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**Exhibit R-2, RDT&E Budget Item Justification:** PB 2015 Office of Secretary Of Defense **Date:** March 2014

<b>Appropriation/Budget Activity</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide I BA 3: Advanced Technology Development (ATD)</i>	<b>R-1 Program Element (Number/Name)</b> PE 0303310D8Z <i>I Countering Weapons of Mass Destruction (CWMD) Systems</i>
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COST (\$ in Millions)	Prior Years	FY 2013	FY 2014	FY 2015 Base	FY 2015 OCO #	FY 2015 Total	FY 2016	FY 2017	FY 2018	FY 2019	Cost To Complete	Total Cost
Total Program Element	4.117	35.017	49.221	46.066	-	46.066	42.774	45.764	43.190	46.686	Continuing	Continuing
P*004: <i>Countering Weapons of Mass Destruction Systems</i>	4.117	35.017	49.221	46.066	-	46.066	42.774	45.764	43.190	46.686	Continuing	Continuing

# The FY 2015 OCO Request will be submitted at a later date.

## A. Mission Description and Budget Item Justification

This program addresses developing an integrated and interconnected CWMD capabilities-based system that defines and enables a comprehensive, global awareness and readiness for CWMD steady-state and surge postures. The diverse and complex Countering Weapons of Mass Destruction (CWMD) – nuclear, biological and chemical threats – mission space requires an integrated approach towards capability development. Capability development must be based on a systems perspective that links strategic objectives with interrelated tasks and associated capabilities. The broad CWMD military strategic objectives and mission areas encompass many nontraditional capabilities for the Warfighter, and CWMD is not an isolated mission set unique to DoD – it is intertwined with counter-terrorism and homeland defense. Accordingly, developing an overall CWMD capability should and must leverage complementary capabilities through integration and synchronization. A global CWMD situational awareness capability will be established and deployed worldwide via current communications systems and common operating pictures in support of this mission. This program will incorporate portfolio management tools and comprehensive analyses to enable a balanced and integrated CWMD systems portfolio, an optimized CWMD force structure, and the integration with and utilization of existing military assets to fill intelligence, sensor and reconnaissance gaps in CWMD.

This program also responds to the strategic needs outlined in the President's initiative, stated in his April 2009 speech in Prague; the US Combatant Commands integrated priorities and requirements; the 2010 Quadrennial Defense Review; and the FY12-16 Defense Planning and Programming Guidance by providing improved timeliness and relevance through modernizing CWMD support to the Combatant Commands, Office of the Secretary of Defense, Joint Staff, Intelligence Community (IC), and other U.S. Government agencies as required. This program is designed to leverage existing DoD resources and proven approaches to achieve its goals and rapidly deliver a capability to the Warfighter. It will ensure sufficient funding is available for travel to support the requirements of this program element.

This Program Element can fund travel to support the requirements of this program.

This appropriation will finance work, including manpower, performed by a government agency or by private individuals or organizations under a contractual or grant arrangement with the government who conduct research (systematic study directed toward fuller scientific knowledge or understanding of the subject studied), development (systematic use of the knowledge and understanding gained from research, for the production of useful materials, devices, systems, or methods, including the design and development of prototypes and processes) and test and evaluation efforts.

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<b>B. Program Change Summary (\$ in Millions)</b>	<b>FY 2013</b>	<b>FY 2014</b>	<b>FY 2015 Base</b>	<b>FY 2015 OCO</b>	<b>FY 2015 Total</b>
Previous President's Budget	53.946	52.053	53.760	-	53.760
Current President's Budget	35.017	49.221	46.066	-	46.066
Total Adjustments	-18.929	-2.832	-7.694	-	-7.694
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-15.000	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-3.929	-			
• Strategic Efficiency Reduction	-	-2.832	-7.694	-	-7.694

**Change Summary Explanation**

Requirements reduced in response to headquarters management initiatives to better align program with smaller military force.

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Exhibit R-2A, RDT&E Project Justification: PB 2015 Office of Secretary Of Defense										Date: March 2014		
Appropriation/Budget Activity 0400 / 3					R-1 Program Element (Number/Name) PE 0303310D8Z / <i>Countering Weapons of Mass Destruction (CWMD) Systems</i>				Project (Number/Name) P*004 / <i>Countering Weapons of Mass Destruction Systems</i>			
COST (\$ in Millions)	Prior Years	FY 2013	FY 2014	FY 2015 Base	FY 2015 OCO #	FY 2015 Total	FY 2016	FY 2017	FY 2018	FY 2019	Cost To Complete	Total Cost
P*004: <i>Countering Weapons of Mass Destruction Systems</i>	4.117	35.017	49.221	46.066	-	46.066	42.774	45.764	43.190	46.686	Continuing	Continuing

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## A. Mission Description and Budget Item Justification

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

	<b>FY 2013</b>	<b>FY 2014</b>	<b>FY 2015</b>
<b>Title:</b> Countering Weapons of Mass Destruction (CWMD) Systems	35.017	49.221	46.066

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<b>B. Accomplishments/Planned Programs (\$ in Millions)</b>		<b>FY 2013</b>	<b>FY 2014</b>
<p><b>Description:</b> • A global CWMD situational awareness system and concept of operation to enable a common operating picture and framework for CWMD that will integrate C4ISR, multi-modality intelligence, and other data to support simultaneous operations worldwide and address operational capability gaps.</p> <ul style="list-style-type: none"> <li>• A portfolio management capability based on an integrated system of systems architectural framework to evaluate potential CWMD investments.</li> <li>• Enhancements to major defense acquisition programs to address CWMD mission and systems' gaps.</li> <li>• A CWMD organizational capabilities review and update as required.</li> </ul> <p><b>FY 2013 Accomplishments:</b> The program developed a capability that will address all WMD threats – nuclear, chemical, and biological – from both state and non-state sources. It involved information on a range of drivers of proliferation, including key actors, networks, sensitive materials, and extensive contextual information. It assisted DoD in both preventing the loss of sensitive materials and technologies (and the deliberate or natural spread of disease), and responded to attacks and outbreaks when they occurred. It integrated with information systems that the combatant commands and Services already used in their day-to-day operations.</p> <p>GCAS OPERATIONAL SUPPORT</p> <ul style="list-style-type: none"> <li>• Completed the GCAS Concept of Operations (CONOPS).</li> <li>• Completed the analysis of organizational and structural infrastructure options and requirements for GCAS. Focus on the personnel requirements for the centralized component of GCAS i.e. the home base for operations or analysis center. Select location for deployment of the Initial Operating Capability.</li> <li>• Continued the structured assessment of DoD organizational capabilities to accomplish the integrated global CWMD mission set. FY13 efforts included Security Cooperation and Partner Activities, Threat Reduction Cooperation, and Passive Defense.</li> </ul> <p>GCAS PROGRAM, SYSTEMS ENGINEERING and SYSTEMS INTEGRATION</p> <ul style="list-style-type: none"> <li>• Began information model and information architecture development. Complete system functional and performance requirements, and specifications.</li> <li>• Completed technical and operational assessments for data integration and information processing, including data management and visualization alternatives. Analysis included demonstrated commercial and government available and applicable towards the system requirements for GCAS.</li> <li>• Conducted limited evaluation and downselection of integration and information processing tools based on the candidates evaluated in FY12. Completed technology readiness evaluations as required.</li> </ul>			

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<b>B. Accomplishments/Planned Programs (\$ in Millions)</b>		<b>FY 2013</b>	<b>FY 2014</b>
<ul style="list-style-type: none"> <li>Continued and expanded the methodology for determining what Situational Awareness information should be generated to fulfill information needs to describe steady state and event tracking/crisis monitoring. Determined the need for additional data streams to support and their availability.</li> <li>Transitioned GCAS demonstration capability to an operational prototype in FY13 with the intention for fielding an initial operating capability in FY14.</li> <li>Developed GCAS prototype. Identify, leverage and integrate appropriate existing technologies, data and fusion methodologies to produce a GCAS capability with minimal new development efforts. Extended the Haystack data fusion demonstration system to include broader set of data streams and incorporate complementary and orthogonal analytic tools to facilitate the generation of the CWMD situational awareness actionable data.</li> <li>Developed and implement interfaces to acquire biosurveillance and chemical data from national, international programs and sources.</li> <li>Developed and implement interfaces to acquire nuclear threat data from nuclear security, nuclear treaty verification, nuclear monitoring, and radiation detection sources and programs.</li> <li>Initiated experimentation of Warfighter prioritized real-world Use Cases using the operational prototyping.</li> </ul> <p>CWMD PORTFOLIO MANAGEMENT</p> <ul style="list-style-type: none"> <li>Refined the development of a CWMD systems architecture to enable comprehensive and systematic evaluation of needed capabilities as well as their relationship to each other.</li> <li>Refined qualitative metrics and assessment criteria and begin development of quantitative metrics for evaluation, where applicable.</li> </ul> <p>MAJOR DEFENSE ACQUISITION PROGRAM ENHANCEMENTS</p> <ul style="list-style-type: none"> <li>Integrated capability into lead COCOM's existing common operating picture and processes to improve and enhance CWMD situational awareness.</li> </ul> <p><b>FY 2014 Plans:</b></p> <ul style="list-style-type: none"> <li>Begin next spiral of situational awareness capability - Add new data sources, life patterns, and rule-sets/algorithms. Generate new methodology and supporting situational awareness feeds from new data and algorithms.</li> <li>Continue to build/upgrade/modify the required infrastructure for the GCAS operations home base to include hardware and software for computational and processing capabilities, training, and organizational support.</li> <li>Continue to integrate GCAS components into a service-oriented, web-based collaborative environment; register and publish service and data capabilities; enable authorized users to subscribe to information of interest; allow accredited data sources to</li> </ul>			

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<b>B. Accomplishments/Planned Programs (\$ in Millions)</b>		<b>FY 2013</b>	<b>FY 2014</b>
<p>be added. Where appropriate, allow integrated GCAS services and its associated updated CONOPS available to Combatant Commands (COCOMs) and military users.</p> <ul style="list-style-type: none"> <li>• Scale GCAS hardware to support additional users; integrate and test analytical engine updates.</li> <li>• Achieve network and system certifications and accreditations and identify initial capability for classified and unclassified security domains and data streams; identify additional Command and Control (C2) integration updates required.</li> <li>• Continue technology and data stream gap analysis and supporting research and development to fulfill the requirements for achieving CWMD situational awareness.</li> </ul> <p><b><i>FY 2015 Plans:</i></b></p> <ul style="list-style-type: none"> <li>• Continue with next spiral of situational awareness capability - Add new data sources, life patterns, and rule-sets/algorithms. Generate new methodology and supporting situational awareness feeds from new data and algorithms.</li> <li>• Continue to build/upgrade/modify the required infrastructure for the GCAS operations home base to include hardware and software for computational and processing capabilities, training, and organizational support.</li> <li>• Continue to integrate GCAS components into a service-oriented, web-based collaborative environment; register and publish service and data capabilities; enable authorized users to subscribe to information of interest; allow accredited data sources to be added. Where appropriate, allow integrated GCAS services and its associated updated CONOPS available to Combatant Commands (COCOMs) and military users.</li> <li>• Scale GCAS hardware to support additional users; integrate and test analytical engine updates.</li> <li>• Achieve network and system certifications and accreditations and identify initial capability for classified and unclassified security domains and data streams; identify additional Command and Control (C2) integration updates required.</li> <li>• Continue technology and data stream gap analysis and supporting research and development to fulfill the requirements for achieving CWMD situational awareness.</li> </ul>			
<b>Accomplishments/Planned Programs Subtotals</b>		35.017	49.221
<b>C. Other Program Funding Summary (\$ in Millions)</b> N/A			
<b>Remarks</b>			
<b>D. Acquisition Strategy</b> Utilize a knowledge based approach to achieve an operational prototype in FY14 with capability packages that provided upgraded CWMD situational awareness and capabilities with deliveries every 12-18 months utilizing agile software development processes.			

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<b><u>E. Performance Metrics</u></b> <p>Success in this area is measured by compliance with various statutes and DoD directives that govern the conduct of the affairs within the Office of ASD/NCB. Maintain cost, schedule, and performance reporting, review, and adjudication. Maintain requirements traceability matrix.</p>		