Exhibit R-2, RDT&E Budget Item Justification: FY 2018 Office of the Secretary Of Defense											Date: May 2017	
Appropriation/Budget Activity 0400: *Research, Development, Test & Evaluation, Defense-Wide I* BA 6: *RDT&E Management Support*						**R-1 Program Element (Number/Name)** PE 0605170D8Z *I Support to Networks and Information Integration*						

COST ($ in Millions)	Prior Years	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total	FY 2019	FY 2020	FY 2021	FY 2022	Cost To Complete	Total Cost
Total Program Element	46.767	5.113	7.246	12.583	-	12.583	13.856	14.764	14.822	14.951	Continuing	Continuing
002: *Defense Architecture Support*	3.899	0.874	0.896	0.911	-	0.911	0.958	0.968	0.986	1.008	Continuing	Continuing
003: *Integrated Planning and Management*	29.079	1.454	3.492	4.017	-	4.017	5.094	5.110	5.141	5.178	Continuing	Continuing
004: *PNT Navigation*	13.789	2.785	2.858	2.905	-	2.905	3.054	3.086	3.145	3.215	Continuing	Continuing
005: *MARMS*	0.000	0.000	0.000	4.750	-	4.750	4.750	5.600	5.550	5.550	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 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total
Previous President's Budget	5.279	7.246	8.163	-	8.163
Current President's Budget	5.113	7.246	12.583	-	12.583
Total Adjustments	-0.166	0.000	4.420	-	4.420
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-0.166	-			
• SRRB Efficiency	-	-	-0.290	-	-0.290
• Program Adjustment	-	-	-0.040	-	-0.040
• Funding for MARMS	-	-	4.750	-	4.750

Change Summary Explanation

FY 2016: SBIR Adjustment -0.144 million, STTR Adjustment -0.022 million.

FY 2018: SRRB efficiency -0.290 million, Program Adjustment -0.040 million. "Service Requirement Review Board - As part of the Department of Defense reform agenda, the incremental reduction accounts for consolidation and reduction of service contracts"

FY 2018 increase of 4.750 for the MARMS program.

Exhibit R-2A, RDT&E Project Justification: FY 2018 Office of the Secretary Of Defense		Date: May 2017

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 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total	FY 2019	FY 2020	FY 2021	FY 2022	Cost To Complete	Total Cost
002: Defense Architecture Support	3.899	0.874	0.896	0.911	-	0.911	0.958	0.968	0.986	1.008	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 Reference and solution architecture products in support of the DoD's Joint Information Environment and the closely related Mission Partner Environment. This work also includes improvements to processes that support registration and storage of the Department's enterprise architecture (formerly called DARS). The Department maintains a catalog of architecture data holdings and provides users the ability to store, search, retrieve, and use DoD architecture data through capabilities provided by the architecture portal. The portal is a central, federated hub for discovery, accessibility, understandability, and reusability of architectures. With the ability to import different architecture tool data and display disparate architecture data in a uniform, consistent method for ease of use and understanding. The portal provides a federated environment for sharing of architectures, mission threads, and other related capability integrated information between various authoritative repositories to increase effectiveness and efficiency of decision-making in a dynamic environment by our customers. Implementations are accessible on both the NIPRNET (unclassified) and SIPRNET (Collateral Classified). Key features of the Defense Architecture Support program focus on: (1) Research and Development of JIE and MPE architectures, (2) Making JIE and MPE 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 collaborate in the development of federation web services via the Enterprise Architecture and Engineering Panel under the oversight of the DoD CIOs Enterprise Architecture and Service Board to ensure DoD-wide access to and usability of all components of the composite DoD enterprise architecture model, enterprise services, data and technical standards.

B. Accomplishments/Planned Programs ($ in Millions)

	FY 2016	FY 2017	FY 2018
Title: Defense Architecture Support	0.874	0.896	0.911
FY 2016 Accomplishments: Continue IT Enterprise and solution architecture development, analysis, and registration processes.			
FY 2017 Plans: Continue IT Enterprise and solution architecture development, analysis, and registration processes.			
FY 2018 Plans: Continue IT Enterprise and solution architecture development, analysis, and registration processes.			
Accomplishments/Planned Programs Subtotals	0.874	0.896	0.911

Exhibit R-2A, RDT&E Project Justification: FY 2018 Office of the Secretary Of Defense		Date: May 2017
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*

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.

Exhibit R-2A, RDT&E Project Justification: FY 2018 Office of the Secretary Of Defense											Date: May 2017	
Appropriation/Budget Activity 0400 *I* 6				**R-1 Program Element (Number/Name)** PE 0605170D8Z *I Support to Networks and Information Integration*						**Project (Number/Name)** 003 *I Integrated Planning and Management*		

COST ($ in Millions)	Prior Years	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total	FY 2019	FY 2020	FY 2021	FY 2022	Cost To Complete	Total Cost
003: *Integrated Planning and Management*	29.079	1.454	3.492	4.017	-	4.017	5.094	5.110	5.141	5.178	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, 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)	FY 2016	FY 2017	FY 2018
Title: Integrated Planning and Management	1.454	3.492	4.017

FY 2016 Accomplishments:
Continued to enhance 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. Plans for each FY are fully identified in the Senior Leader Secure Communications Modernization Implementation Plan (SLSCM IP).
- Continued to enhance the scope of quantitative voice quality testing and associated analysis and validation activities. Each year multiple test events are planned, executed and associated analysis is conducted.
- Continued 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, vehicular communications, and development of common network access mechanisms. Efforts were 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 EO 13618).

FY 2017 Plans:

Exhibit R-2A, **RDT&E Project Justification:** FY 2018 Office of the Secretary Of Defense		**Date:** May 2017
Appropriation/Budget Activity 0400 *I* 6	**R-1 Program Element (Number/Name)** PE 0605170D8Z *I Support to Networks and Information Integration*	**Project (Number/Name)** 003 *I Integrated Planning and Management*

B. Accomplishments/Planned Programs ($ in Millions)	**FY 2016**	**FY 2017**	**FY 2018**
$2.000 million - NC3 Modeling and Simulation and Analysis - The NC3 system is a complex architecture that utilizes a "system of systems" approach. The current NC3 model focuses on communications after a high altitude electromagnetic pulse (HEMP) event. This funding will focus on expanding the current NC3 modeling to additional survivable communications systems. The goal is to provide insight on operational impact of changes/degradation of single or multiple systems - supports planning, architecture, and investments. - Provide direction and support to the Defense Information Systems Agency / Joint Systems Engineering and Integration Office (DISA/JSEIO) in developing campaign-level modeling and simulation tools for NC3. The tools will expand on the Joint Operations Visualization Environment (JOVE), Modeling and Simulation for Strategic Communications (MASSC), NC3-N Executable Architecture Management System (NC3-N ExAMS) and NC3 Integrated Scenario Modeler (NISM). $1.492 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. Begin investigations related to Multi-Level Security (MLS) Multiple Independent Levels of Security (MILS) on a single device. Plans for each FY are fully identified in the SLSCM IP. - Expand the scope of quantitative quality testing to include video along with voice associated analysis and validation activities. Expand this program to include Interagency assets within the context of the NS/EP as directed under EO 13618. 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, vehicular communications, and development of common network access mechanisms. Efforts are closely worked with the broader stakeholder community and leverages efforts/funding by the broader National Security and Emergency Preparedness (NS/EP) community (includes support to the EO13618). *FY 2018 Plans:* - $2.500 million – Continue NC3 Modeling and Simulation and Analysis – Continue to provide direction and support to the DISA/ JSEIO in developing campaign-level modeling and simulation tools for NC3. The research and development of the tools will continue to increase the capabilities of MASSC (conferencing capabilities), NC3-N ExAMS (analysis of nodes, metrics and assets associated with a Navy communications system) and NISM (provide extendable, transparent multi-level simulation of scenarios). $1.517 million – Update and maintain the NLCC Capabilities Roadmap (timeline format). Develop the As-is and To-be Functional Enterprise Architectures for the NLCC as well as a high-level 2030 view of the NLCC Enterprise. Develop a set of Architecture			

Exhibit R-2A, **RDT&E Project Justification:** FY 2018 Office of the Secretary Of Defense		**Date:** May 2017
Appropriation/Budget Activity 0400 *I* 6	**R-1 Program Element (Number/Name)** PE 0605170D8Z *I Support to Networks and Information Integration*	**Project (Number/Name)** 003 *I Integrated Planning and Management*

B. Accomplishments/Planned Programs ($ in Millions)	**FY 2016**	**FY 2017**	**FY 2018**
Guiding Principles and Major Thrust Areas that will help decompose the Objective Architecture into technology areas that can be addressed by the Reference Architecture. Review existing program and service-level architectures for consistency with the overall Enterprise Architecture and drive the revamped NLCC Roadmap and Investment Strategy to move forward. – Perform financial database analysis and use the RDOCs and PDOCs to create a new structure for the NLCC Investment Strategy. Build automatic extraction tools for the RDOCs and PDOCs. Develop program lists using programmatic data in Excel. Develop a XML Parser to move data to into a single database to work on Schedule Views (GANTT) and move to roadmap format, starting as a manual process, leading to an automated process.			
Accomplishments/Planned Programs Subtotals	1.454	3.492	4.017

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

D. Acquisition Strategy
 N/A

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

Exhibit R-2A, RDT&E Project Justification: FY 2018 Office of the Secretary Of Defense											Date: May 2017	
Appropriation/Budget Activity 0400 **/** 6					**R-1 Program Element (Number/Name)** PE 0605170D8Z *I Support to Networks and Information Integration*						**Project (Number/Name)** 004 *I PNT Navigation*	

COST ($ in Millions)	Prior Years	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total	FY 2019	FY 2020	FY 2021	FY 2022	Cost To Complete	Total Cost
004: *PNT Navigation*	13.789	2.785	2.858	2.905	-	2.905	3.054	3.086	3.145	3.215	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 2016	FY 2017	FY 2018
Title: PNT Navigation	2.785	2.858	2.905

FY 2016 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:
- Managed the International Supplement to GPS Security Policy as all source PNT DoDM.
- Managed the Information Assurance/COMSEC Supplement to GPS Security Policy as all source PNT DoDM.
- Managed the GPS Security Policy as all source DoDM.
- 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.
- Managed PNT Navigation Warfare Instruction and Annexes to all the Operations Plans (OPLANS) and Contingency Plans (CONPLANS) in coordination with US STRATCOM.
- Managed 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 his 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 and coordination of FY16 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

Exhibit R-2A, RDT&E Project Justification: FY 2018 Office of the Secretary Of Defense		Date: May 2017
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*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2016	FY 2017	FY 2018
Warfare challenges to the Military Services and Combatant Commanders in the scenarios defined in the CONPLANS and OPLANS. - 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. - Implemented additional Instructions (DoDIs) for public affairs and receiver certification, and DoDM for security policy. - Managed inventory of DoD GPS receivers. - Analyzed and promoted alternative PNT delivery means for inclusion in the force structure for force protection via PING. - PING included 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. - Developed Directives, Instructions, and Manuals for implementation of the PNT Strategy within the Department. - Continued special task directed by DCIO to address acceleration of development and fielding of advanced GPS receivers in the Joint Force. - Maintained and updated inventory of existing GPS receiver equipage; expanded to include antennae and antennae electronics; expanded to include delivery of PNT via other-than-GPS equipment. - Addressed prioritized platforms in fielding plans and guidance to Services. - Developed MGUE "Roadmap" illustrating necessary fielding milestones for Joint Force MGUE equipage. - Administered PNT Council within DoD via Charter, supporting DoDDs and DoDIs, agendas and minutes for Council meetings, Council task disposition. *FY 2017 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 sources PNT DoDM. - Manage the Information Assurance/COMSEC Supplement to GPS Security Policy as all sources PNT DoDM. - Manage the GPS Security Policy as all sources 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.			

Exhibit R-2A, **RDT&E Project Justification:** FY 2018 Office of the Secretary Of Defense		**Date:** May 2017
Appropriation/Budget Activity 0400 *I* 6	**R-1 Program Element (Number/Name)** PE 0605170D8Z *I Support to Networks and Information Integration*	**Project (Number/Name)** 004 *I PNT Navigation*

B. Accomplishments/Planned Programs ($ in Millions)	**FY 2016**	**FY 2017**	**FY 2018**
- 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). - 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. - 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. - Develop Directives, Instructions, and Manuals for implementation of the PNT Strategy within the Department. - Continue special task directed by DCIO to address acceleration of development and fielding of advanced GPS receivers in the Joint Force. - Maintain and update inventory of existing GPS receiver equipage; expand to include antennae and antennae electronics; expand to include delivery of PNT via other-than-GPS equipment. - Address prioritized platforms in fielding plans and guidance to Services. - Develop MGUE "Roadmap" illustrating necessary fielding milestones for Joint Force MGUE equipage. - Administer PNT Council within DoD via Charter, supporting DoDDs and DoDIs, agendas and minutes for Council meetings, Council task disposition. *FY 2018 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 sources PNT DoDM. - Manage the Information Assurance/COMSEC Supplement to GPS Security Policy as all sources PNT DoDM. - Manage the GPS Security Policy as all sources DoDM. - Continue implementation of the GPS Protection Profile matrix from Navigation Warfare Concept of Operations in conjunction with			

Exhibit R-2A, **RDT&E Project Justification:** FY 2018 Office of the Secretary Of Defense		**Date:** May 2017
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*

B. Accomplishments/Planned Programs ($ in Millions)	**FY 2016**	**FY 2017**	**FY 2018**
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). - 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. - 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. - Develop Directives, Instructions, and Manuals for implementation of the PNT Strategy within the Department. - Continue special task directed by DCIO to address acceleration of development and fielding of advanced GPS receivers in the Joint Force. - Maintain and update inventory of existing GPS receiver equipage; expand to include antennae and antennae electronics; expand to include delivery of PNT via other-than-GPS equipment. - Address prioritized platforms in fielding plans and guidance to Services. - Develop MGUE "Roadmap" illustrating necessary fielding milestones for Joint Force MGUE equipage. - Administer PNT Council within DoD via Charter, supporting DoDDs and DoDIs, agendas and minutes for Council meetings, Council task disposition. - Develop 2018 FRP.			
Accomplishments/Planned Programs Subtotals	2.785	2.858	2.905

Exhibit R-2A, **RDT&E Project Justification:** FY 2018 Office of the Secretary Of Defense		**Date:** May 2017
Appropriation/Budget Activity 0400 *I* 6	**R-1 Program Element (Number/Name)** PE 0605170D8Z *I Support to Networks and Information Integration*	**Project (Number/Name)** 004 *I PNT Navigation*

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

Exhibit R-2A, RDT&E Project Justification: FY 2018 Office of the Secretary Of Defense		Date: May 2017

Appropriation/Budget Activity 0400 / 6	R-1 Program Element (Number/Name) PE 0605170D8Z I *Support to Networks and Information Integration*	Project (Number/Name) 005 I *MARMS*

COST ($ in Millions)	Prior Years	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total	FY 2019	FY 2020	FY 2021	FY 2022	Cost To Complete	Total Cost
005: *MARMS*	0.000	0.000	0.000	4.750	-	4.750	4.750	5.600	5.550	5.550	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

Mission Assurance Risk Management System will fix critical shortfalls in the Department of Defense's ability to synchronize and integrate Mission Assurance programs and provide enterprise-level visibility to enable risk-informed decision making and assist in prioritizing limited resources to mitigate vulnerabilities.

B. Accomplishments/Planned Programs ($ in Millions)	FY 2016	FY 2017	FY 2018
Title: MARMS *FY 2018 Plans:* Fix critical shortfalls in the Department of Defense's ability to synchronize and integrate Mission Assurance programs and provide enterprise-level visibility to enable risk-informed decision making and assist in prioritizing limited resources to mitigate vulnerabilities.	-	-	4.750
Accomplishments/Planned Programs Subtotals	-	-	4.750

C. Other Program Funding Summary ($ in Millions)

N/A

Remarks

D. Acquisition Strategy

N/A

E. Performance Metrics

Not Applicable.

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