

# OSD RDT&E BUDGET ITEM JUSTIFICATION (R2 Exhibit)

May 2009

APPROPRIATION/ BUDGET ACTIVITY <b>RDTE, Defense Wide BA# 4</b>		PE NUMBER AND TITLE <b>0604787D8Z - Joint Systems Integration Command</b>						
COST (\$ in Millions)	FY 2008 Actual	FY 2009 Estimate	FY 2010 Estimate					
P787 Joint Systems Integration Command	18.729	19.535	19.744					

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

The FY 2005 National Defense Authorization Act (NDAA) directed the transfer of U.S. Joint Forces Command (USJFCOM) RDT&E funding of joint warfare experimentation and training programs from Navy accounts to new Defense Wide RDT&E accounts beginning in FY 2007.

JSIC supports Joint Requirements Oversight Council Memoranda (JROCM) by conducting system interoperability assessments, by providing warfighter utility assessments addressing near-term joint capability shortfalls, and by developing solutions to improve integration of Service and Agency systems. JSIC is the U.S. Joint Forces Command (USJFCOM) and Chairman, Joint Chiefs of Staff (CJCS) capability for warfighter exploration, capability integration, and evaluation of Command and Control (C2) and Command, Control, Computer, Communication, Intelligence, Surveillance & Reconnaissance (C4ISR) capabilities. JSIC provides Combatant Commands, at the joint force headquarters level, with a laboratory and assessment environment for the warfighter and technologist. This environment provides for assessment of current and near-term joint operational capabilities. JSIC's Persistent Command and Control (C2) Environment accurately replicates an operational C2 environment. With this capability, JSIC assesses operational, system of systems, technical, software, and procedural interoperability of new systems and programs to confirm readiness for initial acquisition and fielding of evolutionary improvements.

JSIC serves as the technical analysis and operational assessment activity in support of the Joint Staff capability-driven requirements process, the Joint Capabilities Integration and Development System (JCIDS). Through JSIC's analysis and assessment, systems are evaluated for "value-added" prior to employment in joint environments typical of deployed theaters of operation. JSIC also serves as a joint interoperability compliance activity for the milestone decision authorities/program managers, including the Command and Control Capability Integration Board (C2CIB) and associated, Functional Command and Control Board (FCB). The C2 Capability Portfolio Manager (C2 CPM) has tasked JSIC to provide analysis and assessment of C2 portfolio systems.

By establishing ground truth for interoperability and suggesting remedies for demonstrated shortfalls, JSIC is a forcing function for interoperable joint solutions and a means to foster rapid, near-term insertion of C4ISR technology by promoting the ability to meet the DoD direction for spiral development and evolutionary acquisition. JSIC's mission assignment is to provide for the fielding of warfighter C2 systems through rapid systems integration, technical assessment, and operational evaluation using laboratory environments and field venues. In the world of C2 and ISR interoperability, performance in the field is the bottom line. In terms of investment, JSIC is the "ounce of prevention" that precludes a "pound" of mission failure and loss of life due to interoperability failures in actual military operations.

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<u><b>B. Program Change Summary</b></u>	FY 2008	FY 2009	FY 2010	FY 2011
Previous President's Budget (FY 2008/2009)	19.207	19.643	20.098	
Current BES/President's Budget (FY 2010)	18.729	19.535	19.744	
Total Adjustments	-0.478	-0.108	-0.354	
Congressional Program Reductions				
Congressional Rescissions		-0.108		
Congressional Increases				
Reprogrammings				
SBIR/STTR Transfer	-0.441			
Other	-0.037		-0.354	

**C. Other Program Funding Summary:** Not applicable for this item.

**D. Acquisition Strategy:**

JSIC supports interoperability of systems selected for acquisition, integration and fielding. JSIC is intended to be a forcing function to discover and provide interoperable joint solutions as a means to foster rapid, near-term insertion of C2 technology by promoting the ability to meet the DoD direction for spiral development and evolutionary acquisition. Services and Defense Agencies are responsible for conducting acquisition activities in Programs of Record (POR).

**E. Performance Metrics:**

FY	Strategic Goals Supported	Existing Baseline	Planned Performance Improvement / Requirement Goal	Actual Performance Improvement	Planned Performance Metric / Methods of Measurement	Actual Performance Metric / Methods of Measurement
08	JC2	Number of FY 2007 Assessments/Interoperability Demonstrations/Capability Integrations	5% increase in assessments, integrations & demos	Achieved 27 of planned 25 assessments/demos	Number of assessments, integrations & demos	Completed 27 assessments/demos
09	JC2	Number of FY 2008 Assessments/Interoperability Demonstrations/Capability Integrations	5% increase in assessments, integrations & demos		Number of assessments, integrations & demo	

Comment:

Performance of Joint Systems Integration Command is measured by successful delivery of JSIC products to customers by required delivery dates.

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JSIC conducts Command and Control (C2) system interoperability assessments, providing warfighter utility assessments that address near-term joint capability shortfalls, and developing solutions to improve integration of Service and Agency C2 systems. JSIC is the Defense system engineering capability for warfighter focused investigation, evaluation, and of Command and Control (C2) and Command, Control, Computer, Communication, Intelligence, Surveillance & Reconnaissance (C4ISR) capabilities. JSIC provides Combatant Commands, at the joint force headquarters level, with a laboratory and assessment environment for the warfighter and technologist. This environment provides assessment of current and near-term joint operational capabilities. JSIC's Persistent Command and Control (C2) Environment accurately replicates an operational C2 environment. With this capability, JSIC assesses operational, system of systems, technical, software, and procedural interoperability of new systems and programs to confirm readiness for initial acquisition and fielding of evolutionary improvements.

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By establishing ground truth for interoperability and suggesting remedies for demonstrated shortfalls, JSIC is a forcing function for interoperable joint solutions and a means to foster rapid, near-term insertion of C4ISR technology by promoting the ability to meet the DoD direction for spiral development and evolutionary acquisition. JSIC's mission assignment is to provide for the fielding of warfighter C2 systems through rapid systems integration, technical assessment, and operational evaluation using laboratory environments and field venues. In the world of C2 and ISR interoperability, performance in the field is the bottom line.

**B. Accomplishments/Planned Program:**

<b><u>Accomplishments/Planned Program Title:</u></b>	<u>FY 2008</u>	<u>FY 2009</u>	<u>FY 2010</u>	
Interoperability Technology Demonstration Center (ITDC) and Interoperability Assessments (IA)	11.022	11.835	11.844	

Primary outcome (objective) for this effort is seamless interoperability across DoD systems programmed for introduction to the warfighter. The Joint System Integration Command's (JSIC) ITDC supports the interoperability assessment of systems in five categories: operational, system of systems, technical, software, and procedural. These assessments provide supporting justification for continued development of a program within the acquisition system.

FY 2008 Accomplishments

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Conducted interoperability assessments and provided evaluation support for the Capability Portfolio Managers (CPMs). Provided assessment and process support to the Net Enabled Command Capability (NECC) Joint Systems Team (JST). Conducted interoperability demonstrations of Command and Control (C2) developmental systems/applications.

CPM POM 10 Focus Team Support - Provided system-level analytical services. Conducted technical and operational analysis in conjunction with the focus teams.

CPM Mapping - Supported portfolio mapping by helping define the content of the C2 portfolio.

CPM C2 Registry - Designed to help CPMs understand the technical and operational details of the portfolio content, including functionality, connectivity, known interoperability issues, programmatics, and relevant policy and standards.

C2Pedia - The user interface to the C2 Registry. The tool was designed to have the look and feel of Wikipedia, but represents authoritative C2 data source information.

CPM C2 Analysis - Conducted a portfolio reconciliation in conjunction with Program Analysis and Evaluation (PA&E).

Guidance for the Development of the Force (GDF) directed C2 Capability Mix Study Support - JSIC supported USJFCOM in a study that recommended the optimum mix of command and control capabilities needed for strategic through tactical level military operations in the 2014-2016 time frame.

Net Enabled Command Capability (NECC) Process Support - JSIC supported Joint interoperability and facilitated ongoing efforts between the acquisition, testing and operational communities. JSIC provided infrastructure, architectural, and assessment support to the Federated Development and Certification Environment (FDCE).

Joint Systems Baseline Assessment 2008 (JSBA 08) - JSIC assessed:

Selected C2 targeting applications to further interoperability of joint and service targeting tools in the joint targeting process.

ISR Distributed Common Ground Station/Surface System (DCGS) systems and services for shared situational awareness with C2 systems in a SBE within the Distributed Development and Test Enterprise.

Combatant Commander Collection Management capabilities and service/joint systems and databases in the execution of targeting mission.

Cross Domain Services, specifically the degree to which they enable interoperability between the Global Command and Control Family of Systems (GCCS-FoS) and selected network domains.

Implementations of standards in a Service Oriented Architecture (SOA).

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Guidance for Development of the Force (GDF) - Mobile and Deployable C2 Capabilities - JSIC conducted a study to provide a baseline for defining investment plans for aligning resources and a capability mix to address gaps, reduce excess, and achieve efficiencies for mobile and deployable C2 capabilities.

Command Post of the Future (CPoF) Technical Evaluation - JSIC conducted a technical evaluation of Joint requirements for CPoF, Georgia version, software build II +/-09-11 and Track Management Service (TMS) interface with Global Command and Control System-Joint (GCCS-J) and Theater Battle Management Core Systems (TBMCS1.1.3) for U.S. Army, Ft Monmouth, Program Executive Office Command Control Communications Tactical (PEO C3T) Tactical Battle Command (TBC).

Automated Metadata Population Service (AMPS) - JSIC provided technical and engineering support and lab space with four servers and a secure tunnel across the Internet where developers could install and test applications with reach-back capabilities.

FY 2009 Planned Output

JSIC support to the C2 Capability Portfolio Management (C2 CPM) and Processes.

Command and Control Analysis Program Support - JSIC is providing C2 CPM POM 12 Focus Area (FA) team support and support the Joint Capability Developer (JCD) in providing analysis for inclusion in the C2 Implementation Plan.

Command and Control Capability Mapping - The C2 CPM Systems Mapping Project is a critical element of the C2 registry that provides C2 systems and system function technical data. The mapping data provides linkages between C2 systems, the joint common system functions performed, Joint Capability Areas (JCA), and Universal Joint Task Lists (UJTL).

Command and Control Optimum Capability Mix Study Technical Analysis and Support - JSIC is using Capability Delivery Increments (CDIs) and service migration plans to provide snapshots of system support, discern system functions associated with CDIs, and estimate system support.

Command and Control Registry (C2R) / C2 Pedia Version 2 Development and Mission Engineering -The C2R is being enhanced with a more robust database and intuitive application software. Enhancement will add a text processing tool that associates search results with the jargon and formal lexicons of particular subject areas so that the relevance and value of the data will be immediately discernible.

Net-Enabled Command Capability (NECC) Focused Support Analysis - JSIC provides Capability Provisioning Document (CPD), Systems Engineering (SE), Joint Systems Team (JST) and Capability Provisioning Event (CPE) activity in support of USJFCOM Joint Combat Capability Developer (JCCD) requirements.

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Net-Centric Enterprise Services (NCES) Program Support - NCES is providing the next generation of COTS based enterprise network services, Enterprise Portal, Collaboration, Content Discovery & Delivery (CD&D) and Service Oriented Architecture Foundation (SOAF). JITC as the lead Operational Test Agency is responsible for performance of Risk Reduction and Operational Tests of the NCES services. JSIC will support USJFCOM J6 who is the Warfighter User Representative as a potential test site and test agency in the NCES Milestone C Test and Evaluation Master Plan (TEMP).

Joint Systems Baseline Assessment (JSBA) 2009 - JSBA 09 is assessing the ability of the Joint Task Force (JTF) Commander to discover, access, coordinate, and operationally employ information from the Battlespace Awareness (BA) capability portfolio through the interoperability assessment of the fielded Global Command and Control System (GCCS) and developing Net Enabled Command Capability (NECC) and also between those C2 systems with the Distributed Common Ground System (DCGS) programs.

Irregular Warfare Center /Joint Urban Ops Office Urban C3 Systems Assessment - JSIC will conduct an assessment of tactical broadband wireless technologies against Warfighter requirements to identify "best of breed." The overall objectives of the JUOO assessment are to identify the ability of current technologies to provide user friendly, reliable communications providing enhanced C2 and situation awareness capabilities to warfighters operating in the first tactical mile

FY 2010 Plan

JSIC will continue the efforts planned for FY2009. Interoperability demonstrations will be conducted to solve warfighting problems including coalition challenges.

<u>Accomplishments/Planned Program Title:</u>	<u>FY 2008</u>	<u>FY 2009</u>	<u>FY 2010</u>
Technical Assessments and Integration (TA&I)	2.400	2.800	2.900

Primary Outcome (objective) for this effort is to provide near-term technical solutions for integration, assessment and delivery of operational capabilities that address near-term operational and tactical requirements. TA&I uses organic laboratory resources, equipment, and technical personnel to integrate emerging technologies. JSIC also provides Doctrine, Organizational, Training, Materiel, Leadership, Personnel, Facilities (DOTMLPF) recommendations on fielding strategies for USJFCOM and Joint Staff endorsement.

The primary outputs and efficiencies realized are: 1) Reduced costs and delivery time to the warfighter through application of commercial and emerging technology to solve near-term Combatant Commander (COCOM) Command and Control (C2) capability gaps; 2) Increased cost avoidance through transition of successful commercial technology integration in solving COCOM capability shortfalls to applicable Service programs of record; 3) Decreased reliance on post delivery interoperability corrections; 4) Improved assessment-based recommendations of technology solutions that address the military utility of proposed solutions and identify relevant Service programs, doctrinal impacts, training implications, and personnel requirements; and 5) Improved life-cycle support for capabilities deployed to forces.

FY 2008 Accomplishments

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Secure Multicast Video Demonstration (SMVD) - JSIC researched and assessed commercial off-the-shelf technology that enabled the use of video products more efficiently over existing architectures. JSIC determined the SMVD capability provides a more efficient means to disseminate streaming video to critical users. The secure multicast features provides information protection, while delivering a single multicast stream to many users. This reduced the bandwidth required to send video feeds to a large number of subscribers and supports the use of streaming video over tactical links. Additionally JSIC evaluated the feasibility of including a software based High Assurance Internet Protocol Encryptor (HAPE) Suite B capability to provide security.

CRANITE Wireless Wall Technical Assessment - JSIC conducted a technical assessment of the Wireless Wall software-only encryption application for securing 802.11 wireless networks regardless of which vendor's hardware devices were used. The results of this assessment provided data that allowed Combatant Commanders to secure their existing wireless networks without any additional hardware.

Tactical Service Provider (TSP) Joint Concept Technology Demonstration (JCTD) - Individual dismantled warfighters lack ability to communicate over broadband communication links that promote mobility and collaboration. JSIC supported DISA by implementing a hybrid communications architecture that uses emerging standards-based, commercial off the shelf satellite communications and wireless technology to extend global, wideband communications and services to the tactical edge.

Tactical Cellular Network (TactiCell) - JSIC and JSOC partnered to integrate an Evolution-Data Optimized (EV-DO) Rev A cellular base station that uses Code Division Multiple Access (CDMA) 2000 standards (capable of 1.8 Mbps transmit and 3.1 Mbps receive) with a Secure Multicast Distribution Capability (SMVD). Additionally a technical assessment was conducted to evaluate voice and video exchanges.

USJFCOM Commander's Executive Command and Control (EC2) Kit Upgrade - JSIC upgraded the four deployable EC2 communication kits to an EC2 Block 3 configuration. The Block 3 configuration provides a more secure Advanced Encryption Standard (AES) Virtual Private Network (VPN) tunnel to reachback and access the USJFCOM unclassified network.

Wireless for the Warfighter (W4W) Transition - JSIC transitioned to Joint Task Force - Civil Support an extended wideband wireless local area network and wireless line and non-line of sight trunking capability to support deployable communications between a headquarters and subordinate units. This capability will also support rapid connectivity between dispersed elements of a headquarters staff.

FY 2009 Planned Output

Tactical Service Provider (TSP) Joint Concept Technology Demonstration (JCTD) Continuation - JSIC is assisting the TSP JCTD team to integrate 802.16(e) wireless system into the two-way satellite Global Broadcast System (GBS) and conduct a multi-site Limited User Assessment (LUA) to demonstrate Headquarters to end user connectivity.

Tactical Cellular Network (TactiCell) - JSIC is completing its assessment of the Evolution-Data Optimized (EV-DO) Rev-A cellular base station and integrate emerging Rev-B systems into the architecture. EV-DO Rev B is expected to provide 27 Mbps transmit and 73 Mbps receive capability.

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Joint Task Force - Civil Support (JTF-CS) WAVE - WAVE provides secure, real-time group communications over an IP network and can enable interoperable communications over any audio source including two-way radios, telephones, cellular phones, PCs, IP phones, and PDAs. JSIC is demonstrating and assessing WAVE followed by assistance to integrate the capability into the JTF-CS architecture.

Deployable Executive Communications (DEC) - JSIC is delivering an approved and certified DEC kit that will offer secure, modern, lightweight and versatile communications capability including Video Teleconferencing (VTC), Voice-over-Internet-Protocol (VoIP), Voice-over-Secure-Internet-Protocol (VoSIP), and access to the SIPRNet, NIPRNet, and other networks.

One Box - One Wire (OB1) JCTD Support - The JCTD uses several existing technologies to remove impediments to information flow, while reducing C2 system physical footprint, logistic and support requirements, collapsing multiple security domains into one while providing robust information security and integrity.

**FY 2010 Planned Output**

JSIC will continue the efforts planned for FY2009. JSIC will support continued development of criteria to measure and assess systems/applications within the Command and Control (C2) portfolio in terms of joint compliance, operational interoperability, and warfighter utility. JSIC's efforts will be focused on solving warfighting problems including coalition challenges. JSIC will investigate potential impacts of technology advances in wireless devices, mesh and ad-hoc networking, satellite modem technology, and small lightweight secure digital capabilities on warfighter C2 capabilities and match emerging critical warfighter requirements with current technologies to identify rapid near-term technology solutions in support of the Combatant Commanders.

<u>Accomplishments/Planned Program Title:</u>	<u>FY 2008</u>	<u>FY 2009</u>	<u>FY 2010</u>
Capability Assessment	2.600	1.400	1.500

Primary Outcome (objective) for this effort is to provide objective based assessment of Doctrine, Organizational, Training, Materiel, Leadership, Personnel, Facilities (DOTMLPF) solution sets in support of the Joint Task Force Commander. JSIC will analyze Combatant Commander (COCOM) near-term requirements using DOTMLPF criteria. JSIC will identify current, emerging, or mature technologies to address materiel requirements. Comprehensive assessments covering joint maturity, warfighter utility, and operational effectiveness will be conducted on legacy and transformational projects. JSIC also provides DOTMLPF recommendations on fielding strategies for USJFCOM and Joint Staff endorsement.

The primary outputs and efficiencies realized are: 1) Increased number of recommended improvements that enhance the capability of Joint Task Force Headquarters (JTF HQ); 2) Increased number of verifiable capability solutions recommended for fielding to the Combatant Commander sponsor based on quantified capability improvements; 3) Increased empirical data to support benefit-cost ratio improvements of JTF HQ investment decisions to ensure JTF HQs command and control (C2) capabilities are interoperable from technical and operational standpoints; 4) Increased number of assessments conducted that identify current force JTF HQs C2 systems that are interoperable and supported, that inform and recommend solutions to integrate, modify, or retire current force systems; 5) Increased number of assessment based recommendations of technology solutions that address the military utility of proposed and existing Service solutions; and 6) Increased number of solutions deployed with recognized DOTMLPF impacts.

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Program Management offices benefit because the JSIC program provides a venue for Military Utility Assessments (MUAs) of technologies before committing to implementation. The potential savings associated with finding existing commercial technologies to provide gap filler solutions, and avoid the fielding of systems that are not interoperable or that fail to meet warfighter needs, are difficult to quantify. Potentially life-threatening shortfalls can be identified and fixed in advance of fielding. Services benefit directly by reduced Program Manager costs and by fielding systems that are interoperable and meet warfighter needs.

## FY 2008 Accomplishments

Command Post of the Future (CPoF) and Adobe Connect Pro 6 Capability Assessment - JSIC conducted an analysis of Adobe Connect Pro 6 and CPoF to assess interoperability and evaluate information exchange capabilities between computers equipped with only the CPoF software, computers equipped with only the Adobe Connect software, and computers equipped with both software applications (shared client). The CPoF and Adobe Connect applications are interoperable with the exception of Voice over IP (VoIP) and chat tools. Identified installation of Ventrilo software on those workstations equipped with only the Adobe Connect software as a workaround. Performance of the screen sharing feature degrades significantly as bandwidth decreases and latency increases.

Global Command Support System Engineering v7.0 (GCSS-EN 7.0) Military Utility Assessment (MUA) - JSIC conducted a military utility assessment of GCSS-EN 7.0 to identify any issues early in the development cycle, prior to planned deployment. GCSS-EN is a 3-year major redesign effort of an existing program - Joint Engineer Planning and Execution System (JEPES).

USCENTCOM Best of Breed (BoB), Tactical Ground Reporting Network (TiGRNet), Combined Information Data Network Exchange (CIDNE), and Digital Topographic Support System (DTSS) Capability Assessment - JSIC conducted a capability assessment and a comparative analysis of the selected systems identified by USCENTCOM J6/J3 and the C2 Capability Portfolio Manager (CPM). The analysis focused on systems that provide redundant joint C2 functions in support of CENTCOM missions to determine which system or combination of systems provide the best C2 capability and best value from the C2 CPM perspective.

Deployable Joint Command and Control Post Implementation Review (DJC2 PIR) - JSIC assessed the DJC2 program and collected warfighter feedback from the implementation of DJC2 in an operational environment to evaluate how the DJC2 program met expectations and satisfied the DJC2 measures of effectiveness (MOEs).

Joint Logistics Global Combat Support System Quick Reaction Test Risk Reduction Event (JLGCSS QRT RRE) - JSIC conducted a military utility assessment to validate the GCSS v6.1 capabilities/Force Reception Map to determine GCSS v6.1 capability to support Force Reception processes and workflows by evaluating the effectiveness of the Quick Reference Guide.

## FY 2009 Planned Output

JSIC projects are nominated to meet Combatant Commander's (COCOM) and Joint Task Force (JTF) transformation requirements. As the portfolio manager concept matures, assessments are expanding to cover concept of operations and mission effectiveness of selected systems and applications.

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Coalition Warfare Interoperability Demonstration (CWID) 2009 Selected Trial Assessments - As directed, JSIC is supporting/augmenting the assessment of selected CWID Trial Demonstrations by providing methodology recommendations and analysts for C4ISR technologies that show potential for near-term transition, as determined by the CWID Senior Management Group.

Net-Centric Security Pilot Assessment and Support - JSIC is the central hosting site and provides assessment support to the various program initiatives to help document commonalities and differences between security models, capture lessons learned, and formulate recommendations for interoperability and a reference security model.

Command and Control (C2) Data Pilot Phase 4 - JSIC is supporting this follow-on effort to demonstrate services operated over a service oriented architecture foundation (SOAF). These efforts are being developed within the Services, NGA and DISA to bring together disparate C2 databases.

Virtual Integrated Support for the Information Operations Environment (VISION) Proof of Concept Limited Utility Assessment (LUA) - VISION is the future Joint environment for advancing effects-based (now adaptive) integrative analysis, planning and assessment through collaboration at the COCOM and JTF component-level to include integrative analysis from communities of interest. VISION will allow joint force commanders and their components to conduct adaptable, scalable information operations analysis, planning, targeting and assessment with accredited applications and reach-back. In concept VISION is to provide linkages between established joint IO planning, fires and targeting operations.

**FY 2010 Planned Output**

Joint Systems Integration Command (JSIC) is continuing 2009 efforts to provide criteria in which to measure and assess systems/applications within the C2 portfolio in terms of joint compliance, operational interoperability, and warfighter utility where necessary to support customer needs. Capability assessments will be conducted to address warfighting problems including coalition challenges.

<u>Accomplishments/Planned Program Title:</u>	<u>FY 2008</u>	<u>FY 2009</u>	<u>FY 2010</u>
Persistent Command and Control Environment / Federated Joint C2 Laboratories (FJC2L)	2.707	3.500	3.500

JSIC supports the Persistent Command and Control Environment by aggressively engaging the Services in a collaborative effort to bring joint solutions through JSIC's capability integration, interoperability demonstrations and capability assessments process. JSIC works in collaboration and formal coordination with the Joint Staff, Combatant Commanders (COCOMs), Services, defense agencies, departments and agencies outside of DoD, as well as allies and other coalition partners to align efforts, create a culture of innovation, and foster the development of new joint operational concepts, along with measures of merit, to serve as the basis for exploring future joint capabilities and operations through joint and coalition experimentation and assessment.

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The Persistent Command and Control (C2) Environment supports the C2 Capability Portfolio Management (C2 CPM) vision and provides the:

Bridge between current force environment and net-centric developmental activity

Ability for continuous assessment using always available infrastructure

FY 2008 Accomplishments

DoD Interoperability Communications Exercise (DICE) and Joint User Interoperability Communication Exercise (JUICE) Support - JSIC extended the Persistent Command and Control Environment to the Joint Interoperability Test Command (JITC) and provided engineering and systems support to DICE 2008 and JUICE participants in the JITC certification process.

Multilateral Interoperability Programme (MIP) Integrated Gateway Box (IGB) Test - JSIC provided engineering and technical support, equipment and laboratory space. The IGB allows the exchange of MIP C2 data while providing a measure of security for tailored cross-domain information exchange thus permitting multilateral sharing of ground data among disparate national systems.

Quadrilateral Logistic Forum (QLF) Logistics Architecture Work Group (LAWG) Reports and Return (R2) Test Proposal - In response to JS J4 request to support LAWG R2 interoperability requirements, JSIC provided engineering and technical support and laboratory space to demonstrate the ability of the R2 logistic report to support International Security Assistance Force (ISAF).

Combined Joint Task Force (CJTF) Horn of Africa (HOA) Mission Rehearsal Exercise (MRX) 08-1 - JSIC provided laboratory facilities, engineering, and technical support to USJFCOM's CJTF HOA MRX.

USAF Global Cyberspace Integration Center (GCIC) Support for Advanced Concept Event (ACE) - The GCIC requested JSIC support for the Air Force Research Laboratory (AFRL) Directed Energy Directorate's annual Advanced Concept Event. JSIC provided Defense Research and Engineering Network (DREN) connectivity and required command and control systems as well as engineering and technical support.

National Level Exercise (NLE 2-08) - JSIC provided the persistent JC2 environment including engineering and technical support, workstations for 60 participants. Internet access for 60 position, 30 telephones, copier, printers, FAX, shredder, and video broadcast support.

IBM Services Oriented Architecture (SOA) Cooperative Research and Development Agreement (CRADA) - JSIC is providing the persistent JC2 Environment to include lab space for approximately 3 server racks, space for 7 personnel (4 IBM, 3 J6), and general workstation furnishings (for J6 Personnel). Network resources: NIPRNet, SIPRNet, SDREN, DREN, commercial internet, and data storage space. System administrative, technical and engineering support for equipment power-cycling, backups and physical inspections.

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Joint Mission Environment Test Capability (JMETC) / InterTEC Spiral 2 - InterTEC employed the Test and Training Enabling Architecture (TENA) as its principle Technical Architecture for the interoperable exchange of test data among the integrated suite of InterTEC applications. InterTEC provided the tools to construct, manage, control, instrument, stimulate, extract data, visualize and analyze a net-centric test environment that blends constructive simulations, hardware-in-the-loop laboratories, and live systems operating on open-air ranges. JSIC provided laboratory facilities, engineering and technical support.

Joint Battlespace Dynamic Deconfliction (JBD2) Test Event - JSIC provided analysts, technical and engineering support to maintain SDREN connectivity, GCCS-J v.4.x and Joint node for a distributed test capability to exchange COP data with other sites (Eglin 46th TS Lab, U.S. Marines, Redstone Arsenal, SPAWAR Charleston).

DISA Global Combat Support System - Joint (GCCS-J) v 6.1 Training for Operational Test and Operational Test Support - Provided technical support to DISA GCSS Program Management Office which contracted with the Joint Deployment Training Center (JDTC) to receive functional training for COCOM and Service personnel supporting the work up for a Joint Staff Phase 6, v 6.1 operational test and evaluation of GCCS-J. JDTC does not have the capability to host and provide instruction to a large training audience, JSIC provided facility, engineering, and technical support for both training and execution of the operational test of GCCS v6.1.

FY 2009 Planned Output

Continue to engage the Services and Communities of Interest (COI) in a collaborative effort to bring joint solutions through integration, operational interoperability and capability assessments. Leveraging the FJC2L, JSIC will focus on identifying emerging technologies and C2 interoperability solutions supporting the following: NATO Consultation, Command and Control Agency (NC3A) and Allied Commander Transformation (ACT), Net-Enabled Command Capability (NECC), Capability Portfolio Managers (CPM), and C2 Logistics and Joint Deployment Process.

Coalition Warrior Interoperability Demonstration (CWID) Support -CWID is the CJCS J6 annual event enabling the Combatant Commanders and the international community to investigate technology solutions that focus on relevant and timely objectives for enhancing coalition interoperability and exploring new partnerships. JSIC will provide the environment, technical support, and connectivity for CWID 09.

DoD Interoperability Communications Exercise (DICE) 2009 and Joint User Interoperability Communication Exercise (JUICE) Support - DICE is the only DoD exercise whose primary purpose is to certify systems for joint interoperability. JSIC is providing a robust and operationally realistic Joint Task Force (JTF) architecture that provides the necessary opportunities to vigorously exercise and evaluate non-secure and secure command and control voice, data and video services and interfaces, which are critical to split-base operations.

Joint Mission Environment Test Capability (JMETC) Interoperability Test and Evaluation Capability (InterTEC) Support - JMETC is standardizing DoD interoperability testing procedures as well as the tools used to measure interoperability. InterTec, a toolset, provides the capability to construct, control, instrument, capture data from, and analyze an operationally relevant interoperability test.

# OSD RDT&E BUDGET ITEM JUSTIFICATION (R2a Exhibit)

May 2009

APPROPRIATION/ BUDGET ACTIVITY

PE NUMBER AND TITLE

PROJECT

**RDTE, Defense Wide BA# 4**

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Empire Challenge 2009 (EC09) Infrastructure Support - EC09 uses the Distributed Common Ground Station (DCGS) Distributed Development and Test Environment (DDTE). USJFCOM has assumed EC 09 lead and JSIC will support all EC09 events.

NATO International Security Assistance Force (ISAF) Command, Control, Communications, Computers and Intelligence (C4I) Experimental Capability (ICECAP) F

**C. Other Program Funding Summary:** Not applicable for this item.

**D. Acquisition Strategy:** Not applicable for this item.

**E. Major Performers:** Not applicable for this item.

# OSD RDT&E COST ANALYSIS (R3)

BUDGET ACTIVITY			PE NUMBER AND TITLE							PROJECT				
<b>4 - Advanced Component Development and Prototypes (ACDP)</b>			<b>0604787D8Z - Joint Systems Integration Command</b>							<b>P787</b>				
I. Product Development	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2008 Cost	FY 2008 Award Date	FY 2009 Cost	FY 2009 Award Date	FY 2010 Cost	FY 2010 Award Date					
Dev Support Equipment	MIPR	General Services Administration	3374	3768	1-4Q	3868	1-4Q	3868	1-4Q					
Systems Engineering	C-CPFF	Old Dominion	300	332	1-4Q	432	1-4Q	400	1-4Q					
General/Contractor Engineering Support	C-CPFF	General Dynamics	11683	10544	1-4Q	11014	1-4Q	11546	1-4Q					
Systems Engineering	C-CPFF	South Carolina Research	1648	890	1-4Q	890	1-4Q	980	1-4Q					
Gov't Engineering Support	Various DoD	Various	3289	3193	1-4Q	3193	1-4Q	2600	1-4Q					
Travel	Various DoD	Various	341	2	1-4Q	138	1-4Q	350	1Q					
<b>Subtotal:</b>			<b>20635</b>	<b>18729</b>		<b>19535</b>		<b>19744</b>						
II. Support Costs	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2008 Cost	FY 2008 Award Date	FY 2009 Cost	FY 2009 Award Date	FY 2010 Cost	FY 2010 Award Date					
<b>Subtotal:</b>														
III. Test And Evaluation	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2008 Cost	FY 2008 Award Date	FY 2009 Cost	FY 2009 Award Date	FY 2010 Cost	FY 2010 Award Date					
<b>Subtotal:</b>														
IV. Management Services	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2008 Cost	FY 2008 Award Date	FY 2009 Cost	FY 2009 Award Date	FY 2010 Cost	FY 2010 Award Date					
<b>Subtotal:</b>														
<b>Project Total Cost:</b>			<b>20635</b>	<b>18729</b>		<b>19535</b>		<b>19744</b>						

# Schedule Profile (R4 Exhibit)

May 2009

BUDGET ACTIVITY  
**4 - Advanced Component Development and Prototypes (ACDP)**

PE NUMBER AND TITLE  
**0604787D8Z - Joint Systems Integration Command**

PROJECT  
**P787**

Event Name	FY 08				FY 09				FY 10																		
	1	2	3	4	1	2	3	4	1	2	3	4															
Project Selection, Project Planning																											
Procurement																											
Testing/Integration/Assessment																											
Report/Findings																											

# Schedule Profile (R4a Exhibit)

May 2009

BUDGET ACTIVITY  
**4 - Advanced Component Development and Prototypes (ACDP)**

PE NUMBER AND TITLE  
**0604787D8Z - Joint Systems Integration Command**

PROJECT  
**P787**

<u>Schedule Detail</u>	<u>FY 2008</u>	<u>FY 2009</u>	<u>FY 2010</u>					
Project Selection		1Q - 4Q	1Q - 4Q					
Project Planning		1Q - 4Q	1Q - 4Q					
Procurement		1Q - 4Q	1Q - 4Q					
Testing/Integration/Assessment		1Q - 4Q	1Q - 4Q					
Report/Findings		1Q - 4Q	1Q - 4Q					