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Exhibit R-2, RDT&E Budget Item Justification: PB 2011 Operational Test and Evaluation, Defense **DATE:** February 2010

APPROPRIATION/BUDGET ACTIVITY 0460: <i>Operational Test and Evaluation, Defense</i> BA 6: <i>RDT&E Management Support</i>	R-1 ITEM NOMENCLATURE PE 0605814OTE: <i>Operational Test Activities and Analyses</i>
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COST (\$ in Millions)	FY 2009 Actual	FY 2010 Estimate	FY 2011 Base Estimate	FY 2011 OCO Estimate	FY 2011 Total Estimate	FY 2012 Estimate	FY 2013 Estimate	FY 2014 Estimate	FY 2015 Estimate	Cost To Complete	Total Cost
Total Program Element	120.609	118.101	122.581	0.000	122.581	124.524	126.369	128.327	130.447	Continuing	Continuing
1: OTA&A	120.609	118.101	122.581	0.000	122.581	124.524	126.369	128.327	130.447	Continuing	Continuing

A. Mission Description and Budget Item Justification

This program element consists of two programs: Test and Evaluation (T&E) Programs and T&E Independent Activities.

The Test and Evaluation programs are continuing efforts that provide management and oversight of test and evaluation functions and expertise to the Department of Defense (DoD). The T&E programs consist of five activities: Joint Test and Evaluation (JT&E); Threat Systems (TS); Center for Countermeasures (CCM); Joint Technical Coordinating Group for Munitions Effectiveness (JTTCG/ME); and, Joint Aircraft Survivability Program (JASP).

Joint Test and Evaluation projects are test and evaluation activities conducted in a joint military environment that develop process improvements. These multi-Service projects, chartered by the Office of the Secretary of Defense and coordinated with the Joint Staff, appropriate combatant commanders, and the Services, provide non-materiel solutions that improve: joint interoperability of Service systems, technical and operational concepts, joint operational issues, development and validation of joint test methodologies, and test data for validating models, simulations, and test beds. The JT&E projects address relevant joint war fighting issues in a joint test and evaluation environment by developing and providing new tactics, techniques, and procedures to improve joint test capabilities and methodologies.

Threat Systems, based on a memorandum of agreement between the Director, Operational Test and Evaluation (DOT&E) and the Defense Intelligence Agency, provides DOT&E support in the areas of threat resource analysis, intelligence support and threat systems investments. Threat Systems provides threat resource analyses on the availability, capabilities and limitations of threat representations (threat simulators, targets, models, U.S. surrogates and foreign materiel) and analysis of test resources used for operational testing to support DOT&E's assessment of the adequacy of testing for those programs designated for oversight by DOT&E and the Office of the Under Secretary of Defense for Acquisition, Technology and Logistics (OUSD(AT&L)). Threat Systems provides DOT&E assessment officers with program specific threat intelligence support. Threat Systems also funds management, oversight, and development of common-use threat specifications for threat simulators, threat representative targets, and digital threat models used for test and evaluation.

The Center, a Joint Service Countermeasure (CM) Test and Evaluation Center, serves as DoD's independent tester for CM assessments of U.S. and foreign precision guided weapons (PGWs) and sensor systems, CMs, counter-countermeasures (CCMs), and warning devices. The Center conducts tests, analyzes test results and provides CM expertise that benefits the Services, Joint activities, T&E Agencies, DoD Acquisition Community, the Intelligence Community, Homeland Defense and Overseas Contingency Operations (OCO). Data collected during Center test activities provides valuable information to OSD assessment officers for select oversight

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programs. The Center assesses current and developing systems, using carefully developed test and evaluation methodologies to provide the basis for understanding how CMs might affect systems used in current and future battlefields. Additionally, the Center develops CM specific test equipment that can be used for both Title 10 programs and OCO urgent operational needs.

The Joint Logistics Commanders Joint Technical Coordinating Group for Munitions Effectiveness (JTTCG/ME) was chartered more than 40 years ago to serve as DoD's focal point for munitions effectiveness information. This has taken the form of widely used Joint Munitions Effectiveness Manuals (JMEMs) which address all major non-nuclear U.S. weapons. JTTCG/ME authenticates weapons effectiveness data for use in training, systems acquisition, weapon procurement, and combat modeling and simulation. JMEMs are used by the Armed Forces of the U.S., NATO, and other allies to plan operational missions, support training and tactics development, and support force-level analyses. JTTCG/ME also develops and standardizes methodologies for evaluation of munitions effectiveness and maintains databases for target vulnerability, munitions lethality, and weapon system accuracy. The JMEM requirements and development processes continues to be driven by operational lessons learned (Enduring Freedom and Iraqi Freedom) and the needs of Combatant Commands, Services, Military Targeting Committee, and Operational Users Working Groups input for specific weapon-target pairings and methodologies.

The Joint Aircraft Survivability Program is the DoD's focal point for joint service enhancement of military aircraft non-nuclear survivability. The JASP is chartered by the commanders of the USN Naval Air Systems Command, USA Aviation and Missile Command and USAF Aeronautical Systems Center to coordinate and conduct RDT&E to improve military aircraft survivability, develop and standardize aircraft survivability modeling and simulation (M&S), facilitate information exchange on aircraft survivability and support aircraft survivability education for the DoD and U.S. aircraft community. Each chartering command provides a senior aircraft survivability expert for the JASP Principal Members Steering Group (PMSG), which guides the program and approves projects for funding. The JASP assesses and reports on combat damage incidents through the Joint Combat Assessment Team (JCAT), is the Executive Agent for the Joint Live Fire Aircraft Systems Program managed by the Live Fire Test office of DOT&E and is also an Executive Agent for the Survivability Vulnerability Information Analysis Center (SURVIAC), the repository for aircraft survivability information.

The Test and Evaluation Independent Activities program is the only source of funding for DOT&E studies, analyses, and management to provide continuing support of policy development oversight of the DoD test and evaluation practices, infrastructure and resources; and transformation of test methods and infrastructure to ensure future defense systems provide necessary joint warfighting capabilities. Studies and analyses examine the implications and consequences of current and proposed policy, plans, operations, strategies, and budgets and are essential for the accomplishment of the DOT&E mission. This program element funds travel in support of its activities.

This program element is budgeted in Budget Activity 6, RDT&E Management Support, to support management activities for the DOT&E oversight responsibility for test and evaluation and test and evaluation resources.

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B. Program Change Summary (\$ in Millions)

	<u>FY 2009</u>	<u>FY 2010</u>	<u>FY 2011 Base</u>	<u>FY 2011 OCO</u>	<u>FY 2011 Total</u>
Previous President's Budget	122.429	119.838	0.000	0.000	0.000
Current President's Budget	120.609	118.101	122.581	0.000	122.581
Total Adjustments	-1.820	-1.737	122.581	0.000	122.581
• Congressional General Reductions		-1.737			
• Congressional Directed Reductions		0.000			
• Congressional Rescissions	0.000	0.000			
• Congressional Adds		0.000			
• Congressional Directed Transfers		0.000			
• Reprogrammings	-1.820	0.000			
• SBIR/STTR Transfer	0.000	0.000			
• Program Adjustment	0.000	0.000	122.581	0.000	122.581

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COST (\$ in Millions)	FY 2009 Actual	FY 2010 Estimate	FY 2011 Base Estimate	FY 2011 OCO Estimate	FY 2011 Total Estimate	FY 2012 Estimate	FY 2013 Estimate	FY 2014 Estimate	FY 2015 Estimate	Cost To Complete	Total Cost
1: OTA&A	120.609	118.101	122.581	0.000	122.581	124.524	126.369	128.327	130.447	Continuing	Continuing
Quantity of RDT&E Articles											

A. Mission Description and Budget Item Justification

This program element consists of two programs: Test and Evaluation (T&E) Programs and T&E Independent Activities.

The Test and Evaluation programs are continuing efforts that provide management and oversight of test and evaluation functions and expertise to the Department of Defense (DoD). The T&E programs consist of five activities: Joint Test and Evaluation (JT&E); Threat Systems (TS); Center for Countermeasures (CCM); Joint Technical Coordinating Group for Munitions Effectiveness (JTTCG/ME); and Joint Aircraft Survivability Program (JASP).

The Test and Evaluation Independent Activities program is the only source of funding for DOT&E studies, analyses, and management to provide continuing support of policy development oversight of the DoD test and evaluation practices, infrastructure and resources; and transformation of test methods and infrastructure to ensure future defense systems provide necessary joint warfighting capabilities. Studies and analyses examine the implications and consequences of current and proposed policy, plans, operations, strategies, and budgets and are essential for the accomplishment of the DOT&E mission.

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

	FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total
Operational Test Activities and Analyses <i>FY 2009 Accomplishments:</i> Joint Test and Evaluation (JT&E) In FY 2009 JT&E had four projects close down, all of which started in FY 2006. The projects closing in this fiscal year work on a broad range of issues, from joint test methods and processes to command and control of network enabled weapons. By the time it closed in FY 2009, the Joint Test and Evaluation Methodology project produced the guidelines and procedures for conducting live, virtual,	120.609	118.101	122.581	0.000	122.581

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B. Accomplishments/Planned Program (\$ in Millions)					
<p>to provide CM expertise in the area of HFI in support of OCO. Our support will be distributed across all the Services as well as intelligence agencies and research and development activities.</p> <p>The Center will provide expertise to many organizations and will be actively involved in the following panels: the Technical Cooperation Program, Foreign Material Exploitation Working Group, Foreign Material Program Test and Evaluation Subcommittee, Joint Project Milari Working Group, Foreign Material Exploitation Working Group, Joint Expendable Countermeasures (JECM) Integrated Product Team, Joint Technical Coordinating Group for Munitions Effectiveness (JTTCG/ME), Infrared Countermeasures Test Resources and Requirements Study, Infrared Countermeasures Multi Sensing Symposia Working Group, Joint Aircraft Survivability Program and an OSD special interest working group, Joint IRCM T&E working group.</p> <p>Joint Technical Coordinating Group for Munitions Effectiveness (JTTCG/ME)</p> <p>In support of operational commanders, DoD targeteers, weaponeers, and planners, the JTTCG/ME will develop and release JMEM Weaponeering System (JWS) v2.1 in December 2010 and Joint-Anti-air Combat Effectiveness System (J-ACE) Air Superiority (AS) v5.0 in July 2010.</p> <p>JWS v2.1 will provided a major capability increase to include Fast Integrated Structural Tool (FIST), Enhanced Penetration Cratering Effects (PCEffects), Precision Munitions Planning Tool (PMPT), Joint Smart Weapons Model (JSWM), Improved Ship Weaponeering and Estimation Tool, Mine methodology, and Hellfire weaponeering data, etc. FIST is the future JMEM operational-level tool that incorporates the integral modules from Building Analysis Module (BAM) and Hardened Target Module (HTM) to create a merged tool that generates weapon effectiveness and damage assessments against infrastructure targets to include buildings, bunkers, and tunnels. J-ACE v5.0 will provide a major capability increase to more fully consider anti-air missile effectiveness. The faster than real time calculations will address missile fly out, target evasive maneuver, miss distance, effects of countermeasures, fuze performance, missile lethality and target vulnerability. These key “kill chain”</p>					
	FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total

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C. Other Program Funding Summary (\$ in Millions) N/A											
D. Acquisition Strategy N/A											
E. Performance Metrics Performance Measure: Percentage of required products, such as test planning documents, munitions effectiveness manuals, tactics-techniques-procedures, threat characteristics, assessments, and reports that are developed and delivered to program managers and customers on time. Actual Performance and Goals Operational Test Activities and Analyses On-Time Completion Rate <table><thead><tr><th>FY 2009</th><th>FY 2010</th><th>FY 2011</th></tr></thead><tbody><tr><td>Actual</td><td>Goal</td><td>Goal</td></tr><tr><td>91%</td><td>93%</td><td>94%</td></tr></tbody></table> The on-time completion rate was computed on the basis of the number of required products that were submitted within established time standards relative to the total number of such products that fell due during the fiscal year. DOT&E plans to achieve its goals for FY 2010 and FY 2011 through increased management emphasis on timely delivery of required products to customer activities.			FY 2009	FY 2010	FY 2011	Actual	Goal	Goal	91%	93%	94%
FY 2009	FY 2010	FY 2011									
Actual	Goal	Goal									
91%	93%	94%									

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