

# UNCLASSIFIED

**Exhibit R-2, RDT&E Budget Item Justification:** PB 2013 Office of Secretary Of Defense **DATE:** February 2012

APPROPRIATION/BUDGET ACTIVITY				R-1 ITEM NOMENCLATURE							
0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide</i> BA 7: <i>Operational Systems Development</i>				PE 0607828D8Z: <i>Joint Integration &amp; Interoperability</i>							
COST (\$ in Millions)	FY 2011	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total	FY 2014	FY 2015	FY 2016	FY 2017	Cost To Complete	Total Cost
Total Program Element	41.383	29.059	-	-	-	-	-	-	-	Continuing	Continuing
P818: <i>Joint Integration &amp; Interoperability</i>	41.383	29.059	-	-	-	-	-	-	-	Continuing	Continuing

## Note

In FY 2013, funds will be transferred to Joint Staff Accounts dependant on the Secretary of Defense approval of the governance plan. The governance plan is still under review in the Department. Once the governance plan is approved, this document will be updated with any changes to the Joint Experimentation Program plan for FY 2013, and beyond. The department will make the appropriate notifications.

## A. Mission Description and Budget Item Justification

The Joint Integration & Interoperability (JI&I) Program Element underwrites the Department's core joint Command and Control (C2) efforts for military needs development and validation, for development of associated Doctrine, Organization, Training, Material, Leadership, Personnel, Facilities (DOTMLPF), and for operational assessment of materiel solutions proposed and delivered by the Defense acquisition enterprise. Funds from the JI&I Program are used to address joint capabilities including, but not limited to operational through tactical level joint integration of the following capabilities: Common Operational and Tactical Pictures; Combat Identification; Situational Awareness; Adaptive Mission Planning and Rehearsal; Interoperability among Service/ Agency intelligence systems; Interoperable Joint Fires, Maneuver, and Intelligence; and Integrated Joint Battle Management Command and Control. Activities funded by the JI&I Program aim to:

- Identify, and/or develop mission capable solutions for COCOM interoperability and integration capability shortfalls with emphasis on non-materiel elements;
- Assess operational suitability and sufficiency of materiel solutions identified by the Defense acquisition enterprise in response to validated joint C2 needs;
- Provide Combatant Commanders with interoperable combat identification and situational awareness capabilities among United States Interagencies, and Allied and Coalition Forces in support of Overseas Contingency Operations;
- Develop joint requirements supporting C2-intensive joint missions such as Joint Close Air Support and Joint Fires;
- Develop joint integrated architectures that guide service capability mapping to achieve joint interoperability;
- Establish fundamental joint data standards and cross domain solutions to facilitate future system interoperability and integration; and,
- Undertake other activities to resolve emergent operational and tactical needs associated with joint C2.

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0400: Research, Development, Test & Evaluation, Defense-Wide		PE 0607828D8Z: Joint Integration & Interoperability			
BA 7: Operational Systems Development					
B. Program Change Summary (\$ in Millions)	FY 2011	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total
Previous President's Budget	44.139	29.880	28.470	-	28.470
Current President's Budget	41.383	29.059	-	-	-
Total Adjustments	-2.756	-0.821	-28.470	-	-28.470
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-0.857	-0.622			
• Other Program Adjustments	-1.513	-	-28.470	-	-28.470
• FFRDC	-0.162	-0.199	-	-	-
• Economic Assumptions	-0.224	-	-	-	-

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Exhibit R-2A, RDT&E Project Justification: PB 2013 Office of Secretary Of Defense									DATE: February 2012		
APPROPRIATION/BUDGET ACTIVITY 0400: Research, Development, Test & Evaluation, Defense-Wide BA 7: Operational Systems Development				R-1 ITEM NOMENCLATURE PE 0607828D8Z: Joint Integration & Interoperability				PROJECT P818: Joint Integration & Interoperability			
COST (\$ in Millions)	FY 2011	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total	FY 2014	FY 2015	FY 2016	FY 2017	Cost To Complete	Total Cost
P818: Joint Integration & Interoperability	41.383	29.059	-	-	-	-	-	-	-	Continuing	Continuing
Quantity of RDT&E Articles											

## Note

In FY 2013, funds will be transferred to Joint Staff Accounts dependant on the Secretary of Defense approval of the governance plan. The governance plan is still under review in the Department. Once the governance plan is approved, this document will be updated with any changes to the Joint Experimentation Program plan for FY 2013, and beyond. The department will make the appropriate notifications.

## A. Mission Description and Budget Item Justification

Joint Integration and Interoperability Program (JI&I) funds efforts to identify critical characteristics of joint military capabilities and synchronize Doctrine, Organization, Training, Materiel, Leadership and Education, Personnel and Facilities (DOTMLPF) capability elements into a coherent package for employment by joint commanders.

The JI&I Program provide resources for a wide range of efforts to define, refine, and deploy integrated joint capabilities. JI&I-funded endeavors aim to improve US and coalition capabilities to conduct coordinated operations. Necessarily, JI&I-funded projects most frequently address Command & Control (C2) and Command, Control, Communications, Computers, Intelligence, Surveillance, and Reconnaissance (C4ISR) - the capstone capabilities for integrating disparate elements of military force for joint and coalition operations. The JI&I Program supports tasks and projects associated with integration and interoperability of the C2 Portfolio including coordination of C2 operational architectures, standards, and policies. Likewise, JI&I partially funds integration and decision support activities associated with DOD executive level C4 management and oversight.

The JI&I Program deliver outcomes conforming to joint integration missions:

- In concert with the separately funded Joint Systems Integration Command (JSIC) and Joint Fires Integration Interoperability Team (JFIIT), JI&I resources investigate joint C2/C4ISR shortfalls and ascertain characteristics of DOTMLPF remedies to meet mission requirements. The remedies are then pursued through partnerships with Component force development authorities and acquisition sponsors.
- Consistent with the role as operational sponsor for joint C2, JI&I underwrites Joint Combat Capability Developer (JCCD) activities compiling operational requirements for C2/C4ISR capability development and integrated testing.
- Delivers assessment and recommendations for improvement of interoperable Combat Identification (CID) and Situational Awareness (SA) capabilities among United States forces, interagency organizations, and allied/coalition forces;
- Establishes joint data standards and cross domain solutions to facilitate future system interoperability and integration. Joint Integration and Interoperability Program (JI&I) funds efforts to identify critical characteristics of joint military capabilities and synchronize Doctrine, Organization, Training, Materiel, Leadership and Education, Personnel and Facilities (DOTMLPF) capability elements into a coherent package for employment by joint commanders.

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<b>B. Accomplishments/Planned Programs (\$ in Millions)</b>		<b>FY 2011</b>	<b>FY 2012</b>	<b>FY 2013</b>
<b>Title:</b> Joint C2 Capability Development and Integration		5.105	1.401	-
<p><b>Description:</b> Primary objective is development, oversight, and execution of the DoD C2 Strategic and Implementation Plan objectives. Incremental delivery of "born joint" capabilities are integrated and synchronized across the Department's requirements, resources and acquisition processes, enhancing the joint war fighting capabilities of the combatant commanders. The JI&amp;I program, in coordination with the Defense acquisition enterprise, assesses the effectiveness of C2 capabilities, identifies emerging capability gaps, and formulates recommendations to address those gaps via the Joint Staff.</p> <p>To hasten delivery of C2 capabilities across the full spectrum of warfare, Joint Test and Evaluation (T&amp;E) requirements were assessed to formulate a Net Enabled Universal Joint Task (NE-UJT) Working Group, which is refining the quantitative aspects of the Net Ready Key Performance Parameters (NR-KPP); C2 attributes measurable through T&amp;E. JI&amp;I personnel participated in exercises including Joint Task Force Exercises (JTFEX), Empire Challenge, and Bold Quest to identify and collect C2 attributes suitable to support joint C2 operational assessments. These T&amp;E support efforts spawned the C4I Partnership (C4IP) for evaluation of operational and tactical C2 capabilities both fielded and under development.</p> <p>The primary outputs and efficiencies pursued through Joint C2 Capability Development and Integration efforts funded by the JI&amp;I program element include:</p> <ol style="list-style-type: none"> <li>1) Improved, integrated, interoperable, and networked joint force;</li> <li>2) Reduction in duplicative C2 systems/programs across the DoD portfolio;</li> <li>3) Improved decisions and recommendations regarding investment strategies and development efforts; and,</li> <li>4) Associated benefits to warfighter efficiency and effectiveness.</li> </ol> <p>Specific tasks undertaken in support of these results include:</p> <ul style="list-style-type: none"> <li>- Documenting and validating needs for Cooperative Target Identification to enhance combat effectiveness, reduce fratricide, increase availability of close air support for troops under fire, provide more effective coordination of air assets, increase weapon accuracy and support time sensitive targeting;</li> <li>- Documenting Authoritative Data Sources (ADS) with "secure transparency" timelines to provide a common data reference set for C2 interoperability;</li> <li>- Developing Data Standards with breadth of application through Integrating architectures;</li> <li>- Coordinating strategies to transition from legacy, platform-centric systems to a net-enabled environment focused on plug-and play interoperability and application-independent data flow.</li> </ul> <p><b>FY 2011 Accomplishments:</b></p>				

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<b>B. Accomplishments/Planned Programs (\$ in Millions)</b>		<b>FY 2011</b>	<b>FY 2012</b>
<p>Achieved C4I Partnership (C4IP) Initial Operating Capability (IOC) to establish a persistent joint assessment and certification environment for testing. Provided ongoing support to Joint C2 Capability Analysis of Alternatives (AoA) and modernization efforts. Continued work with Services regarding Authoritative Data Source exposure schedule. Continued development of Joint Mission Threads (JMTs). Conducted analysis to determine DOTMLPF capability development priorities across the C2 portfolio. Used Mission Analysis and validated COCOM Senior Warfighter Forum (SWarF) inputs, to provide department's recommendations and inform investment and trade-off recommendations for Fiscal Year 2013 resourcing deliberations.</p> <p><b>FY 2012 Plans:</b> Provide DoD Components with prioritized C2 capability investment recommendations across the defense enterprise (both materiel and non-materiel) to minimize risks associated with C2 capability shortfalls. Evaluate the current mix of C2 capabilities against COCOM validated gaps and requirements, to identify the best mix of capabilities with proposed changes in policies, standards and training. Support implementation of senior leader decisions regarding sustainment, synchronization and modernization of the GCCS FoS and Joint C2 AoA. Continue work with the Services regarding Authoritative Data Source exposure schedule. Continue the development and operation of the C4IP to provide a persistent joint environment for test and assessment to address COCOM issues in operational assessments/venues. Conduct studies, analyses and operational assessments for the development of C2 capability solutions necessary to satisfy warfighting requirements and inform Fiscal Year 2014 resourcing deliberations.</p>			
<p><b>Title:</b> Combat Capability Developer (CCD)</p> <p><b>Description:</b> The primary objective for this effort is to meet joint warfighter command and control (C2) needs through a flexible and responsive capability-needs development and oversight process across the full spectrum of C2 development; strategic-to-tactical. The CCD identifies joint C2 requirements/capability needs and essential Doctrine, Organization, Training, Materiel, Leadership, Personnel, Facilities – Policy (DOTMLPF-P) attributes to support development and fielding of agile C2 solutions in response to validated warfighter needs. The CCD serves as DoD's operational sponsor and Warfighter advocate for Global Command and Control System-Joint (GCCS-J) capabilities and Joint C2 capabilities, and as joint functional sponsor to develop requirements for the Global Theater Security Cooperation Management Information System (G-TSCMIS). It also serves as DoD's operational sponsor for Multi-National and Mission Partner (MNMP) requirements development, including Unclassified Information Sharing capabilities. The CCD employs a formalized C2 governance and management process codified in CJCSI/M 3265.01, CJCSI 6285.01B, and the JROC-approved Charter for Joint C2 Capability Requirements Governance to collect, collate, validate, prioritize, and sequence the many C2 stakeholder requirements and capability needs, and ensure Service and agency development efforts are synchronized. As a key leader of C2 governance and management processes, the CCD co-chairs two C2 working groups with OSD, Joint Staff, Services, Combatant Command, and Agency participation to evaluate the health of current C2 capabilities. Further, it co-leads an O6-level CCD Council of Colonels to identify and address C2 issues, and recommend solutions to senior level C2 forums up through the Vice Chairman, Joint Chiefs of Staff. To synchronize C2 development efforts, the CCD leads semi-annual Plan Build conferences composed of Service and Agency materiel developers to prioritize and</p>		6.535	5.528
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<b>B. Accomplishments/Planned Programs (\$ in Millions)</b>			<b>FY 2011</b>	<b>FY 2012</b>
<p>coordinate C2 development efforts by fiscal year. To support requirements management and capability development/integration, the CCD conducts C2 mission capability analysis through C/S/A engagement to inform and recommend resource allocation and acquisition decisions for senior portfolio management. Additionally, the CCD oversees maintenance and development of innovative tools and techniques to support analysis of C2 capabilities based on technical, operational, and programmatic criteria.</p> <p><b>FY 2011 Accomplishments:</b>            Performed C2 capability prioritization and sequencing via the agile Plan Build process, with follow-on capability production, integration and deployment. Provided direct 'hands-on' engagement to Component materiel developers to operationally shape products while ensuring requirements traceability. Co-authored updates to C2 management documents to support changing Department directives and instructions, to include CJCSI 3265.01, C2 Governance and Management and CJCSI 3170.01, Joint Capabilities Integration and Development System (JCIDS). Continued to maintain and manage C2 requirements databases, and utilize C2 governance and management forums to adjudicate and prioritize needed changes to the Global Command and Control System (GCCS) Family of Systems (FoS) and Joint C2 capabilities to include: Adaptive Planning and Execution, cross domain solutions, information sharing, security cooperation, planning, modeling &amp; simulation, Future Mission Networks, and ozone widget framework desktop applications. Ensured operation of the GCCS FoS (Do No Harm) while transitioning C2 capabilities to an agile enterprise environment. Re-assessed GCCS FoS sustainment strategy based on programmatic funding adjustments. Continued to engage with interagency, multi-national and non-government organizations to address requirements for vertical and horizontal collaboration and information sharing in a multi-national environment. Leveraged the Joint C2 Capability Requirements Governance Charter to ensure appropriate requirements governance was achieved throughout the life-cycle of ongoing joint C2 and associated programs. Lastly, worked with the NATO C2 Centre of Excellence to develop a construct to organize and share Component C2 information elements. Continued to execute complex problem analysis through the use and continued development of innovative tools and techniques to support analysis of C2 based on technical, operational, and programmatic criteria that support the C2 community of interest at large. Tools included: the Net-Enabled Requirements Identification Database (NRID) and the Decision Support Tool (DST) to provide greater accessibility and visibility into C2 capability needs, defined requirements, and potential solutions.</p> <p><b>FY 2012 Plans:</b>            Continue C2 capability prioritization and sequencing via the agile Plan Build process, with follow-on capability production and deployment. Provide direct 'hands-on' engagement to materiel developers to operationally shape products while ensuring requirements traceability. Participate with programmatic forums to develop funding needs for joint C2 architecture and data standards required to migrate C2 to a services-oriented environment. Leverage C2 forums to support changing Warfighter needs in an irregular warfare battlespace, including a holistic Adaptive Planning and Execution integrated plan (per FY12-16 DPPG) to begin replacing legacy C2 capabilities. Sustain and synchronize critical GCCS FoS capabilities while transitioning joint C2 to agile, objective capabilities. Refine Capability Definition Packages (CDPs) for Adaptive Planning and Execution and Multi-national</p>				

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<b>B. Accomplishments/Planned Programs (\$ in Millions)</b>		<b>FY 2011</b>	<b>FY 2012</b>	<b>FY 2013</b>
Mission Partner requirements and capability needs. Support and align NATO C2 Centre of Excellence C2 information capabilities. Capability analysis tool updates include development of: comprehensive system descriptions; document libraries; images; architectures; analysis and visualization tools capabilities; yellow pages and interactive calendar of events; Visual Command and Control Capability Analysis and Tradeoff Suite (VC3ATS) continuation (further development of an assessment framework and an interactive “dashboard” to improve the ability to make C2 Doctrine, Organization, Training, Material, Leadership, Personnel, and Facilities (DOTMLPF) tradeoffs and recommendations; and develop interfaces to the Joint Staff Capability Development Management Tool (CDMT)).				
<b>Title:</b> Data Strategy  <b>Description:</b> Primary objective for this effort is the Joint warfighter ability to access, share and fuse critical C2 information using common standards. Currently, operators do not have visibility of what data exists for their use and/or may experience difficulty in accessing that data due to a lack of system or software interoperability. If they are able to access the data, they may not be able to understand the data or determine if it is applicable, current, or trusted. Data producers struggle with standards for sharing, describing, and tagging data so that operational consumers and their supporting systems may use it.  As the military lead for C2 data strategy, we work with the Combatant Commands, Services, and Agencies COCOM/Service/ Agency (C/S/A) to achieve the primary outcome and efficiencies associated with making C2 data assets visible, accessible, understandable and interoperable by (1) Leading an effective C2 Data Strategy management construct to include guidance and policy recommendations; (2) Developing and refining C2 Data Standards and Best Practices; (3) Compiling Authoritative Data Source (ADS) inventories, generating exposure metrics and synchronizing ADS exposure with C2 Capability development; and (4) Supporting C2 Data Pilots, Joint Capability Technology Demonstrations (JCTDs), and other Data Strategy implementation activities in order to increase the Joint warfighter's access to C2 information.  <b>FY 2011 Accomplishments:</b> Published C2 Core Version 2.0 continuing the work accomplished in FY 2010, a comprehensive C2 XML-based, information exchange data standard which includes re-usable components, a suite of rules (extension, naming and design, and conformance), tools, and associated documentation. Provided C2 Core training and support to FY 2011 C2 Core piloting activities and other C2 Core development and implementation activities. Managed and chaired of the C2 Core Configuration Control Board, which manages the data model design to ensure both relevance and best practices. Mapped C2 Core data elements to 3, Tier One Joint Mission Threads, to ensure data model content is “right sized” for optimum warfighter use. Executed FY 2012 ADS Annual Review Board in conjunction with the Joint C2 Build/Plan process to synchronize data exposure with capability development. Maintained C2 ADS information in the DoD Enterprise ADS Registry, compiled and reported ADS exposure metrics quarterly. Mapped the ADS to 3, Tier One Joint Mission Threads, will enable efficient reuse of existing data sources. Executed Operational Utility Assessments (OUAs) for the Tactical Edge Data Solutions (TEDS) JCTD Increment I and Increment II, which demonstrated		5.937	5.397	-

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<b>B. Accomplishments/Planned Programs (\$ in Millions)</b>		<b>FY 2011</b>	<b>FY 2012</b>	<b>FY 2013</b>
<p>Joint and Coalition C2 interoperability. Executed Common Ground JCTD User utility assessments, the results of which were incorporated into the Common Joint Mapping Tool Kit as an enterprise license. Provided data &amp; service strategy reviews and recommendations for Information Support Plans (ISPs), capabilities development documents, and guidance and policy documents for over 40 documents. Led the C2 Data and Services Steering Committee eight times, which provided a formal process to establish C2 data sharing priorities and standards for C2 capabilities. Provided oversight in the processing of over 350 Interim Change Proposals (ICPs) for Tactical Data Links (TDLs) and United States Message Text Formats (USMTFs), ensuring that US standards and NATO standards were synchronized and validated through the respective configuration control boards and processes.</p> <p><b>FY 2012 Plans:</b></p> <p>Continue configuration management of C2 Core Version 2.0+ and chair the C2 Core Configuration Control Board. Monitor and report C2 Core implementation progress based upon the C2 Core Implementation Plan and refine as needed. Provide C2 Core training and support to C2 Core implementation activities. Continue mapping C2 Core elements to Joint Mission Threads. Execute FY 2013 authoritative data source (ADS) Annual Review Board in conjunction with the Joint C2 Build/Plan process to synchronize data exposure with capability development. Maintain C2 ADS information in the DoD Enterprise ADS Registry, compile and report ADS exposure and operational metrics. Continue mapping ADS to Joint Mission Threads. Execute Operational Utility Assessments (OUAs) for TEDS JCTD Increment III and begin transition of the solution to the identified programs of record. Provide data strategy reviews and recommendations for ISPs, capabilities development documents, and guidance and policy documents. Lead the C2 Data and Services Steering Committee, which provides a formal process to establish C2 data sharing priorities and standards for C2 capabilities.</p>				
<p><b>Title:</b> Integrated Fires</p> <p><b>Description:</b> Primary objective for this effort is the integration of Joint Fires Capabilities for US and Coalition Partners that improves combat / mission effectiveness while minimizing fratricide and collateral damage through actions in the following areas: Joint Close Air Support (JCAS), Combat Identification (CID), Friendly Force Tracking (FFT) (including Joint Blue Force Situational Awareness), Joint Fires, and Fires related Joint Command and Control Capabilities.</p> <p><b>FY 2011 Accomplishments:</b></p> <p>Completed multi-service/agency DEPSECDEF tasked effort for Joint Cooperative Target Identification – Ground (JCTI-G) Analysis of Alternatives (AoA)—all recommendations endorsed by Operational Integrated Product (OIPT) lead. Led Bold Quest 11 Demonstration at Camp Atterbury, Indiana with 1018 participants from 11 nations. Initiatives included: Advanced Situational Awareness Training for Soldiers; Immersive Training Environments at the Muscatatuck Urban Training Center; Personnel Recovery tracking of Norwegian HALO Parachute SOF team; and digital exchange of targeting information between strike aircraft and terminal controllers. Executed CID-FFT Executive Steering Committee (ESC) actions. Prepared CID Server for ISAF fielding with completion of developmental and operational testing—proven potential to reduce Air-to Ground friendly fire</p>		3.000	8.800	-



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<b>B. Accomplishments/Planned Programs (\$ in Millions)</b>			<b>FY 2011</b>	<b>FY 2012</b>
<p>incidents. Expanded Joint Friendly Fire Data Base of combat fratricide events and conducted trend analysis to support JCTI-G AoA analysis. Led JROC-directed Tactical Information Classification and Security (TICS) Study, determining the appropriate balance between information protection and rapid tactical unit access, leading to policy and technical recommendations. Pursued integration efforts for synchronized Service testing, acquisition and fielding of Mode 5 IFF capability, with IOC in 2014 and FOC in 2020. Executed multi-service/agency cost effective Mode 5 Level 2 Joint Implementation Strategy and Mode 5 Community Task approach approved by both CID-FFT ESC and USD AT&amp;L JFI. Led NATO FFT AHWG - provided US Head of Delegation. Developed CID Server STANAG to ensure NATO interoperability. Executed Joint Fire Support Executive Steering Committee (JFS ESC) actions. Conducted Joint Terminal Attack Controller (JTAC) Stan Team Initial Accreditation visits; staff assistance visits and Biennial Reviews of US and coalition partner schoolhouses. Advanced NATO/coalition partner JTAC MOA signatory requests. Revised Joint Fires Observer MOA. Updated JTAC Simulation Accreditation Criteria. Coordinated production of Joint Digitally-Aided Close Air Support TTP and developed DACAS assessment plans and engineering changes. Executed JFS Action Plan to include simplifying airspace coordination and deconfliction measures; obtained CJCS approval of Senior Leader and Strike Advisor Education emphasizing a better understanding of joint targeting; provided operational context to improve Collateral Damage Estimation methodology doctrine and standardize training; and facilitated establishment of standardized certification programs to permit delivery of precision-guided weapons.</p> <p><b>FY 2012 Plans:</b></p> <p>Continue execution of JFS/JCAS and CID-FFT Action Plans. Implement actions for DACAS across the services. Expand coalition participation in the JTAC MOA and JTAC Standardization Teams. Continue execution of Coalition Combat Identification Capability Development series, BOLD QUEST. Planning for the BOLD QUEST 2013 Joint Operational Test Approach for Mark XII Mode Five Interoperability test.</p>				
<p><b>Title:</b> Joint Architecture Integration and Development</p> <p><b>Description:</b> Primary objective for this effort is to develop and integrate joint architectures and conduct analysis for multiple C2 related efforts that will provide near-term benefit to combatant commands and their war fighters and serve to ensure integration of Service, agencies and mission partner capabilities development. There are four foundational efforts that provide the architecture, analysis, and services to the warfighters and supporting elements:</p> <ul style="list-style-type: none"> <li>- Joint Combat Capability Development Architecture efforts consist building service oriented architectures to support specific joint C2 future capabilities.</li> <li>- The Joint Force Architecture, Standards, and Analysis develops architectures, conducts analysis to improve joint force capabilities and readiness. Additionally, the Joint Common Systems Function List (JCSFL) is refined and validated to provide a comprehensive lexicon of warfighter and supporting element system functionality descriptions used to develop integrated</li> </ul>			7.076	7.933
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<b>B. Accomplishments/Planned Programs (\$ in Millions)</b>		<b>FY 2011</b>	<b>FY 2012</b>	<b>FY 2013</b>
<p>architecture and support the assessment of capabilities across DoD. Joint Capabilities Integration Development System (JCIDS) architectures are reviewed for joint integration and interoperability.</p> <p>- Joint Architecture Federation and Integration is the solution to exchange architectures and authoritative sources of information independently of any architectural development tool, through web services and standardized portal interfaces.</p> <p>- Joint Mission Threads are operational and technical description of end-to-end set of activities and systems that characterize events, processes, information, and data exchange for interoperability analysis of joint capabilities. Conduct Architecture Driven Analysis (ADA) done using operator's requirements, run against tactics, techniques, and procedures (TTPs) and systems capabilities to identify gaps and potential solutions.</p> <p><b>FY 2011 Accomplishments:</b></p> <p>- Developed Miniature Air Launched Decoy Jammer (MALD-J) Capability Production Document Architecture. MALD-J was approved by the JCB on 6 Sep 2011. Developed architectures for mission thread support to USCENTCOM, ISAF Joint Command and Joint Interoperability Test Command for testing of information exchanges on the Afghan Mission Network (AMN). Developed the analysis and architectures for a Coalition Warfare Program project that addresses interoperability issues for US and selected Troop Contributing multi-national partners operating in Afghanistan. Developed, coordinated and staffed the C2 On-the-Move Reference Architecture to address selected combatant commanders Integrated Priority List (IPL) issues and provided guidance to the Services that are developing a C2OTM capability. Updated the C2 On-The Move (C2OTM) Reference Architecture. Updated the JCSFL (V4.0) and ensure that program managers and capability developers incorporate the changes. Coordinated and worked with Service acquisition sponsors and program managers to incorporate the JCSFL into Service programs during the JCIDS process to ensure better joint integration. Reviewed and commented on emerging DoD policy addressing C2 capability and architectures and JCIDS document reviews for integration and interoperability and Net Ready Key Performance Parameter compliance. Provided analytical and architecture support to the C4/CYBER Functional Control Board for the Joint Tactical Radio System – Ground Mobile Radio for the Nunn-McCurdy breach. Developed prioritized information exchanges and data loads/throughputs for the Joint Task Force (JTF) and subordinate joint headquarters in support of the Joint Aerial Layer Network (JALN) Analysis of Alternatives (AoA).</p> <p>Architecture Driven Analysis (Joint Mission Threads):</p> <p>- Completed development of seven of the thirty identified Joint Mission Threads (JMTs): Joint Close Air Support, Joint Personnel Recovery (JPR), Global Force Management, Joint Fires, Counter-Improvised Explosive Devices, Air and Missile Defense, and Integrated Tactical Warning/ Attack Assessment. The JMTs are being extensively reused by a variety of DoD communities and are providing much of the "operational context" that AT&amp;L has identified as critical to future acquisitions. Continued to build web-enabled portal access to the Tier 1 JMTs for the testing, training, programming, program development, experimentation,</p>				

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<b>B. Accomplishments/Planned Programs (\$ in Millions)</b>		<b>FY 2011</b>	<b>FY 2012</b>	<b>FY 2013</b>
<p>and modeling and simulation communities of interest, filling a critical void of documented JMTs. Supported Ballistic Missile Defense (BMD) Joint Warfighter Challenges by providing Tier 2 BMD JMTs supporting gap analysis and solution identification. Supporting Joint Personnel Recovery solution implementation across Services. Managed the Digitally Aided Close Air Support (DACAS) Change Control Board through completion of Block 1 Engineer Change proposal (ECP) implementation and beginning Block 2 ECP builds. Supporting JPRA in the coordinated implementation of command and control improvements across the Services, identifying and executing a Block 1 concept. These coordinated implementation activities are providing interoperable and integrated capability improvement to the warfighter's ability to conduct the Joint Close Air Support mission and the Personnel Recovery mission.</p> <p>Joint Combat Capability Development Architectures:</p> <ul style="list-style-type: none"> <li>- Provided solutions architectures and analysis for the JCCD Joint C2 Capability Requirements Management process that define the relationships between warfighter needs, system/service functionality, authoritative data sources, and net-centric enterprise services. Specifically, in support of the Force Readiness PM, developed capability views (CVs), business process models (BPMs) and associated architecture analysis to establish a basis for the PM's decision process to manage warfighter requirements and planning for future capability development. Supporting the development of the Joint C2 Objective Architectures (v2.0 &amp; v2.1) and Transition Architecture. Developed operational views (OVs) in support of CCD production of capability definition packages (CDPs) for joint C2 common user interface (Jc2 CUI), Multi-National &amp; Other Mission Partners (MNMP) and Global Theater Security Cooperation Management Information System (G-TSCMIS).</li> </ul> <p>Joint Architecture Federation and Integration:</p> <ul style="list-style-type: none"> <li>- Enhanced Architecture Federation from a proof of concept to a web-based solution on both the NIPRNet and SIPRNet that will have approved architectures and associated data that enables capability developers and warfighter to access the information to help solve their challenges. Expanded the Federation web services to incorporate data from widely used web sites such as JDEIS (Joint Doctrine Education and Training Electronic Information System) and CDTM (Capability Development Tracking Management Tool)/KMDS (Knowledge Management and Decision Support). Deployed the initial operating capability production Joint Architecture Federation portal, the first DoDAF Metamodel (DM2) compliant web service enabled portal in support of OSD and DoD CIO architecture information sharing guidance. Developed processes and methodologies for exposure of Joint Mission Thread (JMT) products. Established web-enabled portal to expose base lined Tier 1 Joint Mission Thread Products.</li> </ul> <p><b>FY 2012 Plans:</b></p> <p>Joint Combat Capability Development Architectures:</p>				

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<b>B. Accomplishments/Planned Programs (\$ in Millions)</b>		<b>FY 2011</b>	<b>FY 2012</b>
<p>Provide architecture and analysis support for joint C2 systems and Service systems joint integration in support of the Combat Capability Development. Develop Solutions architectures and perform analysis to determine capability development priorities, identify capability redundancies/gaps, and identify critical Joint C2 interoperability opportunities and requirements.</p> <p>Joint Force Architectures, Standards, and Analysis: Update the JTF architectures for joint force analysis baselines and joint strategic planning analysis and architectures. Continue to incorporate capability analysis processes and review JCIDS ICDs (Initial Capabilities Documents), CDDs (Capability Development Documents), CPDs (Capability Production Documents), ISPs (Information Support Plans) and TISPs (Tailored Information Support Packages) for joint interoperability and integration aspects. Provide analysis and architecture support for joint C2 systems and Service systems joint integration convergence. Develop solutions architectures for JS J8 sponsored initiatives. Refine and expand the C2OTM Reference Architecture to include maritime and air OTM capabilities that interface and need to integrate with ground forces. Building on the work accomplished in FY11, update JCSFL (V5.0) as a Chairman, Joint Chiefs of Staff Manual and add additional functions enhancing interoperability analysis. Continue to review emerging DoD policy addressing C2 capability and architectures. Continue to coordinate and work with Service acquisition sponsors and program managers to incorporate the JCSFL into Service programs during the JCIDS process to ensure better joint integration. Build on previous Coalition Warfare Projects and develop process models for Multinational Operations Logistics Chain Management. Assist in the final analysis of the JALN AoA.</p> <p>Federation: Continue ongoing FY 2011 efforts. Expand the IAMD and other JMT use cases that are federated based on Integrated Priority List issues. Continue to refine web services and standardized portal interface for exposure and federation of Joint Mission Threads, C/S/A Architectures, and other authoritative sources of data. Incorporate and align joint architecture development environment with data model and methodology standards in conjunction with OSD/NII, Joint Staff, and Service and Combatant Command communities.</p> <p>Joint Mission Threads: As the FY 2011 JMTs become fully developed, begin work on six more Tier One JMTs based on JROC and FCB guidance. Continue to provide support to the Joint Warfighter Challenges by building Tier Two JMTs for gap analysis and solution identification. Continue efforts to enhance the capability to collaborate on, leverage and improve developed and developing JMTs. In addition, the Capability Engineering project is now incorporated under Joint Mission Threads. Continue to manage the DACAS Change Control Board Block One ECP implementation and begin Block Two ECP build and implementation. Continue to support JPRA in the coordinated implementation of command and control improvements across the Services, identifying and executing a Personnel Recovery ECPs. These coordinated implementation activities are providing interoperable and integrated capability improvement to the warfighter's ability to conduct the Joint Close Air Support mission and the Personnel Recovery mission. As</p>			

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<b>B. Accomplishments/Planned Programs (\$ in Millions)</b>		<b>FY 2011</b>	<b>FY 2012</b>
the FY 2010 JMTs become fully developed, the team will begin work on six more JMTs: Time Sensitive Targeting, Joint Fires, Computer Network Defense/Attack/Exploitation; Humanitarian Assistance/Disaster Relief; Integrated Tactical Warning/ Attack Assessment; and Interagency Interoperability. Provide a web-enabled portal capability for the testing, training, programming, program development, experimentation, and modeling and simulation communities of interest, filling a critical void of documented JMTs.			
<b>Title:</b> Joint Capabilities Requirement Manager  <b>Description:</b> The Joint Capabilities Requirements Manager (JCRM) is the tool warfighters and force providers use daily to request, validate, staff and allocate forces. The JCRM tool also serves to provide an electronic record of sourcing activity over time providing us with an archive data base to document past global force capability demand, project future requirements and provide an authoritative data base for detailed force analysis. While JCRM in its current form is a functional tool, it is in need of functional capability improvements to achieve Final Operating Capability.  <b>FY 2011 Accomplishments:</b> Collaborative Staffing: This capability has enabled the Joint Staff, Joint Force Providers, force providers and supported Combatant Commanders(CCDRs) to collaboratively develop the most effective and efficient sourcing solutions to competing and dynamic force requirements in time to allow predictable deployment schedules for the deploying service men and women throughout DoD.  Capabilities Module Development: JCRM force requirements and force provider modules are the tools that enable execution of overseas contingency operations by matching force requests with sourcing solutions. The JCRM Capabilities Module allows CCDRs to draft potential future force requirements by generating off-the-shelf capability packages to support planning. These capability packages can then be re-used by other planners.  Force Deployment Development: The Force Deployment Module imports the Joint Operation Planning and Execution System (JOPEs) and Time-Phased Force Deployment Data (TPFDD) and compares it with the supported CCDRs force requirement and the Secretary of Defense (SECDEF) ordered deployment. This validation check ensures the right forces are deploying to the right place at the right time.  Joint Individual Augmentee Model: This capability improves the data sharing interface between electronic Joint Manpower and Personnel System (eJMAPS) and JCRM while providing functionality to manage Joint Manning Document for individual augmentation currently nonexistent in JCRM. The capability will enable follow-on analysis, GFMAP orders generation and management as well as change management. This capability will automate the Global Force Management Allocation Plan (GFMAP) Annex D order that currently numbers 16,284 lines in the FY 2010 GFMAP Annex D spreadsheet.		1.886	-
<b>Title:</b> Joint Blue Force Situational Awareness (JBFSa)		1.186	-

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<b>B. Accomplishments/Planned Programs (\$ in Millions)</b>		<b>FY 2011</b>	<b>FY 2012</b>
<p><b>Description:</b> Primary objective is to improve overall Friendly Force Situational Awareness and to develop solutions that reduce the potential for friendly fire. The primary outputs and efficiencies to be realized are increased development and integration of common data formats and the modification of supporting software / architectures to: 1) Allow Position Location Information/ Situational Awareness data to flow freely among U.S., NATO and coalition forces; 2) Increase capability and capacity for Data Dissemination through the establishment of net-centric integrated services; 3) Increase / improve Joint Air - Ground Situational Awareness sharing capacity / capability through technical solutions, Concept of Operations, Tactics, Techniques and Procedures delivery, along with the development, integration, testing, production, and deployment of airborne Friendly Force Tracking (FFT) capabilities; 4) Improve and increase force capability for Battlefield De-confliction / Fratricide Avoidance, by increasing interoperability of systems through FFT data exchange standardization; and 5) Increase integration and availability of FFT data between tactical and logistics support forces.</p> <p><b>FY 2011 Accomplishments:</b> Developed a capability for FFT systems to operate in a low-bandwidth, austere environment. Identify and assess LPI/LPD waveform options, including integration of Global Personnel Recovery System capability to support Special Operations.</p>			
<p><b>Title:</b> Coalition Combat Identification (CCID) Advanced Concept Technology Demonstration (ACTD)/BOLD QUEST</p> <p><b>Description:</b> Primary objective for this effort is to integrate and assess U.S. and Allied combat identification capabilities in order to inform U.S. and Allied investment in both materiel and non-materiel solutions to the needs of coalition warfighters in current and future operations. During 2003 through 2007 the Coalition Combat Identification Advanced Concept Technology Demonstration (CCID ACTD) assessed the military utility of emerging combat identification technologies in a series of operational demonstrations that became more commonly known as the Bold Quest series. The technologies assessed provided both cooperative and non-cooperative target identification capabilities, enabling coalition ground forces and aircrew to identify friendly, enemy and neutral ground entities, thereby improving their Situational Awareness and "shoot/don't shoot" decision-making. International participation, reflected in the commitment of both technologies and forces, has grown from an original six nation partnership to a coalition of fourteen nations providing technologies, forces and analytical resources. Since 2007 the Bold Quest participants have increasingly incorporated the development of Tactics, Techniques and Procedures with technical development and testing; most notably in the area of Digitally Aided Close Air Support (DACAS) and Joint Fires Threads.</p> <p><b>FY 2011 Accomplishments:</b> The BOLD QUEST 2011 focused on the Combat ID issues associated with "Fires on Dismounts", including both surface and air fires, direct and supporting. Reflecting a growing international consensus in the Family of Systems approach, fostered in previous BOLD QUEST events, the fourteen BOLD QUEST 2011 participating nations are sponsoring a range of Cooperative Target Identification (Query/Response), Situational Awareness and Digitally Aided Fires initiatives that will exploit current and emerging Intelligence, Surveillance, Target Acquisition and Reconnaissance (ISTAR) capabilities. The assessment strategy established</p>		3.987	-

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<b>B. Accomplishments/Planned Programs (\$ in Millions)</b>		<b>FY 2011</b>	<b>FY 2012</b>	<b>FY 2013</b>
a robust environment, representative of coalition operations, in which to test varied methods of identifying friends, neutrals and enemy enabling effective engagement. Air and Ground elements from the participating nations will collectively demonstrate the ability to produce timely and accurate Position Location Information (PLI) and share that information across coalition and security domains. The BOLD QUEST 2011 footprint included 700 personnel, 25 fixed wing aircraft and 50 ground vehicles engaged in three weeks of day/night scenarios reflecting current operations.  <b>FY 2012 Plans:</b> In FY 2012, this project is incorporated into Integrated Fires.				
<b>Title:</b> Capability Engineering  <b>Description:</b> Primary objective of this effort is to provide System-of-Systems Engineering (SoSE) support to the Joint Capability Development (JCD) process developing, using, and making available for reuse Joint Mission Threads (JMT) for joint context. This requires detailed JMT data collection, representation, and analysis in conjunction with Services and COCOMs for consensus. A Capability Engineering (CE) approach, developing and leveraging JMT architectures, will efficiently and effectively provide capability gap analysis and solutions. Using developed architectural products, data, and data relationships, the CE team will provide detailed capability engineering analysis to support JCD functions, including the administration of JMT composition and reuse, development of executable architectures that can be further refined through modeling and simulation, detailed analysis and assessment of capability gaps, recommended solutions, and coordinated implementation of capability improvements.  <b>FY 2011 Accomplishments:</b> Managed the DACAS Change Control Board through completion of Block 1 ECP implementation and begin Block 2 ECP builds. Continued to support JPRA in the coordinated implementation of command and control improvements across the Services, identifying and executing a Block 1 concept. These coordinated implementation activities provided interoperable and integrated capability improvement to the warfighter's ability to conduct the Joint Close Air Support mission and the Personnel Recovery mission. As the FY-10 JMTs become fully developed, the team will begin work on six more JMTs: Time Sensitive Targeting, Joint Fires, Computer Network Defense/Attack/Exploitation; Humanitarian Assistance/Disaster Relief; Integrated Tactical Warning/ Attack Assessment; and Interagency Interoperability. Provide a web-enabled portal capability for the testing, training, programming, program development, experimentation, and modeling and simulation communities of interest, filling a critical void of documented JMTs.  <b>FY 2012 Plans:</b> In FY 2012, This project is incorporated into Joint Architecture Integration and Development .		4.138	-	-
<b>Title:</b> Capability Transition Management		1.087	-	-

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<b>B. Accomplishments/Planned Programs (\$ in Millions)</b>		<b>FY 2011</b>	<b>FY 2012</b>
<p><b>Description:</b> Primary objective is to transition capabilities that solve Joint Warfighting requirements for both material and non-material solutions. The capabilities developed and transitioned provide workable solutions identified by Combatant Command Commanders, Services and Agency inputs. These inputs are validated through coordinated WarFighter Challenge and Experimentation process (J9), Joint Training exercises (J7), Lessons Learned and Forward Support Element inputs (JCOA), Coalition Warrior Interoperability Demonstration (CWID) interoperability trial assessments (J8/JSIC), Irregular Warfare forums (JIWC) and Regional COCOM Joint Urgent Operations Need Statements (J8). Additionally, transition activities are focused on the development and processing of acquisition documentation to include; JCIDS requirements, Certification and Accreditation documentation, CONOPS, Technology Transition Agreements, and Test and Evaluation results. The objective for a material transition is to successfully transfer responsibility and ownership of developed and mature capabilities to formal acquisition programs. The objective for non-material transition is to ensure that the DOTMLP-FP Change Request (DCR) is institutionalized in a COCOM, Service or Agency and implemented across DoD.</p> <p><b>FY 2011 Accomplishments:</b>  Conducted integration and transition support to the Command Directorates, Commands, and Activities to include: J3/4, J5, J7, J9, JCOA, JECC, and JIWC. Projects listed below are representative of the command projects requiring transition activity. The projects have been endorsed by the Joint Concept Development and Experimentation enterprise under the Warfighter Challenge process.</p> <ul style="list-style-type: none"> <li>Joint Logistics Concept</li> <li>Assessment and Deterrence Operations</li> <li>Multinational and Interagency Info Sharing</li> <li>C2 in a Denied/Degraded Environment</li> <li>Cyber Computer Network Defense</li> <li>Cyber Computer Network Attack and Exploitation</li> <li>Ballistic Missile Defense [BMD] C2 Integration</li> <li>BMD Phased Adaptive Planning</li> <li>MNE 7 Global Commons</li> <li>Security Force Assistance Synchronization</li> <li>Integrated Financial Operations</li> </ul> <p>The Cooperative Security (CS) JCTD - serve as Transition Manager for the Cooperative Security JCTD, developing the transition management strategy and plan for the CS CONOPS, TTPs, Data Access Agreements, training, and a software solution called</p>			



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<b>B. Accomplishments/Planned Programs (\$ in Millions)</b>		<b>FY 2011</b>	<b>FY 2012</b>	<b>FY 2013</b>
<p>UNITY. UNITY will transition the 1st increment DoD Enterprise solution for Unclassified Information Sharing (UIS) called the All Partners Access Network (APAN).</p> <p><b>FY 2012 Plans:</b> Project Completed</p>				
<p><b>Title:</b> Coalition Warrior Interoperability Demonstration (CWID)</p> <p><b>Description:</b> Primary objective of this effort is to improve overall management, oversight and operational support to DoD acquisition entities seeking the capabilities of new, commercial technology that can fill existing gaps in the DoD C2ISR infrastructure while expanding coalition team building with NATO and Five Eyes nations, other Coalition Partners, and US Military/ Defense Agencies.</p> <p>The primary outputs and efficiencies to be realized are increased support to the DoD Acquisition community identifying and assessing commercial capabilities that have potential to meet existing, but unresolved DoD C2 requirements, i.e. improve coalition command, control and coordination for both conventional and irregular warfare operations in the following areas:</p> <ul style="list-style-type: none"> <li>- Capabilities that improve leader centric, net-enabled operations;</li> <li>- Capabilities that enhance coalition battle space situational awareness;</li> <li>- Capabilities that enhance coalition logistics planning and nation building capabilities;</li> <li>- Capabilities that enhance coalition, military, government agency, international organization and non-governmental organization partnership</li> <li>- Capabilities that improve secure information sharing between disparate security domains and communities of interest in an operational environment;</li> <li>- Capabilities that improve centralized command, decentralized control for irregular / hybrid warfare units.</li> </ul> <p><b>FY 2011 Accomplishments:</b> CWID 11 was conducted in venues hosted by the United States (U.S.), Canada and NATO to investigate technologies that enhance warfighting command and control (C2), improve the use of the Afghan Mission Network (AMN) in execution of coalition mission threads, enhance communications, intelligence, surveillance, reconnaissance (ISR) capabilities, and civilian first responder efforts. Overall 18 NATO and Partnership for Peace nations participated in, or observed CWID 11. Thirty-seven commercial, DoD and partner technologies (26 U.S. /8 Canadian/1 Italian/1 Finnish/1 Danish) participated in US CWID as interoperability trials (IT). More than 2480 individual assessment tasks supporting Information Assurance (IA), Technical Interoperability (IOP) and Warfighter Utility Assessments (WUA) were scheduled, 2182 were completed(completion rate was 88%). CWID 11 execution threads included: Coalition/Joint Fires Mission Threads involving the AMN architecture with coalition partners (Germany, France and Netherlands), expanded assessment of Sponsor Defined Requirements, increased cross-site</p>		1.446	-	-

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scenario interaction encouraged by the ISAF scenario, higher fidelity trial-to-network connectivity, improved network monitoring tools to improve quality of assessment data, incorporation of prior lessons learned, and improved situational awareness.				
<b>FY 2012 Plans:</b> Project Completed				
<b>Title:</b> Tranferred to Joint Staff Accounts  <b>Description:</b> In FY 2013, funds will be transferred to Joint Staff Accounts dependant on the Secretary of Defense (SECDEF) approval of the governance plan. The governance plan is still under review in the Department. Once the governance plan is approved, this document will be updated with any changes to the Joint Experimentation Program plan for FY 2013, and beyond. The department will make the appropriate notifications.  <b>FY 2013 Plans:</b> In FY 2013, funds will be transferred to Joint Staff Accounts dependant on the Secretary of Defense (SECDEF) approval of the governance plan. The governance plan is still under review in the Department. Once the governance plan is approved, this document will be updated with any changes to the Joint Experimentation Program plan for FY 2013, and beyond. The department will make the appropriate notifications.		-	-	-
<b>Accomplishments/Planned Programs Subtotals</b>		41.383	29.059	-
<b>C. Other Program Funding Summary (\$ in Millions)</b> N/A				
<b>D. Acquisition Strategy</b> Not applicable for this item.				
<b>E. Performance Metrics</b> Interoperability and Integration: <ul style="list-style-type: none"> <li>Develop coordinated joint C4 operational assessments, tests and evaluations to identify, prioritize and document interoperability deficiencies that produce Component plans and actions to reduce or eliminate identified deficiencies.</li> <li>Provide mission capable solutions for joint interoperability and integration capability shortfalls to influence and resource joint C2 solutions.</li> </ul> Joint Fires: <ul style="list-style-type: none"> <li>Provide situational awareness and cooperative / non-cooperative identification capabilities that enable U.S., NATO / coalition warfighters to identify friendly, enemy and neutral forces for "shoot/don't shoot" decisions.</li> </ul>				

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2013 Office of Secretary Of Defense		<b>DATE:</b> February 2012
<b>APPROPRIATION/BUDGET ACTIVITY</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide</i> BA 7: <i>Operational Systems Development</i>	<b>R-1 ITEM NOMENCLATURE</b> PE 0607828D8Z: <i>Joint Integration &amp; Interoperability</i>	<b>PROJECT</b> P818: <i>Joint Integration &amp; Interoperability</i>
<ul style="list-style-type: none"> <li>• Synchronize Service testing, acquisition and fielding of Mode Five IFF capability, with an Initial Operating Capability (IOC) in FY 2014 and Full Operational Capability (FOC) in FY 2020.</li> <li>• Complete Definition Package for Block Two of Digitally Aided Close Air Support (DACAS) coordinated implementation in conjunction with participating Service programs of record.</li> <li>• Conduct Accreditation Biennial Visits for six Joint Terminal Attack Controller (JTAC) and 2 Joint Fires Observer (JFO) Schoolhouses.</li> <li>• Monitor compliance for Mode Five IOC in FY 2014 and FOC in FY 2020</li> </ul> <p>Interoperability and Integration:</p> <ul style="list-style-type: none"> <li>• Develop coordinated joint C4 operational assessments, tests and evaluations to identify, prioritize and document interoperability deficiencies that produce Component plans and actions to reduce or eliminate identified deficiencies.</li> <li>• Provide mission capable solutions for joint interoperability and integration capability shortfalls to influence and resource joint C2 solutions based on department's guidance.</li> </ul> <p>Joint Fires:</p> <ul style="list-style-type: none"> <li>• Provide situational awareness and cooperative / non-cooperative identification capabilities that enable U.S., NATO / coalition warfighters to identify friendly, enemy and neutral forces for “shoot/don’t shoot” decisions.</li> <li>• Synchronize Service testing, acquisition and fielding of Mode Five IFF capability, with an Initial Operating Capability (IOC) in FY 2014 and Full Operational Capability (FOC) in FY 2020.</li> <li>• Complete Definition Package for Block Two of Digitally Aided Close Air Support (DACAS) coordinated implementation in conjunction with participating Service programs of record.</li> <li>• Conduct Accreditation Biennial Visits for six Joint Terminal Attack Controller (JTAC) and 2 Joint Fires Observer (JFO) Schoolhouses.</li> <li>• Monitor compliance for Mode Five IOC in FY 2014 and FOC in FY 2020.</li> </ul> <p>Combat Capability Development:</p> <ul style="list-style-type: none"> <li>• Develop annual JROC approved plan to identify prioritized and synchronized capabilities sufficient for near-term development and fielding to warfighters (12-18 month delivery).</li> <li>• Develop annual assessment of impacts on GCCS Joint &amp; Service Family of Systems (\$350M+ annual portfolio) to determine mission impacts in the geographic AORs.</li> <li>• Develop, as required, JROC requirements documentation (ICDs, CDDs, CPDs, CDPs, CONOPs, MOEs/MOPs) sufficient for agile/flexible use by the acquisition community.</li> </ul> <p>Architectures:</p> <ul style="list-style-type: none"> <li>• Continue development of reusable architecture products to provide capability developers an upfront, operational/systems view at the enterprise level to support of capability acquisition, requirements generation, development, and testing.</li> </ul> <p>Data</p>		

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2013 Office of Secretary Of Defense		<b>DATE:</b> February 2012
<b>APPROPRIATION/BUDGET ACTIVITY</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide</i> BA 7: <i>Operational Systems Development</i>	<b>R-1 ITEM NOMENCLATURE</b> PE 0607828D8Z: <i>Joint Integration &amp; Interoperability</i>	<b>PROJECT</b> P818: <i>Joint Integration &amp; Interoperability</i>
<ul style="list-style-type: none"><li>• Establish common C2 data and service standards and enables access to authoritative data assets in order to provide the warfighter timely access to critical information.</li></ul>		

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<b>Exhibit R-4, RDT&amp;E Schedule Profile:</b> PB 2013 Office of Secretary Of Defense	<b>DATE:</b> February 2012
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<b>APPROPRIATION/BUDGET ACTIVITY</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide</i> BA 7: <i>Operational Systems Development</i>	<b>R-1 ITEM NOMENCLATURE</b> PE 0607828D8Z: <i>Joint Integration &amp; Interoperability</i>	<b>PROJECT</b> P818: <i>Joint Integration &amp; Interoperability</i>
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	FY 2011				FY 2012				FY 2013				FY 2014				FY 2015				FY 2016				FY 2017			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Jl&I Profile																												
Project Selections																												
Assessments																												
Project Funding																												
Project Development																												

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<b>Exhibit R-4A, RDT&amp;E Schedule Details:</b> PB 2013 Office of Secretary Of Defense			<b>DATE:</b> February 2012
<b>APPROPRIATION/BUDGET ACTIVITY</b> 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide</i> BA 7: <i>Operational Systems Development</i>	<b>R-1 ITEM NOMENCLATURE</b> PE 0607828D8Z: <i>Joint Integration &amp; Interoperability</i>	<b>PROJECT</b> P818: <i>Joint Integration &amp; Interoperability</i>	

Schedule Details

Events	Start		End	
	Quarter	Year	Quarter	Year
Jl&I Profile	1	2011	4	2013
Project Selections	1	2011	4	2011
Assessments	1	2011	4	2011
Project Funding	1	2011	3	2016
Project Development	1	2011	4	2016