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Exhibit R-2, RDT&E Budget Item Justification: PB 2016 Office of the Secretary Of Defense	Date: February 2015
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Appropriation/Budget Activity	R-1 Program Element (Number/Name)											
0400: <i>Research, Development, Test & Evaluation, Defense-Wide / BA 6: RDT&E Management Support</i>	PE 0605170D8Z / <i>Support to Networks and Information Integration</i>											
COST (\$ in Millions)	Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	Cost To Complete	Total Cost
Total Program Element	13.665	6.090	27.861	5.289	-	5.289	5.401	5.701	6.058	6.141	Continuing	Continuing
002: <i>Defense Architecture Support</i>	2.071	1.050	0.923	0.912	-	0.912	0.931	0.983	1.044	1.059	Continuing	Continuing
003: <i>Integrated Planning and Management</i>	3.571	1.728	24.028	1.501	-	1.501	1.533	1.618	1.719	1.742	Continuing	Continuing
004: <i>PNT Navigation</i>	8.023	3.312	2.910	2.876	-	2.876	2.937	3.100	3.295	3.340	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 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total
Previous President's Budget	6.277	27.901	5.243	-	5.243
Current President's Budget	6.090	27.861	5.289	-	5.289
Total Adjustments	-0.187	-0.040	0.046	-	0.046
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-0.184	-			
• Program Adjustment	-0.003	-	0.060	-	0.060
• FFRDC Reduction	-	-0.040	-	-	-
• Economic Assumptions	-	-	-0.014	-	-0.014

Change Summary Explanation

FY 2014: SBIR/STTR Reduction -0.184 million, Program Adjustment -0.003 million.

FY 2015: FFRDC Reduction -0.040 million.

FY 2016: Economic Assumptions -0.014 million, Program Adjustment 0.060 million.

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Exhibit R-2A, RDT&E Project Justification: PB 2016 Office of the Secretary Of Defense									Date: February 2015			
Appropriation/Budget Activity 0400 / 6					R-1 Program Element (Number/Name) PE 0605170D8Z / Support to Networks and Information Integration				Project (Number/Name) 002 / Defense Architecture Support			
COST (\$ in Millions)	Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	Cost To Complete	Total Cost
002: Defense Architecture Support	2.071	1.050	0.923	0.912	-	0.912	0.931	0.983	1.044	1.059	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		
A. Mission Description and Budget Item Justification												
Defense Architecture Support includes development, analysis, testing and evaluation of DoD IT Enterprise and solution architecture products. This work includes improvements to processes that support the Department’s enterprise architecture (EA) registry, catalog and navigation map called the DoD Architecture Registry System (DARS). DARS 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. It provides a key component of the Department’s net-centric data management capability by federating EA data across the Department. It also 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 2014	FY 2015	FY 2016	
Title: Defense Architecture Support									1.050	0.923	0.912	
FY 2014 Accomplishments: Designed a mechanism for managing and cataloging DoD Enterprise Architecture products in DARS. - Analyzed DoD EA products in support of DoD’s POM Issue process. - Developed EA guidance (including best practices) for use by DoD architects - Analyzed DoD solution architecture in support of Joint Information Environment (JIE) implementation - Developed the DoD JIE Enterprise Architecture to include Capability, Operational, Systems, Technical, and All Views.												
FY 2015 Plans: Continue IT Enterprise and solution architecture development, analysis, and registration processes.												
FY 2016 Plans:												

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Appropriation/Budget Activity 0400 / 6	R-1 Program Element (Number/Name) PE 0605170D8Z / <i>Support to Networks and Information Integration</i>	Project (Number/Name) 002 / <i>Defense Architecture Support</i>	
B. Accomplishments/Planned Programs (\$ in Millions)		FY 2014	FY 2015
Continue IT Enterprise and solution architecture development, analysis, and registration processes.			
Accomplishments/Planned Programs Subtotals		1.050	0.923
C. Other Program Funding Summary (\$ in Millions)			
N/A			
Remarks			
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 / 6					R-1 Program Element (Number/Name) PE 0605170D8Z / Support to Networks and Information Integration				Project (Number/Name) 003 / Integrated Planning and Management			
COST (\$ in Millions)	Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	Cost To Complete	Total Cost
003: Integrated Planning and Management	3.571	1.728	24.028	1.501	-	1.501	1.533	1.618	1.719	1.742	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 DoD CIO as the Executive Agent and primary OSD advocate for the White House Military Office 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, National Security/Emergency Preparedness (NS/EP), DoD support to Civil Authorities; Continuity of Government (COG); 2) Nuclear C2, Integrated Missile Defense, Tactical Warning, Global Strike; and 3) Cyber Mission Indications and Warnings.

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

Title: Integrated Planning and Management	FY 2014	FY 2015	FY 2016
FY 2014 Accomplishments: Maintained and enhanced architecture products, conducted testing analysis and systems engineering to enable national security systems and applications are validated to provide assured communications in support of senior leadership. - Continued the efforts for fielding robust, modernized and secure, mobile (smart phone and tablet) devices and services for senior leadership, for use world-wide. Included initial execution activities for the Senior Leader Communications Modernization Implementation Plan (SLSCM IP) released January 2014. - Continued to enhance the scope of quantitative voice quality testing (Phantom Signal Program) and associated analysis and validation activities. Multiple test events were planned, executed and associated analysis was conducted. - Continued risk reduction and engineering efforts within a flexible and dynamic test bed environment for senior leader solutions and infrastructure advancement validation. Efforts included the development of a wide range of modern communications leveraging the Commercial Solutions for Classified (CSfC) approach pioneered by NSA: secure mobile phones, secure tablets, travel kits and vehicular communications. Efforts were closely worked with the broader stakeholder community and leveraged efforts/funding by the broader community National Security and Emergency Preparedness (NS/EP) community (included support to the Executive Order (EO) 13618). FY 2015 Plans:	1.728	24.028	1.501

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Appropriation/Budget Activity 0400 / 6	R-1 Program Element (Number/Name) PE 0605170D8Z / <i>Support to Networks and Information Integration</i>	Project (Number/Name) 003 / <i>Integrated Planning and Management</i>	
B. Accomplishments/Planned Programs (\$ in Millions)		FY 2014	FY 2015
\$22.500 million – classified program – Details can be provided at a higher classification under separate cover. \$1.527 million: - Continue to enhance architecture products, conduct testing analysis and systems engineering to enable national security systems and applications are validated to provide assured communications in support of senior leadership. - Continue the efforts for fielding robust, modernized and secure, mobile (smart phone and tablet) devices and services for senior leadership, for use world-wide. Plans for each FY are fully identified in the SLSCM IP. - Continue to enhance the scope of quantitative voice quality testing (Phantom Signal Program) and associated analysis and validation activities. Each year multiple test events are planned, executed and associated analysis is conducted. - Continue risk reduction and engineering efforts within a flexible and dynamic test bed environment for senior leader solutions and infrastructure advancement validation. Efforts include a wide range of modern communications leveraging the Commercial Solutions for Classified (CSfC) approach pioneered by NSA: secure mobile phones, secure tablets, travel kits and vehicular communications. Efforts are closely worked with the broader stakeholder community and leverages efforts/funding by the broader community National Security and Emergency Preparedness (NS/EP) community (includes support to the EO13618). FY 2016 Plans: Continue to enhance architecture products, conduct testing analysis and systems engineering to enable national security systems and applications are validated to provide assured communications in support of senior leadership. - Continue the efforts for fielding robust, modernized and secure, mobile (smart phone and tablet) devices and services for senior leadership, for use world-wide. Plans for each FY are fully identified in the SLSCM IP. - Continue to enhance the scope of quantitative voice quality testing (Phantom Signal Program) and associated analysis and validation activities. Each year multiple test events are planned, executed and associated analysis is conducted. - Continue risk reduction and engineering efforts within a flexible and dynamic test bed environment for senior leader solutions and infrastructure advancement validation. Efforts include a wide range of modern communications leveraging the Commercial Solutions for Classified (CSfC) approach pioneered by NSA: secure mobile phones, secure tablets, travel kits and vehicular communications. Efforts are closely worked with the broader stakeholder community and leverages efforts/funding by the broader community National Security and Emergency Preparedness (NS/EP) community (includes support to the EO13618).			
Accomplishments/Planned Programs Subtotals		1.728	24.028
C. Other Program Funding Summary (\$ in Millions)			
N/A			
Remarks			
D. Acquisition Strategy			
N/A			

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E. Performance Metrics

- Continue development of the required infrastructure to support Senior Leader Secure Mobile Communications. (measure of systems upgraded/enhanced)
- Continue development of the Overarching NLCC Initial Capabilities Document JROCM taskings. Includes both the development of measures to inform subordinate JCIDS documents as well as a roadmap and investment strategy for the sustainment and modernization of the NLCC.
 - Continue policy development (DoDI) for the management of DoD Nuclear Command, Control, and Communications

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Appropriation/Budget Activity 0400 / 6					R-1 Program Element (Number/Name) PE 0605170D8Z / Support to Networks and Information Integration				Project (Number/Name) 004 / PNT Navigation			
COST (\$ in Millions)	Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	Cost To Complete	Total Cost
004: PNT Navigation	8.023	3.312	2.910	2.876	-	2.876	2.937	3.100	3.295	3.340	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

Funding supports Global Positioning System (GPS) User Equipment Synchronization with GPS space and operational control segments to conduct DoD CIO oversight of Global Positioning System (GPS) management and planning activities required for meeting JCIDs requirements. Funding supports policy and guidance for incorporation of alternative means of PNT delivery to augment GPS. Funding also supports the DoD's inputs into interagency activities under the National Space-Based Positioning, Navigation, and Timing Executive Committee.

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

	FY 2014	FY 2015	FY 2016
Title: PNT Navigation	3.312	2.910	2.876
FY 2014 Accomplishments: Global Positioning System (GPS) User Equipment Synchronization with GPS space and control segments to conduct DoD CIO oversight of Global Positioning System (GPS) management and planning activities required for meeting JCIDs requirements and supporting the National Space-Based Positioning, Navigation and Timing Executive Committee. Funding supported: - Management of the International Supplement to GPS Security Policy - Management of the Information Assurance/COMSEC Supplement to GPS Security Policy - Management of the GPS Security Policy - Continued implementation of the GPS Protection Profile matrix from Navigation Warfare Concept of Operations in conjunction with Warfighting Operations Plans (OPLANS) and Contingency Plans (CONPLANS) in coordination with US STRATCOM - Management of PNT Navigation Warfare Instruction and Annexes to all the Operations Plans (OPLANS) and Contingency Plans (CONPLANS) in coordination with US STRATCOM - Continued development of NextGen interfaces with the GPS Wing, Joint Program Development Office (JPDO), and Air Force. Continued implementation of Red Key Sundown Policy - 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 in her role as co-chair of the Executive Steering Group - Performed annual update of National Five-year Plan for Space-Based Positioning, Navigation and Timing (PNT) - Completed drafting of the 2014 Federal Radionavigation Plan (FRP); finalized FRP - Applied Navigation Warfare Concept of Operations 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.			

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B. Accomplishments/Planned Programs (\$ in Millions)		FY 2014	FY 2015
- Managed and implemented the DoD PNT investment strategy using the NetCentric Operations CPM portfolio to insure PNT material solutions are developed in a synchronized fashion in JCIDs, DAS, and PPBE - Developed additional Instructions for public affairs, receiver certification, and security policy. Developed GPS Security Policy as DoDM and expanded scope to include all source PNT - Conducted an inventory of DoD GPS receivers. - Analyzed and promoted alternative PNT delivery means for inclusion in the force structure for force protection. - Established PNT Integration Working Group (PING) FY 2015 Plans: Global Positioning System (GPS) User Equipment Synchronization with GPS space and control segments to conduct DoD CIO oversight of Global Positioning System (GPS) management and planning activities required for meeting JCIDs requirements and supporting the National Space-Based Positioning, Navigation and Timing Executive Committee. Funding will support: - Manage the International Supplement to GPS Security Policy as all source PNT DoDM - Manage the Information Assurance/COMSEC Supplement to GPS Security Policy as all source PNT DoDM - Manage the GPS Security Policy as all source DoDM - Continue implementation of the GPS Protection Profile matrix from Navigation Warfare Concept of Operations in conjunction with Warfighting Operations Plans (OPLANS) and Contingency Plans (CONPLANS) in coordination with US STRATCOM - Manage PNT Navigation Warfare Instruction and Annexes to all the Operations Plans (OPLANS) and Contingency Plans (CONPLANS) in coordination with US STRATCOM - Manage NextGen interfaces with the GPS Wing, Joint Program Development Office (JPDO), and Air Force. Continue implementation of Red Key Sundown Policy - 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 - Perform annual update of National Five-year Plan for Space-Based Positioning, Navigation and Timing (PNT) - Begin drafting FY16 FRP - Apply Navigation Warfare Concept of Operations 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. - Manage and implement the DoD PNT investment strategy using the NetCentric Operations CPM portfolio to insure PNT material solutions are developed in a synchronized fashion in JCIDs, DAS, and PPBE - Implement additional Instructions (DoDIs) for public affairs and receiver certification, and DoDM for security policy. - Manage inventory of DoD GPS receivers. - Analyze and promote alternative PNT delivery means for inclusion in the force structure for force protection via PING			

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B. Accomplishments/Planned Programs (\$ in Millions)		FY 2014	FY 2015
- PING includes biennial tasking to Intelligence Community (IC) to assess threat vectors to GPS and other means of PNT delivery; biennial operational assessments to reveal gaps in PNT delivery against OPLANS and CONPLANS of COCOMS; maintenance of PNT equipment inventories, refreshed biennially FY 2016 Plans: Global Positioning System (GPS) User Equipment Synchronization with GPS space and control segments to conduct DoD CIO oversight of Global Positioning System (GPS) management and planning activities required for meeting JCIDs requirements and supporting the National Space-Based Positioning, Navigation and Timing Executive Committee. Funding will support: - Manage the International Supplement to GPS Security Policy as all source PNT DoDM - Manage the Information Assurance/COMSEC Supplement to GPS Security Policy as all source PNT DoDM - Manage the GPS Security Policy as all source DoDM - Continue implementation of the GPS Protection Profile matrix from Navigation Warfare Concept of Operations in conjunction with Warfighting Operations Plans (OPLANS) and Contingency Plans (CONPLANS) in coordination with US STRATCOM - Manage PNT Navigation Warfare Instruction and Annexes to all the Operations Plans (OPLANS) and Contingency Plans (CONPLANS) in coordination with US STRATCOM - Manage NextGen interfaces with the GPS Wing, Joint Program Development Office (JPDO), and Air Force. Continue implementation of Red Key Sundown Policy - 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 - Perform annual update of National Five-year Plan for Space-Based Positioning, Navigation and Timing (PNT) - Complete drafting and coordination of FY16 FRP - Apply Navigation Warfare Concept of Operations 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. - Manage and implement the DoD PNT investment strategy using the NetCentric Operations CPM portfolio to insure PNT material solutions are developed in a synchronized fashion in JCIDs, DAS, and PPBE - Implement additional Instructions (DoDIs) for public affairs and receiver certification, and DoDM for security policy. - Manage inventory of DoD GPS receivers. - Analyze and promote alternative PNT delivery means for inclusion in the force structure for force protection via PING			

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Appropriation/Budget Activity 0400 / 6	R-1 Program Element (Number/Name) PE 0605170D8Z / <i>Support to Networks and Information Integration</i>	Project (Number/Name) 004 / <i>PNT Navigation</i>	
B. Accomplishments/Planned Programs (\$ in Millions)		FY 2014	FY 2015
- PING includes biennial tasking to Intelligence Community (IC) to assess threat vectors to GPS and other means of PNT delivery; biennial operational assessments to reveal gaps in PNT delivery against OPLANS and CONPLANS of COCOMS; maintenance of PNT equipment inventories, refreshed biennially			
Accomplishments/Planned Programs Subtotals		3.312	2.910
C. Other Program Funding Summary (\$ in Millions) N/A			
Remarks			
D. Acquisition Strategy N/A			
E. Performance Metrics Implement and successfully manage PNT Navigation Warfare Instructions and Manuals subordinate to DoDD 4650.05 and Annexes to applicable Operations Plans (OPLANS) and Contingency Plans (CONPLANS) in coordination with the appropriate Unified Combatant Command - Implement the recommendations of the Analysis of Alternatives for the CIO and DCIO C4IIC Global Positioning System (GPS) portfolio of Position, Navigation, and Timing (PNT) programs and activities - Provide staff support, perform research and conduct studies as directed by the CIO and DCIO C4IIC relating to the Global Positioning System (GPS) portfolio of Position, Navigation, and Timing (PNT) programs and activities			