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<b>Exhibit R-2, RDT&amp;E Budget Item Justification:</b> PB 2016 Defense Threat Reduction Agency	<b>Date:</b> February 2015
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<b>Appropriation/Budget Activity</b>	<b>R-1 Program Element (Number/Name)</b>											
0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide / BA 5: System Development &amp; Demonstration (SDD)</i>	PE 0605000BR / <i>WMD Defeat Capabilities</i>											
<b>COST (\$ in Millions)</b>	<b>Prior Years</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016 Base</b>	<b>FY 2016 OCO</b>	<b>FY 2016 Total</b>	<b>FY 2017</b>	<b>FY 2018</b>	<b>FY 2019</b>	<b>FY 2020</b>	<b>Cost To Complete</b>	<b>Total Cost</b>
Total Program Element	58.555	12.511	6.887	7.156	-	7.156	7.340	7.437	7.563	7.715	Continuing	Continuing
RF: <i>Forensics Technologies</i>	0.000	6.867	6.887	7.156	-	7.156	7.340	7.437	7.563	7.715	Continuing	Continuing
RL: <i>Nuclear &amp; Radiological Effects</i>	58.555	5.644	-	-	-	-	-	-	-	-	-	64.199

**Note**

\*Project RF-Detection and Forensics Technologies subdivides into projects RD-Detection Technologies and RF-Forensics Technologies beginning in FY 2016. This impacts these projects in PE 0602718BR and PE 0603160BR. See C. Other Program Funding Summary below.

\*Integrated Weapons of Mass Destruction Toolset investments are to be completed in FY 2014.

**A. Mission Description and Budget Item Justification**

The mission of the Defense Threat Reduction Agency is to safeguard the United States and its allies from global weapons of mass destruction (WMD) threats by integrating, synchronizing, and providing responsive expertise, technologies, and capabilities. This mission directly aligns with several National and Department of Defense (DoD) level guidance/vision documents. For Research, Development, Test & Evaluation, these documents include the National Security Strategy, Defense Strategic Guidance (Sustaining U.S. Global Leadership: Priorities for 21st Century Defense), Quadrennial Defense Review, National Strategy for Combating Terrorism, 2014 DoD Strategy for Countering WMD, National Strategy to Combat WMD, Defense Planning Guidance, Guidance for Employment of the Force, National Military Strategic Plan for the War on Terrorism, and Joint Strategic Capabilities Plan (including the Nuclear Annex). To achieve this mission, DTRA established strategies and tasks to meet their principal objectives. These objectives are: 1) Ensure a safe, secure, and effective nuclear deterrent; 2) Anticipate emerging WMD threats; 3) Provide Combating WMD situational awareness; 4) Assess infrastructure and personnel vulnerabilities; 5) Prevent proliferation and use of WMD; 6) Defend against WMD threats; 7) Defeat WMD threats; 8) Recover from WMD consequences; and 9) Synchronize countering WMD activities.

This program element supports the development of system capabilities for the countering weapons of mass destruction (CWMD) mission. This funding specifically supports technologies to meet International Monitoring System technology requirements in support of nuclear arms control activities under the Nuclear Arms Control Technology program. Through FY 2014, funding also supported the development of collaborative CWMD analysis capabilities between the DoD and key interagency and international partners through a globally accessible net-centric framework in the form of the Integrated Weapons of Mass Destruction Toolset.

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Appropriation/Budget Activity		R-1 Program Element (Number/Name)			
0400: Research, Development, Test & Evaluation, Defense-Wide / BA 5: System Development & Demonstration (SDD)		PE 0605000BR / WMD Defeat Capabilities			
B. Program Change Summary (\$ in Millions)	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total
Previous President's Budget	12.901	6.887	7.156	-	7.156
Current President's Budget	12.511	6.887	7.156	-	7.156
Total Adjustments	-0.390	-	-	-	-
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-0.390	-			

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Exhibit R-2A, RDT&E Project Justification: PB 2016 Defense Threat Reduction Agency										Date: February 2015		
Appropriation/Budget Activity 0400 / 5					R-1 Program Element (Number/Name) PE 0605000BR / WMD Defeat Capabilities				Project (Number/Name) RF / Forensics Technologies			
COST (\$ in Millions)	Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	Cost To Complete	Total Cost
RF: Forensics Technologies	-	6.867	6.887	7.156	-	7.156	7.340	7.437	7.563	7.715	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

## Note

\*Project RF-Detection and Forensics Technologies subdivides into projects RD-Detection Technologies and RF-Forensics Technologies beginning in FY 2016.

## A. Mission Description and Budget Item Justification

This project supports the development of verification and monitoring capabilities for the Defense Threat Reduction Agency (DTRA) to counter proliferation and weapons of mass destruction (WMD). DTRA's Nuclear Arms Control Technologies (NACT) program performs Research, Development, Test, and Evaluation (RDT&E) to improve the sustainability, reliability, and effectiveness of capabilities related to its operational mission to install, operate, maintain, and sustain the waveform and radionuclide nuclear detonation detection stations comprising the U.S. portion of the International Monitoring System (IMS). This delivers data to the U.S. monitoring and verification community and enables U.S. compliance with the Comprehensive Nuclear-Test-Ban Treaty (CTBT) in support of U.S. and Department of Defense (DoD) nonproliferation objectives.

The project addresses WMD monitoring, implementation of, and compliance with arms control agreement requirements validated by the Office of the Under Secretary of Defense, Acquisition, Technology, and Logistics. This project conforms to the administration's research and development priorities related to WMD arms control and disablement. Technical assessments are made against CTBT implementation requirements and U.S. objectives to provide the basis for sound project development, evaluate existing programs, provide data required to inform compliance assessments and support U.S. monitoring policy, decision-makers, and negotiation teams.

The primary RDT&E program emphasis is on improvements that enable the installation of treaty-specific stations, which reduce costs and increase the reliability in diverse and often harsh environments; improve efficiency, performance, reliability, and sustainability of existing stations and treaty-specified verification capabilities; and improve capabilities to detect, characterize, and enable discrimination of, nuclear weapons tests. The NACT program directly supports U.S. and allied warfighter and national technical monitoring requirements and provides vital data used by the treaty monitoring community, warfighter planners, DoD, other U.S. Government agencies, and international agencies.

The increase from FY 2015 to FY 2016 is for an enhanced level of investment in research on radionuclide sampling and analytical capabilities.

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

	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016</b>
<b>Title:</b> RF - Forensics Technologies	6.867	6.887	7.156
<b>Description:</b> Project RF supports the NACT Program, conducting RDT&E to meet IMS technology requirements in support of CTBT implementation, compliance, monitoring, inspection, and other emerging nuclear arms control activities.			
<b>FY 2014 Accomplishments:</b>			

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<b>Appropriation/Budget Activity</b> 0400 / 5	<b>R-1 Program Element (Number/Name)</b> PE 0605000BR / <i>WMD Defeat Capabilities</i>	<b>Project (Number/Name)</b> RF / <i>Forensics Technologies</i>	
<b>B. Accomplishments/Planned Programs (\$ in Millions)</b>		<b>FY 2014</b>	<b>FY 2015</b>
<ul style="list-style-type: none"> <li>- Supported Office of the Secretary of Defense (OSD) treaty management objectives and participation in joint U.S.-International Comprehensive Test Ban Office Provisional Technical Secretariat sponsored technology development exchanges and developmental exercises in support of technology development and IMS operations and maintenance objectives.</li> <li>- Developed prototype sensor, station calibration, and metrology planning.</li> <li>- Developed monitoring station array element calibration with focus on developing in-situ array calibration and performance monitoring capabilities.</li> <li>- Conducted signal capture and identification studies to reduce signal clutter and false alarms; and improve noise rejection methods and algorithms.</li> <li>- Continued radio-xenon gas detection system development and research. Studied and evaluated atmospheric and subsurface xenon backgrounds and transport phenomenon.</li> <li>- Continued a study of baseline noble gas detection schemes. Selected the pathway for future radio-xenon detection options providing enhanced detection and operational capabilities and reliability.</li> <li>- Completed infrasound information system enhancements and development of infrasound propagation models to improve detection, identification, and discrimination of sources and signatures of interest.</li> <li>- Conducted field experiments to collect data required to constrain and validate models. Models will include fine-scale atmospheric conditions, topography, 3-D winds and effects of non-linear propagation.</li> <li>- Continued to develop a portable/rapid deployable infrasound array and standard sound source for calibrating infrasound stations/ arrays.</li> <li>- Continued research and development on support system to collect and prioritize station operator requirements to inform required design-build-test activities across the monitoring system.</li> <li>- Continued U.S. IMS sensor event signal identification technique research and development of the transportable xenon laboratory (TXL) and associated xenon detection system and prepare for international deployment exercises and demonstrations. Work performed in advance of the TXL foreign deployment will establish a baseline for this xenon monitoring capability and provide unique opportunities to diagnose and resolve remaining technical concerns and issues, including investigating the "memory effect" recently encountered in these systems as a result of the unintended radio-xenon releases from the Fukushima reactors. Continued infrasound event clutter and false alarm reduction and noise mitigation analyses.</li> <li>- Drove improvements in radionuclide detection and measurement, including xenon gas collection/analysis systems research. Evaluate detection limits, and yields. Technical requirements continue to dictate that the U.S. radionuclide laboratory (RL-16) gas system requires additional capability to meet required detection thresholds.</li> <li>- Develop test methods to increase xenon gas yields, improve detection efficiencies, and decrease dead volume. To ensure RL-16 is making a high precision measurement, analysis samples will be peer reviewed and calibrated at certified laboratories.</li> </ul> <p><b>FY 2015 Plans:</b></p> <ul style="list-style-type: none"> <li>- Continue to improve the sustainability, reliability, and effectiveness of the 36 IMS stations</li> </ul>			

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2016 Defense Threat Reduction Agency			<b>Date:</b> February 2015
<b>Appropriation/Budget Activity</b> 0400 / 5	<b>R-1 Program Element (Number/Name)</b> PE 0605000BR / <i>WMD Defeat Capabilities</i>	<b>Project (Number/Name)</b> RF / <i>Forensics Technologies</i>	

<b>B. Accomplishments/Planned Programs (\$ in Millions)</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016</b>
<ul style="list-style-type: none"> <li>- Complete Provisional Technical Secretariat certification of U.S. IMS Infrasound monitoring station on Wake Island and Auxiliary Seismic monitoring station on Shemya Island, Alaska.</li> <li>- Continue to improve U.S. IMS operations efficiency, capabilities, and quality of monitoring data and decrease false alarms.</li> <li>- Continue support of OSD treaty management objectives.</li> <li>- Continue participating in International Comprehensive Test Ban Office Provisional Technical Secretariat sponsored technology development exchanges and field exercises.</li> <li>- Continue research and development to inform required design-build-test activities across the monitoring system.</li> <li>- Continue IMS prototype sensor and station calibration capabilities development.</li> <li>- Continue development of monitoring station in-situ calibration and performance monitoring capabilities.</li> <li>- Continue performing experiments or field demonstrations to evaluate monitoring system performance.</li> <li>- Continue to enhance baseline radionuclide particulate and noble gas detection capabilities, efficiency, and reliability.</li> <li>- Continue development and calibration of infrasound and seismic propagation models.</li> <li>- Continue field experiments to collect data required to calibrate and constrain and validate IMS relevant propagation models.</li> <li>- Continue U.S. IMS sensor event signal identification technique research and development of the transportable xenon laboratory.</li> </ul> <p><b>FY 2016 Plans:</b></p> <ul style="list-style-type: none"> <li>- Continue support of OSD Threat Reduction and Arms Control treaty management objectives.</li> <li>- Continue development and implementation of IMS sensor and station calibration capabilities.</li> <li>- Continue development and implementation of in-situ calibration concepts.</li> <li>- Participate in CTBT Organization Provisional Technical Secretariat sponsored technology development exchanges.</li> <li>- Sponsor U.S. specific technology development exchanges.</li> <li>- Develop and implement U.S. IMS specific life-cycle management software to enable costs effective and efficient spare part replacement and long-range recapitalization.</li> <li>- Develop and implement concepts to improve the reliability of the radionuclide stations.</li> <li>- Develop and implement concepts to improve radionuclide and infrasound signal to noise.</li> <li>- Improve and develop system of health monitoring software.</li> </ul>			
<b>Accomplishments/Planned Programs Subtotals</b>	6.867	6.887	7.156

<b>C. Other Program Funding Summary (\$ in Millions)</b>											
<b>Line Item</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>FY 2016 Base</b>	<b>FY 2016 OCO</b>	<b>FY 2016 Total</b>	<b>FY 2017</b>	<b>FY 2018</b>	<b>FY 2019</b>	<b>FY 2020</b>	<b>Cost To Complete</b>	<b>Total Cost</b>
• 23/0602718BR: <i>WMD Defeat Technologies</i>	34.595	35.061	9.547	-	9.547	10.128	10.443	10.684	10.899	Continuing	Continuing
• 30/0603160BR: <i>Proliferation Prevention and Defeat</i>	73.919	66.707	38.427	-	38.427	39.725	40.219	41.414	42.242	Continuing	Continuing

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2016 Defense Threat Reduction Agency							<b>Date:</b> February 2015		
<b>Appropriation/Budget Activity</b> 0400 / 5				<b>R-1 Program Element (Number/Name)</b> PE 0605000BR / <i>WMD Defeat Capabilities</i>			<b>Project (Number/Name)</b> RF / <i>Forensics Technologies</i>		

**C. Other Program Funding Summary (\$ in Millions)**

<u>Line Item</u>	<u>FY 2014</u>	<u>FY 2015</u>	<u>FY 2016</u> <u>Base</u>	<u>FY 2016</u> <u>OCO</u>	<u>FY 2016</u> <u>Total</u>	<u>FY 2017</u>	<u>FY 2018</u>	<u>FY 2019</u>	<u>FY 2020</u>	<u>Cost To</u> <u>Complete</u>	<u>Total Cost</u>
<b>Remarks</b>											

**D. Acquisition Strategy**

Assess government, academic, and industrial performers and make selections based upon a "best fit for task" criteria. Common government awardees include DoD Service Laboratories and the Department of Energy National Laboratories.

**E. Performance Metrics**

The goal of the NACT RDT&E program is to enable full compliance of all emerging data quality requirements and other requirements as documented in CTBT treaty language, CTBT-issued Radionuclide and Waveform Operations Manuals, and other CTBT Organization communications. RDT&E is conducted in support of NACT's operational mission to operate, maintain, and sustain the Provisional Technical Secretariat certified waveform and radionuclide CTBT monitoring stations in accordance with CTBT requirements. CTBT IMS data availability/timeliness performance specifications/requirements are currently 98% data availability for IMS waveform and 95% for IMS radionuclide systems. Data quality metrics continue to evolve as the entire CTBT IMS capability is exercised and tested.

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2016 Defense Threat Reduction Agency												Date: February 2015			
Appropriation/Budget Activity 0400 / 5						R-1 Program Element (Number/Name) PE 0605000BR / WMD Defeat Capabilities				Project (Number/Name) RF / Forensics Technologies					
Support (\$ in Millions)				FY 2014		FY 2015		FY 2016 Base		FY 2016 OCO		FY 2016 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Radionuclide Analysis Technology	FFRDC	Pacific Northwest National Laboratory : Richland, WA	-	2.317	Jun 2014	1.000	Jun 2015	1.000	Jun 2016	-		1.000	4.480	8.797	8.797
Waveform Analysis Technology	C/Various	Space and Missile Defense Labs : Huntsville, AL	-	1.669	Aug 2014	-		-		-		-	-	1.669	1.669
Radionuclide Analysis Improvements	C/CPFF	General Dynamics : Fairfax, VA	-	0.500	Jun 2014	0.500	Mar 2015	0.500	Mar 2016	-		0.500	2.240	3.740	3.740
Waveform Analysis Improvements	TBD	TBD : TBD	-	-		0.500	Apr 2015	0.500	Apr 2016	-		0.500	2.240	3.240	3.240
Waveform Testing and Analysis	FFRDC	Sandia National Laboratory : Albuquerque, NM	-	0.506	Mar 2014	0.506	Mar 2015	0.506	Mar 2016	-		0.506	2.267	3.785	3.785
Sample Analysis	MIPR	Air Force Technical Application Center : Patrick AFB, FL	-	0.800	Aug 2014	0.800	Aug 2015	0.800	Aug 2016	-		0.800	3.552	5.952	5.952
Infrasound Standards and Improvements	TBD	TBD : TBD	-	-		1.000	Mar 2015	1.000	Mar 2016	-		1.000	4.480	6.480	6.480
Deficiency Improvement Research & Development	TBD	TBD : TBD	-	-		1.481	Mar 2015	1.750	Mar 2016	-		1.750	5.880	9.111	9.111
Engineering & Technical Services	C/CPFF	TASC, Inc. : Chantilly, VA	-	0.800	Dec 2013	0.800	Dec 2014	0.800	Dec 2015	-		0.800	3.584	5.984	5.984
Subtotal			-	6.592		6.587		6.856		-		6.856	28.723	48.758	48.758
Management Services (\$ in Millions)				FY 2014		FY 2015		FY 2016 Base		FY 2016 OCO		FY 2016 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
A&AS Support to Program Office	C/CPFF	TASC, Inc. : Chantilly, VA	-	0.200	Dec 2013	0.200	Dec 2014	0.200	Dec 2015	-		0.200	0.888	1.488	1.488
Travel	C/Various	Various : Various	-	0.075		0.100		0.100		-		0.100	0.444	0.719	0.719
Subtotal			-	0.275		0.300		0.300		-		0.300	1.332	2.207	2.207

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<b>Exhibit R-3, RDT&amp;E Project Cost Analysis:</b> PB 2016 Defense Threat Reduction Agency	<b>Date:</b> February 2015
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Appropriation/Budget Activity					R-1 Program Element (Number/Name)					Project (Number/Name)					
0400 / 5					PE 0605000BR / WMD Defeat Capabilities					RF / Forensics Technologies					
			Prior Years	FY 2014		FY 2015		FY 2016 Base		FY 2016 OCO		FY 2016 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals			-	6.867		6.887		7.156		-		7.156	30.055	50.965	50.965

**Remarks**

The Defense Threat Reduction Agency (DTRA) Nuclear Arms Control program installs, operates, maintains, and sustains the waveform and radionuclide nuclear detonation detection stations comprising the U.S. portion of the International Monitoring Systems (IMS) in order to deliver data to the U.S. monitoring and verification community and to enable U.S. compliance to the terms of the Comprehensive Nuclear-Test-Ban Treaty (CTBT) in support of U.S. and Department of Defense (DOD) nonproliferation objectives. The project addresses weapons of mass destruction (WMD) monitoring requirements validated by the Office of the Under Secretary of Defense, Acquisition, Technology, and Logistics. This project conforms to the administration's research and development priorities as related to WMD arms control and disablement. Technical assessments are made against CTBT implementation requirements and U.S. objectives to provide the basis for sound project development, evaluate existing programs, and provide the data required to inform compliance assessments, and support U.S. monitoring policy and decision-makers, and negotiation teams. NOTE: As this program and its requirements mature and legacy contract vehicles expire, the composition of the performer base under DTRA program management will be dynamic.



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<b>Exhibit R-4, RDT&amp;E Schedule Profile:</b> PB 2016 Defense Threat Reduction Agency	<b>Date:</b> February 2015
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<b>Appropriation/Budget Activity</b> 0400 / 5	<b>R-1 Program Element (Number/Name)</b> PE 0605000BR / <i>WMD Defeat Capabilities</i>	<b>Project (Number/Name)</b> RF / <i>Forensics Technologies</i>
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	FY 2014				FY 2015				FY 2016				FY 2017				FY 2018				FY 2019				FY 2020			
	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
<b><i>Nuclear Arms Control Technology (NACT)</i></b>																												
Waveform and radionuclide monitoring capability enhancements																												
System reliability and availability enhancements																												
System operations and efficiency improvements																												

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<b>Exhibit R-4A, RDT&amp;E Schedule Details:</b> PB 2016 Defense Threat Reduction Agency			<b>Date:</b> February 2015
<b>Appropriation/Budget Activity</b> 0400 / 5	<b>R-1 Program Element (Number/Name)</b> PE 0605000BR / <i>WMD Defeat Capabilities</i>	<b>Project (Number/Name)</b> RF / <i>Forensics Technologies</i>	

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
<b><i>Nuclear Arms Control Technology (NACT)</i></b>				
Waveform and radionuclide monitoring capability enhancements	2	2014	4	2020
System reliability and availability enhancements	2	2014	4	2020
System operations and efficiency improvements	2	2014	4	2020

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Exhibit R-2A, RDT&E Project Justification: PB 2016 Defense Threat Reduction Agency										Date: February 2015		
Appropriation/Budget Activity 0400 / 5					R-1 Program Element (Number/Name) PE 0605000BR / WMD Defeat Capabilities				Project (Number/Name) RL / Nuclear & Radiological Effects			
COST (\$ in Millions)	Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	Cost To Complete	Total Cost
RL: Nuclear & Radiological Effects	58.555	5.644	-	-	-	-	-	-	-	-	-	64.199
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		
A. Mission Description and Budget Item Justification												
Efforts in this Project were completed in FY 2014. Under Project RL, the Net-Centric Architecture program integrated legacy capabilities and facilitated data sharing through a net-centric framework. It provided near-real time collaborative analysis capabilities between the Department of Defense (DoD) and key interagency and international partners through a globally accessible net-centric framework known as the Integrated Weapons of Mass Destruction Toolset. This toolset migrated the Defense Threat Reduction Agency's (DTRA's) chemical, biological, radiological, and nuclear modeling and simulation codes to provide an integrated suite of Combating WMD decision support capabilities. The framework was the only operational chemical, biological, radiological, nuclear, and high-yield explosives (CBRNE) framework in the world that provided 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.												
The decrease in FY 2015 is due to the completion of Integrated Weapons of Mass Destruction Toolset investments.												
B. Accomplishments/Planned Programs (\$ in Millions)									FY 2014	FY 2015	FY 2016	
Title: RL: Nuclear & Radiological Effects									5.644	-	-	
Description: Project RL develops and provides a real-time globally accessible net-centric framework which migrates the DTRA CBRNE modeling and simulation codes to provide an integrated suite of Combating WMD decision support capabilities.												
FY 2014 Accomplishments:												
- Installed Integrated Weapons of Mass Destruction Toolset version 3.32 (Joint Collaborative Analysis Model specific components only) at Ministry of National Defense, Republic of China for joint operational training and planning collaboration between U.S. forces and the Republic of China forces.												
- Fielded Integrated Weapons of Mass Destruction Toolset version 3.32 to United States Strategic Command, United Kingdom, Supreme Headquarters Allied Powers Europe, Office of the Secretary of Defense, U.S. Army Nuclear and Combating WMD Agency, and DTRA's Technical Reachback.												
- Broadly deployed Integrated Weapons of Mass Destruction Toolset First Responder Tool (FiRST) iOS and Android application to Department of Homeland Security and DTRA users with consequence assessment mission requirements.												
Accomplishments/Planned Programs Subtotals									5.644	-	-	

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Appropriation/Budget Activity 0400 / 5				R-1 Program Element (Number/Name) PE 0605000BR / WMD Defeat Capabilities				Project (Number/Name) RL / Nuclear & Radiological Effects			
C. Other Program Funding Summary (\$ in Millions)											
			FY 2016	FY 2016	FY 2016					Cost To	
Line Item	FY 2014	FY 2015	Base	OCO	Total	FY 2017	FY 2018	FY 2019	FY 2020	Complete	Total Cost
• 23/0602718BR: WMD Defeat Technologies	31.754	32.352	23.053	-	23.053	23.769	23.899	24.308	24.794	Continuing	Continuing
Remarks											
D. Acquisition Strategy											
The program for Integrated Weapons of Mass Destruction Toolset is executed through a competed cost plus fixed-fee contract. This contract is a 3-year effort for software development, test, and integration.											
E. Performance Metrics											
Demonstrate and provide over 80% of the customer-required CBRN modeling and simulation capabilities over networks, e.g., DoD Global Information Grid. Integrate mission-required legacy DTRA CBRNE codes into a net-centric architecture through a process-controlled verification, validation, and accreditation standards-based method necessary to promote the National Strategy for Countering Biological Threats.											

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**Exhibit R-3, RDT&E Project Cost Analysis:** PB 2016 Defense Threat Reduction Agency **Date:** February 2015

<b>Appropriation/Budget Activity</b> 0400 / 5	<b>R-1 Program Element (Number/Name)</b> PE 0605000BR / WMD Defeat Capabilities	<b>Project (Number/Name)</b> RL / Nuclear & Radiological Effects
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Product Development (\$ in Millions)				FY 2014		FY 2015		FY 2016 Base		FY 2016 OCO		FY 2016 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
System Development - IWMDT	C/CPAF	Leidos : San Diego, CA	20.209	1.071	May 2014	-		-		-		-	-	21.280	21.280
System Development - NuCS	C/CPFF	Applied Research Associates : Raleigh, NC	4.930	0.950	Jun 2014	-		-		-		-	-	5.880	5.880
System Development - COE	C/CPFF	Titan : Kingstowne, VA	5.533	-		-		-		-		-	-	5.533	5.533
System Development - Component Contracts	C/Various	Various : Various	5.073	-		-		-		-		-	-	5.073	5.073
<b>Subtotal</b>			35.745	2.021		-		-		-		-	-	37.766	37.766

Support (\$ in Millions)				FY 2014		FY 2015		FY 2016 Base		FY 2016 OCO		FY 2016 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Configuration Management	C/CPAF	Leidos : San Diego, CA	0.401	0.540	May 2014	-		-		-		-	-	0.941	0.941
Software Integration	C/CPAF	Leidos : San Diego, CA	6.810	0.740	May 2014	-		-		-		-	-	7.550	7.550
Technical Data	C/CPAF	Leidos : San Diego, CA	0.674	0.065	May 2014	-		-		-		-	-	0.739	0.739
Engineering Services	C/CPAF	Leidos : San Diego, CA	2.372	0.229	May 2014	-		-		-		-	-	2.601	2.601
Accreditation & Certification	C/CPAF	Leidos : San Diego, CA	1.075	0.312	May 2014	-		-		-		-	-	1.387	1.387
<b>Subtotal</b>			11.332	1.886		-		-		-		-	-	13.218	13.218

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2016 Defense Threat Reduction Agency												Date: February 2015			
Appropriation/Budget Activity 0400 / 5						R-1 Program Element (Number/Name) PE 0605000BR / WMD Defeat Capabilities				Project (Number/Name) RL / Nuclear & Radiological Effects					
Test and Evaluation (\$ in Millions)				FY 2014		FY 2015		FY 2016 Base		FY 2016 OCO		FY 2016 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Developmental Test & Evaluation	C/CPAF	Leidos : San Diego, CA	2.410	0.574	May 2014	-		-		-		-	-	2.984	2.984
Operational Test & Evaluation	C/ FFPLOE	Leidos : San Diego, CA	2.023	0.398	May 2014	-		-		-		-	-	2.421	2.421
Subtotal			4.433	0.972		-		-		-		-	-	5.405	5.405
Management Services (\$ in Millions)				FY 2014		FY 2015		FY 2016 Base		FY 2016 OCO		FY 2016 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Program Management	C/Various	TASC, Inc. : Lorton, VA	2.662	0.727	Apr 2014	-		-		-		-	-	3.389	3.389
Travel	C/Various	Various : Various	1.580	0.038	Dec 2013	-		-		-		-	-	1.618	1.618
Overhead	C/Various	Various : Various	2.803	-		-		-		-		-	-	2.803	2.803
Subtotal			7.045	0.765		-		-		-		-	-	7.810	7.810
			Prior Years	FY 2014	FY 2015		FY 2016 Base		FY 2016 OCO		FY 2016 Total	Cost To Complete	Total Cost	Target Value of Contract	
Project Cost Totals			58.555	5.644	-		-		-		-	-	64.199	64.199	
Remarks All prior year 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 Cost Plus Award Fee (CPAF) contract for \$12.425M over a 3-year period. At end of FY 2006, its follow-on contract was awarded with an initial \$0.300M increment. IWMDT efforts continued into FY 2013 with \$58.555M applied. The Joint Collaborative Analysis Model, a subcomponent within IWMDT will be openly competed under one of the new DTRA Indefinite Delivery/Indefinite Quantity contracts for approximately \$2.500M for FY 2014.															

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<b>Exhibit R-4, RDT&amp;E Schedule Profile:</b> PB 2016 Defense Threat Reduction Agency	<b>Date:</b> February 2015
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<b>Appropriation/Budget Activity</b> 0400 / 5	<b>R-1 Program Element (Number/Name)</b> PE 0605000BR / <i>WMD Defeat Capabilities</i>	<b>Project (Number/Name)</b> RL / <i>Nuclear &amp; Radiological Effects</i>
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FY 2014				FY 2015				FY 2016				FY 2017				FY 2018				FY 2019				FY 2020			
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

***Integrated Weapons of Mass Destruction Toolset (IWMDT)***

IWMDT-System Development, Test, and Integration-Phase III



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<b>Exhibit R-4A, RDT&amp;E Schedule Details:</b> PB 2016 Defense Threat Reduction Agency	<b>Date:</b> February 2015
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<b>Appropriation/Budget Activity</b> 0400 / 5	<b>R-1 Program Element (Number/Name)</b> PE 0605000BR / <i>WMD Defeat Capabilities</i>	<b>Project (Number/Name)</b> RL / <i>Nuclear &amp; Radiological Effects</i>
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Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
<b><i>Integrated Weapons of Mass Destruction Toolset (IWMDT)</i></b>				
IWMDT-System Development, Test, and Integration-Phase III	1	2014	3	2014