Exhibit R-2, RDT&E Budget Item Justification							February 2007	
APPROPRIATION/BUDGET ACTIVITY RDT&E, Defense Wide (0400), Budget Activity 6			R-1 ITEM NOMENCLATURE 0605100D8Z/Joint Mission Environment Test Capability (JMETC)					
$ in Millions	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013
PE 0605100D8Z	0.000	10.539	6.925	8.850	9.613	10.416	10.579	10.742

A. (U) MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION

The Joint Mission Environment Test Capability (JMETC) Program provides for distributed testing of systems acquisitions for informed milestone decisions. The JMETC program will implement the infrastructure capabilities defined in the Testing in a Joint Environment Roadmap to provide testers and developers a robust nation-wide distributed, persistent capability to "Test like We Fight." JMETC provides a collaborative 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 networking 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. A mature JMETC will provide the ability to lower the cost and speed development of major programs, and will provide significant added value to ACAT II/III/IV 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 ensures interoperability between JMETC and the Joint National Training Capability (JNTC), streamlining reuse of technical resources across test and training communities and, in the future, enabling combined test and training exercises. JMETC capabilities will eventually migrate to the Global Information Grid (GIG) as that capability matures.

By linking distributed facilities, JMETC allows customers to efficiently evaluate their war fighting capability in a realistic joint environment. This capability 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 and enforcement 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; composability of distributed capabilities (reconfigurable infrastructure to meet customer requirements); Modeling and Simulation (M&S) linkage; Live Virtual Constructive (LVC) integration; and common support to both Service and Joint needs (universal data transport solution set). System engineering, training, and experimentation will all benefit from a universal JMETC developed for T&E.

The Test Resource Management Center (TRMC) is the Department's lead for the JMETC program, and oversees both its development and its operations.

Program Accomplishments and Plans:

FY 2007 Plans:

Provide support to on-going programs, particularly Single Integrated Air Picture (SIAP), Network Enabled Command Capability (NECC), and Army Cross-Command Collaborative Environment (3CE) Future Combat System (FCS). Collaborate with the Air Force Integrated Collaborative Environment (AF-ICE) to demonstrate efficiencies through use of the JMETC provided infrastructure. Continue outreach efforts to programs such as Multi-Mission Aircraft (MMA), DD1000, CV 21, FCS, Joint Strike Fighter (JSF), Global Hawk, and Littoral Combat Ship. Initiate phase 1 (FY 2007-FY 2011), which will provide a core JMETC infrastructure foundation capable of supporting real-time test events as follows:

- Establish persistent network connections on existing Department networks with a JMETC Virtual Private Network (VPN) and security agreement, and expand the needed communication bandwidth. Integrate initial test sites to the network in FY 2007. Connections will be determined on the basis of projected test schedules and will be accomplished using the Secure Defense Research and Engineering Network (SDREN).
- Establish Initial Customer Support to provide single-face-to-the-customer support for use of the JMETC. Customer Support will be a central resource that provides programs and test facilities with information about system capabilities and limitations; available nodes; models and simulations; and JMETC standards, interfaces, and tools.
- Customer Support will assist acquisition program managers and test organizations, as requested, in designing their test plans to exploit the joint mission infrastructure capabilities, and facilitate scheduling.
- Maintain common Test and Training Enabling Architecture (TENA) integration software. Optimize the common middleware for embedded instrumentation applications as an organic component of the weapon system or net-centric

capability, to enable easier conduct of distributed testing throughout the acquisition process – from the laboratory, to the open-air range, and to the battlefield.

- Expand the TENA common, open interface standards to accommodate additional test laboratories, open-air ranges, system integration facilities, and simulations. Common interface standards streamline the ability to integrate multiple distributed laboratories, ranges, and simulations for specific test events, and enable alignment of the technical architecture for testing with the JNTC to promote interoperability and reusability among test and training assets.
- Provide tools and utilities with functionality that allows the joint mission infrastructure to serve as a useful test environment and to operate efficiently to enable event planning, integration, and analysis. Include an assessment of existing Service tools for joint application, assess commercially available software tools for utilization with the standard support tools, and, if necessary, promote development of new tools to satisfy shortfalls. Design analysis tools to assist evaluators in tracing the root cause of problems discovered to the individual causal system, during large system-of-systems test events.
- Initiate the Reuse Repository to store software interfaces, tools, utilities, and test metadata making all available to the test community for reuse. Through reuse, improve efficiency in the infrastructure to support systems and net-centric capabilities that is either a part of the joint mission infrastructure, or interfaces with the joint mission infrastructure.

FY 2008 Plans:

Continue support to ongoing programs, particularly SIAP and NECC. Sustain initial test sites integrated in FY 2007 in the JMETC VPN and security agreement. Assume former Joint Distributed Engineering Plant (JDEP) functions supporting connectivity and distributed test infrastructure for the SIAP program. Continue collaboration with AF-ICE to leverage efficiencies through use of the JMETC provided infrastructure. Cultivate relationship with Navy Distributed Engineering Plant (DEP), supporting their distributed events where connectivity outside the Navy is required. Initiate limited support to programs such as JSF Operational Assessment, FCS Limited User Test, and MMA, as customer funding permits. Continue outreach efforts to programs such as DD1000, CV 21, Global Hawk, and Littoral Combat Ship. Working with the JMETC Users Group, facilitate development and incorporation of the highest priority improvements for the middleware and standard interfaces to meet customer requirements. Continue improvements to the Reuse Repository and Data Archive as funding permits.

FY 2009 Plans:

Continue support to on-going programs, particularly SIAP, and NECC. Provide support to JSF and FCS for their distributed test events. Continue collaboration with AF-ICE and Navy DEP distributed test events to leverage efficiencies through use of the JMETC provided infrastructure. Seek to initiate customer funded support to programs such as CV21, Global Hawk, and Littoral Combat Ship to assist in planning and executing distributed test events required to demonstrate joint interoperability. Continue

out reach efforts to new programs with requirements to demonstrate compliance with Net-Ready Key Performance Parameters. Continue to facilitate development and incorporation of the highest priority improvements to the core JMETC products (middleware and standards for data transport). Continue development of the Reuse Repository and Data Archive, with the JMETC Users Group setting the priorities.

B. (U) PROGRAM CHANGE SUMMARY

	FY 2006	FY 2007	FY 2008	FY 2009
Previous President's Budget:	0.000	10.600	7.156	9.093
Current President's Budget:	0.000	10.539	6.925	8.850
Total Adjustments:			(.231)	(.243)
Congressional Program Adjustments:				
Congressional Rescissions:				
Congressional Increases:				
Other Program Adjustments:		(.061)	(.231)	(.243)

C. (U) OTHER PROGRAM FUNDING N/A.

D. (U) ACQUISITION STRATEGY N/A.

E. (U) PERFORMANCE METRICS

- Establishment of initial capability to support test programs, providing distributed capability to test systems and demonstrating required joint capability.
- Successful use of integration software compatible with the JNTC and Joint Training infrastructure.
- Percentage of joint distributed tests that use JMETC components to accomplish the integration.