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| <b>Exhibit R-2, RDT&amp;E Budget Item Justification:</b> PB 2012 Office of Secretary Of Defense | <b>DATE:</b> February 2011 |
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| APPROPRIATION/BUDGET ACTIVITY                                                                                           |         |         |              | R-1 ITEM NOMENCLATURE                                          |               |         |         |         |         |                  |            |
|-------------------------------------------------------------------------------------------------------------------------|---------|---------|--------------|----------------------------------------------------------------|---------------|---------|---------|---------|---------|------------------|------------|
| 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide</i><br>BA 7: <i>Operational Systems Development</i> |         |         |              | PE 0607828D8Z: <i>Joint Integration &amp; Interoperability</i> |               |         |         |         |         |                  |            |
| COST (\$ in Millions)                                                                                                   | FY 2010 | FY 2011 | FY 2012 Base | FY 2012 OCO                                                    | FY 2012 Total | FY 2013 | FY 2014 | FY 2015 | FY 2016 | Cost To Complete | Total Cost |
| Total Program Element                                                                                                   | 52.667  | 44.139  | 29.880       | -                                                              | 29.880        | 28.470  | 29.037  | 29.643  | 30.181  | Continuing       | Continuing |
| P818: <i>Joint Integration &amp; Interoperability</i>                                                                   | 52.667  | 44.139  | 29.880       | -                                                              | 29.880        | 28.470  | 29.037  | 29.643  | 30.181  | Continuing       | Continuing |

**Note**

At the time of this submission, the Department of Defense is developing the Joint program strategy and objectives for FY 12 and beyond. This is a result of the decision to disestablish U.S. Joint Forces Command, and the Secretary of Defense's efficiency initiatives. Any additional changes for FY12 projects and objectives will be provided when available.

**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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| <b>APPROPRIATION/BUDGET ACTIVITY</b><br>0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide</i><br>BA 7: <i>Operational Systems Development</i> | <b>R-1 ITEM NOMENCLATURE</b><br>PE 0607828D8Z: <i>Joint Integration &amp; Interoperability</i> |
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| <b>B. Program Change Summary (\$ in Millions)</b>                | <b>FY 2010</b> | <b>FY 2011</b> | <b>FY 2012 Base</b> | <b>FY 2012 OCO</b> | <b>FY 2012 Total</b> |
|------------------------------------------------------------------|----------------|----------------|---------------------|--------------------|----------------------|
| Previous President's Budget                                      | 46.214         | 44.139         | 48.745              | -                  | 48.745               |
| Current President's Budget                                       | 52.667         | 44.139         | 29.880              | -                  | 29.880               |
| Total Adjustments                                                | 6.453          | -              | -18.865             | -                  | -18.865              |
| • Congressional General Reductions                               |                | -              |                     |                    |                      |
| • Congressional Directed Reductions                              |                | -              |                     |                    |                      |
| • Congressional Rescissions                                      | -              | -              |                     |                    |                      |
| • Congressional Adds                                             |                | -              |                     |                    |                      |
| • Congressional Directed Transfers                               |                | -              |                     |                    |                      |
| • Reprogrammings                                                 | -0.500         | -              |                     |                    |                      |
| • SBIR/STTR Transfer                                             | -0.820         | -              |                     |                    |                      |
| • Other Program Adjustments                                      | 7.773          | -              | -                   | -                  | -                    |
| • Defense Efficiency - JFCOM Task Force                          | -              | -              | -17.481             | -                  | -17.481              |
| • Defense Efficiency - Baseline Review                           | -              | -              | -0.549              | -                  | -0.549               |
| • Defense Efficiency - Reports, Studies, Boards, and Commissions | -              | -              | -0.778              | -                  | -0.778               |
| • Economic Assumptions                                           | -              | -              | -0.057              | -                  | -0.057               |

**Change Summary Explanation**

Defense Efficiency – JFCOM Task Force. As part of the Department of Defense reform agenda, a zero-based review of the organization to align resources to the most critical priorities and eliminate lower priority functions was performed. This is a result of the decision to disestablish U.S. Joint Forces Command, and the Secretary of Defense's efficiency initiatives. Any additional changes for FY12 projects and objectives will be provided when available.

Defense Efficiency – Baseline Review. As part of the Department of Defense reform agenda, implements a zero-based review of the organization to align resources to the most critical priorities and eliminate lower priority functions.

Defense Efficiency – Report, Studies, Boards and Commissions. As part of the Department of Defense reform agenda, reflects a reduction in the number and cost of reports, studies, DoD Boards and DoD Commissions below the aggregate level reported in previous budget submission.

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| Exhibit R-2A, RDT&E Project Justification: PB 2012 Office of Secretary Of Defense                                                      |         |         |              |                                                                              |               |         |         |                                                       | DATE: February 2011 |                  |            |
| APPROPRIATION/BUDGET ACTIVITY<br>0400: Research, Development, Test & Evaluation, Defense-Wide<br>BA 7: Operational Systems Development |         |         |              | R-1 ITEM NOMENCLATURE<br>PE 0607828D8Z: Joint Integration & Interoperability |               |         |         | PROJECT<br>P818: Joint Integration & Interoperability |                     |                  |            |
| COST (\$ in Millions)                                                                                                                  | FY 2010 | FY 2011 | FY 2012 Base | FY 2012 OCO                                                                  | FY 2012 Total | FY 2013 | FY 2014 | FY 2015                                               | FY 2016             | Cost To Complete | Total Cost |
| P818: Joint Integration & Interoperability                                                                                             | 52.667  | 44.139  | 29.880       | -                                                                            | 29.880        | 28.470  | 29.037  | 29.643                                                | 30.181              | Continuing       | Continuing |
| Quantity of RDT&E Articles                                                                                                             |         |         |              |                                                                              |               |         |         |                                                       |                     |                  |            |

**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 & interoperability of the C2 Capability Portfolio including coordination of C2 operational architectures, standards, and policies. Likewise, JI&I partially funds integration activities associated with the C2 Capability Integration Board (C2CIB), a senior council co-led by US Strategic Command (USSTRATCOM) and ASD Networks & Information Integration (NII). The C2CIB integrates oversight of C2 Capability Portfolio Management (CPM) and the Net-Centric CPM.

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.

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

|                                                                                                                                                                                                                                                                                                                                                                                          | <b>FY 2010</b> | <b>FY 2011</b> | <b>FY 2012</b> |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|----------------|----------------|
| <b>Title:</b> Joint C2 Capability Development and Intergration                                                                                                                                                                                                                                                                                                                           | 12.149         | 6.721          | 1.401          |
| <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 synchronized through the C2 Capability Portfolio Management (CPM) process, enhancing the joint war fighting capabilities of the combatant commanders. The JI&I program, in coordination |                |                |                |

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| <b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2012 Office of Secretary Of Defense                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                                | <b>DATE:</b> February 2011                                              |                |
| <b>APPROPRIATION/BUDGET ACTIVITY</b><br>0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide</i><br>BA 7: <i>Operational Systems Development</i>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | <b>R-1 ITEM NOMENCLATURE</b><br>PE 0607828D8Z: <i>Joint Integration &amp; Interoperability</i> | <b>PROJECT</b><br>P818: <i>Joint Integration &amp; Interoperability</i> |                |
| <b>B. Accomplishments/Planned Programs (\$ in Millions)</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                                | <b>FY 2010</b>                                                          | <b>FY 2011</b> |
| <p>with the Defense acquisition enterprise, assesses the effectiveness of the C2 portfolio, identifies emerging capability gaps, and formulates recommendations to address those gaps through CPM processes.</p> <p>To hasten delivery of C2 capabilities across the full spectrum of warfare, the C2 CPM process examined Joint Test and Evaluation (T&amp;E) requirements necessary to support a more efficient acquisition process. The CPM process formulated a Net Enabled Universal Joint Task (NE-UJT) Working Group to refine the quantitative aspects of the Net Ready Key Performance Parameters (NR-KPP) as C2 attributes measurable through T&amp;E. Staff members serving CPM processes participated in exercises including Joint Task Force Exercise (JTFEX), Empire Challenge, and Bold Quest to identify C2 attributes that were or could have been collected to support joint C2 operational assessments. These T&amp;E support efforts spawned the Joint Systems Integration/Interoperability Laboratory (JSIIL) for evaluation of operational and tactical C2 capabilities both fielded and under development.</p> <p>The primary outputs and efficiencies pursued through the C2 CPM effort 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 portfolio 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 2010 Accomplishments:</b></p> <p>Led Joint C2 Capability sustainment, synchronization and migration of C2 functionality to next-generation objective C2 capability, while ensuring no degradation to fielded Global Command and Control System/Family of Systems (GCCS FoS) and other C2 capabilities. Supported OSD-directed study of GCCS Family of Systems funding needs to inform POM 12 deliberations. Led efforts by Services and Agencies to identify Authoritative Data Sources and plan for FY12 implementation costs of a C2 Core standard. In partnership with Combatant Commands, Services and Agencies (C/S/A) developed Fiscal Year 2012 resourcing</p> |                                                                                                |                                                                         |                |

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| <b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2012 Office of Secretary Of Defense                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |  |                                                                                                | <b>DATE:</b> February 2011 |                                                                         |                |
| <b>APPROPRIATION/BUDGET ACTIVITY</b><br>0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide</i><br>BA 7: <i>Operational Systems Development</i>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |  | <b>R-1 ITEM NOMENCLATURE</b><br>PE 0607828D8Z: <i>Joint Integration &amp; Interoperability</i> |                            | <b>PROJECT</b><br>P818: <i>Joint Integration &amp; Interoperability</i> |                |
| <b>B. Accomplishments/Planned Programs (\$ in Millions)</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |  |                                                                                                | <b>FY 2010</b>             | <b>FY 2011</b>                                                          | <b>FY 2012</b> |
| <p>strategies for an Adaptive Planning and Execution (APEX) support capability, including required funding, identification of overlapping efforts and gaps, and recommendations for coordination / synchronization of APEX tools and functionality. In partnership with the Military Services, identified and developed Joint Mission Threads (JMTs) for use in Limited Operational Assessment (LOA) events, and to exercise and refine the Joint Systems Integration/ Interoperability Laboratory (JSIIL) Concept of Operations (CONOPS) and Standing Operating Procedure (SOP).</p> <p><b>FY 2011 Plans:</b><br/>Achieve JSIIL Initial Operating Capability (IOC) to establish a persistent joint assessment and certification environment for testing. Ongoing support to JC2 Capability Assessment of Alternatives (AoA). Continue work with Services regarding Authoritative Data Source exposure schedule. Continue development of Joint Mission Threads (JMTs). Conduct analysis to determine DOTMLPF capability development priorities across the C2 portfolio. Use Mission Analysis and validated COCOM Senior Warfighter Forum (SWarF) inputs, to provide POM 13 recommendations and inform investment and trade-off recommendations for Fiscal Year 2013 resourcing deliberations.</p> <p><b>FY 2012 Plans:</b><br/>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 JSIIL 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 portfolio capability solutions necessary to satisfy warfighting requirements and inform Fiscal Year 2014 resourcing deliberations.</p> |  |                                                                                                |                            |                                                                         |                |
| <p><b>Title:</b> Joint Combat Capability Developer (JCCD)</p> <p><b>Description:</b> The primary objective for this effort is to meet joint warfighter command and control needs (C2) through a flexible and responsive capability-needs development and oversight process across the full spectrum of C2 development; strategic-to-tactical. The JCCD 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 JCCD 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 JCCD employs a formalized C2 governance and management process codified in CJCSI/</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |  |                                                                                                | 11.592                     | 6.649                                                                   | 5.528          |

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| <b>B. Accomplishments/Planned Programs (\$ in Millions)</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |  |                                                                                                | <b>FY 2010</b>             | <b>FY 2011</b>                                                          | <b>FY 2012</b> |
| <p>M 3265.01, 6285.01, and JROC-approved Charter to collect, collate, validate, prioritize, and sequence the many C2 stakeholder requirements and capability needs, and ensures Service and agency development efforts are synchronized. As a key leader of C2 governance and management processes, the JCCD co-chairs five 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 06-level JCCD 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 JCCD leads semi-annual Plan Build conferences composed of Service and Agency materiel developers to prioritize and coordinate C2 development efforts by fiscal year. To support requirements management and capability development/integration, the JCCD 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 JCCD 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 2010 Accomplishments:</b><br/>JCCD achieved an integrated mix of new and enhanced C2 capabilities for the warfighter through continuous engagement and the execution of a transparent, Department-approved C2 governance and management process. Developed and mapped C2 requirements to new Capability Definition Packages (CDPs) for the GCCS Family of Systems (FoS) as these systems transition to, and integrate with new and updated C2 capabilities. Integrated requirements for emerging adaptive planning and execution capabilities into the joint C2 requirements process, and mapped USSTRATCOM's requirements for "course of action" capabilities to broader joint C2 requirements. Executed C2 Governance and Management responsibilities to co-chair seven JCCD Council of Colonel events with the Joint Staff J36 (JS/C/S/A membership) to resolve issues on GCCS-J and Joint C2 configuration management, air battle planning software, common operating picture interoperability, C2 capability gap analysis, cross domain solutions, and coalition information sharing. Worked with the Vice Chairman, Joint Chiefs of Staff to define and implement a new agile approach to identify joint C2 capability need priorities to support rapid information technology (IT) capability development. This approach was codified in the Joint C2 Capabilities Requirements Governance Charter and approved by the Joint Requirements Oversight Council.</p> <p><b>FY 2011 Plans:</b><br/>Continue C2 capability prioritization and sequencing via the agile Plan Build process, with follow-on capability production, integration and deployment. Provide direct 'hands-on' engagement to materiel developers to operationally shape products while ensuring requirements traceability. Update JCCD management documents to support changing Department directives and instructions. Continue to maintain and manage C2 requirements databases, and utilize C2 governance and management forums to adjudicate and prioritize needed changes to the GCCS FoS (cross domain solutions, information sharing, security cooperation, planning modeling &amp; simulation). Ensure operation of the GCCS FoS while transitioning C2 capabilities to an agile enterprise environment. Re-assess GCCS FoS sustainment strategy based on RMD 700 funding adjustments. Continue to engage with</p> |  |                                                                                                |                            |                                                                         |                |

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| <b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2012 Office of Secretary Of Defense                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                                | <b>DATE:</b> February 2011                                              |                |                |
| <b>APPROPRIATION/BUDGET ACTIVITY</b><br>0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide</i><br>BA 7: <i>Operational Systems Development</i>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | <b>R-1 ITEM NOMENCLATURE</b><br>PE 0607828D8Z: <i>Joint Integration &amp; Interoperability</i> | <b>PROJECT</b><br>P818: <i>Joint Integration &amp; Interoperability</i> |                |                |
| <b>B. Accomplishments/Planned Programs (\$ in Millions)</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                                                                | <b>FY 2010</b>                                                          | <b>FY 2011</b> | <b>FY 2012</b> |
| <p>interagency, multi-national and non-government organizations to address requirements for vertical and horizontal collaboration and information sharing. Leverage the Joint C2 Capability Requirements Governance Charter to ensure appropriate requirements governance is achieved throughout the life-cycle of ongoing joint C2 and associated programs. Lastly, work with the NATO C2 Centre of Excellence to develop a construct to organize and share Component C2 information elements. Continue 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 include: Net-Enabled Requirements Identification Database (NRID) enhancement – refine application to enable greater accessibility and visibility to include incorporation of Decision Support Tool functionality; Command and Control Registry (C2R)/C2 Pedia development – reengineering the C2R database to accommodate a variety of data types and multiple data sets and integrate a highly robust enterprise search engine that supports advanced data discovery, mining and aggregation across the web; Command and Control (C2) Central - continue to expand C2 Central's comprehensive system descriptions, document library, images, architectures, analysis and visualization tools capabilities, yellow pages and interactive calendar of events and further refine search engine capabilities for the user, to include incorporation of the Joint C2 Capability Area Matrix (CAM) functionality; and Visual C2 Capability Analysis and Tradeoff Suite (VCATS) – initiating prototype development of an assessment framework and interactive “dashboard” to demonstrate the ability to make C2 Doctrine, Organization, Training, Material, Leadership, Personnel, and Facilities (DOTMLPF) tradeoffs and recommendations.</p> <p><b>FY 2012 Plans:</b></p> <p>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 Focus Integration Teams (FITs) to develop funding needs for joint C2 architecture and data standards needed 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 CDPs for Adaptive Planning and Execution and Multi-national Mission Partner requirements and capability needs. Support and align NATO C2 Centre of Excellence C2 information capabilities. Capability analysis tool updates include: Command and Control (C2) Central - continue to expand C2 Central's comprehensive system descriptions; document library; images; architectures; analysis and visualization tools capabilities; yellow pages and interactive calendar of events; Visual Command and Control Capability Analysis and Tradeoff Suite (VCATS) 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).</p> |                                                                                                |                                                                         |                |                |
| <b>Title:</b> Data Strategy                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                                                                | 8.067                                                                   | 6.051          | 6.218          |

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| <b>APPROPRIATION/BUDGET ACTIVITY</b><br>0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide</i><br>BA 7: <i>Operational Systems Development</i>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |  | <b>R-1 ITEM NOMENCLATURE</b><br>PE 0607828D8Z: <i>Joint Integration &amp; Interoperability</i> |                            | <b>PROJECT</b><br>P818: <i>Joint Integration &amp; Interoperability</i> |                |
| <b>B. Accomplishments/Planned Programs (\$ in Millions)</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |  |                                                                                                | <b>FY 2010</b>             | <b>FY 2011</b>                                                          | <b>FY 2012</b> |
| <p><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.</p> <p>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.</p> <p><b>FY 2010 Accomplishments:</b><br/>Published C2 Core Version 1.0, a comprehensive C2 information exchange data standard which includes re-usable components, a suite of rules (extension, naming and design, and conformance), tools, and associated documentation. Established a configuration management process and Configuration Control Board for C2 Core artifacts. Published the Joint Authoritative Data Source (ADS) Directory and fed that data into the DoD Enterprise ADS Registry. Compiled and reported ADS exposure metrics quarterly. Developed and executed an ADS Annual Review Board process in conjunction with the Joint C2 Build/Plan process to synchronize data exposure with capability development. Completed C2 Data Pilot Phase 4B, an effort to expose Force Management ADS and support the development and refinement of the underlying technologies supporting net-enabled C2 capabilities. Provided Operational Management and technical support to the Tactical Data Edge Solution (TEDS) JCTD, an effort to transition tactical edge data exchange mechanisms into the net-enabled environment. Led the C2 Data and Services Steering Committee, which provides a formal process to establish C2 data sharing priorities and standards for C2 capabilities. Reviewed over 30 Information Support Plans (ISPs) and capability development documents for data strategy compliance.</p> <p><b>FY 2011 Plans:</b><br/>Continuing the work accomplished in FY 2010 by publishing C2 Core Version 2.0, a comprehensive C2 information exchange data standard which includes re-usable components, a suite of rules (extension, naming and design, and conformance), tools, and associated documentation. Provide C2 Core training and support to FY 2011 C2 Core piloting activities and other C2 Core development and implementation activities. Continue C2 Core configuration management and chair of the C2 Core Configuration Control Board. Execute FY 2012 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 and compile and</p> |  |                                                                                                |                            |                                                                         |                |

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| <b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2012 Office of Secretary Of Defense                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                | <b>DATE:</b> February 2011                                              |                |                |
| <b>APPROPRIATION/BUDGET ACTIVITY</b><br>0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide</i><br>BA 7: <i>Operational Systems Development</i>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | <b>R-1 ITEM NOMENCLATURE</b><br>PE 0607828D8Z: <i>Joint Integration &amp; Interoperability</i> | <b>PROJECT</b><br>P818: <i>Joint Integration &amp; Interoperability</i> |                |                |
| <b>B. Accomplishments/Planned Programs (\$ in Millions)</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                                                                | <b>FY 2010</b>                                                          | <b>FY 2011</b> | <b>FY 2012</b> |
| <p>report ADS exposure metrics quarterly. Generate operational impact focused ADS Exposure metrics. Execute Operational Utility Assessments (OUAs) for TEDS JCTD Increment I and Increment II. Provide data strategy and information assurance reviews and recommendations for Information Support Plans (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>FY 2012 Plans:</b><br/>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. 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. Lead C2 Data Pilot Phase 5. 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 and information assurance 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, Fires related Joint Command and Control Capabilities, and Integrated Air and Missile Defense (IAMD).</p> <p><b>FY 2010 Accomplishments:</b><br/>Executed CID-FFT Action Plan: Led actions to incorporate Position Location Information (PLI) (Blue Force Tracking) security policy. Monitored PR11/POM 12 execution for a synchronized Service acquisition of Mode 5 IFF capability, with an Initial Operating Capability (IOC) in 2014 and Full Operational Capability (FOC) in 2020. Led the NATO FFT Ad Hoc Working Group (AHWG) providing the US Head of Delegation. 2010 projects included: NATO FFT Reference Architecture, FFT standardization for NATO, improvements to the interim NFFI standard and the emerging FFT Standardization Agreement (STANAG). Maintained a Joint Friendly Fire Data Base of real world combat fratricide events, and conducted trend analysis. Produced Friendly Fire Database study in July 2010. Organized and initiated a multi-service/agency DSD-tasked effort for Joint Cooperative Target Identification – Ground (JCTI-G) Analysis of Alternatives (AoA) to determine preferred materiel alternatives for a CID capability in both Fires on Dismounts (FoD) and Air-to-Ground domains. Developed a multi-service/agency cost effective Mode 5 Level 2 Joint</p> |                                                                                                | 3.542                                                                   | 3.102          | 8.800          |

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| <b>APPROPRIATION/BUDGET ACTIVITY</b><br>0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide</i><br>BA 7: <i>Operational Systems Development</i>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | <b>R-1 ITEM NOMENCLATURE</b><br>PE 0607828D8Z: <i>Joint Integration &amp; Interoperability</i> | <b>PROJECT</b><br>P818: <i>Joint Integration &amp; Interoperability</i> |                |
| <b>B. Accomplishments/Planned Programs (\$ in Millions)</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                                                                | <b>FY 2010</b>                                                          | <b>FY 2011</b> |
| <p>Implementation Strategy and Mode 5 Community Task approach approved by the both CID-FFT Executive Steering Committee (ESC) and DUSD AT&amp;L JFI.</p> <p>Executed JCAS Action Plan: Evaluated and monitored Joint Terminal Attack Controller (JTAC) training standardization and accreditation throughout Department of Defense and participating Coalition countries (conducted 7 biennial reviews and 1 accreditation). Expanded Coalition participation in JCAS WG, JFS ESC and JTAC Standardization Team. Supported CENTCOM, Services, and SOCOM in defining JTAC requirements. Revised the JTAC MOA, signed by the Services, SOCOM and 9 Partner Nations. Updated the JCAS Action Plan and managed 10 active and 4 ongoing issues through the conduct of 4 JCAS WGs, 4 Joint Fire Support (JFS) ESC O6 WGs, and 3 JFS ESC Principal (FOGO level) meetings. Established a JCAS standard for DACAS to improve warfighting capability and reduce fratricide. Developed, staffed, adjudicated and executed JFS 2010 Action Plan consisting of ten joint and combined prioritized issues as nominated by C/S/A Stakeholders and Partner Nations. Delivered plan of action for recommending solutions to Airspace Control and Tactics, Techniques and Procedures (TTP) gaps and shortfalls to improve C2 systems and airspace control measures integrating and deconflicting joint airspace with joint fires. Improved cooperation, integration, and interoperability of future Combined Fires capabilities and systems within the five member nations of Australia, Canada, Great Britain, New Zealand, and the United States.</p> <p><b>FY 2011 Plans:</b><br/>FY 2011 Plans:<br/>Continue Execution of CID-FFT Executive Steering Committee (CID-FFT ESC) actions: Monitor POM 13/14 efforts for continued execution of a synchronized Service testing, acquisition and fielding of a Mode 5 IFF capability, with an IOC in 2014 and FOC in 2020. Maintain Joint Friendly Fire Data Base of combat fratricide events, and conduct trend analysis. Continue to conduct multi-service/agency DSD tasked effort for a Joint Cooperative Target Identification – Ground (JCTI-G) AoA. Execute multi-service/agency cost effective Mode 5 Level 2 Joint Implementation Strategy and Mode 5 Community Task approach approved by both CID-BFT ESC and USD AT&amp;L JFI. Lead the NATO FFT AHWG - provide US Head of Delegation. Develop a STANAG for the CID Server capability to provide the service for forwarding friendly force information to weapon delivery decision makers and platforms.</p> <p>Continued Execution of Joint Fire Support Executive Steering Committee (JFS ESC): Conduct JTAC Stan Team Initial Accreditation visits; staff assistance visits and Biennial Reviews as directed by the JFS ESC. Continue NATO / coalition partner expansion efforts. Revise/update JFS ESC endorsed JTAC Simulation Accreditation Criteria. Coordinate production of Joint Digitally-Aided Close Air Support TTP and assist developing DACAS assessment plans and engineering changes. Continued Execution of JFS 2010 Action Plan in FY2011 to include: Airspace Control and TTP, Senior Leader and Strike Advisor Education, UAS Integration, Mensuration, Fire Support Systems Standardization and Digital Interoperability, Fires Resource Allocation, Collateral Damage Estimation (Training and Execution), Service Training Interface, Joint Operational Planning and Execution</p> |                                                                                                |                                                                         |                |

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| <b>B. Accomplishments/Planned Programs (\$ in Millions)</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                                                | <b>FY 2010</b>                                                          | <b>FY 2011</b> |
| System (JOPES) Volume II Enhancements, and Joint Irregular Warfare Force Structure. Continue to lead Missile Defense interoperability efforts.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                                |                                                                         |                |
| <b>FY 2012 Plans:</b><br>Continue execution of JFS/JCAS and CID-BFT 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.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                                                |                                                                         |                |
| <b>Title:</b> Joint Architecture Integration and Development<br><br><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:<br>- Joint Combat Capability Development Architecture efforts consist building service oriented architectures to support specific joint C2 future capabilities.<br><br>- 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 architecture and support the assessment of capabilities across DoD. Joint Capabilities Integration Development System (JCIDS) architectures are reviewed for joint integration and interoperability.<br><br>- 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.<br><br>- 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. |                                                                                                | 4.663                                                                   | 7.202          |
| <b>FY 2010 Accomplishments:</b><br>Joint Combat Capability Development Architectures:<br>Developed for the JCCD Joint C2 Capability Plan-Build process capabilities based architectures that define the relationships between warfighter requirements, system/service functionality, authoritative data sources, and net-centric enterprise services.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                                                | 7.933                                                                   |                |

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| Exhibit R-2A, RDT&E Project Justification: PB 2012 Office of Secretary Of Defense                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                              | DATE: February 2011                                   |         |         |
| APPROPRIATION/BUDGET ACTIVITY<br>0400: Research, Development, Test & Evaluation, Defense-Wide<br>BA 7: Operational Systems Development                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | R-1 ITEM NOMENCLATURE<br>PE 0607828D8Z: Joint Integration & Interoperability | PROJECT<br>P818: Joint Integration & Interoperability |         |         |
| B. Accomplishments/Planned Programs (\$ in Millions)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                                              | FY 2010                                               | FY 2011 | FY 2012 |
| <p>Joint Force Architecture, Standards, and Analysis:<br/>Improved the readiness of HQ JTF (Joint Task Force) WMD (Weapons of Mass Destruction) elimination by sourcing C2 systems shortfalls by working closely with the parent Service. Analyzed and developed the JTF Deployable Maritime Command and Control Capability that had “Increased Emphasis” in POM 12, supported issue papers for C2 Capability portfolio Management (CPM)- JTF Deployable Maritime Command and Control Capability was funded by OPNAV. Successfully coordinated and developed C2 on the Move (C2OTM) Initial Capabilities Document (ICD) – JROC approved. Analyzed broadband cellular, wireless and Aerial Layer Network capabilities for gaps and interoperability issues that affect JTFs in USCENTCOM's AOR and Service Programs in the JCIDS cycle. JCSFL Version 3 updated and improved to include Service submitted CSFL changes, logistics and transportation system functions. The update represents a 25% increase in the scope of warfighter system functionality descriptions addressed by the JCSFL.</p> <p>Federation:<br/>Completed Joint Architecture Federation Proof of Concept with selected Army and USMC architecture systems. Mapped DoDAF MetaModel for architecture data sharing. Developed Federation Use Case on Integrated Air and Missile Defense (IAMD) as part of Phase I and closely coordinated with IAMD community to successfully start the federation effort. Developed a logical data exchange example for sharing of federated capability information from various architecture repositories.</p> <p>Joint Mission Threads:<br/>Led the Digitally-Aided Close Air Support (DaCAS) Coordinated Implementation (CI) Change Control Board (CCB). The CCB delivered DaCAS Block 1 Engineering Change Proposals (ECP) that will deliver a fully interoperable DaCAS capability in the FY 2012-2014 timeframe. The CCB has reached approval for DaCAS Block 2 ECPs through documentation and submission to the Joint Fires Support Executive Steering Committee (JFS ESC). A DaCAS Block 1 Test Package and Test Tools were developed and will be provided to the 13 program managers executing the Block 1 ECPs. Delivered the final report of the desk top analysis to the Joint Personnel Recovery Agency (JPRA). This report provided the JPRA the necessary analysis to begin the coordinated implementation of the findings and recommendations. Partnered with OSD DOT&amp;E to analyze personnel recovery training data to include analysis of C2 improvements and interoperability aspects at Angel Thunder '10. Managed the Joint Mission Thread Architectures for Testing Working Group (JMTAT WG), completing and delivering the Concept of Operations (CONOPS) for Joint Mission Thread Development and Reuse. The CONOPs established the priorities for future JMT development by this group. Began work on the Counter Improvised Explosive Device JMT, establishing the Joint IED Defeat Organization as the sponsor.</p> <p><b>FY 2011 Plans:</b><br/>Joint Combat Capability Development Architectures:</p> |                                                                              |                                                       |         |         |

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| <b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2012 Office of Secretary Of Defense                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                                                | <b>DATE:</b> February 2011                                              |                |
| <b>APPROPRIATION/BUDGET ACTIVITY</b><br>0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide</i><br>BA 7: <i>Operational Systems Development</i>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | <b>R-1 ITEM NOMENCLATURE</b><br>PE 0607828D8Z: <i>Joint Integration &amp; Interoperability</i> | <b>PROJECT</b><br>P818: <i>Joint Integration &amp; Interoperability</i> |                |
| <b>B. Accomplishments/Planned Programs (\$ in Millions)</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                                | <b>FY 2010</b>                                                          | <b>FY 2011</b> |
| <p>Develop solutions architectures for the JCCD Joint C2 Capability Plan-Build process through the development of Joint C2 Capability requirements/needs based architectures that define the relationships between warfighter requirements, system/service functionality, authoritative data sources, and net-centric enterprise services. Analyze and establish testable enterprise user interface capability with and for the warfighter.</p> <p>Joint Force Architectures, Standards, and Analysis:<br/>Develop Joint Force Land Component Architectures at the Divisional Level. Update the JTF Component architectures with Service inputs. Update the JTF HQ C2 Baseline Template and Architectures for Humanitarian Assistance and Disaster Relief. Assist the Joint Civil Information Management Joint Test in developing operational and systems architectures. Improve the readiness of Designated JTF Capable HQs by assisting in the development of their Joint C2 Mission Essential Equipment List and providing joint C2 equipping analysis and architecture support. Develop the architecture for mission thread support to USCENTCOM and ISAF Joint Command. Develop analysis and architectures for Coalition Warfare Program project that will address interoperability issues for US and selected Troop Contributing multi-national partners operating in Afghanistan. Submit Distributed Operations Tactical C2 Architectures and Enablers issues/recommendations for the Combatant Commanders Integrated Priority List (IPL). Update the JCSFL (V4.0) and using the Net Ready Key Performance Parameters working group ensure that program managers and capability developers incorporate the changes. 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. Review and comment on emerging DoD policy addressing C2 capability and architecture and JCIDS document reviews for conformance.</p> <p>Federation:<br/>Enhance Architecture Federation from proof of concept to a web-based solution on the NIPRNet and SIPRNet that will have approved architectures and their associated data so that capability developers and warfighter can access the information to help solve their challenges. Expand 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).</p> <p>Joint Mission Threads:<br/>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,</p> |                                                                                                |                                                                         |                |

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| Exhibit R-2A, RDT&E Project Justification: PB 2012 Office of Secretary Of Defense                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                              | DATE: February 2011                                   |         |         |
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| B. Accomplishments/Planned Programs (\$ in Millions)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                              | FY 2010                                               | FY 2011 | FY 2012 |
| program development, experimentation, and modeling and simulation communities of interest, filling a critical void of documented JMTs. Conduct systems analysis in support of C2 CPM efforts.<br><br><b>FY 2012 Plans:</b><br>Joint Combat Capability Development Architectures:<br>Provide architecture and analysis support for joint C2 systems and Service systems joint integration in support of Joint Combat Capability Development. Develop Solutions architectures and perform analysis to determine capability gaps, shortfalls, redundancies and joint solutions for issues affecting Joint Force C2 requirements.<br><br>Joint Force Architectures, Standards, and Analysis:<br>Update the JTF architectures for Joint Force Analysis Baselines. 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 for POM 14. Develop solutions architectures for JS J8 sponsored initiatives. Building on the work accomplished in FY11, update JCSFL (V5.0) to 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.<br><br>Federation:<br>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.<br><br>Joint Mission Threads:<br>As the FY-11 JMTs become fully developed, begin work on six more JMTs based on JROC and FCB guidance. Continue efforts to enhance the capability to collaborate on, leverage and improve developed and developing JMTs. Conduct systems analysis in support of C2 CPM efforts. |                                                                              |                                                       |         |         |
| <b>Title:</b> Joint Capabilities Requirement Manager<br><br><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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                              | -                                                     | 2.000   | -       |

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| <b>APPROPRIATION/BUDGET ACTIVITY</b><br>0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide</i><br>BA 7: <i>Operational Systems Development</i>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |  | <b>R-1 ITEM NOMENCLATURE</b><br>PE 0607828D8Z: <i>Joint Integration &amp; Interoperability</i> |                            | <b>PROJECT</b><br>P818: <i>Joint Integration &amp; Interoperability</i> |                |
| <b>B. Accomplishments/Planned Programs (\$ in Millions)</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |  |                                                                                                | <b>FY 2010</b>             | <b>FY 2011</b>                                                          | <b>FY 2012</b> |
| <p>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.</p> <p><b>FY 2011 Plans:</b><br/>           Current planned JCRM tool upgrades are:<br/>           Collaborative Staffing: This capability enables 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.<br/>           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.<br/>           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 SECDEF's ordered deployment. This validation check ensures the right forces are deploying to the right place at the right time.<br/>           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 FY10 GFMAP Annex D spreadsheet.</p> |  |                                                                                                |                            |                                                                         |                |
| <p><b>Title:</b> Joint Blue Force Situational Awareness (JBFSa)</p> <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>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |  |                                                                                                | 0.800                      | 1.300                                                                   | -              |

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| <b>B. Accomplishments/Planned Programs (\$ in Millions)</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                                                | <b>FY 2010</b>                                                          | <b>FY 2011</b> |
| <p><b>FY 2010 Accomplishments:</b><br/>Developed capability to provide Friendly Force Tracking (FFT) data to U.S. and Coalition aircraft over various tactical data links (i.e. Link 16). Provided the location of the nearest five friendly entities equipped with a FFT device in relation to a target/ area of interest. Developed and implemented an Iridium Translation Service supporting USSTRATCOM. Provided Geographic Combatant Commands and other authorized FFT users supported by the USASMD/ARSTRAT Mission Management Center with a single integrated service-oriented message processing architecture that supports current and future FFT functions with well-defined interfaces, scalable services, streamlined operations and increased maintainability in response to critical operational requirements. Replaced over a dozen legacy message processing applications with a single integrated service-oriented message processing architecture, improving efficiency and reducing the potential for fratricide.</p> <p><b>FY 2011 Plans:</b><br/>Develop 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>FY 2012 Plans:</b><br/>Project Completed</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 2003-2007 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 2010 Accomplishments:</b><br/>Production of the BOLD QUEST 2009 Coalition Military Utility Assessment (CMUA) Report with contributing analysts representing all Service and National participants. This extensive body of work, comprising 2,000 pages of event data and analysis, was formatted for distribution among NATO and coalition partners to inform national authorities and decision-makers. The BOLD</p> |                                                                                                | 4.301                                                                   | 4.101          |
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| <b>B. Accomplishments/Planned Programs (\$ in Millions)</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                | <b>FY 2010</b>                                                          | <b>FY 2011</b> |
| <p>QUEST 2009 CMUA Report was packaged, along with all previous BOLD QUEST CMUA Reports, into a comprehensive DVD for ease of reference and distribution to all concerned parties, including the OSD-chartered US Joint Cooperative Target ID-Ground Analysis of Alternatives group. Concurrently, several nations led by the USA (USJFCOM), Great Britain and Norway planned and conducted three weeks of air/ground testing of the Combat ID Server (CIDS) and DACAS capabilities during Bold Quest 2010 in Norway. The resulting data and analysis informed further collaborative GBR and USA CIDS developmental work, along with the integration undertaken by other nations to achieve interoperability between own systems and the emerging CIDS capability. Concept Development and Initial Planning for BOLD QUEST 2011 was accomplished, highlighted by three major conferences, each drawing in excess of 100 representatives of the participating 14 nations. The outcome established the basis for further planning, technical and operational preparations for BOLD QUEST 2011 scheduled for 4Q2011.</p> <p><b>FY 2011 Plans:</b><br/>The BOLD QUEST 2011 focus is 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 is to establish 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. Planning is underway to establish the BOLD QUEST 2011 venue during late Aug-Sep 2011 at the Camp Atterbury/Muscatatuck, Indiana Center for Complex Operations. Networking this live Air/Ground testing to other CONUS and international nodes is envisioned. The BOLD QUEST 2011 footprint is projected to include 700 personnel, 25 fixed wing aircraft and 50 ground vehicles engaged in three weeks of day/night scenarios reflecting current operations.</p> <p><b>FY 2012 Plans:</b><br/>Project Completed</p> |                                                                                                |                                                                         |                |
| <p><b>Title:</b> Capability Engineering</p> <p><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</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                                                | 2.252                                                                   | 4.252          |
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| <b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2012 Office of Secretary Of Defense                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                | <b>DATE:</b> February 2011                                              |                |
| <b>APPROPRIATION/BUDGET ACTIVITY</b><br>0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide</i><br>BA 7: <i>Operational Systems Development</i>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | <b>R-1 ITEM NOMENCLATURE</b><br>PE 0607828D8Z: <i>Joint Integration &amp; Interoperability</i> | <b>PROJECT</b><br>P818: <i>Joint Integration &amp; Interoperability</i> |                |
| <b>B. Accomplishments/Planned Programs (\$ in Millions)</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                                                                | <b>FY 2010</b>                                                          | <b>FY 2011</b> |
| 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.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                                |                                                                         |                |
| <p><b>FY 2010 Accomplishments:</b><br/> Led the Digitally-Aided Close Air Support (DACAS) Coordinated Implementation (CI) Change Control Board. The Change Control Board delivered DACAS Block 1 Engineering Change Proposals (ECP) that will deliver a fully interoperable DACAS capability in the FY 2012-2014 timeframe. The Board has reached approval for DACAS Block 2 ECPs through documentation and submission to the Joint Fires Support Executive Steering Committee (JFS ESC). A DACAS Block 1 Test Package and Test Tools were developed and were provided to the 13 program managers executing the Block 1 ECPs. Delivered the final report of the desk top analysis to the Joint Personnel Recovery Agency (JPRA). This report provided the JPRA the necessary analysis to begin the coordinated implementation of the findings and recommendations. Partnered with OSD DOT&amp;E to analyze personnel recovery training data to include analysis of C2 improvements and interoperability aspects at Angel Thunder 2010. Managed the Joint Mission Thread Architectures for Testing Working Group (JMTAT WG), completing and delivering the Concept of Operations (CONOPS) for Joint Mission Thread Development and Reuse. The CONOPS established the priorities for future JMT development by this group. Began work on the Counter Improvised Explosive Device Joint Mission Thread (JMT), establishing the Joint IED Defeat Organization as the sponsor.</p> <p><b>FY 2011 Plans:</b><br/> Manage the DACAS Change Control Board through completion of Block 1 ECP implementation and begin Block 2 ECP builds. Continue 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 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 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.</p> <p><b>FY 2012 Plans:</b><br/> In FY 12, This project is incorporated into Joint Architecture Integration and Development</p> |                                                                                                |                                                                         |                |
| <p><b>Title:</b> Capability Transition Management</p> <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</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                                | 2.201                                                                   | 1.201          |
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| <b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2012 Office of Secretary Of Defense                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                                                | <b>DATE:</b> February 2011                                              |                |
| <b>APPROPRIATION/BUDGET ACTIVITY</b><br>0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide</i><br>BA 7: <i>Operational Systems Development</i>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | <b>R-1 ITEM NOMENCLATURE</b><br>PE 0607828D8Z: <i>Joint Integration &amp; Interoperability</i> | <b>PROJECT</b><br>P818: <i>Joint Integration &amp; Interoperability</i> |                |
| <b>B. Accomplishments/Planned Programs (\$ in Millions)</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                                | <b>FY 2010</b>                                                          | <b>FY 2011</b> |
| <p>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 2010 Accomplishments:</b><br/> The project list below is representative of transition actions complete or still in work from FY 2010. The forecast is the same for FY 2011, with approximately 20 command wide efforts that require transition assistance:<br/> Joint Integrated Persistent Surveillance (JIPS) - DCR for change in definitions (Doctrine focus)<br/> Joint Distributed Operations (JDO) - CONOPS<br/> Joint Counter-Intelligence and Human Intelligence - DCR<br/> Multinational Experiment (MNE-6) – CONOPS/DCR<br/> Countering Irregular Threats - CONOPS/DCR<br/> Comprehensive Approach to Building Partnerships (CABP) CONOPS/DCR<br/> Countering Weapons of Mass Destruction (CWMD) CONOPS/DCR<br/> Adaptive Logistics Network CONOPS/DCR<br/> Joint Operational Access CONOPS/DCR<br/> Joint Airborne Communications System (JACS) - Completed Proof of Concept demonstration. JACSV3 is being implemented by CENTCOM as a gap filler until the more robust JALN capability becomes available to the WarFighter.</p> <p><b>FY 2011 Plans:</b><br/> Conduct 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.<br/> Joint Logistics Concept<br/> Assessment and Deterrence Operations<br/> Multinational and Interagency Info Sharing<br/> C2 in a Denied/Degraded Environment</p> |                                                                                                |                                                                         |                |

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| Exhibit R-2A, RDT&E Project Justification: PB 2012 Office of Secretary Of Defense                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                              | DATE: February 2011                                   |         |         |
| APPROPRIATION/BUDGET ACTIVITY<br>0400: Research, Development, Test & Evaluation, Defense-Wide<br>BA 7: Operational Systems Development                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | R-1 ITEM NOMENCLATURE<br>PE 0607828D8Z: Joint Integration & Interoperability | PROJECT<br>P818: Joint Integration & Interoperability |         |         |
| B. Accomplishments/Planned Programs (\$ in Millions)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                              | FY 2010                                               | FY 2011 | FY 2012 |
| Cyber Computer Network Defense<br>Cyber Computer Network Attack and Exploitation<br>Ballistic Missile Defense [BMD] C2 Integration<br>BMD Phased Adaptive Planning<br>MNE 7 Global Commons<br>Security Force Assistance Synchronization<br>Integrated Financial Operations<br><br>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 UNITY. UNITY will transition the 1st increment DoD Enterprise solution for Unclassified Information Sharing (UIS) called the All Partners Access Network (APAN).<br><br><b>FY 2012 Plans:</b><br>Project Completed                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                              |                                                       |         |         |
| <b>Title:</b> Coalition Warrior Interoperability Demonstration (CWID)<br><br><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.<br><br>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:<br><br>- Capabilities that improve leader centric, net-enabled operations;<br>- Capabilities that enhance coalition battle space situational awareness;<br>- Capabilities that enhance coalition logistics planning and nation building capabilities;<br>- Capabilities that enhance coalition, military, government agency, international organization and non-governmental organization partnership<br>- Capabilities that improve secure information sharing between disparate security domains and communities of interest in an operational environment; |                                                                              | -                                                     | 1.560   | -       |

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| <b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2012 Office of Secretary Of Defense                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                                | <b>DATE:</b> February 2011                                              |                |
| <b>APPROPRIATION/BUDGET ACTIVITY</b><br>0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide</i><br>BA 7: <i>Operational Systems Development</i>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | <b>R-1 ITEM NOMENCLATURE</b><br>PE 0607828D8Z: <i>Joint Integration &amp; Interoperability</i> | <b>PROJECT</b><br>P818: <i>Joint Integration &amp; Interoperability</i> |                |
| <b>B. Accomplishments/Planned Programs (\$ in Millions)</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                                | <b>FY 2010</b>                                                          | <b>FY 2011</b> |
| <p>- Capabilities that improve centralized command, decentralized control for irregular / hybrid warfare units.</p> <p><b>FY 2010 Accomplishments:</b><br/>           CWID 2010 was completed in Jun 2010. Following a year-long planning process, the four week demonstration was conducted in venues hosted by the United States, United Kingdom, Canada and NATO to investigate technologies that enhance warfighting C4ISR capabilities, and civilian first responder efforts. Overall 22 nations participated in the CWID venues. Thirty two commercial, DoD and partner technologies (22 U.S. /7 Canadian/2 Italian/1 Finnish/1 Danish) participated in US CWID as interoperability trials (IT) framed within coordinated International Security Assistance Force (ISAF) and Homeland Security/ Homeland Defense (HS/HD) scenarios. Over 1200 individual assessment tasks supporting Information Assurance (IA), Technical Interoperability (IOP) and Warfighter Utility Assessments (WUA) were completed. CWID 10 execution threads included: IT use as core systems in the C2 architecture; trial assessment enhancements; increased cross-site scenario interaction encouraged by the ISAF scenario; investigation of "Whole of Government" capabilities. Eleven of the 32 Interoperability Trials were assessed as "Top Performing Technologies" meriting consideration for further investigation and transition by the acquisition community.</p> <p>Completed Transitions:<br/>           Mobile Modular, Micro C4 Gateway - CWID 2009 Trial - transitioned to GSA schedule and NATO Basic Order Agreement<br/>           Coalition open Joint Operations Picture - CWID 2008 Trial - transitioned into OSD's Coalition Warfare Program<br/>           Tactical Cellular – CWID 2009 Trial – transitioned into SOCOM HBCOTM Program<br/>           Cross Domain Collaborative Information Environment JCTD – CWID 2009 Trial – transitioned into DISA Programs</p> <p><b>FY 2011 Plans:</b><br/>           Serve as the lead for CWID, responsible for the strategic planning, execution and overall success of the annual demonstration event. Issue CWID 2011 final report and recommend capabilities for continued evaluation. Direct and conduct five major planning conferences that select the trials to be presented in CWID 2011. Develop and demonstrate synergies between the CWID C2 and Empire Challenge ISR efforts. The CWID 2011 level of effort and participation is forecast to support CENTCOM, EUCOM, NORTHCOM C2 interoperability requirements. Forty-four Interoperability Trials have been selected a significant of which will focus on system interoperability and information sharing in support of the Afghanistan Mission Network construct.</p> <p><b>FY 2012 Plans:</b><br/>           Project Completed</p> |                                                                                                |                                                                         |                |
| <b>Title:</b> Recognition of Combat Vehicles (ROC-V)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                                                | 1.400                                                                   | -              |
| <b>FY 2010 Accomplishments:</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                                                                |                                                                         | -              |

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| Exhibit R-2A, RDT&E Project Justification: PB 2012 Office of Secretary Of Defense                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                              | DATE: February 2011                                   |         |         |
| APPROPRIATION/BUDGET ACTIVITY<br>0400: Research, Development, Test & Evaluation, Defense-Wide<br>BA 7: Operational Systems Development                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | R-1 ITEM NOMENCLATURE<br>PE 0607828D8Z: Joint Integration & Interoperability | PROJECT<br>P818: Joint Integration & Interoperability |         |         |
| B. Accomplishments/Planned Programs (\$ in Millions)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                              | FY 2010                                               | FY 2011 | FY 2012 |
| Developed and maintained Air-to-Ground and Maritime ROC-V training software modules. Collected 20 tactical vehicle and 15-20 small boat thermal and daylight visible images in a controlled range environment. Completed Model & Simulation development efforts to transition already collected images to 3-D models. Fielded Air-to-Ground CVI training products to the warfighter.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                              |                                                       |         |         |
| Title: Joint Data Integration<br><br>FY 2010 Accomplishments:<br>Completed a JDI Functional Solutions Analysis (FSA). Submitted a DOTMLPF Change Recommendation (DCR) supporting POM12 decision cycle that incorporates standardization of the JDI Operations Cell manning at JTF HQ levels and establishes a formalized training environment to educate future JDI Ops personnel to perform the functions assigned in CJCSM 3115.01B. Implemented the next phase of the JDI operational validation, incorporating USPACOM and USEUCOM objectives in synthetic venues selected by operators (Terminal Fury 10 and Austere Challenge 10).                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                              | 1.100                                                 | -       | -       |
| Title: Turnkey Command and Control<br><br>FY 2010 Accomplishments:<br>JTF HQ C2 Architectures, Analysis, and Equipping Process supported future designated JTF HQ in their preparation and certification phases to include completion of 20th Support Command, (JTFE) and USCENTCOM's Improving Readiness Programs efforts for designated JTF HQs. JTF HQ C2 Architectures, Analysis and Equipping Process supported C2F as they maintained their readiness as a designated JTF for USSOUTHCOM. The JTF HQ Working Group conducted staff assistance visits to other geographic combatant commands (e.g. USCENTCOM, USNORTHCOM, USPACOM, USAFRICOM, and USSOUTHCOM) in support of their JTF HQ Improving Readiness Programs. Worked with multinational partners and Interagency organizations to improve their ability to be able to be integrated into a JTF HQ as fully functioning partners. Turnkey will transition to the Joint Architecture project as of 2011 under the "JTF HQ C2 Architectures, Analysis and Equipping Process" section. |                                                                              | 0.600                                                 | -       | -       |
| Accomplishments/Planned Programs Subtotals                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                                              | 52.667                                                | 44.139  | 29.880  |
| C. Other Program Funding Summary (\$ in Millions)<br>N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                              |                                                       |         |         |
| D. Acquisition Strategy<br>Not applicable for this item.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                              |                                                       |         |         |
| E. Performance Metrics<br>Performance of Joint Integration and Interoperable systems is measured by successful delivery of systems solutions to Combatant Commands by required delivery dates. Six initiatives were developed to address Friendly Force Tracking and Combat Identification capability gaps. Two new Recognition of Combat Vehicles (ROC-V)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                                              |                                                       |         |         |

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| <b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2012 Office of Secretary Of Defense                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                                | <b>DATE:</b> February 2011                                              |
| <b>APPROPRIATION/BUDGET ACTIVITY</b><br>0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide</i><br>BA 7: <i>Operational Systems Development</i>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | <b>R-1 ITEM NOMENCLATURE</b><br>PE 0607828D8Z: <i>Joint Integration &amp; Interoperability</i> | <b>PROJECT</b><br>P818: <i>Joint Integration &amp; Interoperability</i> |
| <p>training software modules (Air-to-Ground and Maritime) were developed. Two designated JTF Headquarters (JTF-S and JTF-E, 20th Support Command) readiness as a JTF Capable Headquarters was improved.</p> <p>Performance of the C2 Portfolio Manager is measured by the delivery of warfighting capability enhancement recommendations. C2 CPM POM recommendations favorably influenced material and non-material decisions related to: Combat ID and Blue Force Tracking, Adaptive Planning, Deployable C2, Data Strategy and JTF manning and equipping. Capability Definition Packages (CDPs) 1 thru 6 were completed and forwarded to material developers in support of objective C2 requirements for use in the development of Joint net-enabled and agile C2 capabilities. Bold Quest 09 will serve as the primary forum for demonstration and assessment of the Joint Aerial Layer Network and evaluation of Personnel Recovery C2 systems and techniques.</p> |                                                                                                |                                                                         |

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| <b>Exhibit R-4, RDT&amp;E Schedule Profile:</b> PB 2012 Office of Secretary Of Defense | <b>DATE:</b> February 2011 |
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| <b>APPROPRIATION/BUDGET ACTIVITY</b><br>0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide</i><br>BA 7: <i>Operational Systems Development</i> | <b>R-1 ITEM NOMENCLATURE</b><br>PE 0607828D8Z: <i>Joint Integration &amp; Interoperability</i> | <b>PROJECT</b><br>P818: <i>Joint Integration &amp; Interoperability</i> |
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|                     | FY 2010 |   |   |   | FY 2011 |   |   |   | FY 2012 |   |   |   | FY 2013 |   |   |   | FY 2014 |   |   |   | FY 2015 |   |   |   | FY 2016 |   |   |   |
|---------------------|---------|---|---|---|---------|---|---|---|---------|---|---|---|---------|---|---|---|---------|---|---|---|---------|---|---|---|---------|---|---|---|
|                     | 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 2012 Office of Secretary Of Defense                                                                         |                                                                                                |                                                                         | <b>DATE:</b> February 2011 |
| <b>APPROPRIATION/BUDGET ACTIVITY</b><br>0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide</i><br>BA 7: <i>Operational Systems Development</i> | <b>R-1 ITEM NOMENCLATURE</b><br>PE 0607828D8Z: <i>Joint Integration &amp; Interoperability</i> | <b>PROJECT</b><br>P818: <i>Joint Integration &amp; Interoperability</i> |                            |

Schedule Details

| Events              | Start   |      | End     |      |
|---------------------|---------|------|---------|------|
|                     | Quarter | Year | Quarter | Year |
| JI&I Profile        | 1       | 2010 | 4       | 2013 |
| Project Selections  | 1       | 2010 | 4       | 2011 |
| Assessments         | 1       | 2010 | 4       | 2011 |
| Project Funding     | 1       | 2010 | 3       | 2016 |
| Project Development | 1       | 2010 | 4       | 2016 |

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