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Exhibit R-2, RDT&E Budget Item Justification: PB 2014 Chemical and Biological Defense Program **DATE:** April 2013

APPROPRIATION/BUDGET ACTIVITY					R-1 ITEM NOMENCLATURE							
0400: <i>Research, Development, Test & Evaluation, Defense-Wide</i> BA 7: <i>Operational Systems Development</i>					PE 0607384BP: <i>CHEMICAL/BIOLOGICAL DEFENSE (OP SYS DEV)</i>							
COST (\$ in Millions)	All Prior Years	FY 2012	FY 2013[#]	FY 2014 Base	FY 2014 OCO ^{##}	FY 2014 Total	FY 2015	FY 2016	FY 2017	FY 2018	Cost To Complete	Total Cost
Total Program Element	-	17.837	14.745	13.026	-	13.026	28.553	33.602	33.128	27.628	Continuing	Continuing
CA7: <i>CONTAMINATION AVOIDANCE OPERATIONAL SYS DEV</i>	-	0.000	0.000	0.000	-	0.000	3.000	5.000	5.000	5.000	Continuing	Continuing
CM7: <i>HOMELAND DEFENSE (OP SYS DEV)</i>	-	0.000	0.000	1.819	-	1.819	2.006	1.981	1.981	1.981	Continuing	Continuing
IP7: <i>INDIVIDUAL PROTECTION (OP SYS DEV)</i>	-	0.000	0.000	0.500	-	0.500	2.501	1.490	1.490	1.490	Continuing	Continuing
IS7: <i>INFORMATION SYSTEMS (OP SYS DEV)</i>	-	8.917	10.091	6.518	-	6.518	3.990	7.734	11.995	13.034	Continuing	Continuing
MB7: <i>MEDICAL BIOLOGICAL DEFENSE (OP SYS DEV)</i>	-	5.371	0.498	0.499	-	0.499	13.414	14.551	9.816	3.277	Continuing	Continuing
TE7: <i>TEST & EVALUATION (OP SYS DEV)</i>	-	3.549	4.156	3.690	-	3.690	3.642	2.846	2.846	2.846	Continuing	Continuing

[#] FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012

^{##} The FY 2014 OCO Request will be submitted at a later date

A. Mission Description and Budget Item Justification

This program element supports developmental efforts to upgrade systems in the Department of Defense (DoD) Chemical Biological Defense Program that have been fielded or have received approval for full rate production and anticipate production funding in the current or subsequent fiscal year.

Efforts in this program element support the upgrade of fielded CB defense equipment against emerging chemical threat agents and toxic industrial chemicals. Specifically this program includes: (1) the upgrade and modernization of information systems; (2) the Software Support Activity (SSA); (3) the upgrade and modernization of medical systems; and (4) revitalization and technical upgrade of existing instrumentation and equipment at Dugway Proving Ground (DPG).

Key efforts within this PE are in support of the FY14 policy priorities for Countering Biological Threats. Approximately \$.5M supports the priority to "Promote global health security efforts through building and improving international capacity to prevent, detect, and respond to infectious disease threats, whether caused by natural, accidental, or deliberate events." Approximately \$.58M supports the priority to "Expand our capability to prevent, attribute, and apprehend those engaged in biological weapons proliferation or terrorism, with a focus on facilitating data sharing and knowledge discovery to improve integrated capabilities." Approximately \$.5M supports the priority to "Leverage science, technology, and innovation through domestic and international partnerships and agreements to improve global capacity to respond to and recover from biological incidents."

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APPROPRIATION/BUDGET ACTIVITY 0400: <i>Research, Development, Test & Evaluation, Defense-Wide</i> BA 7: <i>Operational Systems Development</i>	R-1 ITEM NOMENCLATURE PE 0607384BP: <i>CHEMICAL/BIOLOGICAL DEFENSE (OP SYS DEV)</i>
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B. Program Change Summary (\$ in Millions)	FY 2012	FY 2013	FY 2014 Base	FY 2014 OCO	FY 2014 Total
Previous President's Budget	15.956	14.745	11.307	-	11.307
Current President's Budget	17.837	14.745	13.026	-	13.026
Total Adjustments	1.881	0.000	1.719	-	1.719
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	2.100	0.000			
• SBIR/STTR Transfer	-0.219	0.000			
• Other Adjustments	0.000	0.000	1.719	-	1.719

Change Summary Explanation

Funding: FY12

+\$ 2.100M Reprogrammings (IS7 +2.100K)

-\$.219M SBIR/STTR Transfers (IS7 -\$94K; MB7 -\$77K; TE7 -\$48K)

FY14

+\$ 1.719M Reprogrammings (IS7 -100K; CM7 +\$1,819K)

Schedule: N/A

Technical: N/A

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Exhibit R-2A, RDT&E Project Justification: PB 2014 Chemical and Biological Defense Program										DATE: April 2013		
APPROPRIATION/BUDGET ACTIVITY 0400: Research, Development, Test & Evaluation, Defense-Wide BA 7: Operational Systems Development					R-1 ITEM NOMENCLATURE PE 0607384BP: CHEMICAL/BIOLOGICAL DEFENSE (OP SYS DEV)				PROJECT CA7: CONTAMINATION AVOIDANCE OPERATIONAL SYS DEV			
COST (\$ in Millions)	All Prior Years	FY 2012	FY 2013 [#]	FY 2014 Base	FY 2014 OCO ^{##}	FY 2014 Total	FY 2015	FY 2016	FY 2017	FY 2018	Cost To Complete	Total Cost
CA7: CONTAMINATION AVOIDANCE OPERATIONAL SYS DEV	-	0.000	0.000	0.000	-	0.000	3.000	5.000	5.000	5.000	Continuing	Continuing
Quantity of RDT&E Articles												

[#] FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012

^{##} The FY 2014 OCO Request will be submitted at a later date

A. Mission Description and Budget Item Justification

N/A - Future funds only.

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APPROPRIATION/BUDGET ACTIVITY 0400: Research, Development, Test & Evaluation, Defense-Wide BA 7: Operational Systems Development					R-1 ITEM NOMENCLATURE PE 0607384BP: CHEMICAL/BIOLOGICAL DEFENSE (OP SYS DEV)				PROJECT CM7: HOMELAND DEFENSE (OP SYS DEV)			
COST (\$ in Millions)	All Prior Years	FY 2012	FY 2013 [#]	FY 2014 Base	FY 2014 OCO ^{##}	FY 2014 Total	FY 2015	FY 2016	FY 2017	FY 2018	Cost To Complete	Total Cost
CM7: HOMELAND DEFENSE (OP SYS DEV)	-	0.000	0.000	1.819	-	1.819	2.006	1.981	1.981	1.981	Continuing	Continuing
Quantity of RDT&E Articles												
# FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012												
## The FY 2014 OCO Request will be submitted at a later date												
A. Mission Description and Budget Item Justification												
The Weapons of Mass Destruction Civil Support Team (WMD CST) Program supports the ongoing assessment and acquisition of commercial off-the-shelf (COTS) and government off-the-shelf (GOTS) analytical detection, protection, decontamination and sampling equipment for survey in order to expand/enhance the operational capabilities of the (57) WMD CST Teams.												
B. Accomplishments/Planned Programs (\$ in Millions)										FY 2012	FY 2013	FY 2014
Title: 1) WMD CST - System Engineering and Program Management										0.000	0.000	0.691
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, 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 2014 Plans: Provides System Engineering, technical control, and business management support of the COTS Life Cycle Management Program.												
Title: 2) WMD CST - Component Test and Evaluation										0.000	0.000	1.128
Description: General system-related test activities, including costs of specially fabricated hardware to obtain or validate engineering data on the performance of the system. This element also includes costs of the detailed planning, conduct, support, data reduction, and reports from such testing, as well as hardware items that are consumed or planned to be consumed in the conduct of such operations.												
FY 2014 Plans: Conducts test and evaluation of CBRN COTS technology as part of the modernization strategy.												
Accomplishments/Planned Programs Subtotals										0.000	0.000	1.819

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APPROPRIATION/BUDGET ACTIVITY 0400: <i>Research, Development, Test & Evaluation, Defense-Wide</i> BA 7: <i>Operational Systems Development</i>	R-1 ITEM NOMENCLATURE PE 0607384BP: <i>CHEMICAL/BIOLOGICAL DEFENSE (OP SYS DEV)</i>	PROJECT CM7: <i>HOMELAND DEFENSE (OP SYS DEV)</i>
C. Other Program Funding Summary (\$ in Millions) N/A		
Remarks		
D. Acquisition Strategy WMD CST The Weapons of Mass Destruction Civil Support Team Program (WMD-CST) is a COTS based program that supports the ongoing system engineering assessment, validation, and modernization of both CBRN COTS and GOTS analytical detection, protection, decontamination and sampling capabilities fielded to the (57) WMD CST Teams in order to optimize/enhance their operational capabilities.		
E. Performance Metrics N/A		

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Chemical and Biological Defense Program												DATE: April 2013			
APPROPRIATION/BUDGET ACTIVITY 0400: <i>Research, Development, Test & Evaluation, Defense-Wide</i> BA 7: <i>Operational Systems Development</i>						R-1 ITEM NOMENCLATURE PE 0607384BP: <i>CHEMICAL/BIOLOGICAL DEFENSE (OP SYS DEV)</i>						PROJECT CM7: <i>HOMELAND DEFENSE (OP SYS DEV)</i>			
Support (\$ in Millions)				FY 2012		FY 2013		FY 2014 Base		FY 2014 OCO		FY 2014 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
** WMD CST - ES C - CBRN COTS	MIPR	Edgewood Chemical Biological Center (ECBC):Aberdeen Proving Ground, MD	0.000	0.000		0.000		0.373	Mar 2014	-		0.373	Continuing	Continuing	0.000
Subtotal			0.000	0.000		0.000		0.373		0.000		0.373			0.000
Test and Evaluation (\$ in Millions)				FY 2012		FY 2013		FY 2014 Base		FY 2014 OCO		FY 2014 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
** WMD CST - OTHT C - CBRN COTS Component	C/FPIF	TBD:	0.000	0.000		0.000		1.128	Mar 2014	-		1.128	Continuing	Continuing	0.000
Subtotal			0.000	0.000		0.000		1.128		0.000		1.128			0.000
Management Services (\$ in Millions)				FY 2012		FY 2013		FY 2014 Base		FY 2014 OCO		FY 2014 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
** WMD CST - PM/MS SB - CBRN COTS	MIPR	Edgewood Chemical Biological Center (ECBC):Aberdeen Proving Ground, MD	0.000	0.000		0.000		0.318	Mar 2014	-		0.318	Continuing	Continuing	0.000
Subtotal			0.000	0.000		0.000		0.318		0.000		0.318			0.000
			All Prior Years	FY 2012		FY 2013		FY 2014 Base		FY 2014 OCO		FY 2014 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals			0.000	0.000		0.000		1.819		0.000		1.819			0.000
Remarks															

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Exhibit R-4, RDT&E Schedule Profile: PB 2014 Chemical and Biological Defense Program												DATE: April 2013					
APPROPRIATION/BUDGET ACTIVITY								R-1 ITEM NOMENCLATURE						PROJECT			
0400: Research, Development, Test & Evaluation, Defense-Wide								PE 0607384BP: CHEMICAL/BIOLOGICAL						CM7: HOMELAND DEFENSE (OP SYS			
BA 7: Operational Systems Development								DEFENSE (OP SYS DEV)						DEV)			

	FY 2012				FY 2013				FY 2014				FY 2015				FY 2016				FY 2017				FY 2018			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
** WMD CST - Component Test and Evaluation																												

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Exhibit R-4A, RDT&E Schedule Details: PB 2014 Chemical and Biological Defense Program			DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 0400: <i>Research, Development, Test & Evaluation, Defense-Wide</i> BA 7: <i>Operational Systems Development</i>	R-1 ITEM NOMENCLATURE PE 0607384BP: <i>CHEMICAL/BIOLOGICAL DEFENSE (OP SYS DEV)</i>	PROJECT CM7: <i>HOMELAND DEFENSE (OP SYS DEV)</i>	

Schedule Details

Events	Start		End	
	Quarter	Year	Quarter	Year
** WMD CST - Component Test and Evaluation	2	2014	3	2014

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APPROPRIATION/BUDGET ACTIVITY 0400: <i>Research, Development, Test & Evaluation, Defense-Wide</i> BA 7: <i>Operational Systems Development</i>					R-1 ITEM NOMENCLATURE PE 0607384BP: <i>CHEMICAL/BIOLOGICAL DEFENSE (OP SYS DEV)</i>				PROJECT IP7: <i>INDIVIDUAL PROTECTION (OP SYS DEV)</i>			
COST (\$ in Millions)	All Prior Years	FY 2012	FY 2013[#]	FY 2014 Base	FY 2014 OCO ^{##}	FY 2014 Total	FY 2015	FY 2016	FY 2017	FY 2018	Cost To Complete	Total Cost
IP7: <i>INDIVIDUAL PROTECTION (OP SYS DEV)</i>	-	0.000	0.000	0.500	-	0.500	2.501	1.490	1.490	1.490	Continuing	Continuing
Quantity of RDT&E Articles												
[#] FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012 ^{##} The FY 2014 OCO Request will be submitted at a later date												
A. Mission Description and Budget Item Justification												
This Project provides for filter modernization and enhancements against Toxic Industrial Chemicals (TICs), Toxic Industrial Materials (TIMs) and Non-Traditional Agents (NTAs). These upgrades will be provided for fielded Protection systems including Joint Service General Purpose Mask (JSGPM), Joint Service Aircrew Mask (JSAM) and Uniform Integrated Protection Ensemble (UIPE) to integrate respiratory and ocular protection.												
B. Accomplishments/Planned Programs (\$ in Millions)										FY 2012	FY 2013	FY 2014
Title: 1) JSGPM										0.000	0.000	0.500
FY 2014 Plans: Developmental filter enhancement efforts for integration into currently and future fielded systems against TICs, TIMs and NTAs.												
Accomplishments/Planned Programs Subtotals										0.000	0.000	0.500
C. Other Program Funding Summary (\$ in Millions)												
Line Item	FY 2012	FY 2013	FY 2014 Base	FY 2014 OCO	FY 2014 Total	FY 2015	FY 2016	FY 2017	FY 2018	Cost To Complete	Total Cost	
• JI0003: <i>JOINT SERVICE GENERAL PURPOSE MASK (JSGPM)</i>	71.214	48.466	77.343		77.343	81.212	88.029	113.681	109.434	0.000	589.379	
Remarks												
D. Acquisition Strategy												
JSGPM												
The JSGPM ARPI effort is using the M61 filter contracts awarded to 3M and Avon to develop improved filters for the JSGPM. There is a continual technology refreshment CLIN that allows for filter development tasks to be awarded under this contract. The tasks can be competed between the two awardees.												

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Exhibit R-2A, RDT&E Project Justification: PB 2014 Chemical and Biological Defense Program		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 0400: <i>Research, Development, Test & Evaluation, Defense-Wide</i> BA 7: <i>Operational Systems Development</i>	R-1 ITEM NOMENCLATURE PE 0607384BP: <i>CHEMICAL/BIOLOGICAL DEFENSE (OP SYS DEV)</i>	PROJECT IP7: <i>INDIVIDUAL PROTECTION (OP SYS DEV)</i>
E. Performance Metrics N/A		

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Chemical and Biological Defense Program												DATE: April 2013			
APPROPRIATION/BUDGET ACTIVITY 0400: <i>Research, Development, Test & Evaluation, Defense-Wide</i> BA 7: <i>Operational Systems Development</i>						R-1 ITEM NOMENCLATURE PE 0607384BP: <i>CHEMICAL/BIOLOGICAL DEFENSE (OP SYS DEV)</i>						PROJECT IP7: <i>INDIVIDUAL PROTECTION (OP SYS DEV)</i>			
Product Development (\$ in Millions)				FY 2012		FY 2013		FY 2014 Base		FY 2014 OCO		FY 2014 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
** JSGPM - HW C - System Filters	MIPR	Edgewood Chemical Biological Center (ECBC):Aberdeen Proving Ground, MD	0.000	0.000		0.000		0.205	Dec 2013	-		0.205	Continuing	Continuing	0.000
Subtotal			0.000	0.000		0.000		0.205		0.000		0.205			0.000
Support (\$ in Millions)				FY 2012		FY 2013		FY 2014 Base		FY 2014 OCO		FY 2014 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
** JSGPM - ES C - System Filters	MIPR	Edgewood Chemical Biological Center (ECBC):Aberdeen Proving Ground, MD	0.000	0.000		0.000		0.100	Dec 2013	-		0.100	Continuing	Continuing	0.000
Subtotal			0.000	0.000		0.000		0.100		0.000		0.100			0.000
Test and Evaluation (\$ in Millions)				FY 2012		FY 2013		FY 2014 Base		FY 2014 OCO		FY 2014 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
** JSGPM - DTE C - System Filters	MIPR	Edgewood Chemical Biological Center (ECBC):Aberdeen Proving Ground, MD	0.000	0.000		0.000		0.160	Mar 2014	-		0.160	Continuing	Continuing	0.000
Subtotal			0.000	0.000		0.000		0.160		0.000		0.160			0.000
Management Services (\$ in Millions)				FY 2012		FY 2013		FY 2014 Base		FY 2014 OCO		FY 2014 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
** JSGPM - PM/MS C - System Filters	MIPR	Edgewood Chemical Biological Center	0.000	0.000		0.000		0.035	Dec 2013	-		0.035	Continuing	Continuing	0.000

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Management Services (\$ in Millions)				FY 2012		FY 2013		FY 2014 Base		FY 2014 OCO		FY 2014 Total				
Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost To Complete	Total Cost	Target Value of Contract
		(ECBC):Aberdeen Proving Ground, MD														
Subtotal			0.000	0.000		0.000		0.035		0.000		0.035				0.000

	All Prior Years	FY 2012		FY 2013		FY 2014 Base		FY 2014 OCO		FY 2014 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	0.000	0.000		0.000		0.500		0.000		0.500			0.000

Remarks

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Exhibit R-4, RDT&E Schedule Profile: PB 2014 Chemical and Biological Defense Program															DATE: April 2013				
APPROPRIATION/BUDGET ACTIVITY 0400: <i>Research, Development, Test & Evaluation, Defense-Wide</i> BA 7: <i>Operational Systems Development</i>										R-1 ITEM NOMENCLATURE PE 0607384BP: <i>CHEMICAL/BIOLOGICAL DEFENSE (OP SYS DEV)</i>					PROJECT IP7: <i>INDIVIDUAL PROTECTION (OP SYS DEV)</i>				

	FY 2012				FY 2013				FY 2014				FY 2015				FY 2016				FY 2017				FY 2018			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
** JSGPM - ARPI Integration Testing																												
JSGPM - TIC Filter TECH Transition																												
JSGPM - ARPI TD Contract Award																												
JSGPM - TIC Prototype Development (JSTO Technology 1)																												
JSGPM - TIC Filter Testing (JSTO Technology 1)																												
JSGPM - Prototype Development (JSTO Technology 2)																												
JSGPM - Prototype Testing (JSTO Technology 2)																												

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Exhibit R-4A, RDT&E Schedule Details: PB 2014 Chemical and Biological Defense Program			DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 0400: <i>Research, Development, Test & Evaluation, Defense-Wide</i> BA 7: <i>Operational Systems Development</i>	R-1 ITEM NOMENCLATURE PE 0607384BP: <i>CHEMICAL/BIOLOGICAL DEFENSE (OP SYS DEV)</i>	PROJECT IP7: <i>INDIVIDUAL PROTECTION (OP SYS DEV)</i>	

Schedule Details

Events	Start		End	
	Quarter	Year	Quarter	Year
** JSGPM - ARPI Integration Testing	2	2012	4	2012
JSGPM - TIC Filter TECH Transition	4	2012	4	2012
JSGPM - ARPI TD Contract Award	1	2013	1	2013
JSGPM - TIC Prototype Development (JSTO Technology 1)	2	2013	3	2014
JSGPM - TIC Filter Testing (JSTO Technology 1)	3	2014	1	2015
JSGPM - Prototype Development (JSTO Technology 2)	1	2015	4	2016
JSGPM - Prototype Testing (JSTO Technology 2)	1	2017	3	2017

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0400: Research, Development, Test & Evaluation, Defense-Wide BA 7: Operational Systems Development					PE 0607384BP: CHEMICAL/BIOLOGICAL DEFENSE (OP SYS DEV)				IS7: INFORMATION SYSTEMS (OP SYS DEV)			
COST (\$ in Millions)	All Prior Years	FY 2012	FY 2013 [#]	FY 2014 Base	FY 2014 OCO ^{##}	FY 2014 Total	FY 2015	FY 2016	FY 2017	FY 2018	Cost To Complete	Total Cost
IS7: INFORMATION SYSTEMS (OP SYS DEV)	-	8.917	10.091	6.518	-	6.518	3.990	7.734	11.995	13.034	Continuing	Continuing
Quantity of RDT&E Articles												

[#] FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012

^{##} The FY 2014 OCO Request will be submitted at a later date

A. Mission Description and Budget Item Justification

This Project provides for the upgrade and modernization of fielded Information Systems including the Joint Effects Model (JEM) and the Joint Warning and Reporting Network (JWARN). This project also provides for the Software Support Activity (SSA).

The Joint Effects Model (JEM) is the DoD's only accredited model that has been operationally tested and deemed effective for predicting hazards associated with the release of contaminants into the environment. JEM 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, urban Nuclear Biological Chemical (NBC) environments; building interiors, and human performance degradation. Battle space commanders and first responders must have a Chemical, Biological, Radiological, Nuclear (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 command and control (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.

The SSA is a CBDP enterprise-wide, user developmental support and service organization focusing on development assistance and net-centric interoperability. SSA provides the CBRN community with critical "plug and play" capabilities which allow for system modularity and re-configurability across the enterprise. SSA helps

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APPROPRIATION/BUDGET ACTIVITY 0400: Research, Development, Test & Evaluation, Defense-Wide BA 7: Operational Systems Development		R-1 ITEM NOMENCLATURE PE 0607384BP: CHEMICAL/BIOLOGICAL DEFENSE (OP SYS DEV)	PROJECT IS7: INFORMATION SYSTEMS (OP SYS DEV)		
ensure that the various programs and projects are designing/adhering to DoD and industry standards to avoid proprietary/stove-pipe solutions. The requirement for net-centric, composable solutions provides the near term foundation for the Warfighter's ability to communicate his CBRN solutions and interoperate with other service operational systems. It also supports a longer term ability to interoperate with related agencies and to reduce the Warfighter's CBRN footprint as technologies improve.					
The SSA also directly supports various Bio-Surveillance efforts in training and logistics coordination. The SSA is re-baselining the entire IM/IT work-flow in support of the Bio-Surveillance Portal. By creating a catalog of portlets (think apps on a smart-phone) a user will be able to select the portlets that they need/use and will have access to data that is appropriate for them in a customizable format.					
B. Accomplishments/Planned Programs (\$ in Millions)			FY 2012	FY 2013	FY 2014
Title: 1) JEM Command and Control (C2) Modernization Efforts FY 2012 Accomplishments: Upgraded fielded JEM software due to changing C2 host architectures, systems, and standards in order to remain relevant on required, interoperable platforms. Performed test and evaluation of updated JEM software baseline. FY 2013 Plans: Continue efforts to upgrade fielded JEM software due to changing C2 host architectures, systems, and standards in order to remain relevant on required, interoperable platforms. Perform test and evaluation of updated JEM software baseline. FY 2014 Plans: Continue efforts to upgrade fielded JEM software due to changing C2 host architectures, systems, and standards in order to remain relevant on required, interoperable platforms. Perform test and evaluation of updated JEM software baseline.			0.796	0.831	0.646
Title: 2) JEM Pre-Planned Product Improvement (P3I) FY 2012 Accomplishments: Developed, tested, and integrated previously fielded JEM software with science and technology upgrades and model enhancements to improve JEM accuracy and precision. Improved JEM architecture and overall performance through software updates and deficiency resolution. FY 2013 Plans: Continue efforts to develop, test, and integrate previously fielded JEM software with science and technology upgrades and model enhancements to improve JEM accuracy and precision. Improve JEM architecture and overall performance through software updates and deficiency resolution. FY 2014 Plans:			1.962	1.469	1.151

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Exhibit R-2A, RDT&E Project Justification: PB 2014 Chemical and Biological Defense Program		DATE: April 2013		
APPROPRIATION/BUDGET ACTIVITY 0400: <i>Research, Development, Test & Evaluation, Defense-Wide</i> BA 7: <i>Operational Systems Development</i>	R-1 ITEM NOMENCLATURE PE 0607384BP: <i>CHEMICAL/BIOLOGICAL DEFENSE (OP SYS DEV)</i>	PROJECT IS7: <i>INFORMATION SYSTEMS (OP SYS DEV)</i>		
B. Accomplishments/Planned Programs (\$ in Millions)		FY 2012	FY 2013	FY 2014
Continue efforts to develop, test, and integrate previously fielded JEM software with science and technology upgrades and model enhancements to improve JEM accuracy and precision. Improve JEM architecture and overall performance through software updates and deficiency resolution.				
Title: 3) JWARN Description: System Modernization/Update Development FY 2012 Accomplishments: Initiated engineering and manufacturing development to upgrade existing, operational JWARN Systems in order to maintain interoperability, efficiency and functionality within the targeted C2 systems. FY 2013 Plans: Continue engineering and manufacturing development to upgrade existing, operational JWARN Systems in order to maintain interoperability, efficiency and functionality within the targeted C2 systems. FY 2014 Plans: Continue engineering and manufacturing development to upgrade existing, operational JWARN Systems in order to maintain interoperability, efficiency and functionality within the targeted C2 systems.		3.688	4.124	2.101
Title: 4) JWARN Description: Program Management Support FY 2012 Accomplishments: Performed program financial management, scheduling, planning and reporting support to modernization effort of JWARN. FY 2013 Plans: Continue JWARN program financial management, scheduling, planning and reporting support to modernization effort. FY 2014 Plans: Continue JWARN program financial management, scheduling, planning and reporting support to modernization effort.		0.541	0.473	0.345
Title: 5) JWARN Description: Test and Evaluation FY 2012 Accomplishments: Initiated required government developmental testing on JWARN software updates and modernization efforts. FY 2013 Plans:		0.737	1.336	0.776

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Exhibit R-2A, RDT&E Project Justification: PB 2014 Chemical and Biological Defense Program		DATE: April 2013		
APPROPRIATION/BUDGET ACTIVITY 0400: <i>Research, Development, Test & Evaluation, Defense-Wide</i> BA 7: <i>Operational Systems Development</i>	R-1 ITEM NOMENCLATURE PE 0607384BP: <i>CHEMICAL/BIOLOGICAL DEFENSE (OP SYS DEV)</i>	PROJECT IS7: <i>INFORMATION SYSTEMS (OP SYS DEV)</i>		
B. Accomplishments/Planned Programs (\$ in Millions)		FY 2012	FY 2013	FY 2014
Continue required governmental developmental testing on JWARN software updates and modernization efforts.				
FY 2014 Plans: Continue required governmental developmental testing on JWARN software updates and modernization efforts.				
Title: 6) JWARN Description: Technical Support FY 2012 Accomplishments: Initiated engineering and technical support efforts to support JWARN modernization. FY 2013 Plans: Continue engineering and technical support for JWARN modernization efforts. FY 2014 Plans: Continue engineering and technical support for JWARN modernization efforts.		0.492	0.538	0.280
Title: 7) SSA Policies, Standards and Guidelines FY 2012 Accomplishments: Continued to provide Information Support Plans (ISP) development support for JPEO-CBD programs. Continued to provide Modeling and Simulation Accreditation Steering Group Support. Continued to provide guidance and support to JPEO-CBD programs ensuring compliance with Service Net Centric requirements. FY 2013 Plans: Provide ISP development support for JPEO-CBD programs and the Modeling and Simulation Accreditation Steering Group. FY 2014 Plans: Provide ISP development support for JPEO-CBD programs and the Modeling and Simulation Accreditation Steering Group.		0.172	0.273	0.252
Title: 8) SSA Integrated Architecture FY 2012 Accomplishments: Continued to provide and update program of record integrated architectures. Continued to provide Net-Centric Policy implementation assistance. Continued to support Common CBRN Sensor Interface (CCSI) updates. Continued to provide CCSI reference implementation. Continued support of enterprise tools and common capabilities to ensure relevance across CBRN programs. FY 2013 Plans:		0.162	0.271	0.251

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Exhibit R-2A, RDT&E Project Justification: PB 2014 Chemical and Biological Defense Program		DATE: April 2013	
APPROPRIATION/BUDGET ACTIVITY 0400: <i>Research, Development, Test & Evaluation, Defense-Wide</i> BA 7: <i>Operational Systems Development</i>	R-1 ITEM NOMENCLATURE PE 0607384BP: <i>CHEMICAL/BIOLOGICAL DEFENSE (OP SYS DEV)</i>	PROJECT IS7: <i>INFORMATION SYSTEMS (OP SYS DEV)</i>	
B. Accomplishments/Planned Programs (\$ in Millions)		FY 2012	FY 2013
Provide and update program of record integrated architectures and provide Net-Centric Policy implementation assistance. Continue to support CCSI updates. Continue to provide CCSI reference implementation. Support the enterprise tools and common capabilities to ensure relevance across CBRN programs. FY 2014 Plans: Provide and update program of record integrated architectures and provide Net-Centric Policy implementation assistance. Continue to support CCSI updates. Continue to provide CCSI reference implementation. Support the enterprise tools and common capabilities to ensure relevance across CBRN programs.			
Title: 9) SSA Chemical, Biological, Radiological, Nuclear (CBRN) Data Model FY 2012 Accomplishments: Continued to provide data model implementation guidance. Continued to develop and provide CBRN data model implementation guidance including reference implementation. Continued to analyze requirements and assist programs with implementation of the CBRN data model. Continued to support data model changes. Supported data model requirements for Bio-surveillance initiatives. FY 2013 Plans: Provide changes to CBRN data models. Support data model requirements for Bio-surveillance initiatives. FY 2014 Plans: Provide changes to CBRN data models. Support data model requirements for Bio-surveillance initiatives.		0.165	0.289
Title: 10) SSA Information Assurance FY 2012 Accomplishments: Provided Information Assurance Site Compliance Testing for JPEO-CBD. Continued to provide Information Assurance Certification/Acceptance products and services. FY 2013 Plans: Provide Information Assurance Site Compliance Testing for JPEO-CBD. Continue to provide Information Assurance Certification/Acceptance products and services. FY 2014 Plans: Provide Information Assurance Site Compliance Testing for JPEO-CBD. Continue to provide Information Assurance Certification/Acceptance products and services.		0.202	0.487
Accomplishments/Planned Programs Subtotals		8.917	10.091
			0.267
			0.449
			6.518

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Exhibit R-2A, RDT&E Project Justification: PB 2014 Chemical and Biological Defense Program		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 0400: <i>Research, Development, Test & Evaluation, Defense-Wide</i> BA 7: <i>Operational Systems Development</i>	R-1 ITEM NOMENCLATURE PE 0607384BP: <i>CHEMICAL/BIOLOGICAL DEFENSE (OP SYS DEV)</i>	PROJECT IS7: <i>INFORMATION SYSTEMS (OP SYS DEV)</i>
C. Other Program Funding Summary (\$ in Millions) N/A Remarks D. Acquisition Strategy JEM The program plans to award multiple development contracts in a competitive prototyping phase prior to downselecting a single JEM developer and integrator. JWARN JWARN Increment 2 will structure itself in conjunction with the JROC's IT Box concept. JWARN Increment 2 will incorporate all current and future technologies planned for incorporation into JWARN in their IS ICD. This will reduce future trips to the JROC for approval of improved capabilities and ultimately move the program away from incrementalization. Future JWARN development efforts will be acquired via a Request for Proposal (RFP) under full and open competition. Using full and open competitive procedures, a single contract will be awarded to the responsible offeror who provides the best value in maintaining current JWARN software and developing future JWARN software. This contract will apply a Cost-Plus-Award-Fee (CPAF) or Cost-Plus-Fixed-Fee (CPFF) pending results of discussion with the contracting office. SSA The SSA provides enterprise-wide services and coordination across all CBDP programs that contain data or software, or are capable of linking to the Global Information Grid (GIG). The SSA facilitates interoperability, integration, and supportability of existing and developing IT and National Security Systems (NSS). Phase 1a identifies CBDP programs that deal with data or software, and have an IT component. This will be followed by coordination to facilitate the concepts of interoperability, integration and supportability of enterprise-wide services. Next follows work with user communities to develop and demonstrate enterprise-wide common architectures, products and services. (BA5 - System Development and Demonstration). Phase 2 will support the application of the enterprise-wide architectures, products and services into the programs, with verification of compliance with the defined products and services. (BA7 - Operational Systems Development). E. Performance Metrics N/A		

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Chemical and Biological Defense Program												DATE: April 2013			
APPROPRIATION/BUDGET ACTIVITY						R-1 ITEM NOMENCLATURE				PROJECT					
0400: Research, Development, Test & Evaluation, Defense-Wide BA 7: Operational Systems Development						PE 0607384BP: CHEMICAL/BIOLOGICAL DEFENSE (OP SYS DEV)				IS7: INFORMATION SYSTEMS (OP SYS DEV)					
Product Development (\$ in Millions)				FY 2012		FY 2013		FY 2014 Base		FY 2014 OCO		FY 2014 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
** JEM - SW SB - JEM - Software development	C/CPFF	Northrop Grumman Corp.:San Diego, CA	0.000	1.961	Mar 2012	1.652	Mar 2013	1.797	Mar 2014	-		1.797	Continuing	Continuing	0.000
** JWARN - SW S - JWARN - Manufacturing development	C/CPAF	Northrop Grumman Corp.:San Diego, CA	0.000	2.210	Mar 2012	2.625	Mar 2013	0.000		-		0.000	Continuing	Continuing	0.000
HW S - JWARN - Manufacturing development	Various	TBD:	0.000	0.000		0.000		1.418	Jun 2014	-		1.418	Continuing	Continuing	0.000
** SSA - HW S - SSA - Development Services	MIPR	Space and Naval Warfare (SPAWAR) Systems Center:San Diego, CA	1.002	0.000		0.478	Mar 2013	0.441	Mar 2014	-		0.441	Continuing	Continuing	0.000
Subtotal			1.002	4.171		4.755		3.656		0.000		3.656			0.000
Support (\$ in Millions)				FY 2012		FY 2013		FY 2014 Base		FY 2014 OCO		FY 2014 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
** JEM - ES SB - JEM Increment 1 - Software support	C/CPAF	Various:	0.000	0.797	Jun 2012	0.648	Jun 2013	0.000		-		0.000	Continuing	Continuing	0.000
** JWARN - TD/D SB - JWARN - Development support	MIPR	Various:	0.000	1.124	Mar 2012	1.336	Mar 2013	0.721	Mar 2014	-		0.721	Continuing	Continuing	0.000
** SSA - ES S - SSA - Develop Support Activities	MIPR	Space and Naval Warfare (SPAWAR) Systems Center:San Diego, CA	1.036	0.701	Mar 2012	0.313	Mar 2013	0.289	Mar 2014	-		0.289	Continuing	Continuing	0.000
Subtotal			1.036	2.622		2.297		1.010		0.000		1.010			0.000

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Chemical and Biological Defense Program												DATE: April 2013			
APPROPRIATION/BUDGET ACTIVITY 0400: Research, Development, Test & Evaluation, Defense-Wide BA 7: Operational Systems Development						R-1 ITEM NOMENCLATURE PE 0607384BP: CHEMICAL/BIOLOGICAL DEFENSE (OP SYS DEV)				PROJECT IS7: INFORMATION SYSTEMS (OP SYS DEV)					
Test and Evaluation (\$ in Millions)				FY 2012		FY 2013		FY 2014 Base		FY 2014 OCO		FY 2014 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
** JWARN - DTE SB - JWARN - Developmental testing	MIPR	Various:	0.000	1.729	Mar 2012	1.787	Mar 2013	0.967	Mar 2014	-		0.967	Continuing	Continuing	0.000
** SSA - OTHT S - SSA - Integration Verification and Valuation (IV&V)	MIPR	Space and Naval Warfare (SPAWAR) Systems Center:San Diego, CA	1.069	0.000		0.529	Mar 2013	0.489	Mar 2014	-		0.489	Continuing	Continuing	0.000
Subtotal			1.069	1.729		2.316		1.456		0.000		1.456			0.000
Management Services (\$ in Millions)				FY 2012		FY 2013		FY 2014 Base		FY 2014 OCO		FY 2014 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
** JWARN - PM/MS S - JWARN - Program management	MIPR	Various:	0.000	0.395	Mar 2012	0.723	Mar 2013	0.396	Mar 2014	-		0.396	Continuing	Continuing	0.000
Subtotal			0.000	0.395		0.723		0.396		0.000		0.396			0.000
			All Prior Years	FY 2012		FY 2013		FY 2014 Base		FY 2014 OCO		FY 2014 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals			3.107	8.917		10.091		6.518		0.000		6.518			0.000
Remarks															

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Exhibit R-4, RDT&E Schedule Profile: PB 2014 Chemical and Biological Defense Program **DATE:** April 2013

APPROPRIATION/BUDGET ACTIVITY 0400: <i>Research, Development, Test & Evaluation, Defense-Wide</i> BA 7: <i>Operational Systems Development</i>	R-1 ITEM NOMENCLATURE PE 0607384BP: <i>CHEMICAL/BIOLOGICAL DEFENSE (OP SYS DEV)</i>	PROJECT IS7: <i>INFORMATION SYSTEMS (OP SYS DEV)</i>
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	FY 2012				FY 2013				FY 2014				FY 2015				FY 2016				FY 2017				FY 2018			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
** JEM - Production and Deployment																												
JEM - Operational Systems Development																												
JEM - Follow-on Test and Evaluation (GCCS-M)																												
JEM - Full Deployment Decision (GCCS-M)																												
JEM - Service C2 Systems Modernization & Upgrades																												
JEM - Analyst Support Requirements Definition Package (RDP) Build Decision (BD)																												
JEM - Emerging Capability Requirements Definition Package (RDP) Build Decision (BD)																												
JEM - Baseline Capability Requirements Definition Package (RDP) IOC																												
** JWARN - FOT&E - GCCS-M																												
JWARN - Production and Deployment																												
JWARN - Full Deployment Decision - GCCS-M																												
JWARN - Service C2 Systems Modernization and Upgrades																												
** SSA - Provide Enterprise Architecture Products and Services																												
SSA - Provide Information Assurance Site Compliance Testing																												
SSA - Develop and provide CBRN Data Model implementation guidance, including reference implementations																												
SSA - Sustain CBRN Data Model																												

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Exhibit R-4A, RDT&E Schedule Details: PB 2014 Chemical and Biological Defense Program			DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 0400: <i>Research, Development, Test & Evaluation, Defense-Wide</i> BA 7: <i>Operational Systems Development</i>	R-1 ITEM NOMENCLATURE PE 0607384BP: <i>CHEMICAL/BIOLOGICAL DEFENSE (OP SYS DEV)</i>	PROJECT IS7: <i>INFORMATION SYSTEMS (OP SYS DEV)</i>	

Schedule Details

Events	Start		End	
	Quarter	Year	Quarter	Year
** JEM - Production and Deployment	1	2012	4	2013
JEM - Operational Systems Development	1	2013	4	2017
JEM - Follow-on Test and Evaluation (GCCS-M)	3	2012	4	2012
JEM - Full Deployment Decision (GCCS-M)	1	2013	1	2013
JEM - Service C2 Systems Modernization & Upgrades	1	2012	2	2017
JEM - Analyst Support Requirements Definition Package (RDP) Build Decision (BD)	4	2015	4	2015
JEM - Emerging Capability Requirements Definition Package (RDP) Build Decision (BD)	1	2017	1	2017
JEM - Baseline Capability Requirements Definition Package (RDP) IOC	3	2015	3	2015
** JWARN - FOT&E - GCCS-M	3	2012	4	2012
JWARN - Production and Deployment	3	2012	4	2015
JWARN - Full Deployment Decision - GCCS-M	1	2013	1	2013
JWARN - Service C2 Systems Modernization and Upgrades	2	2013	4	2016
** SSA - Provide Enterprise Architecture Products and Services	1	2012	4	2018
SSA - Provide Information Assurance Site Compliance Testing	1	2012	4	2018
SSA - Develop and provide CBRN Data Model implementation guidance, including reference implementations	1	2012	4	2018
SSA - Sustain CBRN Data Model	1	2012	4	2018

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Exhibit R-2A, RDT&E Project Justification: PB 2014 Chemical and Biological Defense Program										DATE: April 2013		
APPROPRIATION/BUDGET ACTIVITY 0400: Research, Development, Test & Evaluation, Defense-Wide BA 7: Operational Systems Development					R-1 ITEM NOMENCLATURE PE 0607384BP: CHEMICAL/BIOLOGICAL DEFENSE (OP SYS DEV)				PROJECT MB7: MEDICAL BIOLOGICAL DEFENSE (OP SYS DEV)			
COST (\$ in Millions)	All Prior Years	FY 2012	FY 2013 [#]	FY 2014 Base	FY 2014 OCO ^{##}	FY 2014 Total	FY 2015	FY 2016	FY 2017	FY 2018	Cost To Complete	Total Cost
MB7: MEDICAL BIOLOGICAL DEFENSE (OP SYS DEV)	-	5.371	0.498	0.499	-	0.499	13.414	14.551	9.816	3.277	Continuing	Continuing
Quantity of RDT&E Articles												

[#] FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012

^{##} The FY 2014 OCO Request will be submitted at a later date

A. Mission Description and Budget Item Justification

This Project provides for the upgrade and modernization of fielded Medical Biological defense equipment/systems including the Joint Biological Agent Identification and Diagnostic System (JBAIDS).

JBAIDS is an evolutionary development program. JBAIDS is a commercial off-the-shelf development/production effort started in August 2003 that focused on rapid development and fielding efforts to deliver a critical capability to identify bacteria and viral agents in environmental surveillance and clinical specimen sample types. By 2005, 16 biological warfare (BW) agent surveillance detection kits were fielded along with the first JBAIDS in vitro diagnostic (IVD) assay cleared by the U.S. Food and Drug Administration (FDA). JBAIDS currently has seven IVD kits cleared by the FDA, e.g. Anthrax, Plague, Tularemia, Q-Fever, H5 Avian, Influenza A&B, etc. An expanded influenza detection panel covering six new assays was cleared on Sept 13, 2011. Additionally, the JBAIDS Platinum Path Extraction Kit (PPEK) Bridging Study contract was awarded on Oct 20, 2011; this will allow the PPEK to be used with the Anthrax, Plague, and Tularemia IVD kits. JBAIDS achieved full operational capability (340 systems delivered all Services) in July 2011. JBAIDS efforts in 2012-2015 will focus on adding new surveillance food and water pathogen detection assays. Also, the development team will focus on completing Pre-Emergency Use Authorization (Pre-EUA's) packages annually for FDA review. These operational development RDT&E funds will be used to oversee the configuration management of the system to include the conduct of software security information assurance (IA) updates on fielded software and monitor analyzer/laptop parts obsolescence.

The Next Generation Diagnostics System (NGDS) addresses the mission needs identified in the CBRN Field Analytics ICD (2010). The NGDS is envisioned to be an evolutionary acquisition family of systems to provide increments of capability over time across many echelons of the Combat Health Support System. The mission of the NGDS is to provide CBRN warfare threat identification and FDA-cleared diagnostics to inform individual patient treatment, CBRN situational awareness, and disease surveillance. NGDS Increment 1 Deployable Component will significantly improve diagnostic capabilities for deployable combat health support units (role 3) while also improving operational suitability and affordability. The NGDS Increment 1 Deployable Component is intended to replace the legacy Joint Biological Agent Identification and Diagnostic System (JBAIDS) beginning in FY17. The NGDS Increment 1 Service Laboratory Component is intended to provide high throughput Biological threat identification, characterization and diagnostics to fixed site CONUS and OCONUS laboratories operated by the Army, Navy and Air Force in coordination with the Armed Forces Health Surveillance Center. NGDS Increment 2 is intended to provide advanced diagnostics for biological pathogens and toxins, diagnostics for chemical and radiological exposures and to provide capability to lower echelons of care.

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Exhibit R-2A, RDT&E Project Justification: PB 2014 Chemical and Biological Defense Program			DATE: April 2013		
APPROPRIATION/BUDGET ACTIVITY 0400: <i>Research, Development, Test & Evaluation, Defense-Wide</i> BA 7: <i>Operational Systems Development</i>		R-1 ITEM NOMENCLATURE PE 0607384BP: <i>CHEMICAL/BIOLOGICAL DEFENSE (OP SYS DEV)</i>		PROJECT MB7: <i>MEDICAL BIOLOGICAL DEFENSE (OP SYS DEV)</i>	
B. Accomplishments/Planned Programs (\$ in Millions)			FY 2012	FY 2013	FY 2014
Title: 1) JBAIDS FY 2012 Accomplishments: Initiated development and integration of additional surveillance assays and diagnostic kits.			4.402	0.000	0.000
Title: 2) JBAIDS FY 2012 Accomplishments: Conducted annual Federal Information Security Management Act (FISMA) software compliance certifications and parts obsolescence. FY 2013 Plans: Conduct annual Federal Information Security Management Act (FISMA) software compliance certifications and parts obsolescence.			0.424	0.295	0.000
Title: 3) JBAIDS FY 2012 Accomplishments: Initiated Pre-Emergency Use Authorizations (EUA) packages to the FDA. FY 2013 Plans: Continue submission of Pre-Emergency Use Authorizations (EUA) packages to the FDA.			0.545	0.203	0.000
Title: 4) NGDS FY 2014 Plans: Continue annual Federal Information Security Management Act (FISMA) software compliance certifications and parts obsolescence.			0.000	0.000	0.295
Title: 5) NGDS FY 2014 Plans: Continue Pre-Emergency Use Authorizations (EUA) packages.			0.000	0.000	0.204
Accomplishments/Planned Programs Subtotals			5.371	0.498	0.499
C. Other Program Funding Summary (\$ in Millions) N/A Remarks					

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Exhibit R-2A, RDT&E Project Justification: PB 2014 Chemical and Biological Defense Program		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 0400: <i>Research, Development, Test & Evaluation, Defense-Wide</i> BA 7: <i>Operational Systems Development</i>	R-1 ITEM NOMENCLATURE PE 0607384BP: <i>CHEMICAL/BIOLOGICAL DEFENSE (OP SYS DEV)</i>	PROJECT MB7: <i>MEDICAL BIOLOGICAL DEFENSE (OP SYS DEV)</i>
<u>D. Acquisition Strategy</u> JBAIDS <p>The original Equipment Manufacturer (OEM) was selected to design and manufacture additional surveillance assay kits to detect food and water pathogens, along with diagnostic kits to detect additional threat agents. The program plans to conduct the annual JBAIDS Federal Information Security Management Act (FISMA) software compliance certification in addition to any logistics sustainment issues associated with parts obsolescence. Additionally, the JBAIDS program office plans to partner with the US Army Medical Institute of Infectious Diseases (USAMRIID), other DoD and US Government laboratories to develop FDA Pre-Emergency Use Authorization (EUA) packages for biological warfare agents (BWA's) (e.g., Burkholderia, Rickettsia prowazekii and Smallpox diseases) that could be used as biological warfare threats to DoD military forces. A sole-source contract will be awarded to the JBAIDS prime contractor, Idaho Technology Inc., to replace laptops and software operating systems in numerous deployed JBAIDS worldwide due to parts obsolescence and unsupportable Microsoft software (Microsoft XP Professional). JBAIDS FY14-18 funds transition under NGDS.</p> NGDS <p>The Next Generation Diagnostics 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 Deployable Component will follow a developmental acquisition strategy to field Biological Warfare Agent diagnostic analytical devices. Additional DoD-unique BWA diagnostic and environmental surveillance capabilities will be added to the downselected platform capabilities. BA4 funds were used to conduct competitive prototyping and early operational assessments on the commercial hardware diagnostic systems immediately following MS A to support downselect to the final NGDS Increment 1 system.</p> <u>E. Performance Metrics</u> N/A		

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Chemical and Biological Defense Program												DATE: April 2013			
APPROPRIATION/BUDGET ACTIVITY						R-1 ITEM NOMENCLATURE				PROJECT					
0400: Research, Development, Test & Evaluation, Defense-Wide BA 7: Operational Systems Development						PE 0607384BP: CHEMICAL/BIOLOGICAL DEFENSE (OP SYS DEV)				MB7: MEDICAL BIOLOGICAL DEFENSE (OP SYS DEV)					
Product Development (\$ in Millions)				FY 2012		FY 2013		FY 2014 Base		FY 2014 OCO		FY 2014 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
** JBAIDS - HW S - Assay development	C/FFP	Idaho Technology Inc.:Salt Lake City, UT	0.000	3.378	Sep 2012	0.000		0.000		-		0.000	Continuing	Continuing	0.000
Subtotal			0.000	3.378		0.000		0.000		0.000		0.000			0.000
Support (\$ in Millions)				FY 2012		FY 2013		FY 2014 Base		FY 2014 OCO		FY 2014 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
** JBAIDS - TD/D SB - Software Update & Parts Obsolescence	C/FFP	Idaho Technology Inc.:Salt Lake City, UT	0.000	0.325	Jul 2012	0.295	Jun 2013	0.000		-		0.000	Continuing	Continuing	0.000
** NGDS - TD/D SB - Software Update & Parts Obsolescence	C/FFP	TBD:	0.000	0.000		0.000		0.295	Jun 2014	-		0.295	Continuing	Continuing	0.000
Subtotal			0.000	0.325		0.295		0.295		0.000		0.295			0.000
Test and Evaluation (\$ in Millions)				FY 2012		FY 2013		FY 2014 Base		FY 2014 OCO		FY 2014 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
** JBAIDS - OTH S - EUA packages	MIPR	US Army Medical Research Institute of Infectious Disease (USAMRIID):Fort Detrick, MD	0.000	0.249	Mar 2012	0.203	Mar 2013	0.000		-		0.000	Continuing	Continuing	0.000
** NGDS - OTH S - EUA Packages	MIPR	Various:	0.000	0.000		0.000		0.204	Mar 2014	-		0.204	Continuing	Continuing	0.000
Subtotal			0.000	0.249		0.203		0.204		0.000		0.204			0.000

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Chemical and Biological Defense Program												DATE: April 2013			
APPROPRIATION/BUDGET ACTIVITY 0400: <i>Research, Development, Test & Evaluation, Defense-Wide</i> BA 7: <i>Operational Systems Development</i>							R-1 ITEM NOMENCLATURE PE 0607384BP: <i>CHEMICAL/BIOLOGICAL DEFENSE (OP SYS DEV)</i>					PROJECT MB7: <i>MEDICAL BIOLOGICAL DEFENSE (OP SYS DEV)</i>			

Management Services (\$ in Millions)				FY 2012		FY 2013		FY 2014 Base		FY 2014 OCO		FY 2014 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
** JBAIDS - PM/MS S - Project Management	Various	Various:	0.000	1.419	Mar 2012	0.000		0.000		-		0.000	Continuing	Continuing	0.000
Subtotal			0.000	1.419		0.000		0.000		0.000		0.000			0.000

	All Prior Years	FY 2012	FY 2013	FY 2014 Base	FY 2014 OCO	FY 2014 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	0.000	5.371	0.498	0.499	0.000	0.499			0.000

Remarks

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Exhibit R-4, RDT&E Schedule Profile: PB 2014 Chemical and Biological Defense Program **DATE:** April 2013

APPROPRIATION/BUDGET ACTIVITY 0400: <i>Research, Development, Test & Evaluation, Defense-Wide</i> BA 7: <i>Operational Systems Development</i>	R-1 ITEM NOMENCLATURE PE 0607384BP: <i>CHEMICAL/BIOLOGICAL DEFENSE (OP SYS DEV)</i>	PROJECT MB7: <i>MEDICAL BIOLOGICAL DEFENSE (OP SYS DEV)</i>
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	FY 2012				FY 2013				FY 2014				FY 2015				FY 2016				FY 2017				FY 2018			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
** JBAIDS - Pre-Emergency Use Authorization Packages																												
JBAIDS - Software compliance certification																												
JBAIDS - Surveillance Assays (Food & Water)																												
** NGDS - JBAIDS - Pre-Emergency Use Authorization Packages																												
NGDS - JBAIDS - Software compliance certification																												
NGDS - JBAIDS - Surveillance (Food & Water)																												
NGDS - JBAIDS - Replace/update laptops & operating systems																												

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Exhibit R-4A, RDT&E Schedule Details: PB 2014 Chemical and Biological Defense Program			DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 0400: <i>Research, Development, Test & Evaluation, Defense-Wide</i> BA 7: <i>Operational Systems Development</i>	R-1 ITEM NOMENCLATURE PE 0607384BP: <i>CHEMICAL/BIOLOGICAL DEFENSE (OP SYS DEV)</i>	PROJECT MB7: <i>MEDICAL BIOLOGICAL DEFENSE (OP SYS DEV)</i>	

Schedule Details

Events	Start		End	
	Quarter	Year	Quarter	Year
** JBAIDS - Pre-Emergency Use Authorization Packages	2	2012	4	2013
JBAIDS - Software compliance certification	2	2012	4	2013
JBAIDS - Surveillance Assays (Food & Water)	2	2012	4	2013
** NGDS - JBAIDS - Pre-Emergency Use Authorization Packages	1	2014	4	2016
NGDS - JBAIDS - Software compliance certification	1	2014	4	2016
NGDS - JBAIDS - Surveillance (Food & Water)	1	2014	3	2015
NGDS - JBAIDS - Replace/update laptops & operating systems	2	2015	4	2015

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Exhibit R-2A, RDT&E Project Justification: PB 2014 Chemical and Biological Defense Program										DATE: April 2013		
APPROPRIATION/BUDGET ACTIVITY 0400: Research, Development, Test & Evaluation, Defense-Wide BA 7: Operational Systems Development					R-1 ITEM NOMENCLATURE PE 0607384BP: CHEMICAL/BIOLOGICAL DEFENSE (OP SYS DEV)				PROJECT TE7: TEST & EVALUATION (OP SYS DEV)			
COST (\$ in Millions)	All Prior Years	FY 2012	FY 2013 [#]	FY 2014 Base	FY 2014 OCO ^{##}	FY 2014 Total	FY 2015	FY 2016	FY 2017	FY 2018	Cost To Complete	Total Cost
TE7: TEST & EVALUATION (OP SYS DEV)	-	3.549	4.156	3.690	-	3.690	3.642	2.846	2.846	2.846	Continuing	Continuing
Quantity of RDT&E Articles												
# FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012												
## The FY 2014 OCO Request will be submitted at a later date												
A. Mission Description and Budget Item Justification												
This Project provides revitalization and technology upgrades of existing instrumentation and equipment at West Desert Test Center (WDTC), located at Dugway Proving Ground (DPG), a Major Range and Test Facility Base (MRTFB), in support of their Chemical and Biological (CB) test mission.												
B. Accomplishments/Planned Programs (\$ in Millions)										FY 2012	FY 2013	FY 2014
Title: 1) WDTC - MRTFB - Life Sciences Test Facility										0.902	1.109	1.080
FY 2012 Accomplishments: Continued to provide upgrades of the Life Sciences Test Facility instrumentation and equipment at WDTC, in support of their CB defense mission. This is the only U.S. facility equipped to test with aerosolized Bio-Safety Level-3 (BSL-3) agents. Upgrades and technology enhancements included the following: (1) Regular replacement of aging Aerodynamic Particle Sizers with newer Fluorescent Aerodynamic Particle Sizers; (2) Full characterization of biological aerosols in various conditions out in the field; (3) An automated dry powder dissemination system that will vary the concentration of aerosols in test chambers and in the field; (4) Procure aerosol samplers for chamber and field tests; (5) Enhancing genotyping system and procure genotyping analysis software to determine genetic identity of biological samples; (6) Upgrade aerosol particle generation capabilities for standoff and point detector characterization; and (7) Procurement of microbiological laboratory equipment needed to fully utilize BSL-3 laboratories.												
FY 2013 Plans: Continues to provide instrumentation and equipment upgrades to Life Sciences Division LSTF at the WDTC, in support of the CB Defense mission. This is the only U.S. laboratory equipped to test for aerosolized bio-safety level-3 (BSL-3) agents. Upgrades and technology enhancements included: (1) Continued upgrade of aging Aerodynamic Particle Sizers (APS) with ultraviolet APS (UV-APS); (2) Outfitting of a second Aerosol Simulant Exposure Chamber (ASEC) for BSL-1 and BSL-2 testing; (3) Optical DNA Mapping System; (4) A Mass Spectrophotometer (Mass Spec) for enhanced identity determination of biological samples; and (5) Enhanced aerosol particle generation equipment for point-tactical-detector challenge.												
FY 2014 Plans: Continues to provide instrumentation and equipment upgrades to Life Sciences Division LSTF at the WDTC, in support of the CB Defense mission. This is the only U.S. laboratory equipped to test for aerosolized bio-safety level-3 (BSL-3) agents. Upgrades												

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Exhibit R-2A, RDT&E Project Justification: PB 2014 Chemical and Biological Defense Program		DATE: April 2013	
APPROPRIATION/BUDGET ACTIVITY 0400: <i>Research, Development, Test & Evaluation, Defense-Wide</i> BA 7: <i>Operational Systems Development</i>	R-1 ITEM NOMENCLATURE PE 0607384BP: <i>CHEMICAL/BIOLOGICAL DEFENSE (OP SYS DEV)</i>	PROJECT TE7: <i>TEST & EVALUATION (OP SYS DEV)</i>	
B. Accomplishments/Planned Programs (\$ in Millions)		FY 2012	FY 2013
and technology enhancements included: (1) Coupled Mass Spec-PCR genotyping system and bundled analysis software to be used to determine identity of all bacterial and viral constituents in biological samples; (2) Referee instrumentation aimed at characterizing bio-NTA (advanced bio threat) and other simulant samples. (3) Immunological identification system; and (4) Enhanced simulant development capability.			
Title: 2) WDTC - MRTFB - Major Test Chambers		0.782	0.802
FY 2012 Accomplishments: Continued to provide for modernization of existing instrumentation and equipment in the major test chambers at WDTC, in support of the CB defense mission. These consisted of the following: (1) the Materiel Test Facility, which is a unique test chamber where real-world decontamination operations can be tested; (2) Building 4165, which houses updated surety test facilities and laboratories used for the testing of protective material, decontamination technologies, and detection systems with chemical agents and simulants; and (3) Building 3445 chambers support filter and collective protection testing. Modernization in the chambers included: (1) Continued development of an aerosol generation and sampling capability; and (2) Characterization of improved and/or articulated testing fixtures; and (3) Continuous enhancement of Toxic Industrial Chemical detection and test capability; and (4) Non-Traditional Agent test and detection capability.			0.630
FY 2013 Plans: Continue to provide for modernization of existing instrumentation and equipment in the major test chambers at WDTC, in support of the CB defense mission. These consist of the following: (1) the Materiel Test Facility, which is a unique test chamber where real-world decontamination operations can be tested; (2) Building 4165, which houses updated surety test facilities and laboratories used for the testing of protective material, decontamination technologies, and detection systems with chemical agents and simulants; and (3) Building 3445 chambers support filter and collective protection testing. Modernization in the chambers includes: (1) Development of an aerosol generation and sampling capability specifically for use with agent fate work; (2) Upgrades to aerosol chambers; (3) Upgrades to surety communications radio systems. These are multi-year efforts.			
FY 2014 Plans: Continue to provide for modernization of existing instrumentation and equipment in the major test chambers at WDTC, in support of the CB defense mission. These consist of the following: (1) the Materiel Test Facility, which is a unique test chamber where real-world decontamination operations can be tested; (2) Building 4165, which houses updated surety test facilities and laboratories used for the testing of protective material, decontamination technologies, and detection systems with chemical agents and simulants; and (3) Building 3445 chambers support filter and collective protection testing. Modernization in the chambers includes: (1) Continue development of an aerosol generation and sampling capability; and (2) Characterization of improved and/or articulated testing fixtures; and (3) Continuous enhancement of Toxic Industrial Chemical detection Continue to provide for modernization of existing instrumentation and equipment in the major test chambers at WDTC, in support of the CB defense mission. These consist of the following: (1) the Materiel Test Facility, which is a unique test chamber where real-world			

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Exhibit R-2A, RDT&E Project Justification: PB 2014 Chemical and Biological Defense Program		DATE: April 2013	
APPROPRIATION/BUDGET ACTIVITY 0400: <i>Research, Development, Test & Evaluation, Defense-Wide</i> BA 7: <i>Operational Systems Development</i>	R-1 ITEM NOMENCLATURE PE 0607384BP: <i>CHEMICAL/BIOLOGICAL DEFENSE (OP SYS DEV)</i>	PROJECT TE7: <i>TEST & EVALUATION (OP SYS DEV)</i>	
B. Accomplishments/Planned Programs (\$ in Millions)		FY 2012	FY 2013
decontamination operations can be tested; (2) Building 4165, which houses updated surety test facilities and laboratories used for the testing of protective material, decontamination technologies, and detection systems with chemical agents and simulants; and (3) Building 3445 chambers support filter and collective protection testing. Modernization in the chambers includes: (1) Continued development of the agent fate aerosol capability; (2) Upgrades to agent surety monitoring and analytical instrumentation for Building 3445 (3) SID recirculating bath upgrade; and (4) Upgrades to the Large scale filtration fixture to allow additional toxic agent and systems other than single pass filtration to be tested. and test capability; and (4) Non-Traditional Agent test and detection capability.			
Title: 3) WDTG - MRTFB - CB Test Grid		0.779	0.884
FY 2012 Accomplishments: Continued to enhance existing instrumentation and equipment at multiple grids (Target S, Downwind, Tower Outdoor Test Grids, etc.) at WDTG, in support of the CB defense mission. DPG's vast area combined with its remote location allow for all sizes of C/ B and explosive test events, including large scale TIC release capability, and are supported by state of the art meteorological and referee capability. The upgrades below do not include the Product Director-Cross Commodity Advance Threats and Test Infrastructure (PD CCAT&TI) Test Grid and Safari Instrumentation (TGSI) efforts. Continued modernization efforts included: (1) Development of NTA field simulants and monitoring equipment; (2) Increased Toxic Industrial Chemicals testing capability for both point and standoff referee systems; (3) Adding testing capability to support expanded use of Agent Like Organisms (ALOs); (4) Continuous update of field referee systems; and (5) Raptor management and control to support testing without affecting eagles and migratory birds.			
FY 2013 Plans: Continues to enhance existing instrumentation and equipment at multiple grids (Target S, Downwind, Tower Outdoor Test Grids, etc.) at WDTG, in support of the CB defense mission. DPG's vast area combined with its remote location allow for all sizes of C/ B and explosive test events, including large scale TIC release capability, and are supported by state of the art meteorological and referee capability. The upgrades below do not include the PD CCAT&TI TGSI efforts. Continuing modernization efforts will include: (1) Development of agent to simulant correlation, dissemination equipment, and monitoring systems for additional field simulants; (2) Improve both point and standoff referee systems for Toxic Industrial Chemicals testing; (3) Adding testing capability to support expanded use of Agent Like Organisms (ALOs); (4) Required upgrade of referee systems (LIDAR, DIAL, etc.); (5) Wireless tracking system for test grid equipment; and (6) Development of transportable standoff chamber to allow remote calibration of active and passive standoff systems for improved test accuracy.			
FY 2014 Plans: Continues to enhance existing instrumentation and equipment at multiple grids (Target S, Downwind, Tower Outdoor Test Grids, etc.) at WDTG, in support of the CB defense mission. DPG's vast area combined with its remote location allow for all sizes of C/ B and explosive test events, including large scale TIC release capability, and are supported by state of the art meteorological			

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Exhibit R-2A, RDT&E Project Justification: PB 2014 Chemical and Biological Defense Program		DATE: April 2013		
APPROPRIATION/BUDGET ACTIVITY 0400: Research, Development, Test & Evaluation, Defense-Wide BA 7: Operational Systems Development	R-1 ITEM NOMENCLATURE PE 0607384BP: CHEMICAL/BIOLOGICAL DEFENSE (OP SYS DEV)	PROJECT TE7: TEST & EVALUATION (OP SYS DEV)		
B. Accomplishments/Planned Programs (\$ in Millions)		FY 2012	FY 2013	FY 2014
and referee capability. The upgrades below do not include the PD CCAT&TI TGSi efforts. Continuing modernization efforts will include: (1) Development of agent to simulant correlation, dissemination equipment, and monitoring systems for additional field simulants; (2) Required upgrades to point and standoff field referee systems; (3) Upgrade of communications and data analysis capabilities at command posts; (4) Enhanced aerosol dissemination systems; (5) Upgraded high speed cameras; and (6) Development of in house capability to calibrate IR cameras to reduce cost and turnaround time.				
Title: 4) WDTC - MRTFB - Combined Chemical Test Facility		1.086	1.361	1.230
FY 2012 Accomplishments: Provided for continued revitalization and upgrade of existing instrumentation and equipment at the Combined Chemical Test Facility (CCTF) at WDTC in support of their CB test mission. The CCTF tested the capability of detectors, decontaminants, and protective systems to defend against toxic chemical agents. This project upgraded analytical and field instrumentation with current technology to include: (1) Characterization of new and upgraded test fixtures; (2) Upgraded control systems for test fixtures; (3) Swatch, protective component, and detection testing capability; (4) Upgrade to CB Safari instrumentation in support of Navy ship collective protection test efforts; (5) Expanded test capabilities for large filter performance; and (6) Referee agent instrumentation.				
FY 2013 Plans: Provides for continued revitalization and upgrade of existing instrumentation and equipment at the CCTF at WDTC in support of their CB test mission. The CCTF tests the capability of detectors, decontaminants, and protective systems to defend against toxic chemical agents. This project upgrades current technology to include: (1) Characterization of new and upgraded test fixtures; (2) Upgraded control systems for swatch, protective component, and detection testing test fixtures; (3) Continued upgrade of CB Navy Safari instrumentation to hardened components compatible with a marine environment; (4) Upgrade swatch test capability to include VX and other low volatility agents; (5) Chemical agent referee and analytical instrumentation; and (6) Improved automation for current chemical synthesis capability.				
FY 2014 Plans: Provides for continued revitalization and upgrade of existing instrumentation and equipment at the CCTF at WDTC in support of their CB test mission. The CCTF tests the capability of detectors, decontaminants, and protective systems to defend against toxic chemical agents. This project upgrades current technology to include: (1) Characterization of new and upgraded test fixtures; (2) Upgraded control systems for swatch, protective component, and detection testing test fixtures; (3) Continued upgrade of CB Navy Safari instrumentation to hardened components compatible with a marine environment; (4) Validate low volatility swatch test capability; (5) Enhancements to agent referees and analytical instrumentation; and (6) Expanded filter test capability to include additional toxic industrial chemicals and simulants, and additional types of filtration systems.				
Accomplishments/Planned Programs Subtotals		3.549	4.156	3.690

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Exhibit R-2A, RDT&E Project Justification: PB 2014 Chemical and Biological Defense Program		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 0400: <i>Research, Development, Test & Evaluation, Defense-Wide</i> BA 7: <i>Operational Systems Development</i>	R-1 ITEM NOMENCLATURE PE 0607384BP: <i>CHEMICAL/BIOLOGICAL DEFENSE (OP SYS DEV)</i>	PROJECT TE7: <i>TEST & EVALUATION (OP SYS DEV)</i>
C. Other Program Funding Summary (\$ in Millions) N/A		
Remarks		
D. Acquisition Strategy T&E UPGRAD Test and evaluation Range Instrumentation/Technology Upgrades is a continuing project. It provides for technical upgrades to WDTC capabilities for Chemical and Biological testing of DoD CB materiel, weapons, and weapons systems from concept through production.		
E. Performance Metrics N/A		

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Chemical and Biological Defense Program												DATE: April 2013			
APPROPRIATION/BUDGET ACTIVITY 0400: <i>Research, Development, Test & Evaluation, Defense-Wide</i> BA 7: <i>Operational Systems Development</i>						R-1 ITEM NOMENCLATURE PE 0607384BP: <i>CHEMICAL/BIOLOGICAL DEFENSE (OP SYS DEV)</i>						PROJECT TE7: <i>TEST & EVALUATION (OP SYS DEV)</i>			
Test and Evaluation (\$ in Millions)				FY 2012		FY 2013		FY 2014 Base		FY 2014 OCO		FY 2014 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
** T&E UPGRAD - OTHT S - Technology Upgrades - WDTC, UT	MIPR	West Desert Test Center:Dugway, UT	0.000	3.549	Sep 2012	4.156	Sep 2013	3.690	Sep 2014	-		3.690	Continuing	Continuing	0.000
Subtotal			0.000	3.549		4.156		3.690		0.000		3.690			0.000
			All Prior Years	FY 2012		FY 2013		FY 2014 Base		FY 2014 OCO		FY 2014 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals			0.000	3.549		4.156		3.690		0.000		3.690			0.000
Remarks															

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Exhibit R-4, RDT&E Schedule Profile: PB 2014 Chemical and Biological Defense Program																DATE: April 2013			
APPROPRIATION/BUDGET ACTIVITY 0400: <i>Research, Development, Test & Evaluation, Defense-Wide</i> BA 7: <i>Operational Systems Development</i>								R-1 ITEM NOMENCLATURE PE 0607384BP: <i>CHEMICAL/BIOLOGICAL DEFENSE (OP SYS DEV)</i>								PROJECT TE7: <i>TEST & EVALUATION (OP SYS DEV)</i>			

	FY 2012				FY 2013				FY 2014				FY 2015				FY 2016				FY 2017				FY 2018			
	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
** T&E UPGRAD - LSTF Instrumentation & Equip Upgrades, WDTC																												
T&E UPGRAD - Modernization of Major Test Chambers, WDTC																												
T&E UPGRAD - Enhance Instrumentation & Equip at Target S, Downwind, & Tower CB Test Grids, WDTC																												
T&E UPGRAD - Revitalize & Upgrade Instrumentation & Equip at Combined Chemical Test Facility, WDTC																												

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Exhibit R-4A, RDT&E Schedule Details: PB 2014 Chemical and Biological Defense Program			DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 0400: <i>Research, Development, Test & Evaluation, Defense-Wide</i> BA 7: <i>Operational Systems Development</i>	R-1 ITEM NOMENCLATURE PE 0607384BP: <i>CHEMICAL/BIOLOGICAL DEFENSE (OP SYS DEV)</i>	PROJECT TE7: <i>TEST & EVALUATION (OP SYS DEV)</i>	

Schedule Details

Events	Start		End	
	Quarter	Year	Quarter	Year
** T&E UPGRAD - LSTF Instrumentation & Equip Upgrades, WDTC	1	2012	2	2016
T&E UPGRAD - Modernization of Major Test Chambers, WDTC	1	2012	4	2017
T&E UPGRAD - Enhance Instrumentation & Equip at Target S, Downwind, & Tower CB Test Grids, WDTC	1	2012	2	2016
T&E UPGRAD - Revitalize & Upgrade Instrumentation & Equip at Combined Chemical Test Facility, WDTC	1	2012	2	2016