE 0603884BP: *CHEMICAL/BIOLOGICAL DEFENSE (ACD&P)*	PROJECT IS4: *INFORMATION SYSTEMS (ACD&P)*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2011	FY 2012	FY 2013
Continue government developmental testing and analysis of component and subsystem maturity, to include Technology Readiness Assessment(s), of software submitted for evaluation during competitive prototyping. Prepare required documentation to support the DoD Information Assurance Certification and Accreditation Process and Joint Interoperability Certification process. Incorporate changes in the Test and Evaluation Master Plan (TEMP).			
Title: 11) JWARN Increment 2 ***Description:*** Development Contract ***FY 2012 Plans:*** Initiate pre-MS B contractual efforts to include: developing and releasing Technology Development Request for Proposal (RFP), conducting source selection training, and completing proposal evaluations. ***FY 2013 Plans:*** Draft technical evaluation report for contract award and award contract to develop the next increment of capability.	-	0.446	0.843
Title: 12) JWARN Increment 2 ***Description:*** Management Support ***FY 2012 Plans:*** Provide strategic, tactical planning, program/financial management, costing, contracting, scheduling, acquisition oversight, and milestone documentation for the program. ***FY 2013 Plans:*** Continue strategic, tactical planning, program/financial management, costing, contracting, scheduling, acquisition oversight, and milestone documentation for the program.	-	0.612	0.629
Title: 13) JWARN Increment 2 ***Description:*** Technical Support ***FY 2012 Plans:*** Provide engineering and technical support for JWARN development. Provide independent system verification, validation and class type accreditation as required. ***FY 2013 Plans:***	-	0.452	0.783

Exhibit R-2A, RDT&E Project Justification: PB 2013 Chemical and Biological Defense Program		DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 0400: *Research, Development, Test & Evaluation, Defense-Wide* BA 4: *Advanced Component Development & Prototypes (ACD&P)*	R-1 ITEM NOMENCLATURE PE 0603884BP: *CHEMICAL/BIOLOGICAL DEFENSE (ACD&P)*	PROJECT IS4: *INFORMATION SYSTEMS (ACD&P)*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2011	FY 2012	FY 2013
Continue engineering and technical support JWARN development. Continue independent system verification, validation and class type accreditation as required.			
Title: 14) SBIR ***FY 2012 Plans:*** Small Business Innovative Research.	-	0.098	-
Accomplishments/Planned Programs Subtotals	11.032	7.420	13.831

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2011	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total	FY 2014	FY 2015	FY 2016	FY 2017	Cost To Complete	Total Cost
• IS5: *INFORMATION SYSTEMS (SDD)*	15.689	2.423	2.045		2.045	11.794	9.884	24.826	23.267	Continuing	Continuing
• IS7: *INFORMATION SYSTEMS (OP SYS DEV)*	1.789	6.911	10.091		10.091	6.618	4.090	5.615	9.915	Continuing	Continuing
• G47101: *JOINT WARNING & REPORTING NETWORK (JWARN)*	6.783	3.880	2.646		2.646	1.112	0.766	0.456	4.589	Continuing	Continuing
• JC0208: *JOINT EFFECTS MODEL (JEM)*	3.421	0.000	0.000		0.000	0.000	1.343	1.553	1.553	Continuing	Continuing

D. Acquisition Strategy

JEM

The Joint Effects Model (JEM) is following an evolutionary acquisition approach that will allow rapid fielding of existing technologies while further research and development (R&D) continues in order to mature the technologies required for subsequent versions of JEM. JEM is now being fielded in increments of capabilities. Each increment will retain the functionality of the preceding increment. The JEM development effort will be aligned with the evolving Joint Program Executive Office for Chemical Biological Defense (JPEO-CBD) architectures and technologies, as well as, with Service Command and Control (C2) systems. JEM will develop three distinct increments of software. JEM is a web-services based application and has been granted an Interoperability Certificate by the Joint Interoperability Test Command (JITC). The program plans to award competitive contracts using fixed price or cost-plus as appropriate.

JWARN

Exhibit R-2A, RDT&E Project Justification: PB 2013 Chemical and Biological Defense Program		DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 0400: *Research, Development, Test & Evaluation, Defense-Wide* BA 4: *Advanced Component Development & Prototypes (ACD&P)*	R-1 ITEM NOMENCLATURE PE 0603884BP: *CHEMICAL/BIOLOGICAL DEFENSE (ACD&P)*	PROJECT IS4: *INFORMATION SYSTEMS (ACD&P)*

JWARN will develop and provide Integrated Early Warning capabilities to specified (Common Operating Environment (COE-based)) operational-level Service Command and Control (C2) systems at the Global Command and Control System (GCCS) level, extend the integration effort into the Service tactical (non COE-based) C2 systems, provide connectivity to legacy and newly developed sensors, and complete the development of JWARN.

JWARN will extend these baseline capabilities to emerging, net-centric, Service C2 systems and Service CBRN sensors and detectors as they are developed and fielded. JWARN will also ensure CBRN warning and reporting capabilities remain synchronized with the changing demands of the Warfighter while keeping pace with evolving C2 systems and their architectures, and will further evolve by integrating next generation sensors, detectors and emerging Medical and Biological Surveillance requirements into the CBRN Enterprise.

E. Performance Metrics

N/A

Exhibit R-3, RDT&E Project Cost Analysis: PB 2013 Chemical and Biological Defense Program			DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 0400: *Research, Development, Test & Evaluation, Defense-Wide* BA 4: *Advanced Component Development & Prototypes (ACD&P)*	R-1 ITEM NOMENCLATURE PE 0603884BP: *CHEMICAL/BIOLOGICAL DEFENSE (ACD&P)*	PROJECT IS4: *INFORMATION SYSTEMS (ACD&P)*	

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	FY 2012 Cost	FY 2012 Award Date	FY 2013 Base Cost	FY 2013 Base Award Date	FY 2013 OCO Cost	FY 2013 OCO Award Date	FY 2013 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
** JEM - SW SB - JEM Increment 2	MIPR	SPAWAR Systems Center:San Diego, CA	7.332	-		1.205	Feb 2013	-		1.205	0.000	8.537	0.000
** JWARN - SW S - JWARN	SS/CPAF	TBD:	-	4.172	Feb 2012	1.776	Feb 2013	-		1.776	0.000	5.948	0.000
		Subtotal	7.332	4.172		2.981		-		2.981	0.000	14.485	0.000

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	FY 2012 Cost	FY 2012 Award Date	FY 2013 Base Cost	FY 2013 Base Award Date	FY 2013 OCO Cost	FY 2013 OCO Award Date	FY 2013 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
** JEM - TD/D SB - JEM Increment 2	C/CPFF	Various:	10.714	-		1.936	Feb 2013	-		1.936	0.000	12.650	0.000
** JWARN - TD/D S - JWARN	MIPR	Various:	-	0.453	Feb 2012	0.653	Feb 2013	-		0.653	0.000	1.106	0.000
		Subtotal	10.714	0.453		2.589		-		2.589	0.000	13.756	0.000

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	FY 2012 Cost	FY 2012 Award Date	FY 2013 Base Cost	FY 2013 Base Award Date	FY 2013 OCO Cost	FY 2013 OCO Award Date	FY 2013 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
** JEM - DTE S - JEM Increment 2	MIPR	Various:	3.229	-		3.722	Feb 2013	-		3.722	0.000	6.951	0.000
** JWARN - OTHT SB - JWARN	PO	Various:	-	1.195	Feb 2012	1.548	Feb 2013	-		1.548	0.000	2.743	0.000
		Subtotal	3.229	1.195		5.270		-		5.270	0.000	9.694	0.000

Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	FY 2012 Cost	FY 2012 Award Date	FY 2013 Base Cost	FY 2013 Base Award Date	FY 2013 OCO Cost	FY 2013 OCO Award Date	FY 2013 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
** JEM - PM/MS S - JEM Increment 2	C/CPFF	Battelle Memorial Institute:Columbus, OH	3.325	-		1.399	Feb 2013	-		1.399	0.000	4.724	0.000

Exhibit R-3, RDT&E Project Cost Analysis: PB 2013 Chemical and Biological Defense Program			DATE: February 2012
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Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	FY 2012 Cost	FY 2012 Award Date	FY 2013 Base Cost	FY 2013 Base Award Date	FY 2013 OCO Cost	FY 2013 OCO Award Date	FY 2013 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
** JWARN - PM/MS S - JWARN Management Support	SS/CPAF	Various:	-	1.502	Nov 2011	1.592	Feb 2013	-		1.592	0.000	3.094	0.000
** ZSBIR - SBIR/STTR - Aggregated from ZSBIR-SBIR/STTR	PO	HQ:AMC, Alexandria	-	0.098		-		-		-	0.000	0.098	0.000
		Subtotal	3.325	1.600		2.991		-		2.991	0.000	7.916	0.000

	Total Prior Years Cost	FY 2012 Cost	FY 2012 Award Date	FY 2013 Base Cost	FY 2013 Base Award Date	FY 2013 OCO Cost	FY 2013 OCO Award Date	FY 2013 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	24.600	7.420		13.831		-		13.831	0.000	45.851	0.000

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2013 Chemical and Biological Defense Program		DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 0400: *Research, Development, Test & Evaluation, Defense-Wide* BA 4: *Advanced Component Development & Prototypes (ACD&P)*	R-1 ITEM NOMENCLATURE PE 0603884BP: *CHEMICAL/BIOLOGICAL DEFENSE (ACD&P)*	PROJECT IS4: *INFORMATION SYSTEMS (ACD&P)*

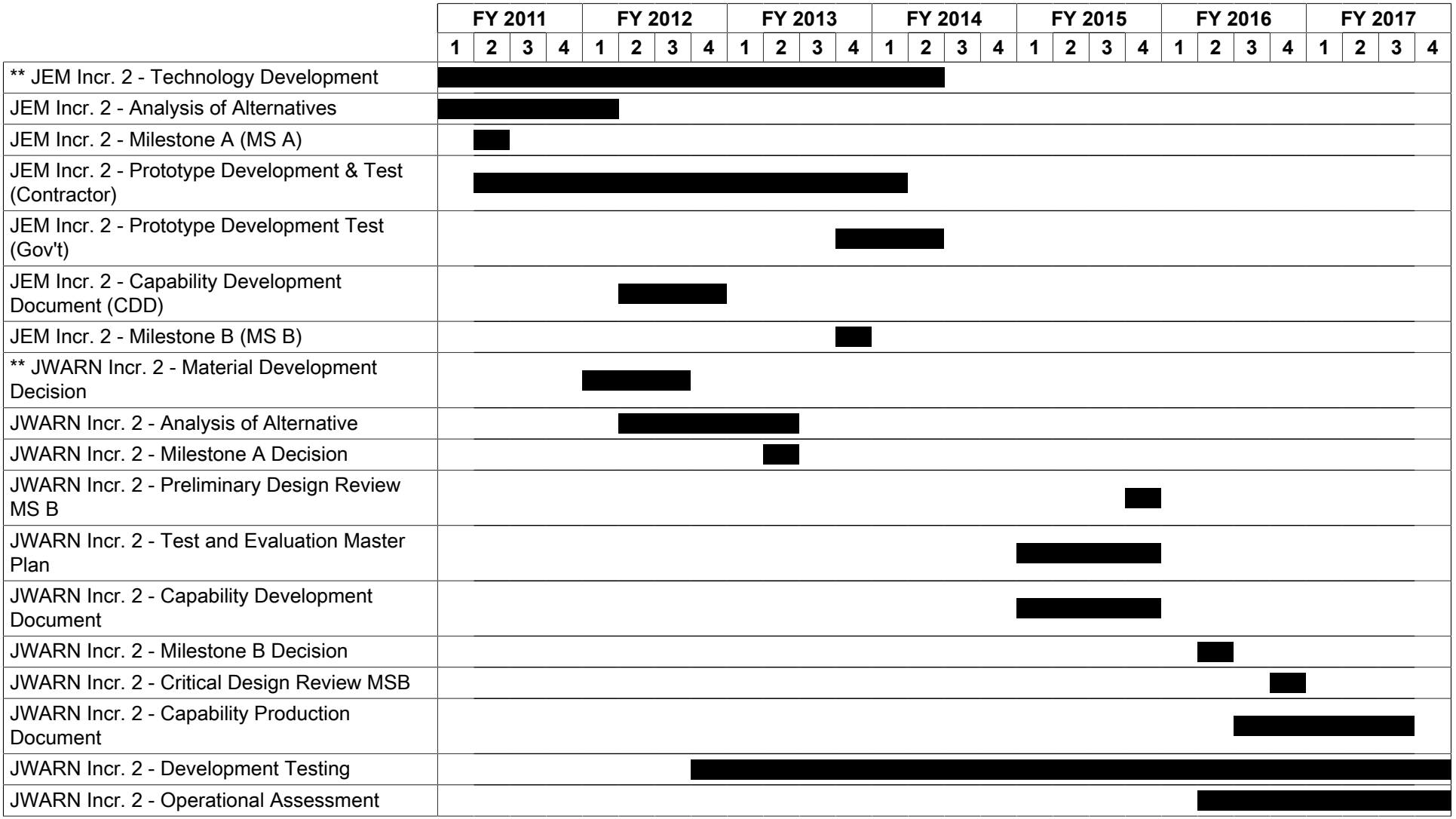

Exhibit R-4, RDT&E Schedule Profile: PB 2013 Chemical and Biological Defense Program		DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 0400: *Research, Development, Test & Evaluation, Defense-Wide* BA 4: *Advanced Component Development & Prototypes (ACD&P)*	R-1 ITEM NOMENCLATURE PE 0603884BP: *CHEMICAL/BIOLOGICAL DEFENSE (ACD&P)*	PROJECT IS4: *INFORMATION SYSTEMS (ACD&P)*

	FY 2011				FY 2012				FY 2013				FY 2014				FY 2015				FY 2016				FY 2017			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
JWARN Incr. 2 - Milestone C Decision																												■
JWARN Incr. 2 - Low-Rate Initial Production																												■
JWARN Incr. 2 - Multi-Service Operational Testing (MOT&E)																												■

Exhibit R-4A, RDT&E Schedule Details: PB 2013 Chemical and Biological Defense Program		DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 0400: *Research, Development, Test & Evaluation, Defense-Wide* BA 4: *Advanced Component Development & Prototypes (ACD&P)*	**R-1 ITEM NOMENCLATURE** PE 0603884BP: *CHEMICAL/BIOLOGICAL DEFENSE (ACD&P)*	**PROJECT** IS4: *INFORMATION SYSTEMS (ACD&P)*

Schedule Details

	Start		End	
Events	**Quarter**	**Year**	**Quarter**	**Year**
** JEM Incr. 2 - Technology Development	1	2011	2	2014
JEM Incr. 2 - Analysis of Alternatives	1	2011	1	2012
JEM Incr. 2 - Milestone A (MS A)	2	2011	2	2011
JEM Incr. 2 - Prototype Development & Test (Contractor)	2	2011	1	2014
JEM Incr. 2 - Prototype Development Test (Gov't)	4	2013	2	2014
JEM Incr. 2 - Capability Development Document (CDD)	2	2012	4	2012
JEM Incr. 2 - Milestone B (MS B)	4	2013	4	2013
** JWARN Incr. 2 - Material Development Decision	1	2012	3	2012
JWARN Incr. 2 - Analysis of Alternative	2	2012	2	2013
JWARN Incr. 2 - Milestone A Decision	2	2013	2	2013
JWARN Incr. 2 - Preliminary Design Review MS B	4	2015	4	2015
JWARN Incr. 2 - Test and Evaluation Master Plan	1	2015	4	2015
JWARN Incr. 2 - Capability Development Document	1	2015	4	2015
JWARN Incr. 2 - Milestone B Decision	2	2016	2	2016
JWARN Incr. 2 - Critical Design Review MSB	4	2016	4	2016
JWARN Incr. 2 - Capability Production Document	3	2016	3	2017
JWARN Incr. 2 - Development Testing	4	2012	4	2017
JWARN Incr. 2 - Operational Assessment	2	2016	4	2017
JWARN Incr. 2 - Milestone C Decision	4	2017	4	2017
JWARN Incr. 2 - Low-Rate Initial Production	4	2017	4	2017
JWARN Incr. 2 - Multi-Service Operational Testing (MOT&E)	4	2017	4	2017

Exhibit R-2A, RDT&E Project Justification: PB 2013 Chemical and Biological Defense Program			DATE: February 2012
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COST ($ in Millions)	FY 2011	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total	FY 2014	FY 2015	FY 2016	FY 2017	Cost To Complete	Total Cost
MB4: *MEDICAL BIOLOGICAL DEFENSE (ACD&P)*	129.682	116.653	133.254	-	133.254	194.502	155.024	81.188	23.593	Continuing	Continuing
Quantity of RDT&E Articles											

A. Mission Description and Budget Item Justification

This Advanced Component Development and Prototypes (ACD&P) Project supports:

The Medical Countermeasures Advanced Development and Manufacturing (ADM) program was established to provide a dedicated, agile, flexible and enduring capability to the Department of Defense (DoD) to support the development, licensure, and production of Medical Countermeasures (MCMs). The ADM will provide an integrated infrastructure to support a medical countermeasures pipeline, and respond to Warfighter and National security needs. The ADM effort is being executed in two phases. Phase I is a two year base period to establish, commission, and validate facilities and equipment for two ADM suites using single use, disposable, modular and multi-product technologies for medical countermeasures advanced development and manufacturing. Both suites must meet Biological Safety Level-3 (BSL-3) standards. Phase 2 consist of four (4) two-year options to support and maintain ADM capability in a state of readiness to support medical countermeasures development (under the animal rule as applicable) and manufacturing and assist in training personnel in its use. Once commissioned, the ADM will support transition of enabling science and technology (S&T) and novel platform and expression systems for delivery of products by leveraging technological and regulatory science advancements.

The Next Generation Diagnostic System addresses the mission needs identified in the CBRN Field Analytics ICD (2010). The mission of the Next Generation Diagnostic System is to provide chemical, biological, and radiological diagnostic systems. NGDS Increment 1 materiel solutions will significantly improve analytical and diagnostic capabilities across the continuum of biological warfare threat agents and operations (peacetime, wartime, and deployed). NGDS Increment 1 medical diagnostic capabilities will provide health care providers with more timely and accurate information to inform individual patient treatment. NGDS Increment 1 clinical analytical and interconnectivity capabilities will provide commanders with situational awareness of biological warfare hazards to support Force Protection and Force Health Protection decision making.

The (1) Hemorrhagic Fever Virus (HFV) Therapeutic Medical Countermeasures (MCM), which will provide broad spectrum (multi-agent), platform-based therapeutics against Ebola and Marburg viruses. TMT efforts to be conducted for the medical countermeasures during this period include Phase 1 human clinical safety trials, non-clinical studies to demonstrate safety and efficacy, and animal model development / refinement. DoD anticipates the FDA will require use of the Animal Rule for the HFV therapeutic medical countermeasures, which allows for the demonstration of efficacy in relevant animal model(s) when human testing is not ethically feasible. ; (2) Emerging Infectious Disease (EID) MCM Increment 1, Many conditions result in the inability to provide effective vaccines to service members and civilians. Effective vaccines do not exist for all known strains of influenza virus. The emergence of a new pandemic strain with no existing effective vaccine or therapeutic is highly likely. EID-Flu will provide a broad spectrum EID MCM to protect service members from naturally occurring, biologically or genetically engineered Influenza viruses. EID Flu, a rapidly adaptable, broad spectrum therapeutic (3) CBRN Biosurveillance (BSV), a new start program, will initiate systems development, engineering, logistics planning, and test planning for integration of existing commercial and developmental next generation systems and clinical and non-clinical sample collection and analysis tools

Exhibit R-2A, RDT&E Project Justification: PB 2013 Chemical and Biological Defense Program		DATE: February 2012
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to provide pre/post event real-time alarm and near-real time confirmation of CBRN threats, to enhance battlespace awareness, and provide high-quality biosurveillance data.

The Joint Vaccine Acquisition Program (JVAP), under Chemical Biological Medical Systems (CBMS) Joint Program Management Office, funds the technology development phase for vaccines that are directed against validated biological warfare (BW) weapons to include bacteria, viruses, and toxins of biological origin. Effective medical countermeasures to negate the threat of these BW agents are urgently needed. Vaccines have been identified as the most efficient countermeasure against the validated threat of BW weapons. JVAP has three product lines in the early development phase: Filovirus vaccine, Ricin vaccine, and Western/Eastern/ Venezuelan Equine Encephalitis vaccine (WEVEE). JVAP initiated the Filovirus Vaccine program in FY10. The Ricin and WEVEE vaccine programs will be initiated in early FY13. Efforts to be conducted during this period include develop pilot scale manufacturing processes to support nonclinical and clinical studies; development vaccine formulation that meets the logistical requirements of the DoD; conduct non-clinical studies to demonstrate safety and efficacy; submit Investigational New Drug (IND) application; and conduct Phase 1 clinical human safety studies. JVAP anticipates that the FDA will approve these products using the Animal Rule, which allows for the demonstration of efficacy in relevant animal model(s). JVAP also has the mission to maintain IND vaccines in Good Manufacturing Practice (GMP) storage and to conduct the periodic potency and sterility testing of these materials to support submissions to the FDA. These IND vaccines are used to possibly provide additional levels of protection to laboratory workers in the Special Immunizations Program (SIP) conducting research on these diseases. The Department of Defense is the Public Health Emergency Countermeasures lead for the advanced development of the Filovirus, Ricin, and WEVEE vaccines.

B. Accomplishments/Planned Programs ($ in Millions)	FY 2011	FY 2012	FY 2013
Title: 1) SBIR ***FY 2012 Plans:*** Small Business Innovative Research.	-	1.546	-
Title: 2) MCMi ***FY 2012 Plans:*** Initiate technology transfer and process optimization to transition medical countermeausres (MCMs) into an advanced development and manufacturing (ADM) capability. Compile and manage technology information for MCMs information and perform advanced process development activities for selected MCMs to be manufactured at the ADM.	-	9.184	-
Title: 3) MCMi ***FY 2012 Plans:*** Initiate and maintain a process development laboratory. Benchmark process laboratory activities in various stages of development for expression platforms. Initiate and maintain a pilot plant capable of performing scale-up studies and manufacture of bulk products for early stage clinical trials or bridging studies.	-	13.404	-
Title: 4) MCMi ***FY 2012 Plans:***	-	4.629	-

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B. Accomplishments/Planned Programs ($ in Millions)	FY 2011	FY 2012	FY 2013
Initiate evaluation of candidate manufacturing platform processes to be transitioned to the ADM.			
Title: 5) ADM ***FY 2013 Plans:*** Initiate studies and manufacturing to support early stage clinical trials or bridging studies. Compile and manage MCM information and perform advanced process development activities for selected MCMs to be manufactured at the ADM. Activities will support MCM schedule acceleration.	-	-	12.764
Title: 6) ADM ***FY 2013 Plans:*** Initiate engineering and design studies to support regulatory sciences and/or manufacturing technology insertion into the ADM capability. Continue evaluation of candidate manufacturing platform processes to be transitioned to the ADM. Activities will support technology transfer and process optimization.	-	-	8.573
Title: 7) ADM ***FY 2013 Plans:*** Maintain a Government Program Management Office that includes Government and contractor personnel. Identify, hire and retain Government personnel to oversee the MCM ADM. Initiate and maintain contract support to oversee the MCM ADM capability.	-	-	3.948
Title: 8) NGDS Increment 1 ***FY 2012 Plans:*** Develop prototype test plan, prepare Request for Proposal, award contract, and evaluate prototype systems and new technologies	-	0.986	-
Title: 9) TMTI ***Description:*** TMTI received funds for four projects: (1) HFV Therapeutic MCM, (2) EID FLU MCM, (3) IBP Therapeutics, and (4) Platform Technologies. Beginning in FY12, Transformational Medical Technologies funding was broken out separately for each of the four individual products to provide for greater program control and visibility. ***FY 2011 Accomplishments:*** Initiated Phase 1 Human Clinical Safety Trials for Ebola and Marburg therapeutic drugs. Established program Earned Value Management System baseline and conducted integrated baseline reviews of both performers. Initiated animal model studies to identify animals best suited to understanding Ebola and Marburg disease in humans.	113.346	-	-
Title: 10) EID FLU	-	13.546	10.655

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B. Accomplishments/Planned Programs ($ in Millions)	FY 2011	FY 2012	FY 2013
Description: Emerging Infectious Diseases (EID), Increment 1, Influenza (Flu)- Milestone A approval was received February 2011 to move into Technology Development (TD) for a broad spectrum Medical Countermeasure (MCM) against Influenza, to include H1N1. ***FY 2012 Plans:*** Award advance development contract(s) for the Technology Development Phase for candidate(s) with Investigational New Drug (IND) application(s) already accepted by the Food and Drug Administration (FDA). Establish program earned value management system baseline and conduct integrated baseline review of performer(s). The program will initiate human clinical efficacy trials at the appropriate phase based on the maturity of the candidate(s) selected. ***FY 2013 Plans:*** Achieve Milestone B approval and continue clinical trials to demonstrate product safety and efficacy. Conduct non-clinical studies related to safety and efficacy to support development of New Drug Application (NDA) to meet FDA requirements.			
Title: 11) HFV ***Description:*** Hemorrhagic Fever Virus (HFV) - Broad-spectrum or platform-based MCM candidates will be advanced against viruses such as Ebola and Marburg through the Technology Development phase. Preclinical evaluation achieving IND status will be completed and will complete Phase I clinical studies where drug candidates are introduced into humans and early evidence is gathered on drug safety. TMT will conclude the TD Phase by completing all activities associated with Phase I clinical studies. The results of the TD Phase clinical studies will support a Milestone B decision to continue toward a New Drug Application (NDA) and FDA approval/licensure. ***FY 2012 Plans:*** Continue Phase 1 Human Clinical Safety Trials. Continue to refine animal models in preparation for pivotal animal efficacy studies. ***FY 2013 Plans:*** Complete Phase 1 Human Clinical Safety Trials. Obtain Milestone B decision approval, and transition to the EMD Phase, initiate planning and preparation for pivotal animal efficacy studies and manufacturing of GMP lots.	-	33.050	19.158
Title: 12) IBP ***Description:*** Intracellular Bacterial Pathogens (IBPs) - Upon Milestone A approval, Transformational Medical Technologies (TMT) will advance experimental broad-spectrum drug candidates against bacterial diseases such as anthrax and plague through the Technology Development phase. TMT will initiate and complete Phase I clinical studies, where drug candidates are introduced into humans and early evidence is gathered on drug safety. TMT will conclude the TD Phase by completing all	-	4.629	-

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B. Accomplishments/Planned Programs ($ in Millions)	FY 2011	FY 2012	FY 2013
activities associated with Phase 2 clinical studies where drug candidates are evaluated for efficacy. The results of the TD Phase clinical studies will support a Milestone B decision to continue toward a New Drug Application (NDA) and FDA approval/licensure. ***FY 2012 Plans:*** Provides support for program documentation and management support efforts.			
Title: 13) TMT/PLTFM ***Description:*** Description: TMT/Platform Technologies: TMT will establish three functional areas to support MCM development and respondto a biological event: Pathogen Characterization - Identifies and/or characterizes genetically modified or emerging pathogens. Target Identification - identifies genes or pathways within the host or pathogen that are vulnerable to countermeasure intervention. TMT/PLTFM efforts will help inform the technology development phase of the BSV program. ***FY 2012 Plans:*** Continue maturation of pathogen characterization functional area, focusing on integration and timeline reduction. Continue maturation of bioinformatics functional area, focusing on integration and incorporation of additional functionality. Plan and execute two exercises to evaluate the integration of functional areas.	-	19.395	-
Title: 14) BSV ***Description:*** Upon a successful MDD, CBRN BSV will initiate systems development, engineering, logistics planning, and test planning for integration of existing commercial and developmental next generation systems and clinical and non-clinical sample collection and analysis tools to provide pre/post event real-time alarm and near-real time confirmation of CBRN threats, to enhance battlespace awareness, and provide high-quality biosurveillance data. ***FY 2013 Plans:*** Conduct Milestone A and enter into the technology development phase. Initiate systems development, engineering, logistics planning, and test planning activities.	-	-	12.267
Title: 15) VAC FILO ***FY 2011 Accomplishments:*** Continued non-clinical efficacy studies. Continued procedures for safeguarding biological select agents and toxins. ***FY 2012 Plans:*** Continue non-clinical efficacy studies. Continue procedures for safeguarding biological select agents and toxins. ***FY 2013 Plans:***	3.294	7.374	17.347

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B. Accomplishments/Planned Programs ($ in Millions)	FY 2011	FY 2012	FY 2013
Continue non-clinical efficacy studies and initiate non-clinical safety studies.			
Title: 16) VAC FILO ***FY 2011 Accomplishments:*** Initiated small-scale manufacturing process development. ***FY 2012 Plans:*** Complete small-scale manufacturing process development.	10.882	5.579	-
Title: 17) VAC FILO ***FY 2011 Accomplishments:*** Continued to provide strategic/tactical planning, government systems engineering, program/financial management, costing, technology assessment, contracting, scheduling, acquisition oversight and technical support. ***FY 2012 Plans:*** Continue to provide strategic/tactical planning, government systems engineering, program/financial management, costing, technology assessment, contracting, scheduling, acquisition oversight and technical support. ***FY 2013 Plans:*** Continue to provide strategic/tactical planning, government systems engineering, program/financial management, costing, technology assessment, contracting, scheduling, acquisition oversight and technical support.	2.160	1.550	2.838
Title: 18) VAC FILO ***Description:*** Regulatory Support ***FY 2012 Plans:*** Plan and prepare for pre-Investigational New Drug (IND) application meeting. ***FY 2013 Plans:*** Prepare Investigational New Drug Application and Phase 1 Clinical implementation. Conduct pre-IND meeting.	-	1.781	4.500
Title: 19) VAC FILO ***FY 2013 Plans:*** Initiate cGMP Pilot Scale Production.	-	-	5.699
Title: 20) VAC FILO ***FY 2013 Plans:***	-	-	6.984

Exhibit R-2A, RDT&E Project Justification: PB 2013 Chemical and Biological Defense Program		DATE: February 2012
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B. Accomplishments/Planned Programs ($ in Millions)	FY 2011	FY 2012	FY 2013
Conduct Assay Development and Qualification.			
Title: 21) VAC FILO ***FY 2013 Plans:*** Conduct Final Drug Product Formulation.	-	-	2.200
Title: 22) VAC FILO ***FY 2013 Plans:*** Continue to provide strategic/tactical planning, government systems engineering, program financial management, costing, technology assessment, contracting, scheduling, acquisition oversight and technical support.	-	-	2.407
Title: 23) VAC RIC ***FY 2013 Plans:*** Conduct Milestone A. Initiate non-clinical efficacy studies.	-	-	7.500
Title: 24) VAC RIC ***FY 2013 Plans:*** Initiate small-scale manufacturing process development.	-	-	6.032
Title: 25) VAC RIC ***FY 2013 Plans:*** Initiate Assay Development.	-	-	2.500
Title: 26) VAC WEVEE ***FY 2013 Plans:*** Conduct Milestone A. Initiate non-clinical efficacy studies.	-	-	2.097
Title: 27) VAC WEVEE ***FY 2013 Plans:*** Initiate small-scale manufacturing process development.	-	-	3.785
Title: 28) VAC WEVEE ***FY 2013 Plans:*** Initiate Assay Development.	-	-	2.000
Accomplishments/Planned Programs Subtotals	129.682	116.653	133.254

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C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2011	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total	FY 2014	FY 2015	FY 2016	FY 2017	Cost To Complete	Total Cost
• MB5: *MEDICAL BIOLOGICAL DEFENSE (SDD)*	75.657	216.715	214.056		214.056	246.295	187.101	213.001	238.653	Continuing	Continuing
• MB7: *MEDICAL BIOLOGICAL DEFENSE (OP SYS DEV)*	0.000	5.448	0.498		0.498	0.499	3.266	0.496	9.355	Continuing	Continuing
• JM8788: *NEXT GENERATION DIAGNOSTICS SYSTEM (NGDS)*	0.000	2.965	26.934		26.934	14.154	0.000	0.000	0.000	0.000	44.053
• JX0005: *DOD BIOLOGICAL VACCINE PROCUREMENT*	4.777	0.180	0.185		0.185	4.482	19.949	21.514	26.101	Continuing	Continuing
• JX0210: *CRITICAL REAGENTS PROGRAM (CRP)*	0.000	0.998	1.012		1.012	1.011	1.011	1.005	1.005	Continuing	Continuing

D. Acquisition Strategy

MCMI

The Medical Counter Measures Initiative (MCMI) began in response to White House Memorandum of 29 December 2009. The MCMI has three components: Science and Technology (S&T), Advanced Development and Manufacturing (ADM) and Test and Evaluation. The efforts described herein are for the establishment, commissioning, facility validation and maintenance of the agile and flexible Advanced Development and Manufacturing (ADM) capability. The ADM will be a dedicated DoD enduring capability that provides DoD MCM development with a set of core services (Contract Manufacturing Organization (CMO), Contract/Clinical Research Organization (CRO), Test and Evaluation (T&E), Fill and Finish (F&F)) to increase efficiency and apply lessons learned to future MCM developments. The ADM Capability will use a FAR based ten (10) year [two (2) year base with four (4) two (2) year options] Cost Plus Fixed fee (CPFF) contract - Full and Open competition with best value to the government. A Request for Proposal (RFP) was released in August 2011, and contract award is planned for 2QFY12. The establishment of the CMO component of the ADM will occur within the base period while the other core service components (CRO, T&E, F&F) will be available shortly after the contract award. The CMO will utilize modular and disposable/single use equipment to allow for flexibility in manufacturing various MCM products within the same facility. The contractor will complete facility commissioning, support independent validation, and attain Current Good Manufacturing Practice (cGMP) and Current Good Laboratory Practice (cGLP) status within 24 months following contract award and provide expertise necessary to maintain the facility in readiness to support the development and manufacture of MCMs, and conduct training. The DoD will continue to issue future separate contracts for specific MCM products - i.e. the MCM "pipeline".

ADM

The Medical Counter Measures Initiative (MCMI) began in response to White House Memorandum of 29 December 2009. The MCMI has three components: Science and Technology (S&T), Advanced Development and Manufacturing (ADM) and Test and Evaluation. The efforts described herein are for the establishment, commissioning, facility validation and maintenance of the agile and flexible Advanced Development and Manufacturing (ADM) capability. The ADM will be a dedicated

Exhibit R-2A, RDT&E Project Justification: PB 2013 Chemical and Biological Defense Program		DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 0400: *Research, Development, Test & Evaluation, Defense-Wide* BA 4: *Advanced Component Development & Prototypes (ACD&P)*	R-1 ITEM NOMENCLATURE PE 0603884BP: *CHEMICAL/BIOLOGICAL DEFENSE (ACD&P)*	PROJECT MB4: *MEDICAL BIOLOGICAL DEFENSE (ACD&P)*

DoD enduring capability that provides DoD MCM development with a set of core services (Contract Manufacturing Organization (CMO), Contract/Clinical Research Organization (CRO), Test and Evaluation (T&E), Fill and Finish (F&F)) to increase efficiency and apply lessons learned to future MCM developments. The ADM Capability will use a FAR based ten (10) year [two (2) year base with four (4) two (2) year options] Cost Plus Fixed fee (CPFF) contract - Full and Open competition with best value to the government. A Request for Proposal (RFP) was released in August 2011, and contract award is planned for 2QFY12. The establishment of the CMO component of the ADM will occur within the base period while the other core service components (CRO, T&E, F&F) will be available shortly after the contract award. The CMO will utilize modular and disposable/single use equipment to allow for flexibility in manufacturing various MCM products within the same facility. The contractor will complete facility commissioning, support independent validation, and attain Current Good Manufacturing Practice (cGMP) and Current Good Laboratory Practice (cGLP) status within 24 months following contract award and provide expertise necessary to maintain the facility in readiness to support the development and manufacture of MCMs, and conduct training. The DoD will continue to issue future separate contracts for specific MCM products - i.e. the MCM "pipeline".

NGDS

The Next Generation Diagnostic System (NGDS) will develop and field an enhanced CBRN analytical and diagnostic system to the Joint force through an evolutionary acquisition strategy. NGDS Increment 1 will follow a modified Commercial Off The Shelf (COTS) acquisition strategy to field BWA diagnostic analytical devices to the Combat Health Support System. Additional DoD-unique capabilities will be added to the initial commercial capabilities FY14-17. Increment 1 MS A is planned 2nd Qtr FY12. FY12 BA4 funds will be used to conduct operational assessments on the commercial prototypes immediately following MS A. It is anticipated that NGDS Increment 1 will proceed from MS A to MS C in accordance with the modified COTS acquisition strategy and based on the demonstrated military utility from FY12-14 Competitive Prototyping and independent medical testing by AMEDD, and achieving submittal of a 510(k) application for FDA clearance of one BWA assay.

EID FLU

The program goal for increment 1is the delivery of FDA-approved therapeutic against Orthomyxoviridae viruses - the cause of seasonal, epidemic, and pandemic influenza. The objective is the delivery of an FDA-approved Post Exposure Prophylactic (PEP) and/or therapeutic against Orthomyxoviridae viruses - the cause of seasonal, epidemic, and pandemic influenza, for use by to the Warfighter. The acquisition strategy uses a parallel evaluation of drug candidates to achieve competitive prototyping in the Technology Development Phase. A technically mature candidate to meet Warfighter needs is being sought to reduce risk and accelerate delivery of MCM. The Technology Readiness Level of candidate will determine the point of entry into the FDA clinical trial process. Activities during this phase will be tailored to the technical level of the candidate and will include conducting pre-clinical animal safety studies and completion of human safety and efficacy trials required for FDA approval. The performer(s) will submit a New Drug Application(s) for the Influenza therapeutic during the EMD Phase. During the Production and Deployment Phase, full rate manufacturing and stockpile production will be pursued. If the FDA mandates post-marketing surveillance studies, they will be conducted during Production and Deployment.

HFV

The acquisition strategy uses a parallel evaluation of drug candidates against the lethal Ebola and Marburg viruses to achieve competitive prototyping in the Technology Development Phase. Activities during this phase include conducting a pre-clinical animal safety studies, submission of Investigation New Drug

Applications, and completion of Phase 1 human safety trials. Following a successful Milestone B and entry into Engineering and Manufacturing Development, the program will conduct Phase 2 human clinical safety, definitive animal efficacy, and toxicology studies, required for FDA approval. The performer(s) will submit a New Drug Application(s) for the Ebola and Marburg therapeutics during the EMD Phase. During the Production and Deployment Phase, full rate manufacturing and stockpile production will be pursued. If the FDA mandates post-marketing surveillance studies, they will be conducted during Production and Deployment. This Department of Defense program is the Public Health Emergency Countermeasures lead for the development of this therapeutic, and is leveraging expertise across the Federal and International sectors to ensure programmatic success.

IBP

The acquisition strategy uses a parallel evaluation of drug candidates against the intracellular bacterial pathogens to achieve competitive prototyping in the Technology Development Phase. Activities during this phase include conducting a pre-clinical animal safety studies, submission of Investigation New Drug Applications, and completion of Phase 1 human safety trials. Following a successful Milestone B and entry into Engineering and Manufacturing Development, the program will conduct Phase 2 human clinical safety, definitive animal efficacy, and toxicology studies, required for FDA approval. The performer(s) will submit a New Drug Application(s) for the Ebola and Marburg therapeutics during the EMD Phase. During the Production and Deployment Phase, full rate manufacturing and stockpile production will be pursued. If the FDA mandates post-marketing surveillance studies, they will be conducted during Production and Deployment.

PLTFM

The Transformational Medical Technologies (TMT) Program will incrementally develop and integrate pathogen characterization, target identification and bioinformatics functional areas. In order to create this DoD-inherent capability, TMT will invest in USG labs to buy equipment, train personnel and establish pathogen characterization/ identification and bioinformatics capabilities. Through the USG labs, TMT will leverage capabilities of USG agencies, academia and industry to mature/refine DoD processes and train personnel.

BSV

Objective is the delivery of the capability to acquire, integrate, and analyze medical, environmental, and incident management data using existing and next generation systems, medical and non-medical sample collections tools and identifiers / diagnostics, adaptable to pre and post event confirmation of traditional, emerging, and engineered threats. The acquisition strategy will address the materiel solutions identified out of the BSV AoA. Data and information will be collected and shared in a low-side biosurveillance collaboration and information-sharing environment integrating CBRN medical, environmental, and incident management data in a common web-based framework. The CBRN Biosurveillance acquisition strategy will emphasize opportunities for common component technology and modularity, including conducting application specific integration, test, and procurement, while maintaining continuous technology and requirements surveillance. The project office will employ systems engineering best practices throughout the lifecycle, monitored via technical reviews to reduce program risk and identify potential management issues in a timely manner. After the Materiel Development Decision, Analysis of Alternatives, and Milestone A, the Request for Proposal will be released seeking the best value for the government for development of the CBRN Biosurveillance capability. Activities during the TD Phase will inform the development of the Test and Evaluation Master Plan (TEMP), Systems Engineering Plan(SEP), Program Protection Plan (PPP), Information Support Plan, documentation of the validated

system support and maintenance objectives and requirements, inputs to the Integrated Baseline Review, affordability assessment, cost and manpower estimates, a completed, reviewed and approved System Allocated Baseline and a Preliminary Design Review Report, and developmental testing will be conducted. Following Milestone B, operational testing of competitive prototypes in the relevant environments will inform the development of the Product Baseline, product support element requirements, updated risk assessment, TEMP, PPP, and system safety analysis. After Milestone C, during the Production and Deployment phase, the system will achieve operational capability that satisfies mission needs, conduct a Low-Rate Production Decision Review and a Full-Rate Production Decision Review, leading to Full-Rate Production and Deployment.

VAC FILO

The Chemical Biological Medical Systems (CBMS) - Joint Vaccine Acquisition Program (JVAP) will conduct the advanced development efforts of a Trivalent Filovirus Vaccine. The Filovirus Vaccine program was initiated in FY10 with the ultimate goal to deliver a single trivalent vaccine to protect the Warfighter against exposure to Ebola viruses and Marburg viruses. To satisfy the competitive prototyping requirement outlined in the DoD 5000.2, CBMS-JVAP will develop an alternate filovirus vaccine candidate through a Phase 1 clinical trial. CBMS-JVAP will serve as the integrator for the Technology Development Phase by managing and coordinating the various vaccine development contracts. At MS B, the best prototype will be selected through a full and open competition to transition to the Engineering, Manufacturing, and Development Phase with delivery of a FDA licensed Filovirus Vaccine. The MS B decision is anticipated for FY15. The development contracts will be a mix of Cost Plus and Firm Fixed Price. In addition, CBMS-JVAP will partner with DoD agencies and laboratories to include U.S. Army Medical Research Institute of Infectious Diseases, Medical Countermeasure Initiative (MCMI) Advanced Development Manufacturing, and the MCMI Test & Evaluation Facility.

This Department of Defense program is the Public Health Emergency Countermeasures lead for the advanced development of this vaccine, and is leveraging expertise across the Federal and International sectors to ensure programmatic success.

VAC RIC

The Chemical Biological Medical Systems (CBMS) - Joint Vaccine Acquisition Program (JVAP) will conduct the advanced development efforts of a Ricin Vaccine. To satisfy the competitive prototyping requirement outlined in the DoD 5000.2, CBMS-JVAP will develop two candidates through the Technology Development (TD) Phase. CBMS-JVAP will serve as the integrator for the TD Phase by managing and coordinating the various vaccine development contracts efforts. At MS B, the best prototype will be selected through full and open competition to transition to the Engineering, Manufacturing, and Development Phase and final delivery of a FDA licensed Ricin Vaccine. The MS B decision is anticipated for FY17. The development contracts will be a mix of Cost Plus and Firm Fixed Price. In addition, CBMS-JVAP will partner with DoD agencies and laboratories to include U.S. Army Medical Research Institute of Infectious Diseases, Medical Countermeasure Initiative (MCMI) Advanced Development Manufacturing, and the MCMI Test & Evaluation Facility.

The Department of Defense program will be the Public Health Emergency Countermeasures lead for the advanced development of this vaccine, and is leveraging expertise across the Federal and International sectors to ensure programmatic success.

VAC WEVEE

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The Chemical Biological Medical Systems (CBMS) - Joint Vaccine Acquisition Program (JVAP) will conduct the advanced development efforts of a Multivalent Equine Encephalitis Vaccine (WEVEE). To satisfy the competitive prototyping requirement outlined in the DoD 5000.2, CBMS-JVAP will develop two candidates through the Technology Development (TD) Phase. CBMS-JVAP will serve as the integrator for the TD Phase by managing and coordinating the various vaccine development contracts efforts. At MS B, the best prototype will be selected through full and open competition to transition to the Engineering, Manufacturing and Development Phase and final delivery of a FDA licensed WEVEE Vaccine. The MS B decision is anticipated for FY17. The development contracts will be a mix of Cost Plus and Firm Fixed Price. In addition, CBMS-JVAP will partner with DoD agencies and laboratories to include U.S. Army Medical Research Institute of Infectious Diseases, Medical Countermeasure Initiative (MCMI) Advanced Development Manufacturing, and the MCMI Test & Evaluation Facility.

The Department of Defense program will be the Public Health Emergency Countermeasures lead for the advanced development of this vaccine, and is leveraging expertise across the Federal and International sectors to ensure programmatic success.

E. Performance Metrics

N/A

Exhibit R-3, RDT&E Project Cost Analysis: PB 2013 Chemical and Biological Defense Program		DATE: February 2012
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Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	FY 2012 Cost	FY 2012 Award Date	FY 2013 Base Cost	FY 2013 Base Award Date	FY 2013 OCO Cost	FY 2013 OCO Award Date	FY 2013 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
** MCMI - HW S - Tech Dev Manufacturing Platforms	C/CPFF	TBD:	-	27.217	Feb 2012	-		-		-	Continuing	Continuing	0.000
** ADM - HW S - ADM Studies & Engineering to Support Early Stage Clinical Trials	Various	TBD:	-	-		12.764	Feb 2013	-		12.764	Continuing	Continuing	0.000
HW S - ADM Engineering & Design Studies	Various	TBD:	-	-		8.573	Feb 2013	-		8.573	Continuing	Continuing	0.000
** EID FLU - SW SB - EID FLU FDA Defined Base Period	C/CPFF	TBD:	-	11.150	Nov 2011	-		-		-	Continuing	Continuing	0.000
SW SB - EID FLU Defined Option 1	C/CPFF	TBD:	-	-		8.806	Feb 2013	-		8.806	Continuing	Continuing	0.000
** HFV - SW SB - Conduct Phase I Clinical Trials	C/CPIF	TEKMIRA/AVI BIOPHARMA:	-	27.206	May 2012	6.776	Nov 2012	-		6.776	Continuing	Continuing	0.000
SW SB - Animal Models	Allot	USAMRIID:Frederick, MD	-	1.320	Feb 2012	-		-		-	Continuing	Continuing	0.000
SW SB - Animal Models #2	Various	TBD:	-	-		2.394	Feb 2013	-		2.394	Continuing	Continuing	0.000
** PLTFM - SW SB - Platform Technology - Bioinformatics	MIPR	ECBC:Edgewood, MD	-	4.294	Feb 2012	-		-		-	Continuing	Continuing	0.000
SW S - Predictive Systems	MIPR	JPM-IS - Predictive Systems:	-	6.739	Feb 2012	-		-		-	Continuing	Continuing	0.000
SW S - Response Systems	C/CPFF	TBD:	-	4.932	May 2012	-		-		-	Continuing	Continuing	0.000
** BSV - SW SB - Proof Of Concept - Predictive Model	MIPR	TBD:	-	-		7.500	Feb 2013	-		7.500	Continuing	Continuing	0.000
SW SB - BSV - Program Direct	Various	TBD:	-	-		3.807	Feb 2013	-		3.807	Continuing	Continuing	0.000
** VAC FILO - HW S - Non Clinical Studies	MIPR	USAMRIID:Fort Detrick, MD	11.284	2.000	Feb 2012	5.618	Nov 2012	-		5.618	Continuing	Continuing	0.000
HW S - Manufacturing	C/FP	Paragon:Baltimore, MD	-	3.711	Nov 2011	7.654	Feb 2013	-		7.654	Continuing	Continuing	0.000
HW S - Manufacturing cGMP Pilot	C/FPIF	TBD:	-	-		5.546	Nov 2012	-		5.546	Continuing	Continuing	0.000
HW S - Formulation Development	C/FPIF	TBD:	-	-		1.513	Nov 2012	-		1.513	Continuing	Continuing	0.000

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Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	FY 2012 Cost	FY 2012 Award Date	FY 2013 Base Cost	FY 2013 Base Award Date	FY 2013 OCO Cost	FY 2013 OCO Award Date	FY 2013 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
** VAC RIC - HW S - Manufacturing and Process Development	C/FPIF	TBD:	-	-		5.240	Feb 2013	-		5.240	Continuing	Continuing	0.000
HW S - Non-Clinical Studies	MIPR	USAMRIID:Fort Detrick, MD	-	-		2.000	Feb 2013	-		2.000	Continuing	Continuing	0.000
** VAC WEVEE - HW S - Manufacturing and Process Development	C/CPIF	TBD:	-	-		2.523	May 2013	-		2.523	Continuing	Continuing	0.000
HW S - Non-Clinical Studies #2	MIPR	USAMRIID:Fort Detrick, MD	-	-		1.097	Feb 2013	-		1.097	Continuing	Continuing	0.000
		Subtotal	11.284	88.569		81.811		-		81.811			0.000

Remarks

Phase 1 and 2 clinical trials funded with MB4. Phase 3 multi-center human clinical trials funded with MB5.

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	FY 2012 Cost	FY 2012 Award Date	FY 2013 Base Cost	FY 2013 Base Award Date	FY 2013 OCO Cost	FY 2013 OCO Award Date	FY 2013 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
** NGDS - ES S - Initiate evaluation of prototype systems and new technologies	MIPR	TBD:	-	0.400	Feb 2012	-		-		-	Continuing	Continuing	0.000
** VAC FILO - ES S - Regulatory Integration (Environmental and FDA Documentation) and Delivery System	MIPR	USAMMDA:Fort Detrick, MD	2.463	0.250	Feb 2012	2.805	Nov 2012	-		2.805	Continuing	Continuing	0.000
ES S - Regulatory Integration	MIPR	TBD:	-	-		4.028	Nov 2012	-		4.028	Continuing	Continuing	0.000
** VAC RIC - ES S - Regulatory Integration	MIPR	USAMMDA:Fort Detrick, MD	-	-		0.917	Feb 2013	-		0.917	Continuing	Continuing	0.000
** VAC WEVEE - ES S - Regulatory Integration	MIPR	USAMMDA:Fort Detrick, MD	-	-		1.869	Feb 2013	-		1.869	Continuing	Continuing	0.000
		Subtotal	2.463	0.650		9.619		-		9.619			0.000

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Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	FY 2012 Cost	FY 2012 Award Date	FY 2013 Base Cost	FY 2013 Base Award Date	FY 2013 OCO Cost	FY 2013 OCO Award Date	FY 2013 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
** VAC FILO - OTHT SB - Testing, Evaluation, and Clinical Trials	MIPR	CBRNIAC. Columbus:OH	5.943	6.665	Feb 2012	5.765	Feb 2013	-		5.765	Continuing	Continuing	0.000
OTE C - Assay Development	C/FPIF	TBD:	-	-		2.992	Nov 2012	-		2.992	Continuing	Continuing	0.000
DTE C - Manufacturing	C/FPIF	TBD:	-	-		1.290	Nov 2012	-		1.290	Continuing	Continuing	0.000
** VAC RIC - DTE C - Test and Evaluation Animal Model	MIPR	USAMRIID:Fort Detrick, MD	-	-		3.000	Feb 2013	-		3.000	Continuing	Continuing	0.000
DTE C - Assay Development	MIPR	CBRNIAC:Columbus, OH	-	-		2.500	Feb 2013	-		2.500	Continuing	Continuing	0.000
** VAC WEVEE - OTE C - Test and Evaluation Assay Development	MIPR	USAMRIID:Frederick, MD	-	-		1.126	Feb 2013	-		1.126	Continuing	Continuing	0.000
		Subtotal	5.943	6.665		16.673		-		16.673			0.000

Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	FY 2012 Cost	FY 2012 Award Date	FY 2013 Base Cost	FY 2013 Base Award Date	FY 2013 OCO Cost	FY 2013 OCO Award Date	FY 2013 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
** ZSBIR - SBIR/STTR - Aggregated from ZSBIR-SBIR/STTR	PO	HQ:AMC, Alexandria	-	1.546		-		-		-	Continuing	Continuing	0.000
** ADM - PM/MS S - Program Management	MIPR	Various:	-	-		3.948	Nov 2012	-		3.948	Continuing	Continuing	0.000
** NGDS - PM/MS S - Product Management Support	MIPR	CBMS:Fort Detrick, MD	-	0.200	Nov 2011	-		-		-	Continuing	Continuing	0.000
PM/MS S - Product Management Systems Support	Allot	CBMS:Fort Detrick, MD	-	0.386	Feb 2012	-		-		-	Continuing	Continuing	0.000
** EID FLU - PM/MS SB - Management Support	Allot	JPEOCBD:Edgewood, MD	-	0.721	Feb 2012	0.074	Feb 2013	-		0.074	Continuing	Continuing	0.000
PM/MS SB - TMT Internal Operational Costs	Various	JPM TMT:Fort Belvoir, VA	-	1.675	Feb 2012	1.775	Feb 2013	-		1.775	Continuing	Continuing	0.000

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Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	FY 2012 Cost	FY 2012 Award Date	FY 2013 Base Cost	FY 2013 Base Award Date	FY 2013 OCO Cost	FY 2013 OCO Award Date	FY 2013 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
** HFV - PM/MS SB - Management Support	Allot	JPEOCBD:EDGEWOOD, MD	-	1.758	Feb 2012	1.382	Feb 2013	-		1.382	Continuing	Continuing	0.000
PM/MS SB - TMT OPERATIONAL COST	Allot	JPM-TMT:FT BELVOIR, VA	-	2.766	Feb 2012	1.552	Feb 2013	-		1.552	Continuing	Continuing	0.000
PM/MS SB - A&AS CONTRACT	C/FFP	KALMAN CO INC:VIRGINIA BEACH, VA	-	-		7.054	Aug 2013	-		7.054	Continuing	Continuing	0.000
** IBP - PM/MS SB - Management Support	Allot	JPEO:EDGEWOOD, MD	-	0.315	Feb 2012	-		-		-	Continuing	Continuing	0.000
PM/MS SB - JPM-TMT	Allot	JPM-TMT FT. BELVOIR:VA	-	0.435	Feb 2012	-		-		-	Continuing	Continuing	0.000
PM/MS SB - JPM-TMT #2	C/FFP	KALMAN CO INC:VIRGINIA BEACH, VA	-	3.879	Aug 2012	-		-		-	Continuing	Continuing	0.000
** PLTFM - PM/MS SB - BSV - Management Support	Allot	JPEOCBD:EDGEWOOD, MD	-	1.032	Feb 2012	-		-		-	Continuing	Continuing	0.000
PM/MS SB - JPM-TMT OPERATIONAL COST	Allot	JPM-TMT:FT. BELVOIR, VA	-	2.398	Feb 2012	-		-		-	Continuing	Continuing	0.000
** BSV - PM/MS SB - BSV - Management Support	Allot	JPEOCBD:Edgewood, MD	-	-		0.209	Feb 2013	-		0.209	Continuing	Continuing	0.000
PM/MS SB - JPM TMT Operational Cost	Various	JPM TMT:Fort Belvoir, VA	-	-		0.436	Feb 2013	-		0.436	Continuing	Continuing	0.000
PM/MS S - JPEO Program Management Support	Allot	JPM TMT:Fort Belvoir, VA	-	-		0.315	Feb 2013	-		0.315	Continuing	Continuing	0.000
** VAC FILO - PM/MS S - Program Management/ Program Manager Support	Allot	CBMS:Fort Detrick, MD	1.149	0.931	Aug 2012	1.305	Feb 2013	-		1.305	Continuing	Continuing	0.000
PM/MS S - Contractor Systems Engineering/Program Management Support	SS/FFP	Goldbelt Raven LLC:Frederick, MD	2.160	1.000	Feb 2012	0.700	Feb 2013	-		0.700	Continuing	Continuing	0.000
PM/MS - Joint Vaccine Acquisition Program Management	Allot	CBMS:Fort Detrick, MD	1.014	0.723	Feb 2012	0.500	Feb 2013	-		0.500	Continuing	Continuing	0.000

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Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	FY 2012 Cost	FY 2012 Award Date	FY 2013 Base Cost	FY 2013 Base Award Date	FY 2013 OCO Cost	FY 2013 OCO Award Date	FY 2013 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
PM/MS C - PM/MS S-Program Management Program Manager Support	Allot	JPEO-CBD:APG, MD	0.850	1.004	Feb 2012	0.338	Feb 2013	-		0.338	Continuing	Continuing	0.000
PM/MS S - Contractor Support	C/FFP	Goldbelt Raven LLC:Frederick, MD	-	-		0.595	May 2013	-		0.595	Continuing	Continuing	0.000
PM/MS S - Program Manager Support	Allot	CBMS:Fort Detrick, MD	-	-		0.763	Nov 2012	-		0.763	Continuing	Continuing	0.000
PM/MS S - JVAP Program Management	Allot	CBMS:Fort Detrick, MD	-	-		0.422	Nov 2012	-		0.422	Continuing	Continuing	0.000
PM/MS S - Program Management Support	Allot	JPEO-CBD:APG, MD	-	-		0.141	Nov 2012	-		0.141	Continuing	Continuing	0.000
** VAC RIC - PM/MS S - Program Management	Allot	CBMS:Fort Detrick, MD	-	-		1.000	Nov 2012	-		1.000	Continuing	Continuing	0.000
PM/MS S - Contractor Systems Program Management Support	C/FP	Goldbelt Raven LLC:Frederick, MD	-	-		0.687	May 2013	-		0.687	Continuing	Continuing	0.000
PM/MS S - Joint Vaccine Acquisition Program Management	Allot	CBMS:Fort Detrick, MD	-	-		0.458	Nov 2012	-		0.458	Continuing	Continuing	0.000
PM/MS S - Program Management Support #2	Allot	JPEO-CBD:APG, MD	-	-		0.230	Nov 2012	-		0.230	Continuing	Continuing	0.000
** VAC WEVEE - PM/MS S - Program Manger Support	Allot	CBMS:Fort Detrick, MD	-	-		0.517	Nov 2012	-		0.517	Continuing	Continuing	0.000
PM/MS S - Contractor Systems Engineering Program Support	C/FFP	Goldbelt Raven LLC:Frederick MD	-	-		0.308	May 2013	-		0.308	Continuing	Continuing	0.000
PM/MS S - Joint Vaccine Acquisition Program Management #2	Allot	CBMS:Fort Detrick, MD	-	-		0.363	Nov 2012	-		0.363	Continuing	Continuing	0.000
PM/MS SB - JPEO Program Management Support	Allot	JPEO-CBD:APG, MD	-	-		0.079	Nov 2012	-		0.079	Continuing	Continuing	0.000
		Subtotal	5.173	20.769		25.151		-		25.151			0.000

Exhibit R-3, RDT&E Project Cost Analysis: PB 2013 Chemical and Biological Defense Program			DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 0400: *Research, Development, Test & Evaluation, Defense-Wide* BA 4: *Advanced Component Development & Prototypes (ACD&P)*	R-1 ITEM NOMENCLATURE PE 0603884BP: *CHEMICAL/BIOLOGICAL DEFENSE (ACD&P)*	PROJECT MB4: *MEDICAL BIOLOGICAL DEFENSE (ACD&P)*	

	Total Prior Years Cost	FY 2012		FY 2013 Base		FY 2013 OCO		FY 2013 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	24.863	116.653		133.254		-		133.254			0.000

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2013 Chemical and Biological Defense Program		DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 0400: *Research, Development, Test & Evaluation, Defense-Wide* BA 4: *Advanced Component Development & Prototypes (ACD&P)*	R-1 ITEM NOMENCLATURE PE 0603884BP: *CHEMICAL/BIOLOGICAL DEFENSE (ACD&P)*	PROJECT MB4: *MEDICAL BIOLOGICAL DEFENSE (ACD&P)*

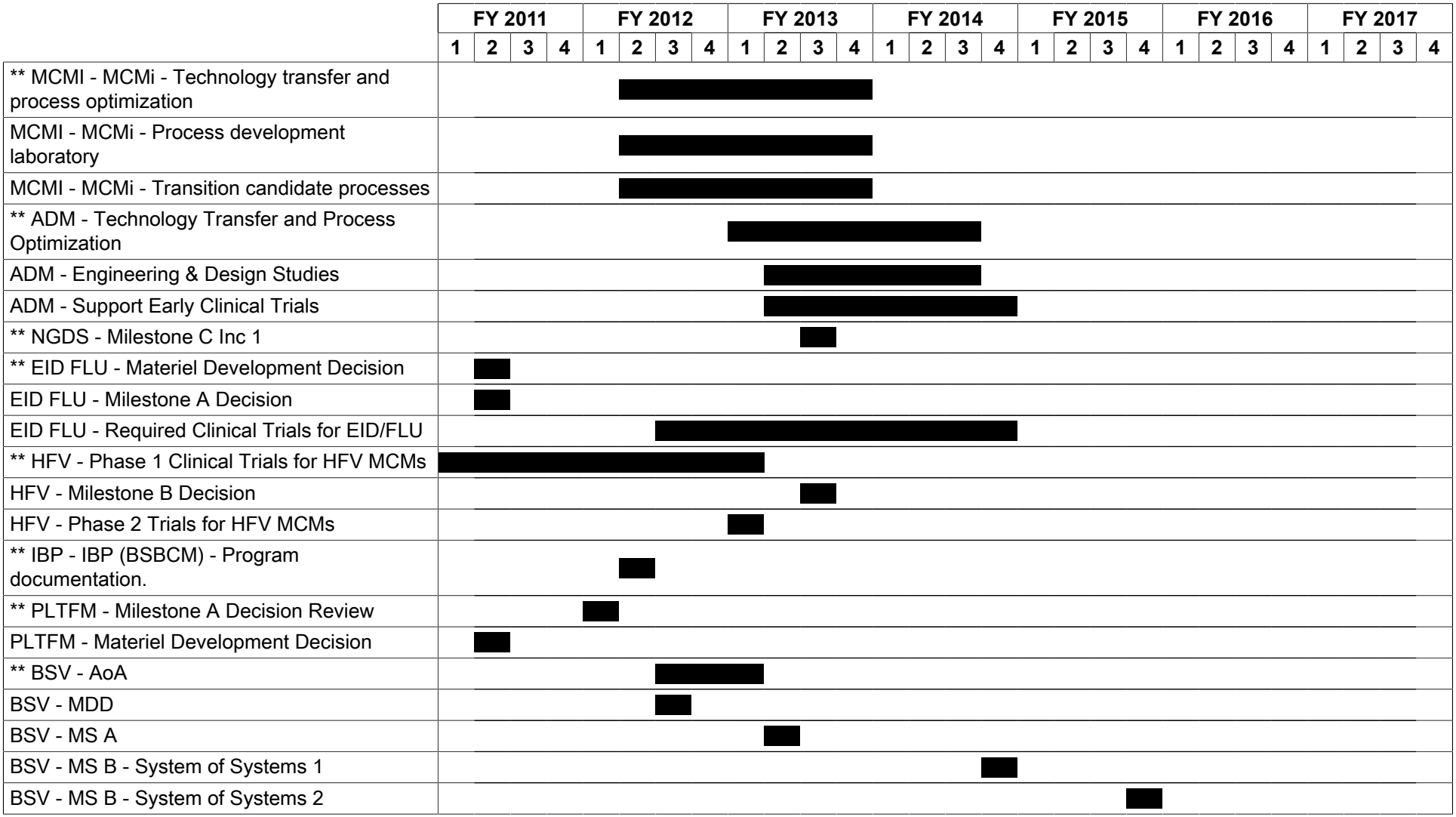

Exhibit R-4, RDT&E Schedule Profile: PB 2013 Chemical and Biological Defense Program		DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 0400: *Research, Development, Test & Evaluation, Defense-Wide* BA 4: *Advanced Component Development & Prototypes (ACD&P)*	R-1 ITEM NOMENCLATURE PE 0603884BP: *CHEMICAL/BIOLOGICAL DEFENSE (ACD&P)*	PROJECT MB4: *MEDICAL BIOLOGICAL DEFENSE (ACD&P)*

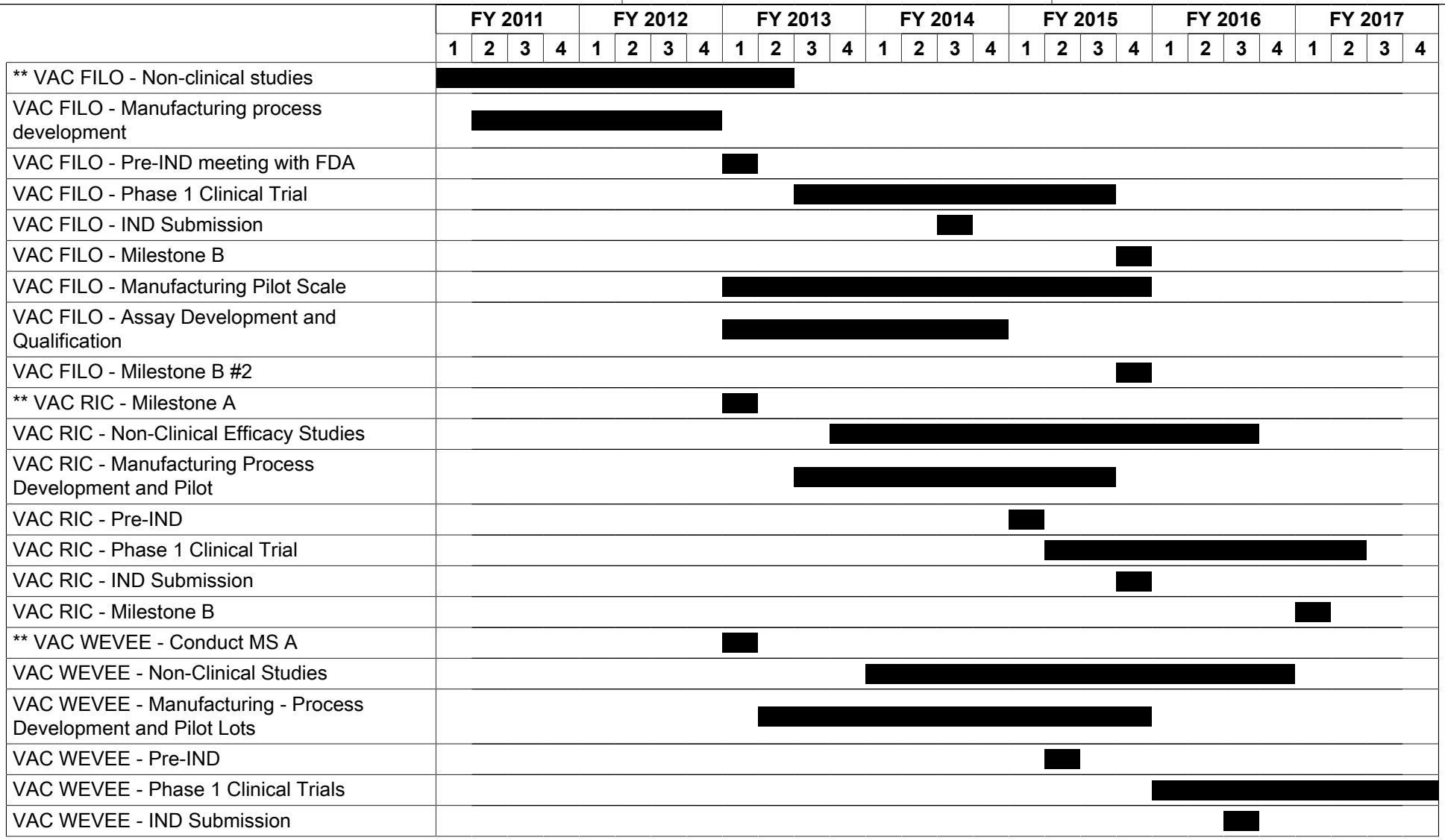

Exhibit R-4, RDT&E Schedule Profile: PB 2013 Chemical and Biological Defense Program		DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 0400: *Research, Development, Test & Evaluation, Defense-Wide* BA 4: *Advanced Component Development & Prototypes (ACD&P)*	R-1 ITEM NOMENCLATURE PE 0603884BP: *CHEMICAL/BIOLOGICAL DEFENSE (ACD&P)*	PROJECT MB4: *MEDICAL BIOLOGICAL DEFENSE (ACD&P)*

	FY 2011				FY 2012				FY 2013				FY 2014				FY 2015				FY 2016				FY 2017			
	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 WEVEE - Milestone B																												■

Exhibit R-4A, RDT&E Schedule Details: PB 2013 Chemical and Biological Defense Program		DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 0400: *Research, Development, Test & Evaluation, Defense-Wide* BA 4: *Advanced Component Development & Prototypes (ACD&P)*	**R-1 ITEM NOMENCLATURE** PE 0603884BP: *CHEMICAL/BIOLOGICAL DEFENSE (ACD&P)*	**PROJECT** MB4: *MEDICAL BIOLOGICAL DEFENSE (ACD&P)*

Schedule Details

	Start		End	
Events	**Quarter**	**Year**	**Quarter**	**Year**
** MCMI - MCMi - Technology transfer and process optimization	2	2012	4	2013
MCMI - MCMi - Process development laboratory	2	2012	4	2013
MCMI - MCMi - Transition candidate processes	2	2012	4	2013
** ADM - Technology Transfer and Process Optimization	1	2013	3	2014
ADM - Engineering & Design Studies	2	2013	3	2014
ADM - Support Early Clinical Trials	2	2013	4	2014
** NGDS - Milestone C Inc 1	3	2013	3	2013
** EID FLU - Materiel Development Decision	2	2011	2	2011
EID FLU - Milestone A Decision	2	2011	2	2011
EID FLU - Required Clinical Trials for EID/FLU	3	2012	4	2014
** HFV - Phase 1 Clinical Trials for HFV MCMs	1	2011	1	2013
HFV - Milestone B Decision	3	2013	3	2013
HFV - Phase 2 Trials for HFV MCMs	1	2013	1	2013
** IBP - IBP (BSBCM) - Program documentation.	2	2012	2	2012
** PLTFM - Milestone A Decision Review	1	2012	1	2012
PLTFM - Materiel Development Decision	2	2011	2	2011
** BSV - AoA	3	2012	1	2013
BSV - MDD	3	2012	3	2012
BSV - MS A	2	2013	2	2013
BSV - MS B - System of Systems 1	4	2014	4	2014
BSV - MS B - System of Systems 2	4	2015	4	2015
** VAC FILO - Non-clinical studies	1	2011	2	2013

Exhibit R-4A, RDT&E Schedule Details: PB 2013 Chemical and Biological Defense Program		DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 0400: *Research, Development, Test & Evaluation, Defense-Wide* BA 4: *Advanced Component Development & Prototypes (ACD&P)*	R-1 ITEM NOMENCLATURE PE 0603884BP: *CHEMICAL/BIOLOGICAL DEFENSE (ACD&P)*	PROJECT MB4: *MEDICAL BIOLOGICAL DEFENSE (ACD&P)*

	Start		End	
Events	**Quarter**	**Year**	**Quarter**	**Year**
VAC FILO - Manufacturing process development	2	2011	4	2012
VAC FILO - Pre-IND meeting with FDA	1	2013	1	2013
VAC FILO - Phase 1 Clinical Trial	3	2013	3	2015
VAC FILO - IND Submission	3	2014	3	2014
VAC FILO - Milestone B	4	2015	4	2015
VAC FILO - Manufacturing Pilot Scale	1	2013	4	2015
VAC FILO - Assay Development and Qualification	1	2013	4	2014
VAC FILO - Milestone B #2	4	2015	4	2015
** VAC RIC - Milestone A	1	2013	1	2013
VAC RIC - Non-Clinical Efficacy Studies	4	2013	3	2016
VAC RIC - Manufacturing Process Development and Pilot	3	2013	3	2015
VAC RIC - Pre-IND	1	2015	1	2015
VAC RIC - Phase 1 Clinical Trial	2	2015	2	2017
VAC RIC - IND Submission	4	2015	4	2015
VAC RIC - Milestone B	1	2017	1	2017
** VAC WEVEE - Conduct MS A	1	2013	1	2013
VAC WEVEE - Non-Clinical Studies	1	2014	4	2016
VAC WEVEE - Manufacturing - Process Development and Pilot Lots	2	2013	4	2015
VAC WEVEE - Pre-IND	2	2015	2	2015
VAC WEVEE - Phase 1 Clinical Trials	1	2016	4	2017
VAC WEVEE - IND Submission	3	2016	3	2016
VAC WEVEE - Milestone B	4	2017	4	2017

Exhibit R-2A, RDT&E Project Justification: PB 2013 Chemical and Biological Defense Program			DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 0400: *Research, Development, Test & Evaluation, Defense-Wide* BA 4: *Advanced Component Development & Prototypes (ACD&P)*	R-1 ITEM NOMENCLATURE PE 0603884BP: *CHEMICAL/BIOLOGICAL DEFENSE (ACD&P)*	PROJECT MC4: *MEDICAL CHEMICAL DEFENSE (ACD&P)*	

COST ($ in Millions)	FY 2011	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total	FY 2014	FY 2015	FY 2016	FY 2017	Cost To Complete	Total Cost
MC4: *MEDICAL CHEMICAL DEFENSE (ACD&P)*	4.134	7.804	-	-	-	16.947	20.395	37.513	25.134	Continuing	Continuing
Quantity of RDT&E Articles											

A. Mission Description and Budget Item Justification

This Project provides for the development of medical materiel and other medical equipment items necessary for the Technology Development phase of the acquisition life cycle for the advanced development of medical countermeasures (MCMs) for chemical agents including diagnostic equipment, prophylactic, pre-treatment, and therapeutic drugs, and individual/casualty decontamination compounds. A family-of-systems approach for medical defense against chemical agents is required to provide protection, to sustain performance in a chemical environment, and to provide for self-aid/buddy-aid and medical treatment of chemical casualties. Fielding of prophylactic, pre-treatment, and therapeutic drugs and medical devices requires Food and Drug Administration (FDA) approval. Given the family-of-systems approach for development of chemical MCMs for the treatment of nerve agent intoxication, multiple long-term studies are required to obtain FDA approval to deliver products that effectively integrate with current and projected therapeutic regimens. Efficacy testing of most candidate drugs against chemical warfare agents cannot be conducted in humans; therefore, animal surrogate models must be developed and employed. The program currently funds: (1) Bioscavenger, a new capability, to be used as a prophylaxis against nerve agents; (2) Centrally Acting Nerve Agent Treatment System (CANATS), an adjunct that augments the current capability, will treat adverse effects of nerve agent intoxication occurring in the central nervous system and will provide improved survival, reduced morbidity, and decreased neurological damage; and (3) Improved Nerve Agent Treatment System (INATS), a replacement and improvement to existing capability, to be used as a treatment for nerve agent intoxication; the INATS effort also includes expanding the indications for Pyridostigmine Bromide (PB) that will be integrated with current therapeutic regimens. The INATS program efforts do not continue beyond FY12. CANATS advanced development efforts have been delayed beyond FY13.

B. Accomplishments/Planned Programs ($ in Millions)	FY 2011	FY 2012	FY 2013
Title: 1) BSCAV	0.534	-	-
FY 2011 Accomplishments: Continued evaluation of alternative manufacturing studies.			
Title: 2) CANATS	-	2.927	-
FY 2012 Plans: Initiate testing of candidates against Non-Traditional Agents (NTAs).			
Title: 3) INATS	2.900	1.474	-
FY 2011 Accomplishments: Initiated Phase 1 Clinical Trial.			
FY 2012 Plans:			

Exhibit R-2A, RDT&E Project Justification: PB 2013 Chemical and Biological Defense Program		DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 0400: *Research, Development, Test & Evaluation, Defense-Wide* BA 4: *Advanced Component Development & Prototypes (ACD&P)*	R-1 ITEM NOMENCLATURE PE 0603884BP: *CHEMICAL/BIOLOGICAL DEFENSE (ACD&P)*	PROJECT MC4: *MEDICAL CHEMICAL DEFENSE (ACD&P)*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2011	FY 2012	FY 2013
Complete Phase 1 Clinical Trial.			
Title: 4) INATS ***FY 2012 Plans:*** Initate and complete animal tox studies.	-	2.700	-
Title: 5) INATS ***FY 2011 Accomplishments:*** Continued process development and chemistry manufacturing and control (CMC) efforts of enhanced formulation to support clinical trials.	0.700	-	-
Title: 6) INATS ***FY 2012 Plans:*** Initiated and completed studies to support the Equipment and Material Transfer Agreement (E&MTA) with the UK.	-	0.600	-
Title: 7) SBIR ***FY 2012 Plans:*** Small Business Innovative Research.	-	0.103	-
Accomplishments/Planned Programs Subtotals	4.134	7.804	-

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2011	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total	FY 2014	FY 2015	FY 2016	FY 2017	Cost To Complete	Total Cost
• MC5: *MEDICAL CHEMICAL DEFENSE (SDD)*	3.801	2.407	9.642		9.642	41.257	45.477	50.862	58.935	Continuing	Continuing
• JM6677: *ADVANCED ANTICONVULSANT SYSTEM (AAS)*	0.000	0.000	4.466		4.466	8.951	0.000	0.000	0.000	0.000	13.417

D. Acquisition Strategy

BSCAV

Bioscavenger acquisition strategy uses a serial evaluation of candidates to achieve competitive prototyping in the Technology Development Phase. Initially, the Medical Identification and Treatment Systems (MITS) Joint Product Management Office (JPMO) exercised management oversight and a commercial partner as the system integrator during the Technology Development Phase to examine a human plasma-derived butyrylcholinesterase. Activities included small scale

manufacturing, conduct of pre-clinical animal safety studies, submission of an Investigational New Drug (IND) application, and completion of a Phase 1 human clinical safety study. Subsequently, the MITS JPMO evaluated a goat-derived recombinant butyrylcholinesterase candidate and multiple small molecule candidates. The small molecule candidates were not pursued beyond initial toxicology/safety testing in animals. For goat-derived Bioscavenger, activities included small scale manufacturing, conduct of pre-clinical animal safety studies, submission of an IND application, completion of a Phase 1 human clinical safety study and conduct of preliminary animal efficacy studies. The goat-derived Bioscavenger candidate was discontinued after the product failed to demonstrate sufficient product performance in the preliminary animal efficacy studies. During FY11, the program completed a system engineering trade off analysis resulting in a reduction of the initial operating capability/full operational capability (IOC/FOC) quantities and consequently an estimated cost avoidance of $1.14B over the product life.

The path forward will include a formal Request For Proposal (RFP) to select the best value for the government for a prophylaxis to support an initial limited user group. Concurrently the MITS JPMO will conduct an analysis of alternative manufacturing technologies and investigate additional product indications. Subsequently, an expanded force solution prophylaxis will be pursued, once appropriate technologies have matured. Following a successful Milestone B and entry into Engineering and Manufacturing Development (EMD), the MITS JPMO will continue to exercise management oversight with system integration support of a commercial partner to ensure that manufacturing of the product is in accordance with Food and Drug Administration (FDA) regulations and guidelines. The RFP for product manufacturing will include options for transition to the Medical Countermeasures Initiative (MCMI) Advanced Development Manufacturing (ADM) capability. Prior to FDA licensure, a commercial partner will perform a Phase 2 human clinical safety study, definitive animal efficacy studies, and toxicology studies. The system integrator will also develop and manufacture a product formulation and delivery system and will submit a New Drug Application and seek FDA approval. The EMD phase will culminate in FDA licensure of the Bioscavenger. During the Production and Deployment phase, the MITS JPMO, in conjunction with a commercial partner, will pursue full rate production and conduct any FDA-mandated post-marketing surveillance studies.

CANATS

The Medical Identification and Treatment Systems (MITS) Joint Product Management Office (JPMO) will serve as the system integrator during the Technology Development Phase and will conduct non-clinical animal studies and Phase 1 human clinical safety studies with the centrally acting drug candidate(s) that will serve as adjunct therapy to the already available nerve agent treatment regimen. If multiple centrally acting candidates are transitioned from tech base, the MITS JPMO will down-select and determine the final configuration of the CANATS autoinjector prior to Milestone B. After Milestone B, during the Engineering and Manufacturing (EMD) Phase, the MITS JPMO and/or a commercial partner (product dependent) will serve as the system integrator to conduct Phase 2 human clinical safety, definitive animal efficacy and toxicology studies required for FDA approval. The system integrator will also develop and manufacture a product formulation and autoinjector delivery system that is stable under operationally relevant temperatures. The system integrator will seek FDA approval for the CANATS product during the EMD Phase. During the Production and Deployment Phase, and full rate and stockpile production will be pursued. Any FDA mandated post-marketing surveillance studies will be conducted during the Production and Deployment Phase.

INATS

The Medical Identification and Treatment Systems (MITS) Joint Product Management Office (JPMO) will serve as the system integrator during the Technology Development Phase and conduct formulation development, pre-clinical animal studies and Phase 1 human clinical safety studies for the candidate oxime to replace

2-pralidoxime chloride in the Antidote Treatment Nerve Agent Autoinjector (ATNAA). The animal studies will be used to expand the indications for Pyridostigimine bromide (SNAPP/PB) beyond Soman. After Milestone B, during the Engineering and Manufacturing (EMD) Phase, the MITS JPMO and/or a commercial partner (product dependent) will serve as the system integrator to conduct Phase 2 human clinical safety, definitive animal efficacy and toxicology studies required for FDA approval. The system integrator will also develop and manufacture a product formulation and autoinjector delivery system that is stable under operationally relevant temperatures. The system integrator will submit a New Drug Application and seek FDA approval for the INATS product during the EMD Phase. During the Production and Deployment Phase, and full rate and stockpile production will be pursued. Any FDA mandated post-marketing surveillance studies will be conducted during the Production and Deployment Phase.

E. Performance Metrics

N/A

Exhibit R-3, RDT&E Project Cost Analysis: PB 2013 Chemical and Biological Defense Program		DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 0400: *Research, Development, Test & Evaluation, Defense-Wide* BA 4: *Advanced Component Development & Prototypes (ACD&P)*	R-1 ITEM NOMENCLATURE PE 0603884BP: *CHEMICAL/BIOLOGICAL DEFENSE (ACD&P)*	PROJECT MC4: *MEDICAL CHEMICAL DEFENSE (ACD&P)*

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	FY 2012 Cost	FY 2012 Award Date	FY 2013 Base Cost	FY 2013 Base Award Date	FY 2013 OCO Cost	FY 2013 OCO Award Date	FY 2013 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
** INATS - ES S - INATS - Regulatory Integration, IND, and NDA Support Efforts	MIPR	Defense Technical Information Center:Edgewood, MD (Battelle)	1.528	0.300	Feb 2012	-		-		-	Continuing	Continuing	0.000
		Subtotal	1.528	0.300		-		-		-			0.000

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	FY 2012 Cost	FY 2012 Award Date	FY 2013 Base Cost	FY 2013 Base Award Date	FY 2013 OCO Cost	FY 2013 OCO Award Date	FY 2013 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
** CANATS - DTE S - CANATS - NTA Studies	MIPR	Defense Technical Information Center:Edgewood, MD (Battelle)	-	2.251	Feb 2012	-		-		-	Continuing	Continuing	0.000
** INATS - DTE C - INATS - Phase 1 Clinical Trial	MIPR	Defense Technical Information Center:Edgewood, MD (Battelle)	1.900	1.336	Feb 2012	-		-		-	Continuing	Continuing	0.000
HW S - INATS - Toxocological Studies	MIPR	Defense Technical Information Center:Edgewood, MD (Battelle)	-	2.400	Feb 2012	-		-		-	Continuing	Continuing	0.000
		Subtotal	1.900	5.987		-		-		-			0.000

Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	FY 2012 Cost	FY 2012 Award Date	FY 2013 Base Cost	FY 2013 Base Award Date	FY 2013 OCO Cost	FY 2013 OCO Award Date	FY 2013 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
** CANATS - PM/MS C - CANATS - Program Management Support	Allot	CBMS:Fort Detrick, MD	-	0.420	Aug 2012	-		-		-	Continuing	Continuing	0.000

Exhibit R-3, RDT&E Project Cost Analysis: PB 2013 Chemical and Biological Defense Program		DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 0400: *Research, Development, Test & Evaluation, Defense-Wide* BA 4: *Advanced Component Development & Prototypes (ACD&P)*	R-1 ITEM NOMENCLATURE PE 0603884BP: *CHEMICAL/BIOLOGICAL DEFENSE (ACD&P)*	PROJECT MC4: *MEDICAL CHEMICAL DEFENSE (ACD&P)*

Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	FY 2012 Cost	FY 2012 Award Date	FY 2013 Base Cost	FY 2013 Base Award Date	FY 2013 OCO Cost	FY 2013 OCO Award Date	FY 2013 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
PM/MS C - CANATS - Program Management Support	Allot	JPEO:APG, MD	-	0.256	Aug 2012	-		-		-	Continuing	Continuing	0.000
** INATS - PM/MS S - INATS - Product Management Support	SS/FFP	Goldbelt Raven LLC:Frederick, MD	1.903	0.626	Feb 2012	-		-		-	Continuing	Continuing	0.000
PM/MS S - INATS - Chem Bio Medical Systems	Allot	CBMS:Frederick, MD	1.438	0.112	Feb 2012	-		-		-	Continuing	Continuing	0.000
** ZSBIR - SBIR/STTR - Aggregated from ZSBIR-SBIR/STTR	PO	HQ:AMC, Alexandria	-	0.103		-		-		-	Continuing	Continuing	0.000
		Subtotal	3.341	1.517		-		-		-			0.000

	Total Prior Years Cost	FY 2012 Cost	FY 2012 Award Date	FY 2013 Base Cost	FY 2013 Base Award Date	FY 2013 OCO Cost	FY 2013 OCO Award Date	FY 2013 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	6.769	7.804		-		-		-			0.000

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2013 Chemical and Biological Defense Program		DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 0400: *Research, Development, Test & Evaluation, Defense-Wide* BA 4: *Advanced Component Development & Prototypes (ACD&P)*	**R-1 ITEM NOMENCLATURE** PE 0603884BP: *CHEMICAL/BIOLOGICAL DEFENSE (ACD&P)*	**PROJECT** MC4: *MEDICAL CHEMICAL DEFENSE (ACD&P)*

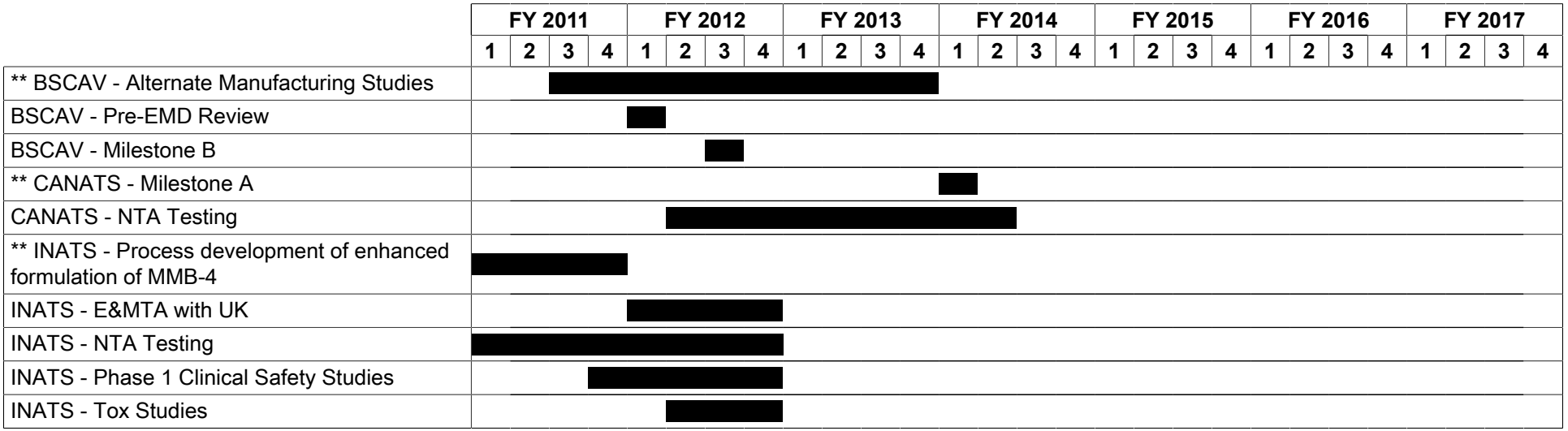

Exhibit R-4A, RDT&E Schedule Details: PB 2013 Chemical and Biological Defense Program		DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 0400: *Research, Development, Test & Evaluation, Defense-Wide* BA 4: *Advanced Component Development & Prototypes (ACD&P)*	**R-1 ITEM NOMENCLATURE** PE 0603884BP: *CHEMICAL/BIOLOGICAL DEFENSE (ACD&P)*	**PROJECT** MC4: *MEDICAL CHEMICAL DEFENSE (ACD&P)*

Schedule Details

	Start		End	
Events	**Quarter**	**Year**	**Quarter**	**Year**
** BSCAV - Alternate Manufacturing Studies	3	2011	4	2013
BSCAV - Pre-EMD Review	1	2012	1	2012
BSCAV - Milestone B	3	2012	3	2012
** CANATS - Milestone A	1	2014	1	2014
CANATS - NTA Testing	2	2012	2	2014
** INATS - Process development of enhanced formulation of MMB-4	1	2011	4	2011
INATS - E&MTA with UK	1	2012	4	2012
INATS - NTA Testing	1	2011	4	2012
INATS - Phase 1 Clinical Safety Studies	4	2011	4	2012
INATS - Tox Studies	2	2012	4	2012

Exhibit R-2A, RDT&E Project Justification: PB 2013 Chemical and Biological Defense Program			DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 0400: *Research, Development, Test & Evaluation, Defense-Wide* BA 4: *Advanced Component Development & Prototypes (ACD&P)*	R-1 ITEM NOMENCLATURE PE 0603884BP: *CHEMICAL/BIOLOGICAL DEFENSE (ACD&P)*	PROJECT MR4: *MEDICAL RADIOLOGICAL DEFENSE (ACD&P)*	

COST ($ in Millions)	FY 2011	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total	FY 2014	FY 2015	FY 2016	FY 2017	Cost To Complete	Total Cost
MR4: *MEDICAL RADIOLOGICAL DEFENSE (ACD&P)*	1.129	-	4.050	-	4.050	-	-	-	-	0.000	5.179
Quantity of RDT&E Articles											

A. Mission Description and Budget Item Justification

Operational forces have an immediate need to survive, safely operate, and sustain operations in a radiological/nuclear (R/N) threat environment across a continuum of global, contingency, special operations/low intensity conflict, homeland defense, and other high-risk missions. There are no FDA-approved prophylactics, treatments, or biodosimetry capabilities against radiation exposure. Treatment of R/N casualties depends on effective use of multiple medical capabilities in an integrated manner. Thus, this program supports the development of medical radiological countermeasures (MRADC) using a family-of-systems approach to provide a full spectrum capability to protect against the radiation threat which includes prophylactic, treatment, and biodosimetry capabilities. Individual countermeasure solutions will be developed using a single step to a full capability (FDA approval) strategy. Multiple contractors will serve as individual product integrators throughout development and will be responsible for conducting activities associated with drug development in a manner consistent with eventual approval by the FDA. Each contractor will sponsor the drug to the FDA and hold all approvals and/or licenses. The Technology Development phase includes pre-clinical studies, completion of manufacturing scale up, Phase 1 human clinical safety studies and initiation of manufacturing scale up activities, potentially utilizing the Medical Countermeasures Initiative (MCMI) Advanced Development Manufacturing (ADM) capability. During the Engineering and Manufacturing Development (EMD) phase, large scale manufacturing, Phase 2 human clinical safety studies and definitive animal efficacy studies will be conducted. FDA approval of the countermeasure is an exit criterion for the EMD phase. During the Production and Deployment Phase, sufficient quantities of product to meet Initial Operational Capability (IOC) and Full Operational Capability (FOC) will be purchased. Subsequent purchases will be made by the Defense Logistics Agency (DLA). Any post-marketing surveillance studies requested by the FDA will be conducted.

Medical Radiological Countermeasures (MRADC) efforts include development of multiple countermeasures required to protect U.S. Forces against a myriad of injuries caused by exposure to radiation and to restore casualties to pre-exposure health. MRADC shall reverse or limit radiation injury resulting in increased survival, decreased incapacity, and sustained operational effectiveness. In addition, MRADC shall be effective against a broad range of radiation sources and types and shall be useable throughout the full spectrum of healthcare operations.

B. Accomplishments/Planned Programs ($ in Millions)	FY 2011	FY 2012	FY 2013
Title: 1) MRADC TX	0.900	-	-
FY 2011 Accomplishments: Initiated and completed animal efficacy studies.			
Title: 2) MRADC TX	0.229	-	-
FY 2011 Accomplishments:			

Exhibit R-2A, RDT&E Project Justification: PB 2013 Chemical and Biological Defense Program		DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 0400: *Research, Development, Test & Evaluation, Defense-Wide* BA 4: *Advanced Component Development & Prototypes (ACD&P)*	R-1 ITEM NOMENCLATURE PE 0603884BP: *CHEMICAL/BIOLOGICAL DEFENSE (ACD&P)*	PROJECT MR4: *MEDICAL RADIOLOGICAL DEFENSE (ACD&P)*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2011	FY 2012	FY 2013
Initiated evaluation of additional candidate.			
Title: 3) MRADC TX ***FY 2013 Plans:*** Continue evaluation of additional candidate.	-	-	2.221
Title: 4) MRADC TX ***FY 2013 Plans:*** Initiate preliminary animal efficacy studies.	-	-	1.550
Title: 5) MRADC TX ***FY 2013 Plans:*** Conduct Milestone B prep activities.	-	-	0.279
Accomplishments/Planned Programs Subtotals	1.129	-	4.050

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2011	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total	FY 2014	FY 2015	FY 2016	FY 2017	Cost To Complete	Total Cost
• MR5: *MEDICAL RADIOLOGICAL DEFENSE (SDD)*	0.000	0.000	2.027		2.027	16.610	18.103	6.101	7.115	Continuing	Continuing

D. Acquisition Strategy

MRADC

Medical Identification and Treatment Systems (MITS) Joint Product Management Office is the life-cycle manager of Medical Radiation Countermeasures (MRADC) for the Department of Defense (DoD). The DoD is working very closely with the Department of Health and Human Services (HHS), which also has a radiation countermeasure program. In support of the Integrated National Biodefense Portfolio, a Memorandum of Understanding (MOU) was established between HHS and DoD to prevent duplication of efforts and create synergies in the development of MRADC. In support of the MOU, the establishment of an interagency working group provides oversight and guidance to both agency programs and allows leveraging of knowledge and successes to advance the DoD MRADC program. Under the MOU, MITS executes Interagency Agreements with the Biomedical Advanced Research and Development Authority (BARDA), HHS' advanced developer, to promote the science of MRADC.

This project funds the advanced development of candidate therapeutic medical countermeasures to mitigate the consequences of exposure to ionizing radiation from nuclear or radiological attacks. There are currently no FDA-approved products to treat Acute Radiation Syndrome (ARS). Exposure to ionizing radiation causes

Exhibit R-2A, RDT&E Project Justification: PB 2013 Chemical and Biological Defense Program		DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 0400: *Research, Development, Test & Evaluation, Defense-Wide* BA 4: *Advanced Component Development & Prototypes (ACD&P)*	R-1 ITEM NOMENCLATURE PE 0603884BP: *CHEMICAL/BIOLOGICAL DEFENSE (ACD&P)*	PROJECT MR4: *MEDICAL RADIOLOGICAL DEFENSE (ACD&P)*

ARS which includes damage to blood-forming cells (hematopoietic system), gastrointestinal system, and central nervous system. Medical countermeasures must be approved by the Food and Drug Administration (FDA) for human use prior to fielding. Testing the efficacy of candidate drugs against lethal radiation exposure cannot be conducted in humans; therefore, surrogate animal models must be used to obtain FDA approval.

Medical Radiological Countermeasures (MRADC) efforts include development of multiple countermeasures required to protect U.S. Forces against a myriad of injuries caused by exposure to radiation and to restore casualties to pre-exposure health. MRADC shall reverse or limit radiation injury resulting in increased survival, decreased incapacity, and sustained operational effectiveness. In addition, MRADC shall be effective against a broad range of radiation sources and types and shall be useable throughout the full spectrum of healthcare operations.

E. Performance Metrics

N/A

Exhibit R-3, RDT&E Project Cost Analysis: PB 2013 Chemical and Biological Defense Program			DATE: February 2012
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Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	FY 2012 Cost	FY 2012 Award Date	FY 2013 Base Cost	FY 2013 Base Award Date	FY 2013 OCO Cost	FY 2013 OCO Award Date	FY 2013 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
** MRADC - HW C - Evaluate additional candidate	C/CPIF	TBD:	-	-		1.978	Nov 2012	-		1.978	0.000	1.978	0.000
		Subtotal	-	-		1.978		-		1.978	0.000	1.978	0.000

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	FY 2012 Cost	FY 2012 Award Date	FY 2013 Base Cost	FY 2013 Base Award Date	FY 2013 OCO Cost	FY 2013 OCO Award Date	FY 2013 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
** MRADC - DTE C - Animal Efficacy Studies	C/CPIF	TBD:	-	-		1.395	Nov 2012	-		1.395	0.000	1.395	0.000
		Subtotal	-	-		1.395		-		1.395	0.000	1.395	0.000

Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	FY 2012 Cost	FY 2012 Award Date	FY 2013 Base Cost	FY 2013 Base Award Date	FY 2013 OCO Cost	FY 2013 OCO Award Date	FY 2013 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
** MRADC - PM/MS C - MRADC - Management Support	C/FFP	Goldbelt Raven LLC:Frederick, MD	-	-		0.552	Feb 2013	-		0.552	0.000	0.552	0.000
PM/MS C - MRADC - Management Support	Allot	CBMS:Fort Detrick, MD	-	-		0.125	Nov 2012	-		0.125	0.000	0.125	0.000
		Subtotal	-	-		0.677		-		0.677	0.000	0.677	0.000

	Total Prior Years Cost	FY 2012 Cost	FY 2012 Award Date	FY 2013 Base Cost	FY 2013 Base Award Date	FY 2013 OCO Cost	FY 2013 OCO Award Date	FY 2013 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	-	-		4.050		-		4.050	0.000	4.050	0.000

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2013 Chemical and Biological Defense Program		DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 0400: *Research, Development, Test & Evaluation, Defense-Wide* BA 4: *Advanced Component Development & Prototypes (ACD&P)*	R-1 ITEM NOMENCLATURE PE 0603884BP: *CHEMICAL/BIOLOGICAL DEFENSE (ACD&P)*	PROJECT MR4: *MEDICAL RADIOLOGICAL DEFENSE (ACD&P)*

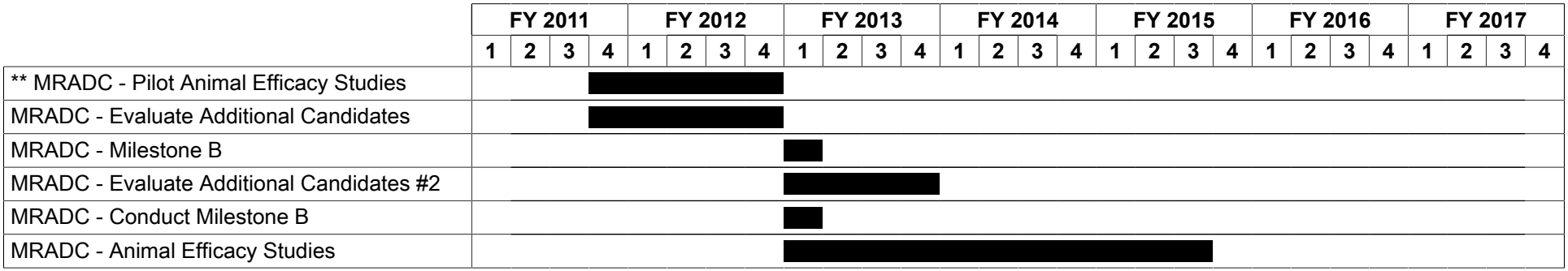

Exhibit R-4A, RDT&E Schedule Details: PB 2013 Chemical and Biological Defense Program		DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 0400: *Research, Development, Test & Evaluation, Defense-Wide* BA 4: *Advanced Component Development & Prototypes (ACD&P)*	**R-1 ITEM NOMENCLATURE** PE 0603884BP: *CHEMICAL/BIOLOGICAL DEFENSE (ACD&P)*	**PROJECT** MR4: *MEDICAL RADIOLOGICAL DEFENSE (ACD&P)*

Schedule Details

	Start		End	
Events	**Quarter**	**Year**	**Quarter**	**Year**
** MRADC - Pilot Animal Efficacy Studies	4	2011	4	2012
MRADC - Evaluate Additional Candidates	4	2011	4	2012
MRADC - Milestone B	1	2013	1	2013
MRADC - Evaluate Additional Candidates #2	1	2013	4	2013
MRADC - Conduct Milestone B	1	2013	1	2013
MRADC - Animal Efficacy Studies	1	2013	3	2015

Exhibit R-2A, RDT&E Project Justification: PB 2013 Chemical and Biological Defense Program			DATE: February 2012
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COST ($ in Millions)	FY 2011	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total	FY 2014	FY 2015	FY 2016	FY 2017	Cost To Complete	Total Cost
TE4: *TEST & EVALUATION (ACD&P)*	19.054	5.438	4.994	-	4.994	12.771	20.408	15.872	13.044	Continuing	Continuing
Quantity of RDT&E Articles											

A. Mission Description and Budget Item Justification

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

(1) Sense Laboratory (Chemical): The product for this area is the Non-Traditional Agent Defense Test System (NTADTS). The NTADTS provides a new capability at the Edgewood Chemical Biological Center (ECBC) to conduct highly toxic materials testing using new, emerging threat agents. The NTADTS supports testing of decontamination, collective protection, individual protection, and contamination avoidance products. The CBD acquisition program supported is the Joint Chemical Agent Detector (JCAD); Next Generation Chemical Point Detection (NGCPD) System; Joint Protective Aircrew Ensemble (JPACE); Joint Services Aircrew Mask (JSAM) - Fixed Wing (FW), Rotary Wing (RW), and Joint Strike Fighter (JSF) variants; Joint Service Chemical environment Survivability Mask (JSCESM); Joint Chemical Ensemble (JCE); Uniform Individual Protective Ensemble (UIPE); Joint Service Lightweight Integrated Suit Technology (JSLIST); and Joint Chemical/ Biological Coverall for Combat Vehicle Crewmen (JC3).

(2) Sense Laboratory (Biological): The product for this area is a biological live agent standoff chamber to collect biological agent signature data, location: TBD. The Chamber supports Joint Biological standoff detection testing by providing optical scattering cross sections and signatures in biological live agent environments. The CBD acquisition program supported is the Joint Biological Standoff Detection System (JBSDS) Increment 2.

(3) Individual Protection, Collective Protection and Decontamination (Shield and Sustain): The product for the area is an Individual Protection Ensemble Mannequin System (IPEMS), and Chemical Biological Agent Resistance Test Fixtures (CBART) at Dugway Proving Ground (DPG), UT. IPEMS provides an articulated robotic mannequin that simulates Warfighters activities and includes under ensemble agent sensing capability for evaluating IPE against chemical warfare agents. IPEMS consists of an articulated robotic mannequin, exposure chamber, control room, and real time under-ensemble sensor system. CBART provides a state of the art material swatch test fixture for individual and collective protection system. The CBD programs supported are: Joint Protective Aircrew Ensemble (JPACE); Joint Service General Purpose Mask (JSGPM); Joint Service Aircrew Mask (JSAM) - Fixed Wing (FW), Rotary Wing (RW), and Joint Strike Fighter (JSF) variants; Joint Service Chemical Environment Survivability Mask (JSCESM); Joint Chemical Ensemble (JCE); Uniform Individual Protective Ensemble (UIPE); Joint Service Lightweight Integrated Suit Technology (JSLIST); and Joint Chemical/Biological Coverall for Combat Vehicle Crewmen (JC3).

Exhibit R-2A, RDT&E Project Justification: PB 2013 Chemical and Biological Defense Program		DATE: February 2012
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B. Accomplishments/Planned Programs ($ in Millions)	FY 2011	FY 2012	FY 2013
Title: 1) PD TESS - Non-Traditional Agent Defense Test System (NTADTS) ***FY 2011 Accomplishments:*** Completed design of NTADTS. Conducted Human Factors Studies and completed simulant and agent testing on two test fixtures. Continued compound monitoring and decontamination method development. ***FY 2012 Plans:*** Initiate laboratory revitalization. Fabricate test chambers. Perform decontamination studies. ***FY 2013 Plans:*** Complete laboratory revitalization and fabrication of test chambers. Installation of test chambers and integration of test fixtures. Commissioning and verification.	15.297	4.395	4.894
Title: 2) PD TESS - Bio Standoff Facility ***FY 2011 Accomplishments:*** Developed final design concepts for the Bio Standoff Facility. Initiated final specifications and drawings for Bio Standoff Facility. ***FY 2012 Plans:*** Develop final specifications and drawings for the Bio Standoff Facility.	2.018	0.970	-
Title: 3) PD TESS - IPEMS ***FY 2011 Accomplishments:*** Completed mannequin chemical sensor repackaging, test, and evaluation.	1.739	-	-
Title: 4) PD TESS - Chemical Biological Agent Resistance Test Fixture (CBART) ***FY 2013 Plans:*** Initiate CBART final specifications and drawings.	-	-	0.100
Title: 5) SBIR ***FY 2012 Plans:*** Small Business Innovative Research.	-	0.073	-
Accomplishments/Planned Programs Subtotals	19.054	5.438	4.994

Exhibit R-2A, RDT&E Project Justification: PB 2013 Chemical and Biological Defense Program		DATE: February 2012
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C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2011	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total	FY 2014	FY 2015	FY 2016	FY 2017	Cost To Complete	Total Cost
• TE5: *TEST & EVALUATION (SDD)*	30.653	11.043	6.394		6.394	20.202	12.033	14.200	14.200	Continuing	Continuing
• TE7: *TEST & EVALUATION (OP SYS DEV)*	4.732	3.597	4.156		4.156	3.690	3.642	2.846	2.846	Continuing	Continuing

D. Acquisition Strategy

PD TESS

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

E. Performance Metrics

N/A

Exhibit R-3, RDT&E Project Cost Analysis: PB 2013 Chemical and Biological Defense Program		DATE: February 2012
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Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	FY 2012 Cost	FY 2012 Award Date	FY 2013 Base Cost	FY 2013 Base Award Date	FY 2013 OCO Cost	FY 2013 OCO Award Date	FY 2013 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
** PD TESS - HW S - NTA Defense Test System Design/ Fabrication/Installation	C/CPFF	MRIGlobal:Kansas City, MO	29.500	2.501		1.821	May 2012	-		1.821	Continuing	Continuing	0.000
HW S - NTA Defense Test System Design/Fabrication/ Installation	MIPR	Various:	8.141	0.599	Feb 2012	-		-		-	Continuing	Continuing	0.000
HW S - Bio Standoff Facility Feasibility/Design	MIPR	Dugway Proving Ground/NAVSEA/ Hanscom AFB:	3.276	0.970	Feb 2012	-		-		-	Continuing	Continuing	0.000
SW SB - CBART - Design/ Fabrication	MIPR	Various:	-	-		0.100	Nov 2012	-		0.100	Continuing	Continuing	0.000
		Subtotal	40.917	4.070		1.921		-		1.921			0.000

Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	FY 2012 Cost	FY 2012 Award Date	FY 2013 Base Cost	FY 2013 Base Award Date	FY 2013 OCO Cost	FY 2013 OCO Award Date	FY 2013 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
** PD TESS - PM/MS S - Management/Systems/ Engineering Support	MIPR	JPM NBC CA:APG, MD	6.601	1.295	Nov 2011	3.073	Nov 2012	-		3.073	Continuing	Continuing	0.000
** ZSBIR - SBIR/STTR - Aggregated from ZSBIR-SBIR/ STTR	PO	HQ:AMC, Alexandria	-	0.073		-		-		-	Continuing	Continuing	0.000
		Subtotal	6.601	1.368		3.073		-		3.073			0.000

	Total Prior Years Cost	FY 2012		FY 2013 Base		FY 2013 OCO		FY 2013 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	47.518	5.438		4.994		-		4.994			0.000

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2013 Chemical and Biological Defense Program		DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 0400: *Research, Development, Test & Evaluation, Defense-Wide* BA 4: *Advanced Component Development & Prototypes (ACD&P)*	R-1 ITEM NOMENCLATURE PE 0603884BP: *CHEMICAL/BIOLOGICAL DEFENSE (ACD&P)*	PROJECT TE4: *TEST & EVALUATION (ACD&P)*

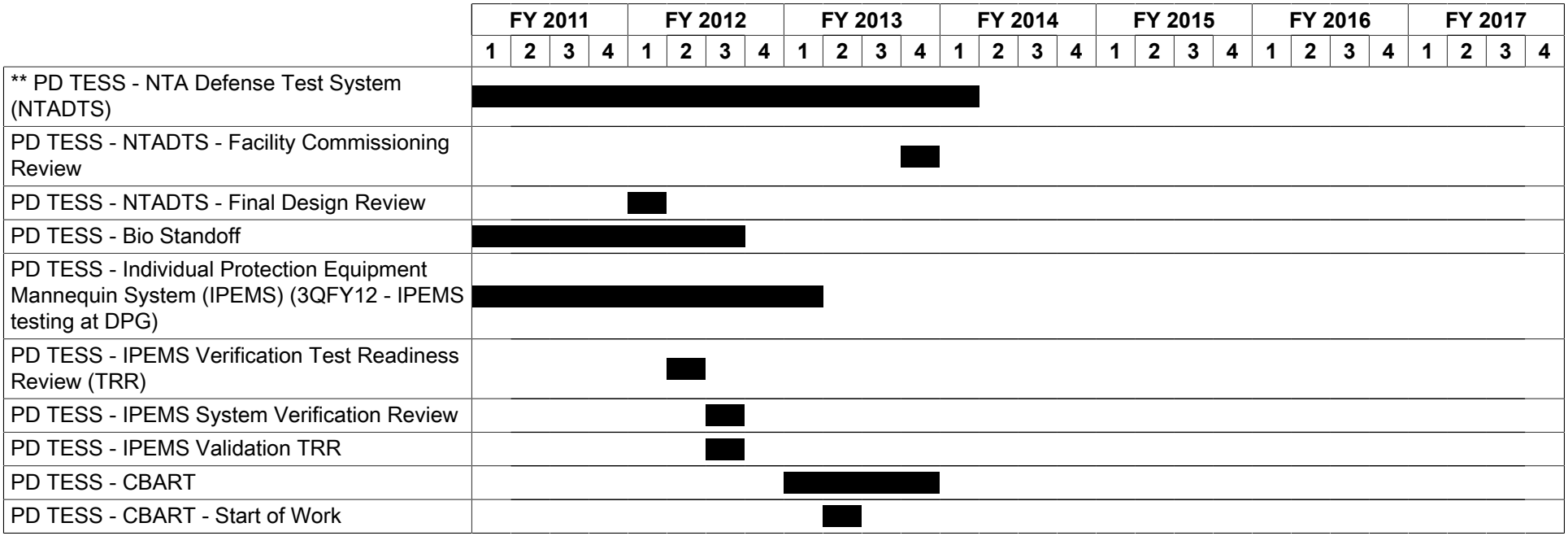

Exhibit R-4A, RDT&E Schedule Details: PB 2013 Chemical and Biological Defense Program		DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 0400: *Research, Development, Test & Evaluation, Defense-Wide* BA 4: *Advanced Component Development & Prototypes (ACD&P)*	R-1 ITEM NOMENCLATURE PE 0603884BP: *CHEMICAL/BIOLOGICAL DEFENSE (ACD&P)*	PROJECT TE4: *TEST & EVALUATION (ACD&P)*

Schedule Details

	Start		End	
Events	**Quarter**	**Year**	**Quarter**	**Year**
** PD TESS - NTA Defense Test System (NTADTS)	1	2011	1	2014
PD TESS - NTADTS - Facility Commissioning Review	4	2013	4	2013
PD TESS - NTADTS - Final Design Review	1	2012	1	2012
PD TESS - Bio Standoff	1	2011	3	2012
PD TESS - Individual Protection Equipment Mannequin System (IPEMS) (3QFY12 - IPEMS testing at DPG)	1	2011	1	2013
PD TESS - IPEMS Verification Test Readiness Review (TRR)	2	2012	2	2012
PD TESS - IPEMS System Verification Review	3	2012	3	2012
PD TESS - IPEMS Validation TRR	3	2012	3	2012
PD TESS - CBART	1	2013	4	2013
PD TESS - CBART - Start of Work	2	2013	2	2013

Exhibit R-2A, RDT&E Project Justification: PB 2013 Chemical and Biological Defense Program			DATE: February 2012
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COST ($ in Millions)	FY 2011	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total	FY 2014	FY 2015	FY 2016	FY 2017	Cost To Complete	Total Cost
TT4: *TECHBASE TECHNOLOGY TRANSITION (ACD&P)*	26.051	3.022	3.377	-	3.377	4.096	7.296	7.821	7.821	Continuing	Continuing
Quantity of RDT&E Articles											

A. Mission Description and Budget Item Justification

This project (TT4) validates high-risk/high-payoff technologies, concepts-of-operations, and reconnaissance and surveillance platforms that could significantly improve Warfighter capabilities in preparation for transition of mature technologies to advanced development programs requiring chemical and biological (CB) defense technologies. These programs offer an opportunity to identify and efficiently mature emerging technologies from laboratory experiments to acquisition programs through risk reduction, engineering and integration. These Advanced Technology Demonstrations (ATDs) and Joint Capability Technology Demonstrations (JCTDs) seek to demonstrate the potential for enhanced military operational capability and/or cost effectiveness. Upon conclusion of the technical and operational demonstrations, the user or sponsor provides a determination of the military utility and operational impact of the technology and capability demonstrated. Successfully demonstrated technologies with proven military utility can either be left in place for extended user evaluations, accepted into advanced stages of the formal acquisition process, proceed directly into limited or full-scale production or be returned to the technical base for further development. This project funds four major thrust areas (one of which is a new thrust areas to address DoD emphasis on an interagency collaboration for biological detection, surveillance, recovery and resilience and is annotated as such below): Hazard Mitigation, Early Warning, Comprehensive Innovative Protection (CIP) and Interagency Countering Bio-threats Initiative (ICBI). The Hazard Mitigation thrust area addresses Chemical, Biological, and Radiological (CBR) remediation and decontamination processes and demonstrates technologies and methods to restore assets such as mobile equipment, fixed sites, critical infrastructures, personal, and equipment to operational status as a result of having reduced or eliminated CBR contamination. The Early Warning thrust area achieves enhanced command and control decision making capabilities as a result of a combined and orchestrated family of chemical and biological defense systems deployed on various platforms in remote locations. The CIP transitions mature technologies to improve individual and collective protection capabilities for U.S. and coalition Warfighters. The Interagency Countering Bio-threats Initiative is targeted to reduce biological threats by: (1) improving DoD access to the life sciences to combat infectious disease regardless of its cause; (2) establishing and reinforcing DoD concept of operations (CONOPS) against the misuse of the life sciences; and (3) instituting a suite of coordinated DoD and interagency activities that collectively will help influence, identify, inhibit, and/or interdict those who seek to misuse the life sciences. The following is a description of specific efforts funded under each thrust area:

Hazard Mitigation:
Hazard Mitigation Material and Equipment Restoration (HaMMER) - A layered strategy to identify individual technologies that may be collectively applied to reduce or eliminate chemical and biological hazards. It includes a Decontamination Family of Systems that gives the Warfighter multiple capabilities to reduce or eliminate chemical hazards. This effort leverages upon and consolidates Auto Decon and SPIDER completed in FY10.

Early Warning:
Military Applications in Reconnaissance Systems for Joint Force Protection (MARS-JFP) - A data fusion ATD that leverages early warning technologies developed in Budget Activity 3 (Project TT3) to improve the capability to detect and react to an initial chemical and biological attack, as well as prevent a second attack. Specifically,

Exhibit R-2A, RDT&E Project Justification: PB 2013 Chemical and Biological Defense Program		DATE: February 2012
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this effort focuses on force protection decision making for external, cross domain sensors for cueing/tipping, and managing resources of dynamically deployable high quality chemical and biological sensors.

Rapid Area Surveillance Reconnaissance (RASR) - A sensitive-site exploration, standoff reconnaissance, ATD that leverages early warning technologies developed in Budget Activity 3 (Project TT3) to survey large areas (whole rooms, courtyards, fields) and assess and identify contamination with Chemical Warfare Agents (CWAs), Toxic Industrial Chemicals (TICs) and Non-Traditional Agents (NTAs).

Post Intercept Weapons of Mass Destruction Identification (PIWID) - An ATD that leverages early warning technologies developed in Budget Activity 3 (Project TT3), which addresses both operational and technical issues associated with the capability to determine the presence of Weapons of Mass Destruction (WMD) in the threat payload of ballistic or cruise missile delivery systems after a successful active defense intercept.

Comprehensive Innovative Protection (CIP):
Demo-Low Burden Individual Protection Demonstration (IP Demo) - An ATD that leverages lightweight chemical and biological protective textiles developed in Budget Activity 3 (Project CB3, Protection and Hazard Mitigation), and will support the next generation Joint Chemical Ensemble. This effort will provide significantly decreased thermal burden correlated with acceptable levels of chemical and biological protection, as well as significantly increase the ability of the Warfighter to accomplish a mission in a contaminated environment.

Joint Medical Distance Support and Evaluation (JMDSE) - A JCTD that seeks to develop new detect-to-treat CONOPS enabled by the deployment of new chemical and biological detection and identification capabilities to front line forces.

Interagency Countering Bio-threats Initiative (ICBI):
Transatlantic Collaborative Biological Resiliency Demonstration (TaCBRD) - A Department of Defense (DoD) managed effort in collaboration with Department of State and Department of Homeland Security (DHS). This collaborative effort that will provide a coordinated, systems approach to the response and recovery of a overseas partner nation with DoD assistance. This will include Department of Defense (DoD) infrastructures and high traffic areas.

B. Accomplishments/Planned Programs ($ in Millions)	FY 2011	FY 2012	FY 2013
Title: 1) SBIR ***FY 2012 Plans:*** Small Business Innovative Research.	-	0.035	-
Title: 2) TT DEMO - ART (HaMMER) ***Description:*** ART (Hazard Mitigation Material and Equipment Restoration (HaMMER)) ***FY 2011 Accomplishments:***	7.453	-	-

Exhibit R-2A, RDT&E Project Justification: PB 2013 Chemical and Biological Defense Program		DATE: February 2012
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B. Accomplishments/Planned Programs ($ in Millions)	FY 2011	FY 2012	FY 2013
Conducted and completed total system decontamination processes to ensure collective applications can be employed to eliminate or reduce chemical and biological decontamination. Project defines and provides a flexible system design that leverages individual technologies that address both hazard mitigation and dose-based risk assessment concepts. Transitioned system of systems chemical/biological decontamination apparatus; Tactics, Techniques, and Procedures (TTPs); and CONOPS to JPM-Protection.			
Title: 3) TT DEMO - EW-MARS (JFP) ***Description:*** EW-MARS (Military Applications in Reconnaissance Systems for Joint Force Protection (MARS-JFP)) ***FY 2011 Accomplishments:*** Completed operational concept generation, software development, operational prototype and mockup development. Monitored three SBIR contracts to completion of Phase 2 efforts. Effort terminated due to elimination of corresponding Program of Records.	3.336	-	-
Title: 4) TT DEMO - EW-MARS (RASR) ***Description:*** EW-MARS (Rapid Area Surveillance/Reconnaissance (RASR)) ***FY 2011 Accomplishments:*** Completed operational concept planning and exercise planning; technology readiness assessments; operational mockup, lesson plans and final development planning; conducted and finalized surety testing; conducted several technical and operational demonstrations; conducted several Military Utility Assessments (MUA) to assess value to Warfighter; reconditioned complete system in preparation for transition to operational manager and combat developer.	11.961	-	-
Title: 5) TT DEMO - EW-MARS (PIWID) ***Description:*** EW-MARS Thrust Area (Post Intercept Weapons of Mass Destruction Identification (PIWID)) ***FY 2011 Accomplishments:*** Assessed standoff data, chem/bio data, and current plan for Unmanned Aerial Vehicle (UAV) point-based, sensor approaches. Conducted standoff sensor and UAV CONOPS. Conducted laboratory demonstration within cross domain environment. Transitioned data to JPM-NBC CA and JPM-BD.	1.796	-	-
Title: 6) TT DEMO - CIP (JSMDE) ***Description:*** CIP (Joint Medical Distance Support and Evaluation (JMSDE)) ***FY 2011 Accomplishments:***	1.505	-	-

Exhibit R-2A, RDT&E Project Justification: PB 2013 Chemical and Biological Defense Program		DATE: February 2012
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B. Accomplishments/Planned Programs ($ in Millions)	FY 2011	FY 2012	FY 2013
Completed field demonstrations and military utility assessments; completed CONOPS and training, test, and security plans. Completed software development and integration. Transitioned to JPM-Bio Detection.			
Title: 7) TT DEMO - ICBI (TaCBRD) ***Description:*** (ICBI) Transatlantic Collaborative Biological Recovery Demonstration (TaCBRD) ***FY 2012 Plans:*** Initiate concept exploration and risk reduction efforts. Conduct baseline study to understand capability gaps associated with partner nation recovery and resilience in an overseas environment. In FY13, this research area is realigned within TT4 to TECHTRAN - ICBI (TaCBRD).	-	2.987	-
Title: 8) TECHTRAN - ICBI (TaCBRD) ***Description:*** (ICBI) Transatlantic Collaborative Biological Recovery Demonstration (TaCBRD) ***FY 2013 Plans:*** Initiate Coalition Warfare Program S&T efforts with international partner in EUCOM AOR. Conduct persistent agent fate and contagious bio agent information systems studies, technical demonstrations and exercises. Initiate bio-resiliency planning efforts in a second AOR. In FY13, this research area is realigned within TT4 from TT DEMO - ICBI (TaCBRD).	-	-	3.377
Accomplishments/Planned Programs Subtotals	26.051	3.022	3.377

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2011	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total	FY 2014	FY 2015	FY 2016	FY 2017	Cost To Complete	Total Cost
• TE3: *TEST & EVALUATION (ATD)*	11.346	11.199	0.000		0.000	0.000	0.000	0.000	0.000	0.000	22.545
• TT3: *TECHBASE TECHNOLOGY TRANSITION*	4.433	0.000	0.000		0.000	0.000	0.000	0.000	0.000	0.000	4.433

D. Acquisition Strategy

TT DEMO

The Advanced Technology Demonstrations (ATDs) and Joint Capability Technology Demonstrations (JCTDs) exploit mature and maturing technologies to solve important military problems. ATDs and JCTDs emphasize technology assessment and integration rather than technology development. The goal is to provide a prototype capability to the Warfighter and to support in the evaluation of that capability. The Warfighters evaluate the capabilities in real military exercises and at a

scale sufficient to fully assess military utility. When possible, the ATDs will leverage results from existing chemical and biological science and technology (S&T) efforts and prior ATDs. Market research/baselining is performed prior to ATD initiation to determine if a suitable solution exists or whether a solicitation/sole source is required to develop a solution. The ATDs are typically managed by DoD, Federally Funded Research Development Centers (FFRDCs) or University Affiliated Research Centers (UARCs). This is done through the Military Interdepartmental Purchase Request (MIPR) or the Interagency Cost Reimbursable Order (IACRO) in accordance with the Economy Act. In addition, the ATDs utilize the Defense Threat Reduction Agency (DTRA) Broad Area Announcement process to fund promising technologies between Technology Readiness Level (TRL) 4 and TRL 6. The ATD manager, who is typically responsible for total system development, can subcontract industry, academia, or other government agencies to perform individual component development.

E. Performance Metrics

N/A

Exhibit R-3, RDT&E Project Cost Analysis: PB 2013 Chemical and Biological Defense Program			DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 0400: *Research, Development, Test & Evaluation, Defense-Wide* BA 4: *Advanced Component Development & Prototypes (ACD&P)*	R-1 ITEM NOMENCLATURE PE 0603884BP: *CHEMICAL/BIOLOGICAL DEFENSE (ACD&P)*	PROJECT TT4: *TECHBASE TECHNOLOGY TRANSITION (ACD&P)*	

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	FY 2012 Cost	FY 2012 Award Date	FY 2013 Base Cost	FY 2013 Base Award Date	FY 2013 OCO Cost	FY 2013 OCO Award Date	FY 2013 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
** TT DEMO - HW C - TaCBRD ATD	MIPR	ECBC:Edgewood, MD	-	0.390	Nov 2011	-		-		-	Continuing	Continuing	0.000
HW C- TaCBRD ATD	MIPR	SPAWAR:San Diego, CA	-	0.975	Nov 2011	-		-		-	Continuing	Continuing	0.000
** TECHTRAN - HW C-TaCBRD ATD	MIPR	Edgewood Chemical and Biological Center (ECBC):Edgewood, MD	-	-		0.103	Nov 2012	-		0.103	Continuing	Continuing	0.000
HW C-TaCBRD ATD	MIPR	SPAWAR:San Diego, CA	-	-		0.792	Nov 2012	-		0.792	Continuing	Continuing	0.000
		Subtotal	-	1.365		0.895		-		0.895			0.000

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	FY 2012 Cost	FY 2012 Award Date	FY 2013 Base Cost	FY 2013 Base Award Date	FY 2013 OCO Cost	FY 2013 OCO Award Date	FY 2013 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
** TT DEMO - ILS C- TaCBRD ATD	MIPR	SPAWAR:San Diego, CA	-	0.300	Nov 2011	-		-		-	Continuing	Continuing	0.000
ILS C-TaCBRD ATD	MIPR	Edgewood Chemical Biological Center (ECBC):Aberdeen, MD	-	0.200	Nov 2011	-		-		-	Continuing	Continuing	0.000
ILS C-TaCBRD ATD #2	MIPR	US European Command:Stuttgart, GE	-	0.300	Nov 2011	-		-		-	Continuing	Continuing	0.000
** TECHTRAN - ILS C - TaCBRD ATD	MIPR	SPAWAR:San Diego, CA	-	-		0.300	Nov 2012	-		0.300	Continuing	Continuing	0.000
ILS C -TaCBRD ATD	MIPR	Edgewood Chemical and Biological Center (ECBC):Edgewood MD	-	-		0.500	Nov 2012	-		0.500	Continuing	Continuing	0.000
ILS C -TaCBRD ATD #2	MIPR	US European Command:Stuttgart, GE	-	-		0.300	Nov 2012	-		0.300	Continuing	Continuing	0.000
		Subtotal	-	0.800		1.100		-		1.100			0.000

Exhibit R-3, RDT&E Project Cost Analysis: PB 2013 Chemical and Biological Defense Program		DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 0400: *Research, Development, Test & Evaluation, Defense-Wide* BA 4: *Advanced Component Development & Prototypes (ACD&P)*	R-1 ITEM NOMENCLATURE PE 0603884BP: *CHEMICAL/BIOLOGICAL DEFENSE (ACD&P)*	PROJECT TT4: *TECHBASE TECHNOLOGY TRANSITION (ACD&P)*

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	FY 2012 Cost	FY 2012 Award Date	FY 2013 Base Cost	FY 2013 Base Award Date	FY 2013 OCO Cost	FY 2013 OCO Award Date	FY 2013 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
** TT DEMO - OTE C-TaCBRD ATD	MIPR	ECBC:Edgewood, MD	-	0.300	Nov 2011	-		-		-	Continuing	Continuing	0.000
OTE C-TaCBRD ATD	MIPR	SPAWAR:San Diego, CA	-	0.150	Nov 2011	-		-		-	Continuing	Continuing	0.000
** TECHTRAN - OTE C-TaCBRD ATD	MIPR	Edgewood Chemical and Biological Center (ECBC):Edgewood, MD	-	-		0.750	Nov 2012	-		0.750	Continuing	Continuing	0.000
OTE C-TaCBRD ATD #2	MIPR	SPAWAR:San Diego, CA	-	-		0.250	Nov 2012	-		0.250	Continuing	Continuing	0.000
		Subtotal	-	0.450		1.000		-		1.000			0.000

Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	FY 2012 Cost	FY 2012 Award Date	FY 2013 Base Cost	FY 2013 Base Award Date	FY 2013 OCO Cost	FY 2013 OCO Award Date	FY 2013 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
** ZSBIR - SBIR/STTR - Aggregated from ZSBIR-SBIR/STTR	PO	HQ:AMC, Alexandria	-	0.035		-		-		-	Continuing	Continuing	0.000
** TT DEMO - PM/MS C - TaCBRD ATD	MIPR	SPAWAR:San Diego, CA	-	0.200	Nov 2011	-		-		-	Continuing	Continuing	0.000
PM/MS C -TaCBRD ATD	MIPR	ECBC:Aberdeen, MD	-	0.172	Nov 2011	-		-		-	Continuing	Continuing	0.000
** TECHTRAN - PM/MS C-TaCBRD ATD	MIPR	Edgewood Chemical and Biological Center (ECBC):Edgewood, MD	-	-		0.190	Nov 2012	-		0.190	Continuing	Continuing	0.000
PM/MS C-TaCBRD ATD	MIPR	SPAWAR:San Diego, CA	-	-		0.192	Nov 2012	-		0.192	Continuing	Continuing	0.000
		Subtotal	-	0.407		0.382		-		0.382			0.000

Remarks

Management service costs cover all ten ATDs described in the R2a of this project (TT4).

Exhibit R-3, RDT&E Project Cost Analysis: PB 2013 Chemical and Biological Defense Program			DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 0400: *Research, Development, Test & Evaluation, Defense-Wide* BA 4: *Advanced Component Development & Prototypes (ACD&P)*	R-1 ITEM NOMENCLATURE PE 0603884BP: *CHEMICAL/BIOLOGICAL DEFENSE (ACD&P)*	PROJECT TT4: *TECHBASE TECHNOLOGY TRANSITION (ACD&P)*	

	Total Prior Years Cost	FY 2012		FY 2013 Base		FY 2013 OCO		FY 2013 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	-	3.022		3.377		-		3.377			0.000

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2013 Chemical and Biological Defense Program		DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 0400: *Research, Development, Test & Evaluation, Defense-Wide* BA 4: *Advanced Component Development & Prototypes (ACD&P)*	R-1 ITEM NOMENCLATURE PE 0603884BP: *CHEMICAL/BIOLOGICAL DEFENSE (ACD&P)*	PROJECT TT4: *TECHBASE TECHNOLOGY TRANSITION (ACD&P)*

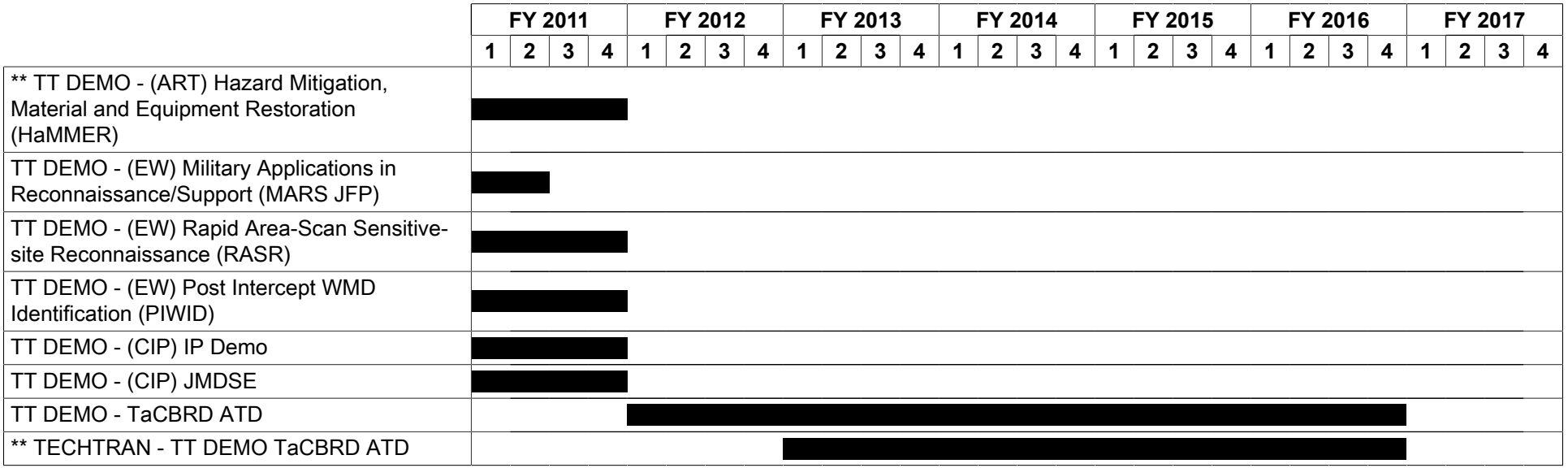

Exhibit R-4A, RDT&E Schedule Details: PB 2013 Chemical and Biological Defense Program		DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 0400: *Research, Development, Test & Evaluation, Defense-Wide* BA 4: *Advanced Component Development & Prototypes (ACD&P)*	**R-1 ITEM NOMENCLATURE** PE 0603884BP: *CHEMICAL/BIOLOGICAL DEFENSE (ACD&P)*	**PROJECT** TT4: *TECHBASE TECHNOLOGY TRANSITION (ACD&P)*

Schedule Details

	Start		End	
Events	**Quarter**	**Year**	**Quarter**	**Year**
** TT DEMO - (ART) Hazard Mitigation, Material and Equipment Restoration (HaMMER)	1	2011	4	2011
TT DEMO - (EW) Military Applications in Reconnaissance/Support (MARS JFP)	1	2011	2	2011
TT DEMO - (EW) Rapid Area-Scan Sensitive-site Reconnaissance (RASR)	1	2011	4	2011
TT DEMO - (EW) Post Intercept WMD Identification (PIWID)	1	2011	4	2011
TT DEMO - (CIP) IP Demo	1	2011	4	2011
TT DEMO - (CIP) JMDSE	1	2011	4	2011
TT DEMO - TaCBRD ATD	1	2012	4	2016
** TECHTRAN - TT DEMO TaCBRD ATD	1	2013	4	2016