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Exhibit R-2, RDT&E Budget Item Justification: PB 2017 Office of the Secretary Of Defense **Date:** February 2016

Appropriation/Budget Activity 0400: Research, Development, Test & Evaluation, Defense-Wide I BA 5: System Development & Demonstration (SDD)	R-1 Program Element (Number/Name) PE 0604771D8Z I Joint Tactical Information Distribution System (JTIDS)
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COST (\$ in Millions)	Prior Years	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	Cost To Complete	Total Cost
Total Program Element	52.049	19.556	14.257	16.288	-	16.288	16.078	14.685	14.886	15.177	Continuing	Continuing
771: Link-16 Tactical Data Link (TDL) Transformation	52.049	19.556	10.332	11.793	-	11.793	11.978	10.685	10.886	11.077	Continuing	Continuing
105: Cyber Capability & Platform Resilience	-	0.000	3.925	4.495	-	4.495	4.100	4.000	4.000	4.100	Continuing	Continuing

A. Mission Description and Budget Item Justification

B. Program Change Summary (\$ in Millions)	<u>FY 2015</u>	<u>FY 2016</u>	<u>FY 2017 Base</u>	<u>FY 2017 OCO</u>	<u>FY 2017 Total</u>
Previous President's Budget	17.537	14.285	16.521	-	16.521
Current President's Budget	19.556	14.257	16.288	-	16.288
Total Adjustments	2.019	-0.028	-0.233	-	-0.233
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	2.593	-			
• SBIR/STTR Transfer	-0.574	-			
• FY16 FFRDC	-	-0.028	-	-	-
• Efficiency Reductions	-	-	-0.052	-	-0.052
• Economic Assumptions	-	-	-0.126	-	-0.126
• Other General Reductions	-	-	-0.055	-	-0.055

Change Summary Explanation

Received end of year funding that inflates our FY15 position. Increased requirements in Cyber was the reason for the influx of funds at the end of FY15. This helps bridge the gap with the decrease of our FY16 funds. Efforts are ongoing between the two fiscal years and in the future.

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COST (\$ in Millions)	Prior Years	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	Cost To Complete	Total Cost
771: Link-16 Tactical Data Link (TDL) Transformation	52.049	19.556	10.332	11.793	-	11.793	11.978	10.685	10.886	11.077	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

Funds will be used to provide technical and systems engineering, acquisition assistance and management oversight of critical Command, Control, Communications (C3), non-intelligence space, and cyber programs, projects and activities to maximize the return on investment in information technology resources and assist programs to be successful as the Department migrates to a structure implementing Joint Information Environment (JIE) technical standards. The Joint Tactical Information Distribution System (JTIDS) funding fulfills the Department's requirement for joint and combined network-enabled tactical data link (TDL) capabilities, netcentric/JIE communications which comply to standards for interoperability and seamless integration with joint communication systems as well as the mission functionality that uses these systems. Also, these funds underwrite assessment of design and procurement and execution correction of critical information systems from initial definition through development to successfully delivered configurations. Funds provide expertise supporting technical oversight of design, performance and cost parameters of key Defense IT and National Security Systems and supporting infrastructure including critical cyber assessments. Resources in this program fund architecture design and development, portfolio management, enterprise-wide systems engineering and operational impact analyses related to C3, non-intelligence space, and cyber activities. Typical deliverables associated with the instantiation of net-centric capabilities for these mission areas include network and vulnerability assessments, migration plans, investment strategies, architectures, roadmaps and technical guidance documentation.

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

	FY 2015	FY 2016	FY 2017
Title: Common Joint Tactical Information Initiatives	19.556	10.332	11.793
FY 2015 Accomplishments:			
- Cyber Investment Management: Synchronized and coordinated cyberspace acquisition activities, conduct quantitative assessments, and ensure cyberspace investments align with Department priorities, required capabilities and evolving cyber threats. Provided support of the Cyber Investment Management Board and develop implementation guidance and associated direction. Conducted CIMB/CCT meetings to refine the cyber investment portfolio and to identify strategic cyber issues the DoD will face in the future.			
- Refined the Cyber investment portfolio results, ensuring return on investment and risk ultimately leading to an optimization phase focusing on process improvement is included.			
- Conducted investment analysis of the DoD-wide Cyber Special Access Program (SAP) portfolio to include return on investment and risk analysis.			
- Utilized the results of the Cyber Rapid Acquisition Process Pilots to implement the new rapid cyber acquisition processes across DoD, ensuring DoD Acquisition Policy is updated to reflect processes.			

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

	FY 2015	FY 2016	FY 2017
<ul style="list-style-type: none"> - Managed Cyber security Guidebook for Program Managers. Contributed to any follow on efforts to revise policy or guidance regarding Cyber security within the Acquisition process. - Oversaw implementation of the Cyber Situational Awareness Evaluation of Alternatives (EoA) (phase I and II) recommendations. - Conducted EoA on Cyber Command and Control to determine C2 tools for Cyber Operations. - Assessed, developed report and provided recommendations on Cyber vulnerabilities of Department of Defense weapon systems and tactical communications systems; provided report to Congress and began implementation of recommendations to ensure Platform Resilience/Mission Assurance (PR/MA). - Enacted a Cyber Range Focal point to be the central coordination point and oversight for Cyber Ranges that support Cyber Training and Testing & Evaluations. - Implemented DoD Cyber Range strategy, working with T&E and DOT&E and JS. - Conducted technical analysis to determine tools necessary to help collect, measure, assess DCO/OCO effectiveness and suitability in a Cyber Range Environment and conduct an EoA for Cyber Range capabilities. - Conducted OCO/DCO Requirements and Architecture Analysis in collaboration with USCYBERCOM: supported flow of requirements from Cyber Attack ICD and CND ICD to more detailed requirements for OCO and DCO capabilities in support of IS-CDD development; developed and refined OCO / DCO architectures as required to support equipping of the cyber mission force. - Acquisition Management and oversight: Provided technical assistance in developing acquisition policy, including updates to DoD Series 5000 necessitated by changes in statute, regulation and management direction. Conducted technical assessments and provided programmatic recommendations across DASD functional areas to address interoperability gaps and work early in the systems engineering - Common Data Link (CDL) Principal Staff Assistant: Continued to coordinate with CDL Executive Agent to develop and maintain a technology roadmap and terminal database to improve interoperability, configuration management, and focused technology investments. Continued to oversee development and validation of cryptographic core modernization, Small Unmanned Aircraft System (SUAS) Common Data Link (CDL) terminals, CDL waveform, CDL Compliance Test Tool, and Reference Implementation Laboratory development efforts. Completed documentation for Remote Video Terminal (RVT) waveforms to enable competition of CDL procurements. Continued development of an enterprise transition strategy to modernize DoD ISR waveforms to converge on a DoD standard for tactical ISR communications. Continued to oversee programmatic efforts to modernize to attain CDL policy and statutory compliance. Continue planning and conduct of CDL SRP and IPT meetings to develop and refine the CDL investment portfolio and to identify strategic ISR communications issues the DoD will face in the future. Conducted analysis of Airborne ISR communications transport infrastructure in coordination with Joint Staff, Services and Combatant Commands in order to identify a way ahead for establishing an effective/efficient global enterprise capability. - FAB T: Continued to provide programmatic analysis, technical reviews, and assessments of the FAB-T program and Presidential and National Voice Conferencing (PNVC) program to reduce development, integration, and procurement risks. Provided assessments and conclude all preparations for Milestone C DAB, including ADMs, ICE, APB, TEMP, PPP, and SEP as well as other acquisition documents. - AEHF: Provided programmatic analysis, technical reviews, and assessments of the AEHF program 			

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B. Accomplishments/Planned Programs (\$ in Millions)	FY 2015	FY 2016	FY 2017
<p>to reduce development, integration, and procurement risks. Provided risk assessments as the program completes DT&E and enters dedicated OT&E phases of MOT&E, and fielding of more mature versions of the Mission Planning Element. Continued development of the Key Management Infrastructure (KMI) needed to replace the Electronic Key Management System (EKMS).</p> <ul style="list-style-type: none"> - EPS: Provided programmatic analysis, technical reviews, and assessments of the EPS program to reduce development, integration, and procurement risks. Assessed risk as the TT&C program goes through its final development and test process. - Wideband SATCOM Capability: Completed development of response to NDAA Section 1603 on Single Acquisition Agent for Commercial Wideband SATCOM. - National Leadership Command Capability (NLCC): Continued to act as primary action office for AT&L in his role as co-chair of the Council on Oversight of the National Leadership Command, Control, and Communications System (CONLC3S). Worked directly with the Executive Secretariat (DOD CIO) to oversee all aspects of preparation and conduct of CONLC3S meetings, as well as the SSG and EMB meetings that are held to essentially prepare/tee up decisions for the CONLC3S to make at their meetings. Also lead review process for any NLCC related documents. - Mobile Objective User System (MUOS) Support: Provided technical and programmatic analysis and insights in support of C3CB oversight of the MUOS risk reduction efforts, Technical Evaluation, Multi-Service OT&E-2 and follow-on development and operational test activities. Supported vendor efforts to develop MUOS capable terminals and get them tested and certified for operation over MUOS, and for Service procurement. Worked closely with industry terminal vendors to ensure their continued IRAD investments to update existing terminals to MUOS WCDMA capability. This C3CB effort strongly supports USD AT&L's BBP 3.0 initiative. Interacted with the MUOS Program Manager, ASN RDA staff and the Defense Contract Management Agency (DCMA). Reviewed monthly DCMA Performance Assessment Reports (PARs) advising C3CB leadership of MUOS execution status. Participated in the MUOS Configuration Steering Board, Gate 6 review hosted by the Military Deputy, ASN RDA. Provided inputs USD AT&L responses to three Congressional committees' reports on MUOS / terminal synchronization initiatives. - Tracked the successful Navy Multiband Terminal (NMT) procurement. Interacted with the NMT Program Manager, ASN RDA staff and the Defense Contract Management Agency (DCMA). Reviewed monthly DCMA Performance Assessment Reports (PARs) advising C3CB leadership of NMT execution status. - Cooperative Engagement Capability. Participated in the CEC Configuration Steering Board, Gate 6 review hosted by the Military Deputy, ASN RDA. Orchestrated the CEC Defense Acquisition Executive Summary. Performed follow-up briefings with the CEC Program Manager and DOT&E. Interacted with the CEC Program Manager, ASN RDA staff and the Defense Contract Management Agency (DCMA). Reviewed monthly DCMA Performance Assessment Reports (PARs) advising C3CB leadership of CEC execution status. - Handheld, Manpack, and Small Form Fit (HMS) JTRS: Assessed the HMS program to include the risk of vendor selected radios (Modified Non-Developmental Item). Conducted independent technical reviews and recommended program performance improvement options to meet cost, schedule and performance objectives. Provided a technical assessment of full and open competition process for both Rifleman and Manpack radios. - Mid-Tier Networking Vehicular Radio (MNVR) JTRS: Assessed the MNVR program to include the risk of vendor selected radios (Modified Non-Developmental Item). Conducted independent technical reviews and recommended program performance 			

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B. Accomplishments/Planned Programs (\$ in Millions)	FY 2015	FY 2016	FY 2017
<p>improvement options to meet cost, schedule and performance objectives. Provided a technical assessment of full and open competition process for MNVR radios.</p> <ul style="list-style-type: none"> - All JTRS (HMS, MNVR, AMF, JTN) Programs- Provided assessments of program compliance with IT related acquisition policy, in accordance with DoD Series 5000 and applicable senior management direction. Assessed readiness for major acquisition program milestone reviews, to include adequate documentation of compliance with statute/regulation/policy associated with acquisition program oversight. Provided programmatic recommendations regarding cost/schedule/performance tradeoffs. - Provided assessments of DoD Business System programs with IT related acquisition policy, in accordance with DoD Series 5000 and applicable senior management direction. Assessed readiness for major acquisition program milestone reviews, to include adequate documentation of compliance with statute/regulation/policy associated with acquisition program oversight. Provided programmatic recommendations regarding cost/schedule/performance tradeoffs. - Ground Tactical Networks Advanced Capabilities: Matured narrowband dismounted communications capability with radio hardware prototype, robust modeling and simulation, and reusable software code. Formed industry engagement to promote transition into non-developmental item radios. - Integrated Electromagnetic Spectrum Operations (EMSO): Tracked implementation of iEMSO strategy in radio and EW device development plans. Assessed and down-select technical interoperability and architectural approaches. Ensured adequate funding and testing to assess maturity of solutions. - Tactical Data Link Modernization: Continue TDL improvements to enable U.S. Air Dominance capabilities. Continued to Identify promising Link 16 technology upgrades to match emerging threats. Continued to align prototyping, technology maturation, and receiving program schedules to shorten technology insertion cycles. Performed continued oversight of NEW weapons and develop policy/guidance to manage export control of associated TDL. - Warfighter Information Network – Tactical (WIN-T): Provided analysis of reliability and usability of WIN-T Increment 2 Configuration Items and the Combat Net Radio Extension capability during the Follow-On Test and Evaluation (FOT&E) to support a decision on Full Rate Production. Reviewed and tracked soldier feedback and test results to assess corrections to deficiencies identified during the previous FOT&E. Tracked and monitored the performance of the Inc 3 Network Operations Build 3/4, NetCentric Waveform 10.x and Highband Networking Waveform 3.0 capabilities. - Joint C2 Portfolio Management: Supported development, integration and test activities across the Services, Agencies and Combatant Commands and deliver the FY16-20 version of the Joint C2 Sustainment and Modernization Plan. - C2 Data: Provided technical expertise for ensuring C2 data are visible, accessible, understandable, trustable and interoperable. Provided technical assessment and assistance for implementation of National Information Exchange Model (NIEM)-based information exchanges across the DoD. Updated the C2 Authoritative Data Source roadmap and update C2 data architecture. - Joint C2 Architecture: Provided technical direction and management oversight for the update the Joint C2 Architecture to guide Joint C2 capability area development activities across the Services, Agencies and Combatant Commands. - C2 Analyses: Provided conceptual foundation, metrics and empirical evidence to operationalize Agile C2. Provided technical support to US participation in NATO and other international C2 research efforts. 			

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

	FY 2015	FY 2016	FY 2017
<p>- Friendly Force Tracking/Combat Identification: Provided technical assessment, assistance and recommendations for achieving Mode 5 IFF IOC and FOC. Provided technical support to DoD implementation of Mode 5 including supporting spectrum certification and assignment.</p> <p>- Acquisition Management: Provided technical assistance in developing acquisition policy, including updates to DoD Series 5000 necessitated by changes in statute, regulation and management direction for specified programs.</p> <p>- Environmental Monitoring: Developed DoD inputs for annual Federal Plan for Meteorological Services and Supporting Research; Supported various Federal and OSD offices on the subjects of: Space Weather, Spectrum losses and weather, Ionospheric capabilities, National Plan for Hurricanes, Space Situational Awareness, and DoD representation for METOC; Updated METOC/Weather Enterprise Strategy and Roadmap, and oversaw implementation of results of Defense Weather Analysis of Alternatives (AoA); Advised FCB, JCB, and JROC on METOC matters.- Space Control/Space C2/SSA: Performed continued monitoring of cyber testing and cyber vulnerabilities of critical space programs. Supported SSI as OIPT lead for space control programs.</p> <p>- Space Ops: Conducted SATOPS Modernization technical assessments; provided technical Oversight/AFSCN Modernization Implementation; conducted AFSCN Event Driven Net Centric Review/Technical Assessment.</p> <p>- Space Control/Space C2/SSA: Continued the monitoring of cyber testing and cyber vulnerabilities of critical space programs.</p> <p>- Non-Intelligence Space Programs Technical Assessments: Performed cyber vulnerability and cyber suitability assessments on space, PNT, METOC programs and others. Reviewed system design documents, control plans, remote management control ports and methods. Recommend corrective actions to specific space, PNT, and METOC programs to address cyber vulnerabilities and to inform milestone decisions. Conducted non-intelligence space program technical reviews on to include data strategies, systems engineering, risks and mitigations. Supported acquisition milestone decisions for programs including weather satellite follow-on activities.</p> <p>- PNT Programs Technical Assessments: Continued OIPT leadership role. Developed and implemented Annual GPS Enterprise Review to verify readiness of GPS III, MGUE, and OCX programs to progress to next phase of the acquisition process. Ensure synchronization of the three programs to meet the direction of the DAE. Conducted initial deep dive technical analyses to understand all phases of the GPS enterprise programs and predecessor programs that are part of the GPS Enterprise. Reviewed PNT programs for data strategies, systems engineering, risks and mitigations in support of milestone decisions. Initiated and conducted studies to expedite fielding and support of M Code capability for forces in the field.</p> <p>- PNT Portfolio Management: Continued the implementation of GPSEM/PNT Assurance Investment Strategy and Roadmap, ensuring AoA recommendations are addressed. Supported major program milestones and internal OSD reviews such as Strategic Portfolio Reviews, DMAGs, etc.</p> <p>FY 2016 Plans:</p> <p>- Common Data Link (CDL) Principal Staff Assistant: Continue to coordinate with CDL Executive Agent to develop and maintain a technology roadmap and terminal database to improve interoperability, configuration management, and focused technology investments. Develop policy to reflect modernization in CDL waveforms and encryption. Continue to oversee development</p>			

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B. Accomplishments/Planned Programs (\$ in Millions)	FY 2015	FY 2016	FY 2017
<p>and validation of cryptographic core modernization, Small Unmanned Aircraft System (SUAS) Common Data Link (CDL) terminals, CDL waveform, CDL Compliance Test Tool, and Reference Implementation Laboratory development efforts. Continue development of transition strategy to modernize DoD ISR waveforms to converge on a DoD standard for tactical ISR communications. Update and publish the CDL enterprise roadmap that includes platform schedules and waveform modernization opportunities. Analyze and assess mitigation strategies and technologies with regard to emerging activities that could restrict CDL spectrum access to ensure continued robust ISR communications capabilities. Update Independent Assessment Update of CCM Technology Readiness. Continue planning and conduct of CDL SRP and IPT meetings to develop and refine the CDL investment portfolio and to identify strategic ISR communications issues the DoD will face in the future. Conduct analysis of Airborne ISR communications transport infrastructure in coordination with Joint Staff, Services and Combatant Commands in order to identify a way ahead for establishing an effective/efficient global enterprise capability.</p> <ul style="list-style-type: none"> - Acquisition Management and Oversight: Provide technical assistance in developing IT related acquisition policy, including updates to DoD Series 5000 necessitated by changes in statute, regulation and management direction. Provide technical assessments and programmatic recommendations across DASD functional areas to address interoperability gaps and work early in the systems engineering. - FAB-T: Analyze readiness for DT&E and OT&E as command post terminal and PNVC production units begin to be delivered and integrated for test. Provide risk assessments of system integration into the various airborne, ground fixed and ground transportable systems prior to installation. Work with Air Force to implement DSD's direction as end-to-end integrator of PNVC capability. - Wideband SATCOM Capability: Execute plans for expansion of SMC's COMSATCOM role. Support Wideband Requirements Review by Joint Staff and prepare for an AoA to determine the way forward after launching remaining WGS satellites, and COMSATCOM as an integrated wideband SATCOM capability. - AEHF: Provide programmatic analysis, technical reviews, and assessments of the AEHF program to reduce development, integration, and procurement risks. Provide risk assessments as the program continues to launch spacecraft and improve the Mission Planning Element, and develop KMI to replace EKMS. - EPS: Provide programmatic analysis, technical reviews, and assessments of the EPS program to reduce development, integration, and procurement risks. Assess risk as the TT&C system is integrated and tested prior to operations. <p>Protected SATCOM AoA: Finalize assessment through analysis and synthesis of performance, cost and resilience data for cross-domain alternatives to support Protected SATCOMs (including infrastructure to support NC3 requirements). Document analysis of alternatives in Final Report to provide recommendations for technology investments and associate acquisition strategy for Protected SATCOM capability.</p> <p>- National Leadership Command Capability (NLCC): Continue in lead role as primary action office for AT&L in his role as co-chair of the Council on Oversight of the National Leadership Command, Control, and Communications System (CONLC3S). Work directly with the Executive Secretariat (DOD CIO) to oversee all aspects of preparation and conduct of CONLC3S meetings, as well as the SSG and EMB meetings that are held to essentially prepare/tee up decisions for the CONLC3S to make at</p>			

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

	FY 2015	FY 2016	FY 2017
<p>their meetings. Also lead review process for any NLCC related documents. Supports the Joint Staff led Nuclear C2 CBA to its completion and identify capability gaps to be addressed by the CONLC3S.</p> <ul style="list-style-type: none"> - Mobile User Objective System (MUOS): Provide technical and programmatic analysis and insights in support of C3CB oversight of the completion of the MUOS Multi-Service OT&E-2 and follow-on development and operational test activities. Continue to support vendor efforts to develop MUOS capable terminals and get them tested and certified for operation over MUOS, and for Service procurement. Prepare program documentation including ADM for follow-on sustainment activities for MUOS. Continue to track MUOS contract and management performance through interaction with the MUOS Program Manager, ASN RDA staff, and the Defense Contract Management Agency. Continue interaction with the Combatant Commanders and the Army Forces Strategic Command in support of Early Operational Acceptance and Full Operational Acceptance. - Navy Multiband Terminal. Continue to track progress toward completion of NMT deliverables. Interact with the NMT program manager, ASN RDA staff and the Defense Contract Management Agency (DCMA). Review monthly DCMA Performance Assessment Reports (PARs) advising C3CB leadership should any issues arise with NMT execution status. - Cooperative Engagement Capability. Participate in the CEC Configuration Steering Board, Gate 6 review hosted by the Military Deputy, ASN RDA. Performed follow-up briefings with the CEC Program Manager and DOT&E. Interact with the CEC Program Manager, ASN RDA staff and the Defense Contract Management Agency (DCMA). Reviewed monthly DCMA Performance Assessment Reports (PARs) advising C3CB leadership of CEC execution status especially with regard to the Common Array Block antenna. - Handheld, Manpack, and Small Form Fit (HMS) JTRS: Assess the HMS program to include the risk of vendor selected radios (Modified Non-Developmental Item). Conduct independent technical reviews and recommend program performance improvement options to meet cost, schedule and performance objectives. Provide a technical assessment of full and open competition process for both Rifleman and Manpack radios. Provide technical and programmatic analysis to support the Defense Acquisition Executive' Full Rate Production decision review. Assess the results of Initial Operational Test and Evaluation (IOT&E) as well as the existing manufacturing process, performance and reliability, and sustainment capabilities to formulate a recommendation for Full-Rate Production. - Joint Tactical Networking Center (JTNC) JTRS: Provide technical and programmatic analysis to support the Defense Acquisition Executive's role as the co-chair of the JTNC Board of Directors (BoD). Provide Secretariat functions for the JTNC BoD. - All JTRS (HMS, MNVR, AMF, JTN) Programs - Provide assessments of program compliance with IT related acquisition policy, in accordance with DoD Series 5000 and applicable senior management direction. Assess readiness for major acquisition program milestone reviews, to include adequate documentation of compliance with statute/regulation/policy associated with acquisition program oversight. Provide programmatic recommendations regarding cost/schedule/performance tradeoffs. - Mid-Tier Networking Vehicular Radio (MNVR) JTRS: Assess the AMNVR program to include the risk of vendor selected radios (Modified Non-Developmental Item). Conduct independent technical reviews and recommend program performance improvement options to meet cost, schedule and performance objectives. Provide a technical assessment of full and open competition process for MNVR radios. 			

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B. Accomplishments/Planned Programs (\$ in Millions)	FY 2015	FY 2016	FY 2017
<ul style="list-style-type: none"> - Provide assessments of DoD Business System programs with related acquisition policy, in accordance with DoD Series 5000 and applicable senior management direction. Assess readiness for major acquisition program milestone reviews, to include adequate documentation of compliance with statute/regulation/policy associated with acquisition program oversight. Provide programmatic recommendations regarding cost/schedule/ performance tradeoffs. - Ground Tactical Networks Advanced Capabilities: Mature narrowband dismounted communications capability with radio hardware prototype, robust modeling and simulation, and reusable software code. Form industry engagement to promote transition into non-developmental item radios. - Integrated Electromagnetic Spectrum Operations (EMSO): Track implementation of iEMSO strategy in radio and EW device development plans. Assess and down-select technical interoperability and architectural approaches. Ensure adequate funding and testing to assess maturity of solutions. Develop science and technology roadmap to synchronize transition of key technologies to programs of record for spectrum-dependent systems. FY16 work will focus will focus on selected sensor and electronic warfare systems and continue work on communications systems. - Tactical Data Link Modernization: Accelerate improvements in TDLs to address A2AD and contested operations. Build case for an Executive Agent (EA) for Airborne Tactical Data Networking to bring cross-Service high level focus to TDL improvements and coordinated S&T investments for future capabilities. Structure Link 16 evolution plans. Work with F-35 program to baseline Multi-function Advanced Data Link (MADL) and develop open architecture implementation of MADL waveform. Develop initial concepts for common open architecture TDL terminal for potential use on next generation aircraft and F-35 block upgrades. Strengthen acquisition oversight, system engineering, standards and interoperability in use of TDLs on Network Enabled Weapons (NEW). - Warfighter Information Network – Tactical (WIN-T): Provide assessment of the transition of Increment 3 Network Operations and Net Centric Waveform software enhancements into the Increment 2 hardware units for fielding. Provide final assessment of the Highband Networking Waveform 3.0 capability and track its progress for entry into the Waveform Repository. - Joint C2 Portfolio Management: Support development, integration and test activities across the Services, Agencies and Combatant Commands and deliver the FY17-21 version of the Joint C2 Sustainment and Modernization Plan. - C2 Data: Provide technical expertise for ensuring C2 data are visible, accessible, understandable, trustable and interoperable. Provide technical assessment and assistance for implementation of National Information Exchange Model (NIEM)-based information exchanges across the DoD. Update the C2 Authoritative Data Source roadmap and update C2 data architecture. - Joint C2 Architecture: Provide technical expertise for the update the Joint C2 Architecture to guide Joint C2 capability area development activities across the Services, Agencies and Combatant Commands. - Friendly Force Tracking/ Combat Identification: Provide technical assessment, assistance and recommendations for achieving Mode 5 IFF IOC and FOC. Provide technical support to DoD implementation of Mode 5 including supporting spectrum certification and assignment. - Acquisition Management: Provide technical assistance in developing related acquisition policy, including updates to DoD Series 5000 necessitated by changes in statute, regulation and management direction. 			

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

	FY 2015	FY 2016	FY 2017
<p>- Environmental Monitoring: Develop DoD inputs for annual Federal Plan for Meteorological Services and Supporting Research; Support to various Federal and OSD offices on the subjects of: Space Weather, Spectrum losses and weather, Ionospheric capabilities, National Plan for Hurricanes, Space Situational Awareness, and DoD representation for METOC; Update as required METOC/Weather Enterprise Strategy and Roadmap and oversee implementation of results of Defense Weather Analysis of Alternatives (AoA); conduct assessment of USG weather satellite common ground system compliance; implement METOC data strategy; implement DoD National Space Weather Strategy; advise Defense Space Acquisition Board, FCB/JROC/JCIDS process, other OSD PSAs, EA for Space office, COIs, etc. on METOC matters.</p> <p>- Space Ops: Conduct SATOPS Modernization technical assessments; provide technical Oversight/AFSCN Modernization Implementation; conduct AFSCN Event Driven Net Centric Review/Technical Assessment.</p> <p>- Space Control/Space C2/SSA: Perform continued monitoring of cyber testing and cyber vulnerabilities of critical space programs.</p> <p>- Non-Intelligence Space Programs Technical Assessments: Perform cyber vulnerability and cyber suitability assessments on space, PNT, METOC programs and others. Review system design documents, control plans, remote management control ports and methods. Recommend corrective actions to specific space, PNT, and METOC programs to address cyber vulnerabilities and to inform milestone decisions. Conduct non-intelligence space program technical reviews on to include data strategies, systems engineering, risks and mitigations. Support acquisition milestone decisions for programs including weather satellite follow-on activities.</p> <p>- PNT Programs Technical Assessments: Continue OIPT leadership role. Develop and implement Annual GPS Enterprise Review to verify readiness of GPS III, MGUE, and OCX programs to progress to next phase of the acquisition process. Ensure synchronization of the three programs to meet the direction of the DAE. Conduct deep dive technical analyses to understand all phases of the GPS enterprise programs and predecessor programs that are part of the GPS Enterprise. Review PNT programs for data strategies, systems engineering, risks and mitigations in support of milestone decisions. Initiate and conduct studies to expedite fielding and support of M Code capability for forces in the field.</p> <p>- PNT Portfolio Management: Continue implementation of GPSEM/PNT Assurance Investment Strategy and Roadmap, ensuring AoA recommendations are addressed. Continue to support major program milestones and internal OSD reviews such as Strategic Portfolio Reviews, DMAGs, etc.</p> <p>FY 2017 Plans:</p> <p>- Common Data Link (CDL) Principal Staff Assistant: Continue to coordinate with CDL Executive Agent to develop and maintain a technology roadmap and terminal database to improve interoperability, configuration management, and focused technology investments. Continue implementation and oversight of an enterprise transition strategy to modernize DoD ISR waveforms to converge on a DoD standard for tactical ISR communications. Update CDL technology development roadmap to reflect current trends in technology that can add enhanced capabilities to CDL systems. Continue planning and conduct of CDL SRP and IPT meetings to develop and refine the CDL investment portfolio and to identify strategic ISR communications issues the DoD will face</p>			

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Exhibit R-2A, RDT&E Project Justification: PB 2017 Office of the Secretary Of Defense		Date: February 2016
Appropriation/Budget Activity 0400 / 5	R-1 Program Element (Number/Name) PE 0604771D8Z / <i>Joint Tactical Information Distribution System (JTIDS)</i>	Project (Number/Name) 771 / <i>Link-16 Tactical Data Link (TDL) Transformation</i>

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

	FY 2015	FY 2016	FY 2017
<p>in the future. Conduct analysis of Airborne ISR communications transport infrastructure in coordination with Joint Staff, Services and Combatant Commands in order to identify a way ahead for establishing an effective/efficient global enterprise capability.</p> <ul style="list-style-type: none"> - Acquisition Management and Oversight: Provide technical assistance in developing IT related acquisition policy, including updates to DoD Series 5000 necessitated by changes in statute, regulation and management direction. Provide technical assessments and programmatic recommendations across DASD functional areas to address interoperability gaps and work early in the systems engineering. - FAB-T: Support IOT&E execution. Work to assure the program has a successful LRIP-2 decision. Continue to support PNVC integration and test. Provide risk assessments of system integration into the various airborne, ground fixed and ground transportable systems prior to installation. - Wideband SATCOM AoA: Develop AoA plan assessing material solutions for WGS replenishment and for supporting other traditional commercial supplied users considering life-cycle cost, performance, suitability, operational effectiveness, and resiliency. Support implementation and execution of the AoA plan including Senior Advisory Group meetings and evaluation of the space and control segments with associated user terminals for contested and benign operating environments. - AEHF: Provide programmatic analysis, technical reviews, and assessments of the AEHF program to reduce development, integration, and procurement risks. Provide risk assessments as the program continues to launch spacecraft and improve the Mission Planning Element. Work to start efforts for the follow-on system to AEHF. - EPS: Provide programmatic analysis, technical reviews, and assessments of the EPS program to reduce development, integration, and procurement risks. Assess risk as the TT&C system is integrated and tested prior to operations. Work to start efforts for the follow-on system to EPS. - National Leadership Command Capability (NLCC): Continue in lead role as primary action office for AT&L in his role as co-chair of the Council on Oversight of the National Leadership Command, Control, and Communications System (CONLC3S). Work directly with the Executive Secretariat (DOD CIO) to oversee all aspects of preparation and conduct of CONLC3S meetings, as well as the SSG and EMP meetings that are held to essentially prepare/tee up decisions for the CONLC3S to make at their meetings. Also lead review process for any NLCC related documents. - Mobile User Objective System (MUOS) S: Provide technical and programmatic analysis and insights in support of C3CB oversight of the MUOS program. Continue to support vendor efforts to develop MUOS capable terminals and get them tested and certified for operation over MUOS, and for Service procurement. Prepare program documentation including ADM for follow-on sustainment activities for MUOS. Continue to track MUOS contract and management performance through interaction with the MUOS Program Manager, ASN RDA staff, and the Defense Contract Management Agency. Continue interaction with the Combatant Commanders and the Army Forces Strategic Command in support of operational fielding. Support C3CB contribution to the narrowband requirements review. Provide C3CB with technical expertise to the preliminary activities that will support co-lead of the narrowband AoA which is anticipated to start in FY 18 or FY19. 			

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Exhibit R-2A, RDT&E Project Justification: PB 2017 Office of the Secretary Of Defense		Date: February 2016
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B. Accomplishments/Planned Programs (\$ in Millions)	FY 2015	FY 2016	FY 2017
<p>- Navy Multiband Terminal. Continue to track progress toward completion of NMT deliverables. Interact with the NMT program manager, ASN RDA staff and the Defense Contract Management Agency (DCMA). Review monthly DCMA Performance Assessment Reports (PARs) advising C3CB leadership should any issues arise with NMT execution status.</p> <p>- Cooperative Engagement Capability. Participate in the CEC Configuration Steering Board, Gate 6 review hosted by the Military Deputy, ASN RDA. Performed follow-up briefings with the CEC Program Manager and DOT&E. Interact with the CEC Program Manager, ASN RDA staff and the Defense Contract Management Agency (DCMA). Reviewed monthly DCMA Performance Assessment Reports (PARs) advising C3CB leadership of CEC execution status especially with regard to the Common Array Block antenna.</p> <p>- Handheld, Manpack, and Small Form Fit (HMS) JTRS: Assess the HMS program to include the risk of vendor selected radios (Modified Non-Developmental Item). Conduct independent technical reviews and recommend program performance improvement options to meet cost, schedule and performance objectives. Provide a technical assessment of full and open competition process for both Rifleman and Manpack radios. Provide technical and programmatic analysis to support the Defense Acquisition Executive's Full Rate Production decision review. Assess the results of Initial Operational Test and Evaluation (IOT&E) as well as the existing manufacturing process, performance and reliability, and sustainment capabilities to formulate a recommendation for Full-Rate Production.</p> <p>- Joint Tactical Networking Center (JTNC) JTRS: Provide technical and programmatic analysis to support the Defense Acquisition Executive's role as the co-chair of the JTNC Board of Directors (BoD). Provide Secretariat functions for the JTNC BoD.</p> <p>- All JTRS(HMS, MNVR, AMF, JTN)Programs - Provide assessments of program compliance with IT related acquisition policy, in accordance with DoD Series 5000 and applicable senior management direction. Assess readiness for major acquisition program milestone reviews, to include adequate documentation of compliance with statute/regulation/policy associated with acquisition program oversight. Provide programmatic recommendations regarding cost/schedule/performance tradeoffs.</p> <p>- Mid-Tier Networking Vehicular Radio (MNVR) JTRS: Assess the AMNVR program to include the risk of vendor selected radios (Modified Non-Developmental Item). Conduct independent technical reviews and recommend program performance improvement options to meet cost, schedule and performance objectives. Provide a technical assessment of full and open competition process for MNVR radios.</p> <p>- Provide assessments of DoD Business System programs with related acquisition policy, in accordance with DoD Series 5000 and applicable senior management direction. Assess readiness for major acquisition program milestone reviews, to include adequate documentation of compliance with statute/regulation/policy associated with acquisition program oversight. Provide programmatic recommendations regarding cost/schedule/ performance tradeoffs.</p> <p>- Ground Tactical Networks Advanced Capabilities: Mature narrowband dismounted communications capability with radio hardware prototype, robust modeling and simulation, and reusable software code. Form industry engagement to promote transition into non-developmental item radios.</p> <p>- Integrated Electromagnetic Spectrum Operations (EMSO): Track implementation of iEMSO strategy in radio and EW device development plans. Assess and down-select technical interoperability and architectural approaches. Ensure adequate</p>			

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Exhibit R-2A, RDT&E Project Justification: PB 2017 Office of the Secretary Of Defense		Date: February 2016
Appropriation/Budget Activity 0400 / 5	R-1 Program Element (Number/Name) PE 0604771D8Z / <i>Joint Tactical Information Distribution System (JTIDS)</i>	Project (Number/Name) 771 / <i>Link-16 Tactical Data Link (TDL) Transformation</i>

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

	FY 2015	FY 2016	FY 2017
<p>funding and testing to assess maturity of solutions. Develop science and technology roadmap to synchronize transition of key technologies to programs of record for spectrum-dependent systems. FY17 work will focus will focus on selected sensor and electronic warfare systems and continue work on communications systems.</p> <ul style="list-style-type: none"> - Tactical Data Link Modernization: Track and assess first Link 16 capability improvements in Multi-function Information Distribution System (MIDS-J) terminals (4th Gen aircraft), Communications, Navigation & Identification (CNI) terminal in F-35, and Weapons Data Link (WDL) radios. Begin standup of EA for Airborne Tactical Data Networking and develop detailed roadmaps and modernization strategies. Assess preliminary requirements for MADL 2.0 version and applicability to next generation aircraft needs. Assess modeling and simulation infrastructure and currency with adversary threat emitters to improve investments decisions on TDL improvements. - Warfighter Information Network – Tactical (WIN-T): Review and assess the results of the Highband Networking Waveform (HNW) 3.0 air and ground node demonstration. Track progress of the HNW 3.0 entry into the Waveform Repository. Provide a technical review of the Increment 2 independent cyber design and implementation assessment. Provide technical reviews and assessments of Increment 2 performance and corrective actions to include platform integration issues, Network Operations Tools improvements, and performance optimization of the HNW, Tactical Relay Tower, and Range Throughput Extension Kit. - Joint C2 Portfolio Management: Support development, integration and test activities across the Services, Agencies and Combatant Commands and deliver the FY17-21 version of the Joint C2 Sustainment and Modernization Plan. - C2 Data: Provide technical expertise for ensuring C2 data are visible, accessible, understandable, trustable and interoperable. Provide technical assessment and assistance for implementation of National Information Exchange Model (NIEM)-based information exchanges across the DoD. Update the C2 Authoritative Data Source roadmap and update C2 data architecture. - Joint C2 Architecture: Provide technical expertise for the update the Joint C2 Architecture to guide Joint C2 capability area development activities across the Services, Agencies and Combatant Commands. - Friendly Force Tracking/ Combat Identification: Provide technical assessment, assistance and recommendations for achieving Mode 5 IFF IOC and FOC. Provide technical support to DoD implementation of Mode 5 including supporting spectrum certification and assignment. - Acquisition Management: Provide technical assistance in developing related acquisition policy, including updates to DoD Series 5000 necessitated by changes in statue, regulation and management direction. - Environmental Monitoring: Develop DoD inputs for annual Federal Plan for Meteorological Services and Supporting Research; Support to various Federal and OSD offices on the subjects of: Space Weather, Spectrum losses and weather, Ionospheric capabilities, National Plan for Hurricanes, Space Situational Awareness, and DoD representation for METOC; Update as required METOC/Weather Enterprise Strategy and Roadmap and oversee implementation of results of Defense Weather Analysis of Alternatives (AoA); conduct assessment of USG weather satellite common ground system compliance; implement METOC data strategy; implement DoD National Space Weather Strategy; Advise Defense Space Acquisition Board, FCB/JROC/JCIDS process, other OSD PSAs, EA for Space office, COIs, etc. on METOC matters. 			

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Exhibit R-2A, RDT&E Project Justification: PB 2017 Office of the Secretary Of Defense		Date: February 2016
Appropriation/Budget Activity 0400 / 5	R-1 Program Element (Number/Name) PE 0604771D8Z / <i>Joint Tactical Information Distribution System (JTIDS)</i>	Project (Number/Name) 771 / <i>Link-16 Tactical Data Link (TDL) Transformation</i>

B. Accomplishments/Planned Programs (\$ in Millions)	FY 2015	FY 2016	FY 2017
<ul style="list-style-type: none"> - Space Ops: Conduct SATOPS Modernization technical assessments; provide technical Oversight/AFSCN Modernization Implementation; conduct AFSCN Event Driven Net Centric Review/Technical Assessment. - Space Control/Space C2/SSA: Perform continued monitoring of cyber testing and cyber vulnerabilities of critical space programs. - Non-Intelligence Space Programs Technical Assessments: Perform cyber vulnerability and cyber suitability assessments on space, PNT, METOC programs and others. Review system design documents, control plans, remote management control ports and methods. Recommend corrective actions to specific space, PNT, and METOC programs to address cyber vulnerabilities and to inform milestone decisions. Conduct non-intelligence space program technical reviews on to include data strategies, systems engineering, risks and mitigations. Support acquisition milestone decisions for programs including weather satellite follow-on activities. - PNT Programs Technical Assessments: Continue OIPT leadership role. Develop and implement Annual GPS Enterprise Review to verify readiness of GPS III, MGUE, and OCX programs to progress to next phase of the acquisition process. Ensure synchronization of the three programs to meet the direction of the DAE. Conduct deep dive technical analyses to understand all phases of the GPS enterprise programs and predecessor programs that are part of the GPS Enterprise. Review PNT programs for data strategies, systems engineering, risks and mitigations in support of milestone decisions. Initiate and conduct studies to expedite fielding and support of M Code capability for forces in the field. - PNT Portfolio Management: Continue implementation of GPSEM/PNT Assurance Investment Strategy and Roadmap, ensuring AoA recommendations are addressed. Continue to support major program milestones and internal OSD reviews such as Strategic Portfolio Reviews, DMAGs, etc. 			
Accomplishments/Planned Programs Subtotals	19.556	10.332	11.793

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

N/A

Remarks

D. Acquisition Strategy

In executing JTDL tasking, existing fixed-price and cost-plus contracts will be utilized.
 - Program reviews in support of the JCIDS, acquisition and PPBE processes.

E. Performance Metrics

Enterprise-Wide Alignment: Accelerate DoD information age transformation to increase the effectiveness and efficiency of the warfighting, intelligence and business missions.
 Measures:

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Exhibit R-2A, RDT&E Project Justification: PB 2017 Office of the Secretary Of Defense		Date: February 2016
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<ul style="list-style-type: none">- Timely development and issuance of policy and guidance- Instantiation of enterprise-wide system engineering for the Joint Information Environment (JIE) <p>Portfolio Management: Provide for the timely and effective delivery of key Net-Centric capabilities through portfolio management of associated technology development and Major Defense Acquisition Programs (MDAPS) and Major Automated Information Systems (MAIS).</p> <p>Measures:</p> <ul style="list-style-type: none">- Key milestones completed for major net-centric acquisitions- Number of major systems successfully completing net-centric critical performance reviews		

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2017 Office of the Secretary Of Defense **Date:** February 2016

Appropriation/Budget Activity 0400 / 5	R-1 Program Element (Number/Name) PE 0604771D8Z / <i>Joint Tactical Information Distribution System (JTIDS)</i>	Project (Number/Name) 771 / <i>Link-16 Tactical Data Link (TDL) Transformation</i>
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Management Services (\$ in Millions)				FY 2015		FY 2016		FY 2017 Base		FY 2017 OCO		FY 2017 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
Link-16 Tactical Data Link (TDL) Transformation	C/TBD	OUSD(AT&L)/ OASD(A)/ DASD(C3CB) : Pentagon	52.049	19.556		10.332		11.793		-		11.793	-	-	-
Subtotal			52.049	19.556		10.332		11.793		-		11.793	-	-	-
Project Cost Totals			52.049	19.556		10.332		11.793		-		11.793	-	-	-

Remarks
Resources will be used to provide technical, systems engineering and acquisition management oversight of programs, projects and activities to maximize the Department's return on investment in information technology resources and to affect a comprehensive approach for assessing and procuring critical information systems from initial design, through development to capability delivery in support of improved weapons systems performance and military operations.

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Exhibit R-4, RDT&E Schedule Profile: PB 2017 Office of the Secretary Of Defense **Date:** February 2016

Appropriation/Budget Activity 0400 / 5	R-1 Program Element (Number/Name) PE 0604771D8Z / <i>Joint Tactical Information Distribution System (JTIDS)</i>	Project (Number/Name) 771 / <i>Link-16 Tactical Data Link (TDL) Transformation</i>
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FY 2015				FY 2016				FY 2017				FY 2018				FY 2019				FY 2020				FY 2021			
1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4

Link-16 Comm Tactical Data Link (TDL) Transformation	
Contract Awards	[REDACTED]

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Exhibit R-4A, RDT&E Schedule Details: PB 2017 Office of the Secretary Of Defense		Date: February 2016
Appropriation/Budget Activity 0400 / 5	R-1 Program Element (Number/Name) PE 0604771D8Z / <i>Joint Tactical Information Distribution System (JTIDS)</i>	Project (Number/Name) 771 / <i>Link-16 Tactical Data Link (TDL) Transformation</i>

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
<i>Link-16 Comm Tactical Data Link (TDL) Transformation</i>				
Contract Awards	2	2016	4	2021

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Exhibit R-2A, RDT&E Project Justification: PB 2017 Office of the Secretary Of Defense										Date: February 2016		
Appropriation/Budget Activity 0400 / 5					R-1 Program Element (Number/Name) PE 0604771D8Z / <i>Joint Tactical Information Distribution System (JTIDS)</i>				Project (Number/Name) 105 / <i>Cyber Capability & Platform Resilience</i>			
COST (\$ in Millions)	Prior Years	FY 2015	FY 2016	FY 2017 Base	FY 2017 OCO	FY 2017 Total	FY 2018	FY 2019	FY 2020	FY 2021	Cost To Complete	Total Cost
105: <i>Cyber Capability & Platform Resilience</i>	-	0.000	3.925	4.495	-	4.495	4.100	4.000	4.000	4.100	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

Provides resources for developmental acquisition support and management (to include the Cyber Investment and Management Board (CIMB)) oversight of Cyber capabilities as the Department conceives, develops, and rapidly fields cyber capabilities for Cyberspace Operations and the instantiation of cyber resilient platforms and weapons systems for priority kinetic and non-kinetic missions. The CIMB was established in 2012 in response to the FY2011 NDAA Section 933, where DoD was directed to provide a “strategy for the rapid acquisition of cyber capabilities, for cyber warfare for USCC and the Cyber Service components of the military departments. USD(AT&L) is responsible for compliance with the FY2011 NDAA and Chairs the CIMB.

Funds provide technical, systems engineering, trend analysis, and oversight of programs, projects and activities developing cyber capabilities to maximize the Department’s return on investment of cyberspace resources and effect a comprehensive approach for assessing, procuring, and sustaining critical cyber capabilities and cyber resilient systems and platforms from initial design, through development to capability delivery in support of weapons systems performance and military operations. Additionally, these funds will provide systems analyses, portfolio management, executive support of CIMB, enterprise wide systems engineering and operational impact analyses related to Cyber capabilities and ensuring cyber resilience within systems and platforms. Resources will also be used to provide expertise required for exercising technical direction over design, performance, cost parameters, determining and mitigating cyber risks of key systems and their dependencies. The goal of this funding is to assure capability advantage, reduce time to the field, evaluate projects and concepts, minimize cyber related performance and operational risk of developing and fielding complex systems, ensure program dependencies are documented and included in acquisition decisions and address cyber security requirements, gaps and required technical solutions.

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

	FY 2015	FY 2016	FY 2017
Title: Cyber Capability and Platform Resilience	-	3.925	4.495
Description: Provides resources for developmental acquisition support and management (to include the Cyber Investment and Management Board (CIMB)) oversight of Cyber capabilities as the Department conceives, develops, and rapidly fields cyber capabilities for Cyberspace Operations and the instantiation of cyber resilient platforms and weapons systems for priority kinetic and non-kinetic missions. The CIMB was established in 2012 in response to the FY2011 NDAA Section 933, where DoD was directed to provide a “strategy for the rapid acquisition of cyber capabilities, for cyber warfare for USCC and the Cyber Service components of the military departments. USD(AT&L) is responsible for compliance with the FY2011 NDAA and Chairs the CIMB. Funds provide technical, systems engineering, trend analysis, and oversight of programs, projects and activities developing cyber capabilities to maximize the Department’s return on investment of cyberspace resources and effect a comprehensive approach for assessing, procuring, and sustaining critical cyber capabilities and cyber resilient systems and platforms from initial design, through development to capability delivery in support of weapons systems performance and military			

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Exhibit R-2A, RDT&E Project Justification: PB 2017 Office of the Secretary Of Defense		Date: February 2016
Appropriation/Budget Activity 0400 / 5	R-1 Program Element (Number/Name) PE 0604771D8Z / <i>Joint Tactical Information Distribution System (JTIDS)</i>	Project (Number/Name) 105 / <i>Cyber Capability & Platform Resilience</i>

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

operations. Additionally, these funds will provide systems analyses, portfolio management, executive support of CIMB, enterprise wide systems engineering and operational impact analyses related to Cyber capabilities and ensuring cyber resilience within systems and platforms. Resources will also be used to provide expertise required for exercising technical direction over design, performance, cost parameters, determining and mitigating cyber risks of key systems and their dependencies. The goal of this funding is to assure capability advantage, reduce time to the field, evaluate projects and concepts, minimize cyber related performance and operational risk of developing and fielding complex systems, ensure program dependencies are documented and included in acquisition decisions and address cyber security requirements, gaps and required technical solutions.

FY 2015	FY 2016	FY 2017

FY 2016 Plans:

- Cyber Investment Management: Synchronize and coordinate cyberspace acquisition activities, conduct quantitative assessments, and ensure cyberspace investments align with Department priorities, required capabilities and evolving cyber threats. Provide support of the Cyber Investment Management Board and develop implementation guidance and associated direction. Continue to plan and conduct CIMB/CCT meetings to refine the cyber investment portfolio and to identify strategic cyber issues the DoD will face in the future.
- Refine the Cyber investment portfolio results, ensuring return on investment and risk ultimately leading to an optimization phase focusing on process improvement is included.
- Conduct investment analysis of the DoD-wide Cyber Special Access Program (SAP) portfolio to include return on investment and risk analysis.
- Utilize the results of the Cyber Rapid Acquisition Process Pilots to implement the new rapid cyber acquisition processes across DoD, ensuring DoD Acquisition Policy is updated to reflect processes.
- Manage Cyber security Guidebook for Program Managers. Contribute to any follow on efforts to revise policy or guidance regarding Cyber security within the Acquisition process.
- Continue oversight of implementation of the Cyber Situational Awareness EoA (phase I and II) recommendations.
- Initiate capability development of recommendations of the Unified Platform AoA.
- Continue oversight of Joint Cyber Command and Control (C2) capability development.
- Ensure Platform Resilience/Mission Assurance (PR/MA); Oversee implementation of the recommendations on Cyber vulnerabilities of Department of Defense weapon systems and tactical communications systems.
- Continue to synchronize and provide oversight for DoD Cyber Ranges that support Cyber Training and Testing & Evaluations through the Cyber Range Focal Point.
- Implement DoD Cyber Range strategy, working with T&E and DOT&E and JS.
- Conduct technical analysis to determine tools necessary to help collect, measure, assess DCO/OCO effectiveness and suitability in a Cyber Range Environment.

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Exhibit R-2A, RDT&E Project Justification: PB 2017 Office of the Secretary Of Defense		Date: February 2016
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B. Accomplishments/Planned Programs (\$ in Millions)	FY 2015	FY 2016	FY 2017
<p>- Oversee DoD efforts to equip the cyber mission force. Support developments of requirements documents and architectures as required in collaboration with USCYBERCOM.</p> <p>FY 2017 Plans: Cyber Investment Management: Synchronize and coordinate cyberspace acquisition activities, conduct quantitative assessments, and ensure cyberspace investments align with Department priorities, required capabilities and evolving cyber threats. Provide support of the Cyber Investment Management Board and develop implementation guidance and associated direction. Continue to plan and conduct CIMB/CCT meetings to refine the cyber investment portfolio and to identify strategic cyber issues the DoD will face in the future.</p> <ul style="list-style-type: none"> - Refine the Cyber investment portfolio results, ensuring return on investment and risk ultimately leading to an optimization phase focusing on process improvement is included. - Conduct investment analysis of the DoD-wide Cyber Special Access Program (SAP) portfolio to include return on investment and risk analysis. - Utilize the results of the Cyber Rapid Acquisition Process Pilots to implement the new rapid cyber acquisition processes across DoD, ensuring DoD Acquisition Policy is updated to reflect processes. - Manage Cyber security Guidebook for Program Managers. Contribute to any follow on efforts to revise policy or guidance regarding Cyber security within the Acquisition process. - Continue oversight of implementation of the Cyber Situational Awareness EoA (phase I and II) recommendations. - Initiate capability development of recommendations of the Unified Platform AoA. - Continue oversight of Joint Cyber Command and Control (C2) capability development. - Ensure Platform Resilience/Mission Assurance (PR/MA); Oversee implementation of the recommendations on Cyber vulnerabilities of Department of Defense weapon systems and tactical communications systems. - Continue to synchronize and provide oversight for DoD Cyber Ranges that support Cyber Training and Testing & Evaluations through the Cyber Range Focal Point. - Implement DoD Cyber Range strategy, working with T&E and DOT&E and JS. - Conduct technical analysis to determine tools necessary to help collect, measure, assess DCO/OCO effectiveness and suitability in a Cyber Range Environment. - Oversee DoD efforts to equip the cyber mission force. Support developments of requirements documents and architectures as required in collaboration with USCYBERCOM. 			
Accomplishments/Planned Programs Subtotals	-	3.925	4.495

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

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Exhibit R-2A, RDT&E Project Justification: PB 2017 Office of the Secretary Of Defense		Date: February 2016
Appropriation/Budget Activity 0400 / 5	R-1 Program Element (Number/Name) PE 0604771D8Z / <i>Joint Tactical Information Distribution System (JTIDS)</i>	Project (Number/Name) 105 / <i>Cyber Capability & Platform Resilience</i>

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

Remarks

D. Acquisition Strategy

Existing firm fixed priced and cost plus contracts will be utilized.

E. Performance Metrics

Enterprise-Wide Cyber Investments: instantiation of cyber capabilities for resilient systems include risk assessments, vulnerability assessments, mitigation plans, prototype architectures, investment strategies, trends analyses, Evaluation/Analysis of Alternatives, integrated mission analyses, technical and policy guidance directives.

Measures:

- Timely development and issuance of policy and guidance
- Timely delivery and development of key investment strategies, trend analysis and outcomes of the Evaluation/Analysis of Alternatives.

Portfolio Management: Provide for the timely and effective delivery of portfolio management support of associated with Cyber Security and Major Defense Acquisition Programs (MDAPS) and Major Automated Information Systems (MAIS).

Measures:

- Key milestones completed for major cyber related acquisitions

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2017 Office of the Secretary Of Defense **Date:** February 2016

Appropriation/Budget Activity 0400 / 5	R-1 Program Element (Number/Name) PE 0604771D8Z / <i>Joint Tactical Information Distribution System (JTIDS)</i>	Project (Number/Name) 105 / <i>Cyber Capability & Platform Resilience</i>
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Management Services (\$ in Millions)				FY 2015		FY 2016		FY 2017 Base		FY 2017 OCO		FY 2017 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
Cyber Capability and Platform Resilience	C/TBD	OUSD(AT&L)/ OASD(A)/ DASD(C3CB) : Pentagon	-	-		3.925		4.495		-		4.495	-	-	-
Subtotal			-	-		3.925		4.495		-		4.495	-	-	-
Project Cost Totals			-	-		3.925		4.495		-		4.495	-	-	-

Remarks
 Funds provide technical, systems engineering, trend analysis, and oversight of programs, projects and activities developing cyber capabilities to maximize the Department's return on investment of cyberspace resources and effect a comprehensive approach for assessing, procuring, and sustaining critical cyber capabilities and cyber resilient systems and platforms from initial design, through development to capability delivery in support of weapons systems performance and military operations. Additionally, these funds will provide systems analyses, portfolio management, executive support of CIMB, enterprise wide systems engineering and operational impact analyses related to Cyber capabilities and ensuring cyber resilience within systems and platforms.

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Exhibit R-4, RDT&E Schedule Profile: PB 2017 Office of the Secretary Of Defense		Date: February 2016
Appropriation/Budget Activity 0400 / 5	R-1 Program Element (Number/Name) PE 0604771D8Z / <i>Joint Tactical Information Distribution System (JTIDS)</i>	Project (Number/Name) 105 / <i>Cyber Capability & Platform Resilience</i>

	FY 2015				FY 2016				FY 2017				FY 2018				FY 2019				FY 2020				FY 2021			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4

Cyber Capability and Platform Resilience	
Contract awards	[REDACTED]

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Exhibit R-4A, RDT&E Schedule Details: PB 2017 Office of the Secretary Of Defense		Date: February 2016
Appropriation/Budget Activity 0400 / 5	R-1 Program Element (Number/Name) PE 0604771D8Z / <i>Joint Tactical Information Distribution System (JTIDS)</i>	Project (Number/Name) 105 / <i>Cyber Capability & Platform Resilience</i>

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
<i>Cyber Capability and Platform Resilience</i>				
Contract awards	1	2016	1	2021

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