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

**February 2008**

| APPROPRIATION/ BUDGET ACTIVITY | PE NUMBER AND TITLE |
|---|---|
| **RDTE, Defense Wide BA 04** | **0604787D8Z - Joint Systems Integration Command** |

| COST ($ in Millions) | FY 2007 Estimate | FY 2008 Estimate | FY 2009 Estimate | FY 2010 Estimate | FY 2011 Estimate | FY 2012 Estimate | FY 2013 Estimate |
|---|---|---|---|---|---|---|---|
| P787 Joint Systems Integration Command | 20.635 | 19.207 | 19.643 | 20.098 | 20.360 | 20.631 | 20.922 |

**A. Mission Description and Budget Item Justification:** The FY 2005 National Defense Authorization Act (NDAA) directed the transfer of 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. Funding to support the Joint Systems Integration Command (JSIC) Program in FY 2006 and prior were reflected in the Navy's RDT&E Program under PE 0604787N.

The Joint Systems Integration Command (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 improving integration of Service and Agency systems. The Joint Systems Integration Command (JSIC) is the U.S. Joint Forces Command (USJFCOM) and Chairman, Joint Chiefs of Staff (CJCS) capability for warfighter exploration, prototyping, 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 Interoperability Technology Demonstration Center (ITDC) accurately simulates an operational Joint Command and Control (JC2) environment. With this capability, JSIC assesses operational, systems of systems, technical, software, and procedural interoperability of new systems and programs to confirm readiness for initial acquisition and for fielding of evolutionary improvements.

JSIC serves as the technical analysis and assessment activity in support of the Joint Staff capability driven requirements process, the Joint Concepts Integrations and Development System (JCIDS). Through JSICs 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, Command and Control (C2) Board. 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.

| **B. Program Change Summary** | FY 2007 | FY 2008 | FY 2009 |
|---|---|---|---|
| Previous President's Budget (FY 2008) | 20.637 | 19.375 | 19.675 |
| Current BES/President's Budget (FY 2009) | 20.635 | 19.207 | 19.643 |
| Total Adjustments | -0.002 | -0.168 | -0.032 |

| | | | |
|---|---|---|---|
| Congressional Program Reductions | | | |
| Congressional Rescissions | | | |
| Congressional Increases | | | |
| Reprogrammings | 0.250 | | |
| SBIR/STTR Transfer | -0.127 | | |
| Other | -0.125 | -0.168 | -0.032 |

**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 | | Number of assessments, integrations & 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.

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

**February 2008**

| APPROPRIATION/ BUDGET ACTIVITY | PE NUMBER AND TITLE | PROJECT |
|---|---|---|
| **RDTE, Defense Wide BA 04** | **0604787D8Z - Joint Systems Integration Command** | **P787** |

| COST ($ in Millions) | | FY 2007 Estimate | FY 2008 Estimate | FY 2009 Estimate | FY 2010 Estimate | FY 2011 Estimate | FY 2012 Estimate | FY 2013 Estimate |
|---|---|---|---|---|---|---|---|---|
| P787 | Joint Systems Integration Command | 20.635 | 19.207 | 19.643 | 20.098 | 20.360 | 20.631 | 20.922 |

**A. Mission Description and Budget Item Justification:** The FY 2005 National Defense Authorization Act (NDAA) directed the transfer of 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. Funding to support the Joint Systems Integration Command (JSIC) Program in FY 2006 and prior were reflected in the Navy's RDT&E Program under PE 0604787N.

The Joint Systems Integration Command (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 improving integration of Service and Agency systems. The Joint Systems Integration Command (JSIC) is the U.S. Joint Forces Command (USJFCOM) and Chairman, Joint Chiefs of Staff (CJCS) capability for warfighter exploration, prototyping, 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 Interoperability Technology Demonstration Center (ITDC) accurately simulates and operational Joint Command and Control (JC2) environment. With this capability, JSIC assesses operational, systems of systems, technical, software, and procedural interoperability of new systems and programs to confirm readiness for initial acquisition and for fielding of evolutionary improvements.

JSIC serves as the technical analysis and assessment activity in support of the Joint Staff capability driven requirements process, the Joint Concepts Integrations 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, Command and Control (C2) Board. 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/prototyping, 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.

**B. Accomplishments/Planned Program:**

| Accomplishments/Planned Program Title: | FY 2007 | FY 2008 | FY 2009 |
|---|---|---|---|
| Interoperability Technology Demonstration Center (ITDC) and Interoperability Assessments (IA) | 13.008 | 11.685 | 11.843 |

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) Interoperability Technology Demonstration Center (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 project within the acquisition system. ITDC conducts interoperability demonstrations of selected (configuration controlled) early implementations in coordination with the Milestone Decision Authorities and Joint Program Offices. Through early assessment, the department can significantly decrease the number of interoperability fixes required to operationally employ new systems. Doctrine, Organizational, Training, Materiel, Leadership, Personnel, and Facilities (DOTMLPF) recommendations on fielding strategies for USJFCOM and Joint Staff endorsement are also provided.

The primary outputs and efficiencies to be realized are: 1) Decreased number of Service delivered command and control systems and applications that require post delivery engineering to operate within the joint architecture; 2) Increased number of developmental systems and applications that meet the Net-Ready Key Performance Parameter (NR-KPP) earlier in the developmental process reported to the milestone decision authority (MDA); 3) Increased identification and correction of interoperability issues of command and control systems and applications of fielded defense systems; 4) Increased number of assessment-based recommendations of technology solutions that address the military utility of proposed and existing Service solutions; and 5) Increased number of solutions deployed with recognized DOTMLPF impacts.

FY 2007 Accomplishments - Conducted interoperability assessments for Joint Battle Management Command and Control (JBMC2), Joint Test and Assessment (JT&A) Joint Close Air Support (JCAS) Joint Mission Threads (JMT); Joint Intelligence Operations Command and Control (JIO C2); Coalition Information Sharing; and Deployable Joint Command and Control (DJC2). Conducted interoperability demonstrations of Command and Control (C2) developmental systems/applications for DISA; assessed Time Sensitive Targeting (TST) Data Support Strategy (DSS); and continued long-range planning for the Joint Systems Baseline Assessment 2008 (JSBA-08) assessment. Continued assessment and evaluation support to the four pilot Capability Portfolio Management (CPM) portfolios (Battlespace Awareness, Joint Network Operations, Joint Command and Control, and Joint Logistics) as they mature and requirements become more defined. These assessment and demonstration results included identification of interoperability problems/issues, recommended solutions, and associated programmatic implications.

FY 2008 Planned Output _ Provide evidence required to support decision makers efforts to eliminate redundant systems being deployed, maintained, and supported by the Warfighter. Unifying DoD/joint level instructions and alignment of standards with a coordinated revision cycle is a strategy with the goal of reducing the number of duplicative directives and policies that address interoperability. To achieve policy alignment:
- The Interoperability Test Demonstration Center (ITDC) will provide support to the Capability Portfolio Managers as requested. The Joint Systems Integration Command (JSIC) serves as an honest broker (_the attitude of the CPM_) to supply objective observations of systems capabilities based on independent analysis.

- ITDC will substantiate _Command and Control (C2) Systems of Interest_ based on the functions performed and the capabilities those functions support through _Mapping_; Identify capability gaps, overlaps, disconnects, and issues to be analyzed through the _Command and Control (C2) Registry_; Estimate the degree to which systems of interest comply with existing interoperability policy through the _Scorecard_; Analyze and assess the outputs of mapping, registry, and scorecard initiatives.
- ITDC will support the following C2 Capability Portfolio Manager (C2 CPM) or Joint Network Operations (JNO) CPM focus areas as requested.
Joint Task Force (JTF) Headquarters as a Weapons System
- Data Strategy
- Deployable Command and Control
- Decision Support Tools
- Language Translation
- Joint Close Air Support
- Combat Identification/Blue Force Tracking
- Collaborative Information Environment
- Net-Enabled Command Capability (NECC) C2 Migration
- Airborne Networking/Gateways (JNO)

- Cross Domain Solutions (JNO)
- Spectrum Management (JNO)
- Terrestrial Network (JNO)

ITDC will support NECC by:

- Conducting interoperability assessments in accordance with Secretary of Defense (SECDEF) and Chairman assigned missions and JSIC assessment processes.
- Conducting capability module risk assessments and early risk reduction events to address dynamic user needs, minimize integration risk, and identify interoperability issues.
- Assessing emerging solutions impacts to current level of interoperability with coalition or non-DoD capabilities.
- Conducting interoperability assessments to address specific Combatant Commander critical issues.
- Ensuring assessment objectives of all solutions necessary for the joint warfighter to realize the improved or enhanced capability.
- Providing objective evidence identifying requirement changes, supporting 80% solution decisions, or identifying shortfalls and impacts between Capability Modules (CM) and other solutions.
- Acting as the joint capability advocate interface to provide joint management of the mission capability risk areas.

Interoperability assessments of Command and Control (C2) pilots including Net Enabled Command Capability (NECC) and Coalition Information Sharing, and execution of Joint Systems Baseline Assessment 2008 (JSBA08). Continue assessment and evaluation support to the four pilot capability portfolios (Battlespace Awareness, Joint Network Operations, Command and Control, and Joint Logistics) as they mature and requirements are refined.

Joint Systems Integration Command's support to the C2 Capability Portfolio Management (C2 CPM) process and Focus Integration Team (FIT) Cell requirements will focus on maturing the C2 Scorecard, periodic reviews of C2 policy documents, continued C2 Criteria Development, System and Function Mapping, populating the C2 Registry, developing C2 data sharing capability with the services, and measuring and assessing systems/applications within the C2 portfolio in terms of joint compliance, interoperability, and warfighter utility. JSIC will continue support to C2 Focus Integration Teams working C2 CPM support for the Program Objective Memorandum (POM) 10 focused on synchronizing FY 09-13 investments and capability delivery to meet C2 and Joint Requirements Oversight Council (JROC) prioritized and validated capability gaps.

FY 2009 Plan: JSIC will continue the efforts planned for FY2008. JSIC will provide criteria in which to measure and assess systems/applications within the C2 portfolio in terms of joint compliance, interoperability, and warfighter utility where necessary to support customer needs. Interoperability demonstrations will be conducted to solve warfighting problems including coalition challe

| **Accomplishments/Planned Program Title:** | FY 2007 | FY 2008 | FY 2009 |
|---|---|---|---|
| Capability Integration (CI) / Advanced Systems Prototyping (ASP) | 2.900 | 2.800 | 2.900 |

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

The primary outputs and efficiencies realized are: 1) Reduced costs and delivery time to the warfighter through application of commercial 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 accountability of life-cycle support for capabilities deployed to forces.

FY 2007 Accomplishments - Continued development and testing of Wireless for the Warfighter (W4W) solution incorporating wireless technologies for Joint Task Force-Civil Support (JTF-CS) and investigation of wireless technology advances to improve the capability. W4W is a deployable capability that provides Joint Task Force Headquarters (JTF HQ) the ability to rapidly initiate the

exchange of time critical information via voice, video, and data over a broadband wireless medium between warfighters, non-DoD agencies, and local _First Responders_. It incorporates an extended wideband wireless local area network with a wireless line and non-line of sight trunking capability to support deployable communications between a headquarters and subordinate units. This capability supports rapid connectivity between disjointed elements of a headquarters staff and provides the communications path to support user applications required for the mission. One W4W system was delivered to USNORTHCOM's JTF-CS which provided JTF-CS the capability to immediately deploy and establish objective area communications. Completed required documents (e.g., Technical-Integrated Support Plans (T-ISPs), Test Plan, and Architecture Documents) and executed an interoperability assessment with Joint Interoperability Test Command (JITC). Completed documentation (e.g., Concept of Operations (CONOPS), Quick Reference Guide, and System Security Authorization Agreement (SSAA) for JTF-CS. Completed transition of the Command and Control on the Move (C2OTM) capability to Joint Special Operations Command (JSOC) and provided technical support for the Executive Command and Control (EC2) capability to the U.S. Army Information Systems Engineering Command (USAISEC).

Joint Incident Site Communications Capability (JISCC) - Conducted desktop interoperability assessment to determine if information generated at the National Guard Bureau (NGB) Joint Task Force (JTF) can be communicated through the Joint Systems Integration Command (JISC) and the Joint Communications Support Element (JCSE) Small Command and Control Internet Protocol (SC2IP) suite to a Title 10 JTF HQ operating in a Defense Support to Civil Authorities (DSCA) role, using their respective communications paths. JSIC's report of findings was submitted to USJFCOM J89 to incorporate in their response to the Joint Requirements Oversight Council Memorandum (JROCM) 173-06, which requested USJFCOM lead a collaborative effort with U.S. Northern Command (USNORTHCOM), U.S. Pacific Command (USPACOM), and the NGB to develop a communications architecture.

FY 2008 Planned Output -

- Joint Systems Integration Command (JSIC) will provide recommendations to the Defense Acquisition Working Group (DAWG), via the Command and Control Capability Portfolio Manager (C2 CPM) and the Command and Control Capability Integration Board (C2CIB), on prioritization and reduction/consolidation of joint compliance
- Documentation in order to provide an unambiguous understanding of the required interoperability.

- JSIC will provide criteria in which to measure and assess systems/applications within the C2 portfolio in terms of joint compliance, interoperability, and warfighter utility.

- Capability Integration will support the following C2 CPM or Joint Network Operations (JNO) CPM focus areas as requested.

" Joint Task Force (JTF) Headquarters as a Weapons System
" Data Strategy
" Deployable Command and Control
" Decision Support Tools
" Language Translation
" Joint Close Air Support
" Combat Identification/Blue Force Tracking
" Collaborative Information Environment
" Net Enabled Command and Capability (NECC) C2 Migration
" Airborne Networking/Gateways (JNO)
" Cross Domain Solutions (JNO)
" Spectrum Management (JNO)
" Terrestrial Network (JNO)

Capability Integration will support NECC by:

- Conducting integration efforts in accordance with Secretary of Defense (SECDEF) and Chairman assigned missions and JSIC assessment processes.

- Conducting capability module risk assessments and early risk reduction events to address dynamic user needs minimize integration risk, identify interoperability issues.
- Assessing emerging technology impacts.
- Conducting technology assessments to address specific Combatant Commander critical issues.
- Ensuring objectives of all solutions necessary for the joint warfighter to realize the improved or enhanced capability.
- Providing objective evidence identifying requirement changes, supporting 80% solution decisions, or identifying shortfalls and impacts between Capabilities Modules (CM) and other solutions.

-Capability Integration will continue to leverage lessons learned during Wireless for the Warfighter development. Investigate potential impacts of new technology supporting Ad Hoc Wireless Mesh Networking and multifunctional hand held devices. Match emerging critical warfighter requirements with current technologies to identify rapid near-term technology solutions to those requirements in support of the Combatant Commanders. Support Command and Control Capability Portfolio Management (C2 CPM) through development/integration of technical solutions to address capability gaps identified. Provide technical assistance as required to support other initiatives, including the Senior Leadership Command, Control and Communications (SLC3S) program.

FY 2009 Planned Output _ Joint Systems Integration Command (JSIC) will continue the efforts planned for FY2008. 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, interoperability, and warfighter utility. Capability Integration efforts will be focused on solving warfighting problems including coalition challenges. Materiel and non-materiel recommendations that address joint warfighting shortfalls will be provided as appropriate as a transformation change package to the Combatant Commander.

| **Accomplishments/Planned Program Title:** | FY 2007 | FY 2008 | FY 2009 |
|---|---|---|---|
| Capability Assessments and Combatant Commander's Requirements Analysis | 2.900 | 2.722 | 2.900 |

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. Joint Systems Integration Command (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. DOTMLPF recommendations on fielding strategies for USJFCOM and Joint Staff endorsement are also provided.

The primary outputs and efficiencies realized are: 1) Increased number of recommended improvements that enhance the capability of COCOM Joint Task Force Headquarters (JTF HQ); 2) Increased number of verifiable capability solutions recommended for fielding to the COCOM sponsor based on quantified capability improvements; 3) Increased empirical data to support benefit-cost ratio improvements of JTF HQ investment decisions and ensure JTF HQs command and control (C2) capabilities are interoperable from technical and operation standpoints; 4) Increased number of assessments conducted that identify legacy JTF HQs C2 Systems that are interoperable and supported, that inform and recommend solutions to integrate, modify, or retire legacy 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.

System of Record Program Management offices benefit because the JSIC program provides a venue for the Warfighter Utility Assessments (MUAs) of commercial 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 2007 Accomplishments

CENTCOM Best of Breed (BoB) - Assisted USCENTCOM and USJFCOM in reducing a list of 4,000 systems and applications being used in the USCENTCOM theater to a few hundred core and

key Command and Control (C2) systems. Best of Breed was the first attempt by USJFCOM and CENTCOM to manage the C2 portfolio by identifying C2 overlaps, gaps, and redundancies.

Theater Effects Based Operations (TEBO) _ Assessed technologies and operational concepts necessary to provide Joint Force Commanders with the tools, decision aids, and processes needed to support the development, planning, execution, and assessment of effects-based approach to operations. JSIC recommendations used in support of TEBO Advance Concept Technology Demonstration (ACTD) funding decisions, product improvements and transition strategy.

TEBO/Global Synchronization Tool (GST) - Assessed efforts to develop Effects-Based Planning (EBP) tools within USJFCOM and if those tools might be merged or down-selected to streamline further development of Combatant Command (COCOM) Effects-Based Approach to Operations (EBAO) planning/coordination efforts. Joint System Integration Command (JSIC) recommendations used to merge the Operational Net Assessment (ONA) functionality into TEBO.

Command Post of the Future (CPoF) Desktop Assessment _ Conducted a desktop assessment of CPoF. JSIC assessment results were provided to the CPoF Program Manager (PM) as a baseline of functions that CPoF requires to provide functionality in a Joint Task Force (JTF) environment.

FY 2008 Planned Output

Interoperability of Command and Control (C2) systems is a necessary requirement to reduce redundant and excessive systems being deployed, maintained, and supported by the Warfighter. Unifying DoD/joint level instructions and alignment of standards with a coordinated revision cycle is a strategy with the goal of reducing the number of duplicative directives and policies that address interoperability. To achieve policy alignment:

- Joint Systems Integration Command (JSIC) will conduct a review of DoD, Joint Chiefs of Staff (JCS), and Agency directives, instructions and documents related to joint C2 interoperability standards and policies identified by the Dr. Garber study.

- JSIC will provide recommendations to the Defense Acquisition Working Group (DAWG), via the C2 Capability Portfolio Manager and the Command and Control Interoperability Board (C2CIB), on prioritization and reduction/consolidation of joint compliance documentation in order to provide an unambiguous understanding of the required interoperability.

- JSIC will provide criteria in which to measure and assess systems/applications within the C2 portfolio in terms of joint compliance, interoperability, and warfighter utility.

- Capability Assessment will support the following C2 Capability Portfolio Manager (C2 CPM) or Joint Network Operations (JNO) CPM focus areas as requested.

" Joint Task Force (JTF) Headquarters as a Weapons System
" Data Strategy
" Deployable Command and Control
" Decision Support Tools" Joint Close Air Support
" Combat Identification/Blue Force Tracking
" Collaborative Information Environment
" Net Enabled Command and Capability (NECC) C2 Migration
" Airborne Networking/Gateways (JNO)
" Cross Domain Solutions (JNO)
" Spectrum Management (JNO)
" Terrestrial Network (JNO)

Capability Assessments will support NECC by:
- Conducting capability assessments in accordance with Secretary of Defense (SECDEF) and Chairman assigned missions and JSIC assessment processes.
- Conducting capability module risk assessments and early risk reduction events to address dynamic user needs minimize integration risk, identify interoperability issues.
- Assessing emerging capability solutions impacts to current level of interoperability with coalition or non-DoD capabilities.
- Conducting capability assessments to address specific Combatant Commander critical issues.
- Ensuring assessment objectives of all solutions necessary for the joint warfighter to _realize_ the improved or enhanced capability.
- Providing objective evidence identifying requirement changes, supporting 80% solution decisions, or identifying shortfalls and impacts between Capability Modules (CM) and other solutions.
- Acting as the joint capability advocate interface to provide joint management of the mission capability risk areas.

FY 2009 Planned Output- Joint Systems Integration Command (JSIC) will provide criteria in which to measure and assess systems/applications within the C2 portfolio in terms of joint compliance, interoperability, and warfighter utility where necessary to support customer needs. Interoperability assessments will be conducted to address warfighting problems including coalition challenges. Materiel and non-materiel recommendations that address joint warfighting shortfalls will be provided as appropriate as a transformation change package to the COCOMs.

| **Accomplishments/Planned Program Title:** | FY 2007 | FY 2008 | FY 2009 |
|---|---|---|---|
| Federated Joint C2 Laboratories (FJC2L) / Concept Development and Experimentation (CD&E) | 1.827 | 2.000 | 2.000 |

Primary Outcome (objective) for this effort is to strengthen and align activities across the Federated Joint Command and Control Laboratories (FJC2L). The FJC2L is a voluntary consortium sponsored by the Joint Systems Integration Command (JSIC) that leverages the capabilities of the Service Battle Labs, Systems Engineering Commands, Research, Development Test and Evaluation (RDT&E) labs and other aligned agencies to promote near-term Joint C2 solutions for the joint warfighter based on operational needs/requirements. JSIC provides support by aggressively engaging the Services in a collaborative effort to bring joint solutions through capability integration, interoperability demonstrations and capability assessments. JSIC, through its Persistent Joint C2 Environment 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 experimentation and assessments. JSIC provides a reconfigurable Joint Task Force (JTF) C2 and Coalition testbed that supports the rapid evaluation of required interoperability and utility to the warfighter and insertion of technology.

The primary outputs and efficiencies to be realized are: 1) Increased number of consortium interactions and events to leverage the capabilities of like organizations; 2) Decreased duplication of existing command and control systems and applications used throughout the Department in assessing and evaluating these capabilities; 3) Increased full utilization of joint, service and agency unique facilities in order to further determine ability of consortium to develop synergies that result in increased output; 4) Increased identification of joint command and control solutions to Combatant Commanders needs through use of the FJC2L; 5) Decreased number of service developed command and control solutions that fail to meet Combatant Commander joint warfighter requirements; 6) Reduction in the duplication of project/solution efforts across the Department; 7) Increased number of assessment based recommendations of technology solutions that address the military utility of proposed and existing Service solutions; and 8) Increased number of solutions deployed with recognized Doctrine, Organization, Training, Materiel, Leadership and Education, Personnel, Facilities (DOTMLPF) impacts.

FY 2007 Accomplishments
- Enterprise Information Management (EIM) - Three commercial EIM software suites, Xythos 5.0, Microsoft SharePoint 2007, and IBM EIM Suite, were evaluated for workflow, documentation, records, and content management. JSIC facilities were requested to conduct this evaluation within the timeframe required to meet Joint Expeditionary Force Experiment 2008 timelines.

- War Plan for the Warfighter Forwarder Limited Objective Experiment (WWF LOE 1-3) - WWF enables machine-to-machine forwarding of C2 information from the Joint/Combined Air

Operations Center (JAOC/CAOC) to warfighters via tactical data link networks. The WWF effort evaluated, integrated, and employed existing applications, such as Cursor on Target (CoT) and the Joint Translator Forwarder (JxF), to allow machine to machine delivery of combat operations messages to airborne platforms, such as strike aircraft and net-enabled weapons. WWF completed the transmit/feedback loop that originates with the Data Link Automated Reporting System (DLARS), providing the warfighter greater flexibility to employ and redirect data linked aircraft and weapons. JSIC provided engineering support and a persistent C2 environment to support development and evaluation of the WWF capability.

- NATO International Security Assistance Force (ISAF) Interoperability Assessment.

FY 2008 Planned Output -

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

" Bridge between legacy environment and net-centric developmental activity
" Ability for continuous assessment using always available infrastructure

- The Persistent C2 Environment was established to provide regular, fact-based status of both legacy capabilities and those under development to the C2 CPM and Joint Combat Developer (JCD) in support of the oversight process. The Persistent C2 Environment provides the C2 CPM with focused insight into the portfolio allowing multiple activities using a system of systems on a distributed network. Another benefit is that the Persistent C2 Environment can also be used to provide material providers with an early, non-attribution gauge to guide further development.

- The Persistent C2 Environment supports the following:

" Across the portfolio analysis of a specified C2 focus area
" Evaluation of developing capability such as Net Enabled Command Capability (NECC)
" Identification of interoperability problems and verification of fixes for the Joint Task Force (JTF), including 2-/3- Star HQ

- Examples of the use of the Persistent C2 Environment in support of across the portfolio analysis and solution course of action development include:

" Demonstrations of existing Program of Record (PoR) capabilities that can be altered to meet a specified C2 need
" Demonstrations of level of integration of a prototype capability into a POR
" Assessments of portfolio elements to achieve a desired effect such as Time Sensitive Targeting (TST)

- Examples of the use of the Persistent C2 Environment in support of the evaluation of developing capability include:

" Developmental Testing/Operational Testing (DT/OT)
" Interoperability certification
" Military utility assessment
" Interoperability assessment

FY 2009 Planned Output _ Joint Systems Integration Command (JSIC) will provide a persistent Command and Control (C2) environment to promote joint interoperability. This environment will provide distributed connectivity and support efforts to measure and assess systems/applications within the C2 portfolio in terms of joint compliance, interoperability, and warfighter utility where necessary to support customer needs. Interoperability demonstrations and assessments will be conducted using this environment to solve warfighting problems including coalition challenges. Materiel and non-materiel recommendations that address joint warfighting shortfalls will be provided as appropriate as a transformation change package to the Combatant Commander (COCOM).

JSIC will focus on identifying future technology trends that have the potential to support the Joint Warfighter when developed and inserted as disruptive technology. Emerging technologies and C2 interoperability solutions that JSIC will pursue include: field-based computers (rugged, low cost), mobile, secure and wearable wireless communications, "user" defined communications, digital projection technology, graphic display technology, 3-D data management and visualization, next generation database search engines, multi-functional devices (Global Positioning System (GPS), camera, phone), nanotechnology (high capacity handheld devices & power cells), and better electronic media convergence (data, voice, video).

**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)

**February 2008**

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

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

| I. Product Development | Contract Method & Type | Performing Activity & Location | Total PYs Cost | FY 2007 Cost | FY 2007 Award Date | FY 2008 Cost | FY 2008 Award Date | FY 2009 Cost | FY 2009 Award Date | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Dev Support Equipment Acquisition | MIPR | General Services Administration | | 3374 | 1-4Q | 3768 | 1-4Q | 3868 | 1-4Q | | 11010 | |
| Systems Engineering | C-CPFF | Old Dominion University | | 300 | | 332 | 1-4Q | 432 | 1-4Q | | 1064 | |
| General/Contractor Engineering Support | C-CPFF | General Dynamics | | 11683 | 1-4Q | 11022 | 1-4Q | 11122 | 1-4Q | | 33827 | |
| Systems Engineering | C-CPFF | South Carolina Research | | 1648 | 1-4Q | 890 | 1-4Q | 890 | 1-4Q | | 3428 | |
| Gov't Engineering Support | Various DoD | Various | | 3289 | 1-4Q | 3193 | 1-4Q | 3193 | 1-4Q | | 9675 | |
| Travel | Various DoD | | | 341 | 1-4Q | 2 | 1-4Q | 138 | 1-4Q | | 481 | |
| Subtotal: | | | | 20635 | | 19207 | | 19643 | | | 59485 | |

| II. Support Costs | Contract Method & Type | Performing Activity & Location | Total PYs Cost | FY 2007 Cost | FY 2007 Award Date | FY 2008 Cost | FY 2008 Award Date | FY 2009 Cost | FY 2009 Award Date | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Subtotal: | | | | | | | | | | | | |

| III. Test And Evaluation | Contract Method & Type | Performing Activity & Location | Total PYs Cost | FY 2007 Cost | FY 2007 Award Date | FY 2008 Cost | FY 2008 Award Date | FY 2009 Cost | FY 2009 Award Date | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Subtotal: | | | | | | | | | | | | |

| IV. Management Services | Contract Method & Type | Performing Activity & Location | Total PYs Cost | FY 2007 Cost | FY 2007 Award Date | FY 2008 Cost | FY 2008 Award Date | FY 2009 Cost | FY 2009 Award Date | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | |

# OSD RDT&E COST ANALYSIS (R3)

**February 2008**

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

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

| IV. Management Services | Contract Method & Type | Performing Activity & Location | Total PYs Cost | FY 2007 Cost | FY 2007 Award Date | FY 2008 Cost | FY 2008 Award Date | FY 2009 Cost | FY 2009 Award Date | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Subtotal: | | | | | | | | | | | | |
| | | | | | | | | | | | | |
| **Project Total Cost:** | | | | **20635** | | **19207** | | **19643** | | | **59485** | |