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**Exhibit R-2, RDT&E Budget Item Justification:** PB 2011 Office of Secretary Of Defense **DATE:** February 2010

<b>APPROPRIATION/BUDGET ACTIVITY</b>				<b>R-1 ITEM NOMENCLATURE</b>							
0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide</i> BA 6: <i>RDT&amp;E Management Support</i>				PE 0605100D8Z: <i>Joint Mission Environment Test Capability (JMETC)</i>							
<b>COST (\$ in Millions)</b>	<b>FY 2009 Actual</b>	<b>FY 2010 Estimate</b>	<b>FY 2011 Base Estimate</b>	<b>FY 2011 OCO Estimate</b>	<b>FY 2011 Total Estimate</b>	<b>FY 2012 Estimate</b>	<b>FY 2013 Estimate</b>	<b>FY 2014 Estimate</b>	<b>FY 2015 Estimate</b>	<b>Cost To Complete</b>	<b>Total Cost</b>
Total Program Element	8.286	9.379	10.287	0.000	10.287	10.494	10.763	10.920	11.070	Continuing	Continuing
100: <i>Joint Mission Environment Test Capability (JMETC)</i>	8.286	9.379	10.287	0.000	10.287	10.494	10.763	10.920	11.070	Continuing	Continuing

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

The Joint Mission Environment Test Capability (JMETC) Program provides the infrastructure for distributed testing and evaluation (T&E) of systems during development. The JMETC program implements the infrastructure capabilities defined in the DoD's "Testing in a Joint Environment Roadmap" to provide acquisition program managers a robust nation-wide capability to "test like we fight." JMETC provides a persistent distributed T&E capability that otherwise would not be readily available to Service/Component acquisition programs. This program is funded within the RDT&E Management Support Budget Activity because it is intended to provide test capability in support of RDT&E programs.

JMETC creates a common corporate capability to link live systems with virtual and constructive representations to generate a realistic joint mission test environment for the system(s) being tested. JMETC is a widely applicable, persistent, service provider for Department acquisition and net-centric programs. Key JMETC products include readily available connectivity over existing Department networks, standard data transport solutions, tools and utilities for planning and conducting distributed integrations, and a reuse repository. This common integration capability, through the use of the Test and Training Enabling Architecture (TENA), provides compatibility between JMETC and the Joint National Training Capability (JNTC), streamlining reuse of technical resources across test and training communities. In turn, this enables combined test and training exercises. JMETC capabilities will migrate, along with other RDT&E capabilities, to a mature Global Information Grid (GIG) Defense Information Systems Network (DISN) Core.

By linking distributed facilities, JMETC allows customers to efficiently evaluate their warfighting capability in a realistic joint environment. This enables a customer-defined joint mission test environment for systems engineering and testing, extensible to training and experimentation, in a timely and cost effective manner.

JMETC's institutional funding builds, maintains, and operates the JMETC, and pays for persistent availability of national connectivity for testing; data communications middleware; identification of interface standards; common software tools and components; and a data archive and reuse repository. It also funds JMETC program management, facilities, equipment, operating costs, and special studies and analysis related to test capabilities and infrastructure. Key attributes of the JMETC include: persistency; interoperability; reuse; various combinations of distributed capabilities (reconfigurable infrastructure to meet customer requirements); modeling and simulation (M&S) linkage; Live-Virtual-Constructive (LVC) test resource integration; and common support to both Service and Joint needs. System engineering, training, and experimentation all benefit from a corporate JMETC developed for T&E.

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<b>Exhibit R-2, RDT&amp;E Budget Item Justification:</b> PB 2011 Office of Secretary Of Defense	<b>DATE:</b> February 2010
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<b>APPROPRIATION/BUDGET ACTIVITY</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide</i> BA 6: <i>RDT&amp;E Management Support</i>	<b>R-1 ITEM NOMENCLATURE</b> PE 0605100D8Z: <i>Joint Mission Environment Test Capability (JMETC)</i>
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The Test Resource Management Center (TRMC) is the Department's lead for the JMETC program, and oversees both its development and its operations.

**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	8.616	9.455	0.000	0.000	0.000
Current President's Budget	8.286	9.379	10.287	0.000	10.287
Total Adjustments	-0.330	-0.076	10.287	0.000	10.287
• Congressional General Reductions		0.000			
• Congressional Directed Reductions		0.000			
• Congressional Rescissions	0.000	0.000			
• Congressional Adds		0.000			
• Congressional Directed Transfers		0.000			
• Reprogrammings	-0.330	0.000			
• SBIR/STTR Transfer	0.000	0.000			
• Other Program Adjustments	0.000	-0.076	10.287	0.000	10.287

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<b>APPROPRIATION/BUDGET ACTIVITY</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide</i> BA 6: <i>RDT&amp;E Management Support</i>				<b>R-1 ITEM NOMENCLATURE</b> PE 0605100D8Z: <i>Joint Mission Environment Test Capability (JMETC)</i>				<b>PROJECT</b> 100: <i>Joint Mission Environment Test Capability (JMETC)</i>			
<b>COST (\$ in Millions)</b>	<b>FY 2009 Actual</b>	<b>FY 2010 Estimate</b>	<b>FY 2011 Base Estimate</b>	<b>FY 2011 OCO Estimate</b>	<b>FY 2011 Total Estimate</b>	<b>FY 2012 Estimate</b>	<b>FY 2013 Estimate</b>	<b>FY 2014 Estimate</b>	<b>FY 2015 Estimate</b>	<b>Cost To Complete</b>	<b>Total Cost</b>
100: <i>Joint Mission Environment Test Capability (JMETC)</i>	8.286	9.379	10.287	0.000	10.287	10.494	10.763	10.920	11.070	Continuing	Continuing
Quantity of RDT&E Articles											

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

The Joint Mission Environment Test Capability (JMETC) Program provides the infrastructure for distributed testing of systems during development. The JMETC program implements the infrastructure capabilities defined in the Testing in a Joint Environment Roadmap to provide Acquisition Program Managers a robust nation-wide capability to “Test Like We Fight.” JMETC provides a persistent distributed test and evaluation (T&E) capability that otherwise would not be readily available to Service/Component development programs. This program is funded within the RDT&E Management Support Budget Activity because it is intended to provide test capability in support of RDT&E programs.

JMETC creates a common corporate capability to link live systems with virtual and constructive representations to generate a realistic joint mission test environment for the system(s) being tested. JMETC is a widely applicable, persistent, service provider for Department acquisition and net-centric programs. Key JMETC products include readily available connectivity over existing Department networks, standard data transport solutions, tools and utilities for planning and conducting distributed integrations, and a reuse repository. This common integration capability, through the use of the Test and Training Enabling Architecture (TENA), provides compatibility between JMETC and the Joint National Training Capability (JNTC), streamlining reuse of technical resources across test and training communities. In turn, this enables combined test and training exercises. JMETC capabilities will migrate, along with other RDT&E capabilities, to a mature Global Information Grid (GIG) Defense Information Systems Network (DISN) Core.

By linking distributed facilities, JMETC allows customers to efficiently evaluate their warfighting capability in a realistic joint environment. This enables a customer-defined joint mission test environment for systems engineering and testing, extensible to training and experimentation, in a timely and cost effective manner.

JMETC’s institutional funding builds, maintains, and operates the JMETC, and pays for persistent availability of national connectivity for testing; data communications middleware; identification of interface standards; common software tools and components; and a data archive and reuse repository. It also funds JMETC program management, facilities, equipment, operating costs, and special studies and analysis related to test capabilities and infrastructure. Key attributes of the JMETC include: persistency; interoperability; reuse; various combinations of distributed capabilities (reconfigurable infrastructure to meet customer requirements); modeling and simulation (M&S) linkage; Live-Virtual-Constructive (LVC) test resource integration; and common support to both Service and Joint needs. System engineering, training, and experimentation all benefit from a corporate JMETC developed for T&E.

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

	FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total
Joint Mission Environment Test Capability  <i>FY 2009 Accomplishments:</i> <ul style="list-style-type: none"> <li>- Completed initial development and began upgrade of the Reuse Repository to provide general program information; provided lessons learned from previous events; stored software interfaces, tools, utilities, and test metadata; provided capabilities of each site on the JMETC VPN; provided all help desk functions; hosted the portal for the "best of breed" tools process; and provided opportunity for collaboration, making all available to the DoD T&amp;E Community for reuse.</li> <li>- Completed a capabilities based assessment on Joint distributed test infrastructure for implementation of IPv6 at test facilities and laboratories, applicability of Service Oriented Architectures (SOA) to support distributed testing, and the test infrastructure needed for GIG-enabled systems.</li> <li>- Continued to provide support to acquisition programs and events as follows: Joint Persistent Fire 01, Joint Expeditionary Forces Experiment (JEFX) 09-02 and 03, Broad Area Maritime Surveillance System (BAMS) Live, Virtual, Constructive (LVC) Distributed Event (DE) (Unmanned Aircraft Systems in a National Airspace); Joint Command, Control, Communications, Computers, Intelligence, Surveillance, and Reconnaissance (JC4ISR) Interoperability Test and Evaluation Capability (InterTEC) System Integration Test, Air Force Strategic Integrated M&amp;S Capability Event (SIMACE), Test and Training Enabling Architecture (TENA) Developmental Test, Multi-Service System-of-Systems Test Bed (MSSTB), and the Joint Surface Warfare (JSuW) Joint Capability Technology Demonstration (JCTD).</li> <li>- Continued collaboration with the Air Force Integrated Collaborative Environment (AF-ICE) to leverage efficiencies through use of the provided JMETC products and services infrastructure. Completed integration of AF-ICE test sites into the JMETC Virtual Private Network (VPN).</li> <li>- Continued coordination discussions and plans with the Navy Distributed Engineering Plant (DEP) for supporting their distributed events by providing the necessary infrastructure. JMETC and Navy DEP</li> </ul>	8.286	9.379	10.287	0.000	10.287

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<b>B. Accomplishments/Planned Program (\$ in Millions)</b>						
		<b>FY 2009</b>	<b>FY 2010</b>	<b>FY 2011 Base</b>	<b>FY 2011 OCO</b>	<b>FY 2011 Total</b>
<i>FY 2011 OCO Plans:</i> N/A						
Accomplishments/Planned Programs Subtotals		8.286	9.379	10.287	0.000	10.287
<b>C. Other Program Funding Summary (\$ in Millions)</b> N/A						
<b>D. Acquisition Strategy</b> N/A						
<b>E. Performance Metrics</b>						
<ul style="list-style-type: none"> <li>- Expansion of initial capability to support acquisition program test requirements, providing distributed capability to test systems and demonstrating required joint capability.</li> <li>- Successful use of integration software compatible with the JNTC and Joint Training infrastructure.</li> <li>- Number of test sites/locations that are reused to support distributed tests using the JMETC infrastructure.</li> </ul>						

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