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

**APPROPRIATION/BUDGET ACTIVITY**
0400: *Research, Development, Test & Evaluation, Defense-Wide*
BA 6: *RDT&E Management Support*

**R-1 ITEM NOMENCLATURE**
PE 0605170D8Z: *Support to Networks and Information Integration*

| COST ($ in Millions) | FY 2011 | FY 2012 | FY 2013 Base | FY 2013 OCO | FY 2013 Total | FY 2014 | FY 2015 | FY 2016 | FY 2017 | Cost To Complete | Total Cost |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Total Program Element | 14.590 | 9.122 | 6.307 | - | 6.307 | 6.301 | 5.648 | 5.756 | 5.861 | Continuing | Continuing |
| 001: *Command Information Superiority Architecture* | 5.560 | 1.086 | - | - | - | - | - | - | - | Continuing | Continuing |
| 002: *Defense Architecture Repository* | 1.320 | 1.215 | 1.108 | - | 1.108 | 1.107 | 0.992 | 1.011 | 1.029 | Continuing | Continuing |
| 003: *Integrated Planning and Management* | 2.358 | 1.933 | 1.783 | - | 1.783 | 1.781 | 1.597 | 1.627 | 1.658 | Continuing | Continuing |
| 004: *Support to NII Mission Requirements* | 5.352 | 4.888 | 3.416 | - | 3.416 | 3.413 | 3.059 | 3.118 | 3.174 | Continuing | Continuing |

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

  This program element supports studies and analysis in the areas of networks, information integration, defense-wide command and control (C2), and communications. This program is funded under Budget Activity 6, RDT&E Management Support because it includes studies and analysis in support of RDT&E efforts.

**B. Program Change Summary ($ in Millions)**

| | FY 2011 | FY 2012 | FY 2013 Base | FY 2013 OCO | FY 2013 Total |
|---|---|---|---|---|---|
| Previous President's Budget | 15.091 | 9.437 | 7.708 | - | 7.708 |
| Current President's Budget | 14.590 | 9.122 | 6.307 | - | 6.307 |
| Total Adjustments | -0.501 | -0.315 | -1.401 | - | -1.401 |
| • Congressional General Reductions | - | - | | | |
| • Congressional Directed Reductions | - | - | | | |
| • Congressional Rescissions | - | - | | | |
| • Congressional Adds | - | - | | | |
| • Congressional Directed Transfers | - | - | | | |
| • Reprogrammings | - | - | | | |
| • SBIR/STTR Transfer | - | - | | | |
| • Program Adjustment | -0.501 | - | -1.401 | - | -1.401 |
| • FFRDC Reduction | - | -0.063 | - | - | - |
| • SBIR Reduction | - | -0.222 | - | - | - |
| • STTR Reduction | - | -0.030 | - | - | - |

| **Exhibit R-2**, **RDT&E Budget Item Justification:** PB 2013 Office of Secretary Of Defense | **DATE:** February 2012 |
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| **APPROPRIATION/BUDGET ACTIVITY**<br>0400: *Research, Development, Test & Evaluation, Defense-Wide*<br>BA 6: *RDT&E Management Support* | **R-1 ITEM NOMENCLATURE**<br>PE 0605170D8Z: *Support to Networks and Information Integration* |

**Change Summary Explanation**

FY 2011:  Includes Department reductions for Secretary of Defense Efficiencies (Studies Contract Efficiency – 1.253 million, Service Support Contract Efficiency -0.382 million), Program adjustment -0.501 million.

FY 2012:  FFRDC reduction -0.063 million, SBIR reduction -0.222 million, STTR reduction -0.030 million.

FY 2013:  Program adjustment -1.401  million

Studies contract Efficiencies will be realized by reducing the number of studies that we participate in while still supporting enterprise-wide information technology goals critical to DoD Mission.

Service Support Contract efficiencies will be realized by reducing the reliance on DoD Service Support Contractors by utilizing in-house government support in a constrained personnel and resource environment.

| Exhibit R-2A, RDT&E Project Justification: PB 2013 Office of Secretary Of Defense | | DATE: February 2012 | |
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| APPROPRIATION/BUDGET ACTIVITY<br>0400: *Research, Development, Test & Evaluation, Defense-Wide*<br>BA 6: *RDT&E Management Support* | R-1 ITEM NOMENCLATURE<br>PE 0605170D8Z: *Support to Networks and Information Integration* | PROJECT<br>001: *Command Information Superiority Architecture* |
|---|---|---|

| COST ($ in Millions) | FY 2011 | FY 2012 | FY 2013 Base | FY 2013 OCO | FY 2013 Total | FY 2014 | FY 2015 | FY 2016 | FY 2017 | Cost To Complete | Total Cost |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 001: *Command Information Superiority Architecture* | 5.560 | 1.086 | - | - | - | - | - | - | - | Continuing | Continuing |
| Quantity of RDT&E Articles | | | | | | | | | | | |

## A. Mission Description and Budget Item Justification

The CISA program provides a structured planning process based on Information Technology (IT) best business practices to define current and objective capabilities for IT support to assigned missions in a net-centric environment.  CISA is the DoD program that provides architectures in compliance with the Clinger-Cohen Act, OMB Circular A-130, E-Gov Act and other related higher level guidance from the Federal CIO Council and the Federal Enterprise Architecture Program Management Office, which mandates the development and use of architectures as validation for IT investment decisions. The CISA program develops and maintains the Global Information Grid Enterprise Architecture, the Department's enterprise architecture as directed by Title 40. It supports the development of the framework, processes, and standards for developing and maintaining a DoD federated enterprise architecture. CISA is the leading developer for the net-centric reference model, the standard evaluation guide used by DoD Program Managers at all echelons of command for transitioning DoD programs to the net-centric environment.  The CISA program supports the development of architectural standard tools and systems, including the DoD Architectural Framework manual and artifacts as well as facilitating the effective use of architectures in IT portfolio management. Develop and maintain key GIG policy and guidance documents that drive the acquisition, transition to and operation of a net-centric GIG; the implementation of policy/guidance through a set of critical supporting activities such as IT standards management, and DoD transition to Internet Protocol version 6 (IPv6); Real Time Service and IP convergence and enforcing policy through key enterprise governance mechanisms.  Review and assess Command and Control, Computers, Communications and Intelligence Support Plans / Information Support Plans for the DoD CIO, identifying interoperability, supportability, net-centric and integration issues.

## B. Accomplishments/Planned Programs ($ in Millions)

| | FY 2011 | FY 2012 | FY 2013 |
|---|---|---|---|
| *Title:* Command Information Superiority Architectures Accomplishments and Plans | 5.560 | 1.086 | - |

*FY 2011 Accomplishments:*
- Continued to provide strategy, policy, oversight, and guidance for Architecture across the DoD Enterprise.
- Continued development and delivery of the DoD IEA V2.0.
- Published Essential DoD Architecture Framework Guide
- Continued to work with CC/S/As to ensure capabilities for operating and defending the GIG are acquired, managed, integrated and synchronized.
- Continued to refine governance structures to address new policies and oversight requirements.
- Continued to monitor and assess component compliance regarding new policies and guidance.
- Continued refinement of the Net Centric DoD Architecture Framework to addressed new demands technologies and IA requirements.
- Integrated , aligned and updated NetOps architecture  (include CND architecture) into IE Architecture construct.

| Exhibit R-2A, RDT&E Project Justification: PB 2013 Office of Secretary Of Defense | | DATE: February 2012 |
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| **APPROPRIATION/BUDGET ACTIVITY**<br>0400: *Research, Development, Test & Evaluation, Defense-Wide*<br>BA 6: *RDT&E Management Support* | **R-1 ITEM NOMENCLATURE**<br>PE 0605170D8Z: *Support to Networks and Information Integration* | **PROJECT**<br>001: *Command Information Superiority Architecture* |

| B. Accomplishments/Planned Programs ($ in Millions) | FY 2011 | FY 2012 | FY 2013 |
|---|---|---|---|
| - Reviewed and updated (as required) the NetOps policy in support of CYBERCOM<br>- Oversaw execution of Tasks in NetOps I-Plan<br>- Continued to synchronize NetOps activities across DoD<br>- Continued to provide leadership to the development and implementation of GIG SA data strategy<br>- Provided input to the development of  DoD IE Strategic Plan Roadmap<br>- Delivered a NetOps solution (GADSS – Global Information Grid (GIG) Area of Responsibility (AOR) Decision Support System) in partnership with USSTRATCOM and DISA.  The successful technical demonstration was achieved Oct  2010 with plans to field as an Enterprise Service integrated into programs of record by April 2011.  Additional NetOps services will be developed leveraging the GADSS service and rapid development process applied here.<br>- Delivery deferred for a NetOps solution to NETWARCOM leveraging the GADSS COI deliverable.<br>- Delivered an operational prototype data sharing service for DoD Component installations using NCIC data to discover if potential visitors have Federal warrants, wants, or are on the KAST list.<br>- Continued support of the four Defense Installation Access Control (DIAC) COIs developing Enterprise solutions to meet findings and recommendations in the Ft. Hood Report related to Defense Installation Access Control and Force Protection (ongoing). In addition to the DIAC-V COI described above, the DIAC Criminal Justice COI data sharing service supporting NCIS, OSI, and CID, TSDB/Access COI, and the Physical Access Control Systems (PACS) Enterprise data sharing activities started in 2010 will continue through 2011.<br>- Developed secure information sharing service for DoD users authorized for access to Terrorist Screening Data, (TSDB/Access COI), to improve protection of Defense forces and installations globally (ongoing)<br>- Developed a first increment of electronic health records data sharing services supporting DoD and VA given appropriate task authorities, resources, working agreements, and project scope are available.<br>- Developed an initial data sharing service for the C-IED COI if agreement about the scope and priority to deliver services based on the current three-year data modeling effort.<br><br>*FY 2012 Plans:*<br>- Continue to provide strategy, policy, oversight, and guidance for Architecture across the DoD Enterprise.<br><br>*FY 2013 Plans:*<br>n/a | | | |
| **Accomplishments/Planned Programs Subtotals** | 5.560 | 1.086 | - |

| **Exhibit R-2A**, **RDT&E Project Justification:** PB 2013 Office of Secretary Of Defense | | **DATE:** February 2012 |
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| **APPROPRIATION/BUDGET ACTIVITY**<br>0400: *Research, Development, Test & Evaluation, Defense-Wide*<br>BA 6: *RDT&E Management Support* | **R-1 ITEM NOMENCLATURE**<br>PE 0605170D8Z: *Support to Networks and Information Integration* | **PROJECT**<br>001: *Command Information Superiority Architecture* |

**C. Other Program Funding Summary ($ in Millions)**

| Line Item | FY 2011 | FY 2012 | FY 2013 Base | FY 2013 OCO | FY 2013 Total | FY 2014 | FY 2015 | FY 2016 | FY 2017 | Cost To Complete | Total Cost |
|---|---|---|---|---|---|---|---|---|---|---|---|
| • 0902198D8Z: *Command Information Superiority Architecture* | 3.651 | 0.000 | 0.000 | | 0.000 | 0.000 | 0.000 | 0.000 | | 3.651 | 3.651 |

**D. Acquisition Strategy**

  N/A

**E. Performance Metrics**

  CISA Performance is based on the number of initiatives that transition to the net-centric environment to support operations.
  Measures include:
  - Timely development and issuance of policy, guidance, processes, and technologies to build, populate, govern, operate, and protect the Network.
  - Policies developed and issued for GIG design, architecture content management, implementation, and operations.

| Exhibit R-2A, RDT&E Project Justification: PB 2013 Office of Secretary Of Defense | | | | | | | | | DATE: February 2012 | |
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| APPROPRIATION/BUDGET ACTIVITY<br>0400: *Research, Development, Test & Evaluation, Defense-Wide*<br>BA 6: *RDT&E Management Support* | R-1 ITEM NOMENCLATURE<br>PE 0605170D8Z: *Support to Networks and Information Integration* | PROJECT<br>002: *Defense Architecture Repository* |
|---|---|---|

| COST ($ in Millions) | FY 2011 | FY 2012 | FY 2013 Base | FY 2013 OCO | FY 2013 Total | FY 2014 | FY 2015 | FY 2016 | FY 2017 | Cost To Complete | Total Cost |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 002: *Defense Architecture Repository* | 1.320 | 1.215 | 1.108 | - | 1.108 | 1.107 | 0.992 | 1.011 | 1.029 | Continuing | Continuing |
| Quantity of RDT&E Articles | | | | | | | | | | | |

## A. Mission Description and Budget Item Justification

DARS is the Department's enterprise registry, catalog and navigation map for enterprise architecture. It serves as the Department's primary catalog of architecture data holdings and provides users the ability to register holdings metadata and search, retrieve, and use DoD architecture data in federated architecture data repositories across DoD. DARS provides a key component of the Department's net-centric data management capability by federating enterprise architecture data across the Department. It enables alignment of program architecture components with the Federal Enterprise Architecture Business Reference Model - consistent with OMB directives for exhibit 300s - via the DoD Business Reference Model. DARS implements a federated search capability and metadata catalog that will interoperate with the Department's Net-Centric Enterprise Discovery Service and enterprise content metadata catalog. Architecture metadata is searchable using the DARS federated discovery web service. The discovery search results provide links to architecture data that is retrievable based on user roles and access permissions. Implementations are accessible on both the NIPRNET (unclassified) and SIPRNET (Collateral Classified). Key features of the DARS program focus on: (1) Making architecture data visible, accessible, trusted, understandable, and interoperable (2) enabling reuse of validated architecture data to build "composite" integrated architectures; (3) enabling architecture analysis; and, (4) integrating architecture data into the DoD mainstream decision-making processes. The Department of the Air Force, Army, and Navy CIO's are collaborating in the development of DARS federation web services via the Federated Joint Architecture Working Group under the auspices of the DoD Enterprise Architecture Summit to ensure DoD-wide access to and usability of all components of the composite DoD enterprise architecture model.

## B. Accomplishments/Planned Programs ($ in Millions)

| | FY 2011 | FY 2012 | FY 2013 |
|---|---|---|---|
| *Title:* DARS Accomplishments and Plans | 1.320 | 1.215 | 1.108 |

*FY 2011 Accomplishments:*
- Recoded all Legacy software code to streamline the Web services
- Built out Web measurement and scorecard management capability
- Advanced Web GUI, AV-1, and AV-2 registration
- Continued Table Graphic EA Architecture search, discovery, and delivery
- Continued Table Graphic Drilldown Architectures
- Continued enterprise-level operational support for the DoD Architecture Registry System.
- Continued to work with DoD Component to refine requirements and processes to effectively expose existing architectures for reuse.
- Continued to expand and refine DARS to accommodate registration /federation requirements.
- Continued integration of DARS data services into the "Core Enterprise Services".

*FY 2012 Plans:*

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| **APPROPRIATION/BUDGET ACTIVITY**<br>0400: *Research, Development, Test & Evaluation, Defense-Wide*<br>BA 6: *RDT&E Management Support* | **R-1 ITEM NOMENCLATURE**<br>PE 0605170D8Z: *Support to Networks and Information Integration* | **PROJECT**<br>002: *Defense Architecture Repository* |

| **B. Accomplishments/Planned Programs ($ in Millions)** | **FY 2011** | **FY 2012** | **FY 2013** |
|---|---|---|---|
| - Deliver DARS Architecture<br>- Deliver Web online Architecture management, measurement<br>- Link all architectures to the Enterprise Architecture Core Table Graphic<br>- Deliver /approve DARS Functional Capability Document<br>- Continue enterprise-level operational support for the DoD Architecture Registry System.<br>- Continue to work with DoD Component to refine requirements and processes to effectively expose existing architectures for reuse.<br>- Continue to expand and refine DARS to accommodate registration /federation requirements.<br>- Continue integration of DARS data services into the "Core Enterprise Services".<br>- Develop Transition Plan for DARS to Operational Command<br><br>***FY 2013 Plans:***<br>- Continue enterprise-level operational support for the DoD Architecture Registry System.<br>- Continue to work with DoD Component to refine requirements and processes to effectively expose existing architectures for reuse.<br>- Continue to expand and refine DARS to accommodate registration /federation requirements.<br>- Continue integration of DARS data services into the "Core Enterprise Services".<br>- Transition DARS support to Operational Command | | | |
| **Accomplishments/Planned Programs Subtotals** | 1.320 | 1.215 | 1.108 |

**C. Other Program Funding Summary ($ in Millions)**

  N/A

**D. Acquisition Strategy**

  N/A

**E. Performance Metrics**

  DARS Performance Metrics:

  - Timely development and issuance of policy, guidance, processes, and technologies to build, populate, govern, operate, and protect the Network.

  - Policies developed and issued for GIG design, architecture content management, implementation, and operations.

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**APPROPRIATION/BUDGET ACTIVITY**
0400: *Research, Development, Test & Evaluation, Defense-Wide*
BA 6: *RDT&E Management Support*

**R-1 ITEM NOMENCLATURE**
PE 0605170D8Z: *Support to Networks and Information Integration*

**PROJECT**
003: *Integrated Planning and Management*

| COST ($ in Millions) | FY 2011 | FY 2012 | FY 2013 Base | FY 2013 OCO | FY 2013 Total | FY 2014 | FY 2015 | FY 2016 | FY 2017 | Cost To Complete | Total Cost |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 003: *Integrated Planning and Management* | 2.358 | 1.933 | 1.783 | - | 1.783 | 1.781 | 1.597 | 1.627 | 1.658 | Continuing | Continuing |
| Quantity of RDT&E Articles | | | | | | | | | | | |

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

The Integrated Planning and Management  Project encompasses the National Leadership Command Capability (NLCC) Management Office's (NMO) responsibilities for establishing overall DoD policy and oversight with respect to the capability development, interoperability, standards, and architecture for National and Nuclear Command Capabilities for our National Leadership.  The NMO serves as the single point of contact within the Department for policy, long-range plans, programs and budget, integrated mission advocacy, and management of decision-maker capabilities.  NMO's objective is to ensure capabilities are in place to provide complete and timely situational awareness and decision tools for senior decision-makers.  Additionally, the NMO assists the ASD NII/DoD CIO as the Executive Agent and primary OSD advocate for the White House Military Office (WHMO) with oversight of a wide range of DoD command and control and communications (C3) assets and oversees the efforts of the Services and Agencies in the design, integration, and deployment of critical and sensitive C3 capabilities.  Three overall areas of focus include: 1) National Senior Leader C3 Systems, Emergency Preparedness, DoD support to Civil Authorities; Continuity of Government (COG); 2) Global Nuclear C2, Integrated Missile Defense, Tactical Warning, Global Strike; and 3) Cyber Mission Indications and Warnings.

| B. Accomplishments/Planned Programs ($ in Millions) | FY 2011 | FY 2012 | FY 2013 |
|---|---|---|---|
| *Title:* Integrated Planning and Management | 2.358 | 1.933 | 1.783 |
| *FY 2011 Accomplishments:*<br>Continued management and integration of the various stakeholders responsible for NLCC capabilities – NMO, DISA, ASD(HD), USSTRATCOM, USNORTHCOM, NSA, WHMO, and both the DoD and National Senior Leadership – to identify deficiencies and risks to the programs compromising the applications and services supporting leadership C3 capabilities – the systems, networks, and applications, that coordinate and evolve towards more integrated, sustainable, and distributed capabilities of collaborative voice, video, data, and situational awareness, and that is secure and survivable.<br>- Continued efforts with the University Affiliated Research Center (UARC), Johns Hopkins University Applied Physics Laboratory, and industry partners to better understand nuclear C2 voice conferencing, the commensurate threats and risks to national leadership C2 capabilities, and the facilitating of informed decision making for NLCC<br>- Conducted a Presidential Assessment to determine a long-term strategy for improving secure presidential voice and video communications.<br>- Completed an assessment of the feasibility of using the General Dynamics Sectera vIPer phone in airborne applications to achieve a short-term improvement in secure voice performance<br>- Completed an assessment of how to migrate from current information services to enhanced and more robust capabilities with respect to information systems and services on the systems and networks supporting the nation's senior leadership. | | | |

| Exhibit R-2A, RDT&E Project Justification: PB 2013 Office of Secretary Of Defense | | DATE: February 2012 |
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| **APPROPRIATION/BUDGET ACTIVITY**<br>0400: *Research, Development, Test & Evaluation, Defense-Wide*<br>BA 6: *RDT&E Management Support* | **R-1 ITEM NOMENCLATURE**<br>PE 0605170D8Z: *Support to Networks and Information Integration* | **PROJECT**<br>003: *Integrated Planning and Management* |

| **B. Accomplishments/Planned Programs ($ in Millions)** | **FY 2011** | **FY 2012** | **FY 2013** |
|---|---|---|---|
| - Investigated the performance and capabilities of both candidate and representative C3 systems and technologies<br>- Continue efforts with the UARC to maintain a requirements database, System Concept Document (SCD), Concept of Employment (CONEMP), and provide general Architecture and Systems Engineering support.<br>- Continued support for the management and oversight responsibilities of the Capabilities Integration Team (CIT) and governance needs<br><br>*FY 2012 Plans:*<br>Continued Architecture and Systems Engineering progression.  Initiate efforts to assess evolving technologies, to include secure wireless computing, network status visualization, and efforts to best integrate White House, DoD senior leader, and various priority inter-Agency requirements for enhanced and informed decision-making, information sharing, coordination, and resolution of issues across all spectra of threat scenarios, regardless of the time or the disparate locations of the senior leadership.  Development of concepts and prototype<br>- UARCs research and development of analytical tools that will help decision-makers provision senior leadership with enhanced situational awareness, conferencing, and collaboration, courses of action, execution of decisions, and feedback mechanisms to best assure critical and sometimes unanticipated needs are met within a framework of common decision-making objectives.<br><br>*FY 2013 Plans:*<br>Continue Architecture and Systems Engineering support for more robust and capable leadership command information services and applications.  Investigate concepts and initiate limited prototyping efforts for testing and developing robust, secure, mobile C3 and computing devices and services for senior leadership, for use across various scenarios and security environments. | | | |
| **Accomplishments/Planned Programs Subtotals** | 2.358 | 1.933 | 1.783 |

**C. Other Program Funding Summary ($ in Millions)**
  N/A

**D. Acquisition Strategy**
  N/A

**E. Performance Metrics**
  C2 Integrated Planning & Management Performance Metrics:
  - Successfully develop, coordinate, and publish DoD C2 policies and operational concepts.
  - Establishment of an information integration and decision portfolio of C2 services and applications to demonstrate selected capabilities.
  - Development of Dynamic Operational Communities of Interest services based on the capabilities provided by the NCES Program.
  Establishment of an ontological framework and XML data model to permit the meta-tagging of information integration decision portfolio data at the strategic and national
  C2 level in a manner consistent with other DoD data strategies and modeling efforts.

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| APPROPRIATION/BUDGET ACTIVITY<br>0400: *Research, Development, Test & Evaluation, Defense-Wide*<br>BA 6: *RDT&E Management Support* | R-1 ITEM NOMENCLATURE<br>PE 0605170D8Z: *Support to Networks and Information Integration* | PROJECT<br>004: *Support to NII Mission Requirements* |
|---|---|---|

| COST ($ in Millions) | FY 2011 | FY 2012 | FY 2013 Base | FY 2013 OCO | FY 2013 Total | FY 2014 | FY 2015 | FY 2016 | FY 2017 | Cost To Complete | Total Cost |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 004: *Support to NII Mission Requirements* | 5.352 | 4.888 | 3.416 | - | 3.416 | 3.413 | 3.059 | 3.118 | 3.174 | Continuing | Continuing |
| Quantity of RDT&E Articles | | | | | | | | | | | |

## A. Mission Description and Budget Item Justification

This program supports studies and analyses in the areas of networks, information integration, defense-wide command and control (C2), and communications.

| B. Accomplishments/Planned Programs ($ in Millions) | FY 2011 | FY 2012 | FY 2013 |
|---|---|---|---|
| ***Title:*** Support to NII Mission Requirements<br><br>***FY 2011 Accomplishments:***<br>$3.500 million for Global Positioning System (GPS) User Equipment Synchronization to conduct DoD CIO oversight of Global Positioning System (GPS) management and planning activities required for the National Space-Based Positioning, Navigation and Timing Executive Committee. Funding will support:<br>- Developed International Supplement to GPS Security Policy for entry into SD 106 process (DODI 4650.0xx).<br>- Executed Information Assurance/COMSEC Supplement to GPS Security Policy and entered into SD 106 review process (DODI 4650.0yy).<br>- Developed revised GPS Security Policy for entry into SD 106 review process (DODI 4650.0zz).<br>- Tied DoD user data and populated GPS Protection Profile matrix from Navigation Warfare Concept of Operations DODI 4650.0x into Warfighting Operations Plans (OPLANS) and Contingency Plans (CONPLANS) in coordination with US STRATCOM.<br>- Authored draft PNT Navigation Warfare Annexes to all the Operations Plans (OPLANS) and Contingency Plans (CONPLANS) in coordination with US STRATCOM; under review for USSTRATCOM publication.<br>- Completing Analysis of Alternatives for GPS Enterprise and PNT Assurance alternatives IAW CAPE guidance; completing Navigation Warfare (NAVWAR) AoA.<br>- Tasked Analysis of Alternatives for Security Control of Navigation Aids DODI 5030.x to Joint Staff.<br>- Developed NextGen interfaces with the GPS Wing, Joint Program Development Office (JPDO), Air Force, and Policy Board for Federal Aviation (PBFA) for inclusion in FAA NextGen plans.<br>- Drafted Red Key Sundown Policy for execution by Joint Staff and USSTRATCOM.<br>- Completed NetCentric Review of OCX and GPS III contract activities.<br>- Provided staff support, performed research and conducted studies as directed by DEPSECDEF in his role as co-chair of the National Executive Committee for Space-Based PNT and for DoD CIO as co-chair of the Executive Steering Group.<br>- Performed annual update of National Five-year Plan for Space-Based Positioning, Navigation and Timing (PNT). | 5.352 | 4.888 | 3.416 |

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| **APPROPRIATION/BUDGET ACTIVITY**<br>0400: *Research, Development, Test & Evaluation, Defense-Wide*<br>BA 6: *RDT&E Management Support* | **R-1 ITEM NOMENCLATURE**<br>PE 0605170D8Z: *Support to Networks and Information Integration* | **PROJECT**<br>004: *Support to NII Mission Requirements* |

| B. Accomplishments/Planned Programs ($ in Millions) | FY 2011 | FY 2012 | FY 2013 |
|---|---|---|---|
| - Applied draft Navigation Warfare Concept of Operations DODI 4650.0x via the Joint Navigation Warfare Center (JNWC) and US STRATCOM to develop Doctrine, Tactics, Techniques and Procedures, Training, Equipment Validation and Material Solutions to Navigation Warfare challenges to the Military Services and Combatant Commanders in the scenarios defined in the CONPLANS and OPLANS.<br><br>$1.852 million - Command and Control Research:<br>- Continue to enhance the tools and instrumented environments that support C2-related research.<br>- Continue to pursue research on new approaches to military and civil-military command and control suitable for 21st Century coalition operations including stability and reconstruction.<br>- Continue to fund the Edge Institute at the Navy Post Graduate School (NPS) and selected research efforts at other universities and research centers.<br>- Continue to support the Network Science Center at the USMA at West Point to engage faculty and cadets in network-centric C2 related projects.<br>- Continue, in collaboration with allies and NATO partners, the development and testing of a maturity model for network-enabled coalition command and control and the development of related metrics.<br>- Support DoD organizations in the design and conduct of C2-related experimentation.<br>- Continue to work with the DoD community and international partners to improve the understanding of Information Age command and control related concepts, technologies, and experiments.<br>- Conduct 14th International Command and Control Research and Technology Symposium.<br>- Conduct workshops to explore command and control related issues.<br>- Continue to develop manuscripts for widely read and respected C2 publications and outreach program.<br>- Maintain and expand C2 research community website.<br>- Continue campaign of experimentation related to information sharing, collaboration, and trust.<br><br>*FY 2012 Plans:*<br>$3.384 million for Global Positioning System (GPS) User Equipment Synchronization to conduct DoD CIO oversight of Global Positioning System (GPS) management and planning activities required for the National Space-Based Positioning, Navigation and Timing Executive Committee. Funding will support:<br>- Implement and manage the International Supplement to GPS Security Policy DODI 4650.0xx.<br>- Implement and manage the Information Assurance/COMSEC Supplement to GPS Security Policy DODI 4650.0xx.<br>- Implement and manage the GPS Security Policy DODI 4650.0xx.<br>- Implement the GPS Protection Profile matrix from Navigation Warfare Concept of Operations DODI 4650.0x in conjunction with Warfighting Operations Plans (OPLANS) and Contingency Plans (CONPLANS) in coordination with US STRATCOM. | | | |

| Exhibit R-2A, RDT&E Project Justification: PB 2013 Office of Secretary Of Defense | | DATE: February 2012 |
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| **APPROPRIATION/BUDGET ACTIVITY**<br>0400: *Research, Development, Test & Evaluation, Defense-Wide*<br>BA 6: *RDT&E Management Support* | **R-1 ITEM NOMENCLATURE**<br>PE 0605170D8Z: *Support to Networks and Information Integration* | **PROJECT**<br>004: *Support to NII Mission Requirements* |

| **B. Accomplishments/Planned Programs ($ in Millions)** | **FY 2011** | **FY 2012** | **FY 2013** |
|---|---|---|---|
| - Implement and manage PNT Navigation Warfare Annexes to all the Operations Plans (OPLANS) and Contingency Plans (CONPLANS) in coordination with  US STRATCOM.<br>- Implement the DoD GPSEM and PNT Assurance AoA and NAVWAR AoA as part of a Material Development Decision (MDD) IAW DoDD 5000.02.<br>- Insure the Analysis of Alternatives for implementation of Next Generation Air Transport System (NextGen) DODI 5030.x is injected into the DoDD 5000.02 decision process in an MDD.<br>- Implement the recommendations of the Analysis of Alternatives for  Security Control of Navigation Aids DODI 5030.x in the DoD DOTMLPF construct.<br>- Continue developing NextGen interfaces with the GPS Wing, Joint Program Development Office (JPDO), Air Force, and Policy Board for Federal Aviation (PBFA).<br>- Continue implementation of Red Key Sundown Policy.<br>- Conduct studies and programmatic analysis of activities involving OCX, MGUE, and GPS III contract activities.<br>- Provide staff support, perform research and conduct studies as directed by DEPSECDEF in his role as co-chair of the National Executive Committee for Space-Based PNT and for DoD CIO as co-chair of the Executive Steering Group.<br>- Perform annual update of National Five-year Plan for Space-Based Positioning, Navigation and Timing (PNT).<br>- Draft, coordinate, and publish the 2012 edition of the Federal Radionavigation Plan (FRP).<br>-Apply Navigation Warfare Concept of Operations DODI 4650.0x via the Joint Navigation Warfare Center (JNWC) and US STRATCOM to develop Doctrine, Tactics, Techniques and Procedures, Training, Equipment Validation and Material Solutions to Navigation Warfare challenges to the Military Services and Combatant Commanders in the scenarios defined in the CONPLANS and OPLANS.<br>- Draft the DoD PNT investment strategy and roadmap based on the GPSEM/PNT-A AoA and NAVWAR AoA results.<br><br>$1.504  million - Command and Control Research:<br>- Continue to enhance the tools and instrumented environments (ELICIT and abELICIT) that support C2-related research with a focus on mixed human-agent experiments that permits cost-effective exploration of selected individual and team characteristics to extend costly human experimentation.<br>- Continue a focused research initiative related to C2 Agility in the context of Complex Endeavors.<br>-Continue to pursue research on new approaches to military and civil-military command and control suitable for 21st Century coalition operations including stability and reconstruction.<br>- Continue to fund the Edge Institute at the Navy Post Graduate School (NPS) and selected research efforts at other universities and research centers.<br>- Continue to provide expertise to the Network Science Center at the USMA at West Point and to engage faculty and cadets in network-centric C2 related projects. | | | |

| Exhibit R-2A, RDT&E Project Justification: PB 2013 Office of Secretary Of Defense | | DATE: February 2012 |
|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>0400: *Research, Development, Test & Evaluation, Defense-Wide*<br>BA 6: *RDT&E Management Support* | R-1 ITEM NOMENCLATURE<br>PE 0605170D8Z: *Support to Networks and Information Integration* | PROJECT<br>004: *Support to NII Mission Requirements* |

| B. Accomplishments/Planned Programs ($ in Millions) | FY 2011 | FY 2012 | FY 2013 |
|---|---|---|---|
| - Complete the second phase of a research effort, in collaboration with allies and NATO partners, that defines Agility in the context of entity and collective focus and convergence.<br>- Support DoD organizations in the design and conduct of C2-related experimentation.<br>- Continue to work with the DoD community and international partners to improve the understanding of Information Age command and control related concepts, technologies, and experiments.<br>- Conduct 17th International Command and Control Research and Technology Symposium.<br>- Conduct workshops to explore command and control related issues.<br>- Continue to develop manuscripts for widely read and respected C2 publications and outreach program.<br>- Maintain and expand C2 research community website.<br>- Continue campaigns of experimentation using ELICIT and abELICIT to explore issues related to infostructure characteristics and performance and information sharing, collaboration, and trust.<br><br>*FY 2013 Plans:*<br>Global Positioning System (GPS) User Equipment Synchronization to conduct DoD CIO oversight of Global Positioning System (GPS) management and planning activities required for the National Space-Based Positioning, Navigation and Timing Executive Committee. Funding will support:<br>- Implement and manage the International Supplement to GPS Security Policy DODI 4650.0xx.<br>- Implement and manage the Information Assurance/COMSEC Supplement to GPS Security Policy DODI 4650.0xx.<br>- Implement and manage the GPS Security Policy DODI 4650.0xx.<br>- Implement the GPS Protection Profile matrix from  Navigation Warfare Concept of Operations DODI 4650.0x in conjunction with Warfighting Operations Plans (OPLANS) and Contingency Plans (CONPLANS)  in coordination with US STRATCOM.<br>- Implement and manage PNT Navigation Warfare Annexes to all the Operations Plans (OPLANS) and Contingency Plans (CONPLANS) in coordination with  US STRATCOM.<br>- Implement the DoD GPSEM and PNT Assurance AoA and NAVWAR AoA as part of a Material Development Decision (MDD) IAW DoDD 5000.02.<br>- Insure the Analysis of Alternatives for implementation of Next Generation Air Transport System (NextGen) DODI 5030.x is injected into the DoDD 5000.02 decision process in an MDD; continue oversight via the NetCentric Operations Capability Portfolio management system to insure that JCIDS requirements, acquisition planning, and PPBE investments are properly synchronized.<br>- Implement the recommendations of the Analysis of Alternatives for  Security Control of Navigation Aids DODI 5030.x in the DoD DOTMLPF construct; manage this process via the NetCentric Operations CPM portfolio in JCIDs, DAS, and PPBE.<br>- Continue developing NextGen interfaces with the GPS Wing, Joint Program Development Office (JPDO), Air Force, and Policy Board for Federal Aviation (PBFA).<br>- Continue implementation of Red Key Sundown Policy. | | | |

| **Exhibit R-2A**, **RDT&E Project Justification:** PB 2013 Office of Secretary Of Defense | | **DATE:** February 2012 |
|---|---|---|
| **APPROPRIATION/BUDGET ACTIVITY**<br>0400: *Research, Development, Test & Evaluation, Defense-Wide*<br>BA 6: *RDT&E Management Support* | **R-1 ITEM NOMENCLATURE**<br>PE 0605170D8Z: *Support to Networks and Information Integration* | **PROJECT**<br>004: *Support to NII Mission Requirements* |

| **B. Accomplishments/Planned Programs ($ in Millions)** | **FY 2011** | **FY 2012** | **FY 2013** |
|---|---|---|---|
| - Provide staff support, perform research and conduct studies as directed by DEPSECDEF in his role as co-chair of the National Executive Committee for Space-Based PNT and for DoD CIO in his role as co-chair of the Executive Steering Group.<br>- Perform annual update of National Five-year Plan for Space-Based Positioning, Navigation and Timing (PNT).<br>- Begin drafting the 2014 Federal Radionavigation Plan (FRP).<br>- Apply Navigation Warfare Concept of Operations DODI 4650.0xx via the Joint Navigation Warfare Center (JNWC) and US STRATCOM to develop Doctrine, Tactics, Techniques and Procedures, Training, Equipment Validation and Material Solutions to Navigation Warfare challenges to the Military Services and Combatant Commanders in the scenarios defined in the CONPLANS and OPLANS.<br>- Manage and implement the DoD PNT investment strategy and roadmap based on the GPSEM/PNT-A AoA and NAVWAR AoA results; use the NetCentric Operations CPM portfolio to insure PNT material solutions are developed in a synchronized fashion in JCIDs, DAS, and PPBE. | | | |
| **Accomplishments/Planned Programs Subtotals** | 5.352 | 4.888 | 3.416 |

**C. Other Program Funding Summary ($ in Millions)**

  N/A

**D. Acquisition Strategy**

  N/A

**E. Performance Metrics**

  Community participation in command and control research program (CCRP) events.
  - Number of requests for / downloads of CCRP publications.
  - Number of international countries engaged in net centric discussions and collaborative research and analysis efforts.
  - Number of researchers using CCRP-developed models, metrics, and experimental environments and tools.
  - Successfully sponsored symposia/workshops to discuss command and control research initiatives.