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Exhibit R-2, RDT&E Budget Item Justification: PB 2013 Defense Threat Reduction Agency **DATE:** February 2012

APPROPRIATION/BUDGET ACTIVITY 0400: <i>Research, Development, Test & Evaluation, Defense-Wide</i> BA 5: <i>Development & Demonstration (SDD)</i>	R-1 ITEM NOMENCLATURE PE 0605000BR: <i>WMD Defeat Capabilities</i>
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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
Total Program Element	7.826	5.888	5.749	-	5.749	5.995	6.077	8.359	8.541	Continuing	Continuing
RL: <i>Nuclear & Radiological Effects</i>	7.826	5.888	5.749	-	5.749	5.995	6.077	8.359	8.541	Continuing	Continuing

A. Mission Description and Budget Item Justification

The Weapons of Mass Destruction (WMD) Toolset is the real-time globally accessible net-centric framework which migrates the Defense Threat Reduction Agency (DTRA) chemical, biological, radiological, nuclear, and high explosive (CBRNE) modeling and simulation codes to provide an integrated suite of Combating WMD decision support capabilities. The framework is the only operational CBRNE framework in the world which provides capabilities through web applications, net-centric web services, and stand-alone mobile deployments which are validated and accredited for operational use by International, National, State, and local authorities.

B. Program Change Summary (\$ in Millions)

	<u>FY 2011</u>	<u>FY 2012</u>	<u>FY 2013 Base</u>	<u>FY 2013 OCO</u>	<u>FY 2013 Total</u>
Previous President's Budget	7.307	5.888	5.749	-	5.749
Current President's Budget	7.826	5.888	5.749	-	5.749
Total Adjustments	0.519	-	-	-	-
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-0.603	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	1.330	-			
• SBIR/STTR Transfer	-0.163	-			
• FFRDC Reduction	-0.008	-		-	-
• Economic Assumption Reduction	-0.037	-		-	-

Change Summary Explanation

The increase from the previous President's Budget submission in FY 2011 the net effect of the Congressional Rescission, the Federally Funded Research and Development Center (FFRDC) reduction, the Economic Assumption reduction, and a transfer of funding from WMD Defeat Technologies; 0602718BR for increased investment in the Joint Collaborative Analysis Module of the Integrated Weapons of Mass Destruction Toolset (IWMDT).

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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
RL: <i>Nuclear & Radiological Effects</i>	7.826	5.888	5.749	-	5.749	5.995	6.077	8.359	8.541	Continuing	Continuing
Quantity of RDT&E Articles											

A. Mission Description and Budget Item Justification

Net-Centric Architecture includes three functional areas: 1) Integrated Weapons of Mass Destruction Toolset (IWMDT), 2) IWMDT Codes, and 3) Software Assurance and Certification and Accreditation. The IWMDT functional area develops the architecture, defines and implements the standards to consolidate validated Defense Threat Reduction Agency (DTRA) tools, and through this architecture, enables rapid access for planning, emergency response, and assessment capabilities. These capabilities are used by a wide range of planners, managers, and operational and technical personnel facing the full spectrum of chemical, biological, radiological, nuclear, and high-yield explosives threats. The IWMDT Codes functional area develops analysis and simulation codes, and then integrates the codes into the IWMDT architecture. These efforts are unique to this effort across the Department of Defense (DoD) and directly supports analysis capabilities in the Office of the Secretary of Defense (OSD) Studies and Analysis Group, and Cost Assessment and Program Evaluation (OSD CAPE), US Pacific Command and United States Forces Korea offices, Republic of Korea Ministry of Defense, Ministry of Defense Taiwan, as well as providing unique simulation capabilities to US Joint Forces Command and the Air Force Distributed Mission Operation Center. This sub-project extends research and development to system development and demonstration.

B. Accomplishments/Planned Programs (\$ in Millions)

	FY 2011	FY 2012	FY 2013
Title: RL: Nuclear & Radiological Effects	7.826	5.888	5.749
<p>FY 2011 Accomplishments:</p> <ul style="list-style-type: none"> - Deployed IWMDT 3.2 as a common nuclear assessment capability to U.S. Strategic Command (USSTRATCOM), United Kingdom Ministry Of Defence (UK MOD) and Supreme Headquarters Allied Powers Europe (SHAPE), providing the first true collaborative Chemical, Biological, Radiological, Nuclear, and High-yield Explosives (CBRNE) environment between the US and UK in accordance with 1959 International Memorandum Of Understanding. - Enhanced implementation of Net Centric Enterprise Services messaging and collaboration for use across exercise and operational deployments. - Enhanced the two primary capabilities in IWMDT 3.3 by integrating Hazard Prediction Assessment Capability (HPAC) 5.0 SP1 Maintenance build within the Consequence Assessment, and Integrated Munitions Effects Assessment (IMEA) 2010 within the Target Support area. - Integrated IWMDT-SIM and Joint Collaborative Analysis Model (JCAM) into IWMDT 3.3 expanding the IWMDT capabilities areas through external systems integration using the web-services capabilities. Each new capability extends the DTRA legacy CBRNE tools to new training and operational user communities. - Upgraded COE/NUCS STRATCOM nuclear data sets across the IWMDT framework providing more accurate and scaleable assessments for the nuclear community. 			

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B. Accomplishments/Planned Programs (\$ in Millions)	FY 2011	FY 2012	FY 2013
<p>- Migrated NUCS nuclear capabilities into IWMDT 3.2 and 3.3 enabling FY 2012 deployment of the net-centric based nuclear planning and assessment tools.</p> <p>FY 2012 Plans:</p> <ul style="list-style-type: none"> - Develop and provide an initial cyberspace capability through internal agency integration efforts. - Integrate advanced capabilities within the Net-Centric Architecture with the Global Strike Mission. - Complete and release IWMDT framework version 3.4. <p>FY 2013 Plans:</p> <ul style="list-style-type: none"> - Leverage the 4th Qtr FY11 and FY12 successes across USSTRATCOM, the UK and SHAPE, enabling IWMDT to become the primary CBRNE assessment capability within the DTRA Reachback and enabling it to become the single integrated assessment CBRNE capability across DTRA, STRATCOM, UK and U.S. Army Nuclear and Combating WMD Agency (USANCA). 			
Accomplishments/Planned Programs Subtotals	7.826	5.888	5.749

C. Other Program Funding Summary (\$ in Millions)											
<u>Line Item</u>	<u>FY 2011</u>	<u>FY 2012</u>	<u>FY 2013</u> <u>Base</u>	<u>FY 2013</u> <u>OCO</u>	<u>FY 2013</u> <u>Total</u>	<u>FY 2014</u>	<u>FY 2015</u>	<u>FY 2016</u>	<u>FY 2017</u>	<u>Cost To</u> <u>Complete</u>	<u>Total Cost</u>
• 23/0602718BR: <i>WMD Defeat Technologies</i>	15.891	25.343	25.752		25.752	23.904	25.202	25.539	25.964	Continuing	Continuing
• 28/0603160BR: <i>Proliferation, Prevention, and Defeat</i>	2.661	0.000	0.000		0.000	0.000	0.000	0.000	0.000	Continuing	Continuing

D. Acquisition Strategy

The program for IWMDT is executed through a competed Cost Plus Fixed-Fee contract. This contract is a 3-year effort for software development, test, and integration. Follow-on contracts will be competed for award to continue any out-year activities.

E. Performance Metrics

Demonstrate and provide over 80% of the customer-required CBRNE modeling and simulation capabilities over networks, e.g. Department of Defense Global Information Grid.

Transform 100% of the validated mission-required legacy Defense Threat Reduction Agency CBRNE codes to a net-centric implementation in a process-controlled Verification, Validation, and Accreditation standards-based method.

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2013 Defense Threat Reduction Agency **DATE:** February 2012

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Product Development (\$ in Millions)				FY 2012		FY 2013 Base		FY 2013 OCO		FY 2013 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
System Development - IWMDT	C/CPAF	SAIC:San Diego, CA	17.109	3.100	Jan 2012	-		-		-	14.510	34.719	37.949
System Development - NuCS	C/CPFF	Applied Research Associates:Raleigh, NC	4.930	-		-		-		-	0.000	4.930	6.300
System Development - COE	C/CPFF	Titan:Kingstowne, VA	5.535	-		-		-		-	0.000	5.535	7.100
System Development - Component Contracts	C/Various	Various:Various	5.073	-		-		-		-	0.000	5.073	6.800
Subtotal			32.647	3.100		-		-		-	14.510	50.257	58.149

Remarks

The "Various" reported reflects multiple contracts, mainly CPFF.

Support (\$ in Millions)				FY 2012		FY 2013 Base		FY 2013 OCO		FY 2013 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Configuration Management	C/Various	SAIC, ARA, Titan:Various	0.146	0.060	Jan 2012	0.095	Mar 2013	-		0.095	1.353	1.654	2.074
Software Integration	C/Various	SAIC, ARA, Titan:Various	3.100	0.200	Jan 2012	2.510	Mar 2013	-		2.510	1.100	6.910	6.910
Technical Data	C/Various	SAIC, ARA, Titan:Various	0.050	0.573	Jan 2012	0.050	Mar 2013	-		0.050	0.938	1.611	2.300
Engineering Services	C/Various	SAIC, ARA, Titan:Various	1.464	0.503	Jan 2012	0.908	Mar 2013	-		0.908	0.786	3.661	3.727
Accreditation & Certification	C/Various	SAIC, ARA, Titan:Various	0.146	0.420	Jan 2012	0.509	Mar 2013	-		0.509	0.983	2.058	2.058
Subtotal			4.906	1.756		4.072		-		4.072	5.160	15.894	17.069

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Test and Evaluation (\$ in Millions)				FY 2012		FY 2013 Base		FY 2013 OCO		FY 2013 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
Developmental Test & Evaluation	C/Various	SAIC, ARA, Titan:Various	1.555	0.350	Jan 2012	0.505	Mar 2013	-		0.505	1.300	3.710	5.228
Operational Test & Evaluation	C/Various	SAIC, ARA, Titan:Various	1.555	0.070	Jan 2012	0.398	Mar 2013	-		0.398	0.925	2.948	4.456
Subtotal			3.110	0.420		0.903		-		0.903	2.225	6.658	9.684

Management Services (\$ in Millions)				FY 2012		FY 2013 Base		FY 2013 OCO		FY 2013 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
Program Management	C/Various	SAIC, ARA, Titan:Various	2.296	0.132	Jan 2012	0.234	Mar 2013	-		0.234	2.100	4.762	5.278
Travel	C/Various	SAIC, ARA, Titan:Various	1.070	0.240	Jan 2012	0.270	Mar 2013	-		0.270	1.300	2.880	3.530
Overhead	C/Various	SAIC, ARA, Titan:Various	2.293	0.240	Jan 2012	0.270	Mar 2013	-		0.270	1.600	4.403	4.403
Subtotal			5.659	0.612		0.774		-		0.774	5.000	12.045	13.211

	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		46.322	5.888	5.749	-	5.749	26.895	84.854	98.113

Remarks
 All "PY Costs" costs and activities for Integrated Weapons of Mass Destruction Toolset (IWMDT), Nuclear Capability Server (NuCS), and Consequence of Execution (COE) were assigned under Project BD of PE 0602716BR. IWMDT was funded in 2004 by a competitive CPAF contract for \$12.425M over a 3-year period. At end of FY 2006, its follow-on contract was awarded with an initial \$.300M increment. IWMDT program efforts have continued into FY 2011 with \$28.962M now applied. Likewise, the NuCS program was funded under a competitive CPFF contract over a 3-year period with funding of \$5.913M applied through FY 2008; a follow-on contract has now been awarded with initial funding to date of \$2.356M to continue program efforts, this effort is not funded past FY11 under this line. COE was funded under a competitive CPFF contract with increments to date of \$6.566M total. NUCS and COE will no longer be funded under this line. In CY 2012 IWMDT will be openly competed under the new DTRA ID/IQ for approx \$24.000M for FY2014-16.

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Exhibit R-4, RDT&E Schedule Profile: PB 2013 Defense Threat Reduction Agency		DATE: February 2012
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	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	
IWMDT - System Development, Test, and Integration - Phase 2																													
IWMDT - System Development, Test, and Integration - Phase 3/4																													
COE Integration - Phase 2																													
NuCS - Spiral 2 Development																													

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Exhibit R-4A, RDT&E Schedule Details: PB 2013 Defense Threat Reduction Agency		DATE: February 2012
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Schedule Details

Events	Start		End	
	Quarter	Year	Quarter	Year
IWMDT - System Development, Test, and Integration - Phase 2	1	2011	2	2011
IWMDT - System Development, Test, and Integration - Phase 3/4	3	2011	2	2014
COE Integration - Phase 2	1	2011	4	2011
NuCS - Spiral 2 Development	1	2011	4	2011

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