

UNCLASSIFIED

Exhibit R-2, RDT&E Budget Item Justification: PB 2016 Office of the Secretary Of Defense **Date:** February 2015

| | |
|--|--|
| 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) |
|--|--|

| COST (\$ in Millions) | Prior Years | FY 2014 | FY 2015 | FY 2016 Base | FY 2016 OCO | FY 2016 Total | FY 2017 | FY 2018 | FY 2019 | FY 2020 | Cost To Complete | Total Cost |
|--|-------------|---------|---------|--------------|-------------|---------------|---------|---------|---------|---------|------------------|------------|
| Total Program Element | 35.111 | 16.938 | 17.537 | 14.285 | - | 14.285 | 16.521 | 16.209 | 14.802 | 15.002 | Continuing | Continuing |
| 771: Link-16 Tactical Data Link (TDL) Transformation | 35.111 | 16.938 | 17.537 | 14.285 | - | 14.285 | 16.521 | 16.209 | 14.802 | 15.002 | Continuing | Continuing |
| Quantity of RDT&E Articles | - | - | - | - | - | - | - | - | - | - | | |

Note

The FY 2016 funding request was reduced by \$1.280 million to account for the availability of prior year execution balances.

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. Program Change Summary (\$ in Millions) | FY 2014 | FY 2015 | FY 2016 Base | FY 2016 OCO | FY 2016 Total |
|---|----------------|----------------|---------------------|--------------------|----------------------|
| Previous President's Budget | 17.423 | 17.562 | 15.667 | - | 15.667 |
| Current President's Budget | 16.938 | 17.537 | 14.285 | - | 14.285 |
| Total Adjustments | -0.485 | -0.025 | -1.382 | - | -1.382 |
| • Congressional General Reductions | - | -0.025 | | | |
| • Congressional Directed Reductions | - | - | | | |
| • Congressional Rescissions | - | - | | | |
| • Congressional Adds | - | - | | | |
| • Congressional Directed Transfers | - | - | | | |
| • Reprogrammings | - | - | | | |
| • SBIR/STTR Transfer | -0.485 | - | | | |
| • Baseline Adjustments | - | - | -1.382 | - | -1.382 |

UNCLASSIFIED

| | |
|---|----------------------------|
| Exhibit R-2, RDT&E Budget Item Justification: PB 2016 Office of the Secretary Of Defense | Date: February 2015 |
|---|----------------------------|

| | |
|--|---|
| Appropriation/Budget Activity 0400: <i>Research, Development, Test & Evaluation, Defense-Wide I BA 5: System Development & Demonstration (SDD)</i> | R-1 Program Element (Number/Name) PE 0604771D8Z I <i>Joint Tactical Information Distribution System (JTIDS)</i> |
|--|---|

Change Summary Explanation

Reductions reflect baseline reductions to the FY 2016 program.

NOTE: The FY 2016 funding request was reduced by \$1.280 million to account for the availability of prior year execution balances.

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

| | FY 2014 | FY 2015 | FY 2016 |
|--|---------|---------|---------|
| Title: Common Joint Tactical Information Initiatives | 16.938 | 17.537 | 14.285 |
| FY 2014 Accomplishments: | | | |
| <ul style="list-style-type: none"> - Cyber Investment Management: Synchronized and coordinated cyberspace acquisition activities, conducted quantitative assessments, and ensured cyberspace investments aligned with Department priorities, required capabilities and evolving cyber threats. Provided support of the Cyber Investment Management Board and developed implementation guidance and associated direction. Planned and 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 to include return on investment and risk ultimately leading to an optimization phase focusing on process improvement. - Conducted investment analysis of the DoD-wide Cyber Special Access Program (SAP) portfolio. - Conducted Cyber Rapid Acquisition Process Pilots to allow insight into timelines and potential areas of improvement for new rapid cyber acquisition processes. - Utilized the results of the Process Pilots to implement the new rapid cyber acquisition processes across DoD. - Completed development and implementation of Cyber security Guidebook for Program Managers. Contributed to all follow on efforts to revise policy or guidance regarding Cyber security within the Acquisition process. - Completed the Cyber Situational Awareness EoA (phase I) and commenced work on phase II with a focus on Defend the Nation (DTN) mission. - Defined future Cyber Range Enterprise and the need for an Executive Agent. Conducted technical analysis and assessment of cyber range capabilities and capacity versus need. Developed 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. - Conducted OCO/DCO Requirements and Architecture Analysis in collaboration with USCYBERCOM: supported flow of requirements from Cyber Attack ICD and CND IDC to more detailed requirements for OCO and DCO capabilities in support of IS-CDD development; developed and refined OCO / DCO architectures. - DASD Acquisition Oversight Support: Provided technical assessments and programmatic recommendations across DASD functional areas to address interoperability gaps and work early in the systems engineering and development processes to minimize gaps as systems are delivered and updated. | | | |

UNCLASSIFIED

| | |
|---|----------------------------|
| Exhibit R-2, RDT&E Budget Item Justification: PB 2016 Office of the Secretary Of Defense | Date: February 2015 |
|---|----------------------------|

| | |
|--|---|
| Appropriation/Budget Activity 0400: <i>Research, Development, Test & Evaluation, Defense-Wide I BA 5: System Development & Demonstration (SDD)</i> | R-1 Program Element (Number/Name) PE 0604771D8Z <i>I Joint Tactical Information Distribution System (JTIDS)</i> |
|--|---|

| C. Accomplishments/Planned Programs (\$ in Millions) | FY 2014 | FY 2015 | FY 2016 |
|---|----------------|----------------|----------------|
| <p>- Common Data Link (CDL) Principal Staff Assistant: Coordinated with CDL Executive Agent to develop a technology roadmap and terminal database to improve interoperability, configuration management, and focused technology investments. Oversaw development and validation of documentation for Remote Video Terminal (RVT) waveforms to enable competition of CDL procurements. Began development of transition strategy to converge on a DoD standard for tactical ISR communications. Initiated planning and conduct of CDL Senior Review Panel (SRP) and Integrated Product Team (IPT) meetings to develop and refine the CDL investment portfolio and to identify strategic ISR communications issues the DoD will face in the future.</p> <p>- Tactical Data Links (TDLs) - Identified open architecture improvements to TDLs to improve competition and shorten technology upgrade cycles. Developed upgrade paths for TDLs to maintain Air Dominance in contested environments. Assessed new technologies including RF directional mesh with potential to improve data rates and jamming resistance in tactical environments</p> <p>- Protected SATCOM AoA: Conducted analysis necessary to ensure the Department of Defense (DoD) pursues the most suitable alternative for providing space-based protected satellite communications services. The goal of the AoA is to facilitate high caliber analysis, fair treatment of options, and decision-quality outcomes to inform the MDA at the next Milestone and shape/scope the RFP for the next acquisition phase- MUOS System End-to-End Integration: Developed comprehensive systems engineering, test and terminal certification plans. Assessed military standard/specifications and interface control documents for configuration management. Engineered the system to minimize efforts required to certify new MUOS end user terminals.</p> <p>-Participated in the EA4S led Narrowband Satellite Communication Study focused on the successor to the existing Mobile User Objective System (MUOS). Successfully steered this study to open its aperture and address near term narrowband synchronization issues. Envisioned and commenced orchestration of an initiative to resolve the near term synchronization challenge.</p> <p>- FAB T: Provided 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 prepared for staffing Acquisition Strategy, Milestone C DAB preparation, ADMs, ICE, APB, TEMP, and SEP as well as other acquisition documents. Supported the selection of a single procurement contractor.</p> <p>- Advanced Extremely High Frequency (AEHF): Assumed OIPT lead responsibilities for AEHF. Worked through a Deep Dive into the Mission Planning Subsystem (MPS) related delays in the program that led to a breach in the IOC. Also worked with the program office and AT&L staff to close out action items related to the new AEHF Crypto Key Integration effort.</p> <p>- Enhanced Polar System (EPS): Assumed OIPT lead responsibilities for EPS. Worked through a Milestone B DAB and coordinated an ADM which authorized the TT&C portion of the program to enter into a full scale development contract, and delegate the program to the Air Force.</p> <p>- 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 recommend 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.</p> | | | |

UNCLASSIFIED

| | |
|---|----------------------------|
| Exhibit R-2, RDT&E Budget Item Justification: PB 2016 Office of the Secretary Of Defense | Date: February 2015 |
|---|----------------------------|

| | |
|--|---|
| Appropriation/Budget Activity 0400: <i>Research, Development, Test & Evaluation, Defense-Wide I BA 5: System Development & Demonstration (SDD)</i> | R-1 Program Element (Number/Name) PE 0604771D8Z <i>I Joint Tactical Information Distribution System (JTIDS)</i> |
|--|---|

| C. Accomplishments/Planned Programs (\$ in Millions) | FY 2014 | FY 2015 | FY 2016 |
|---|----------------|----------------|----------------|
| <ul style="list-style-type: none"> - 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 recommend program performance improvement options to meet cost, schedule and performance objectives. Provided a technical assessment of full and open competition process for MNVR radios. - Provided assessments of DoD Business System 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. - Dismounted Tactical Edge Mobile Applications: Characterized current performance (bandwidth, latency, jitter, persistence) of disadvantages intermittent low bandwidth tactical links based on measured SRW and narrowband SATCOM performance. - Ground/Air/Space integrated Networks Performance Assessment: Facilitated the development and analysis of waveform capabilities. Evaluated new waveform technologies, wireless communications waveform development and management. Performed technical assessments of onboard processing on UAS systems to reduce demand for communications link bandwidth and identify accelerated methods to achieve certified test data for non-developmental products. - Aerial Networks Roadmaps and Systems Engineering: Developed roadmaps to address air-ground/air-space domain. Evaluated Army, Navy, Air Force system architectures for alignment with aerial networks roadmaps. Developed detailed risk reduction and technology maturation investment plans to accelerate fielding of advanced TDLs to 5th generation fighters. - Ground Tactical Networks Advanced Capabilities: Developed narrowband capability to enable dismounted troops to operate in jungle canopy, support agile division-wide task reorganization and close air support while reducing network management forward support footprint. - Integrated Electromagnetic Spectrum Operations (EMSO): Built a technical development strategy for co-architecting Electronic Warfare (EW) and radio devices to enable integrated EMSO to improve EM battlespace awareness, ensure agile response to changing adversary threats and reduce costs of combined capabilities. Tri-chaired DoD Electromagnetic Spectrum Roadmap and Action Plan Senior Steering Group. Roadmap and plan defined over 60 actions and 300 tasks needed to develop key technologies, and improve DoD management and use of the electromagnetic spectrum. - Commercial Satellite Communications (COMSATCOM): Co-led study to assess ways to better use COMSATCOM to meet DoD wideband SATCOM requirements. Identified near-term planning, funding, acquisition, and management improvements needed to enable multi-year procurement of COMSATCOM services in response to FY14 National Defense Authorization Act direction. - Warfighter Information Network - Tactical (WIN-T): Assessed complexity of Soldier Network Extension (SNE) and Point of Presence (PoP) to address complexity and usability issues identified during operational testing. Identified applications to improve the company commander's effectiveness in using SATCOM terminals in the SNE. - National Leadership Command Capability (NLCC): Assumed 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). Worked directly with the Executive Secretariat (DOD CIO) to oversee all aspects of preparation and conduct of CONLC3S meetings, | | | |

UNCLASSIFIED

| | |
|---|----------------------------|
| Exhibit R-2, RDT&E Budget Item Justification: PB 2016 Office of the Secretary Of Defense | Date: February 2015 |
|---|----------------------------|

| | |
|--|---|
| Appropriation/Budget Activity 0400: <i>Research, Development, Test & Evaluation, Defense-Wide I BA 5: System Development & Demonstration (SDD)</i> | R-1 Program Element (Number/Name) PE 0604771D8Z <i>I Joint Tactical Information Distribution System (JTIDS)</i> |
|--|---|

| C. Accomplishments/Planned Programs (\$ in Millions) | FY 2014 | FY 2015 | FY 2016 |
|--|----------------|----------------|----------------|
| <p>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 led review process for several NLCC related documents including the NC2 ICD, NC2 CONOPS, NLCC Reference Architecture, NLCC Strategic Concept, and others.</p> <ul style="list-style-type: none"> - Joint C2 Portfolio Management: Supported development, integration and test activities across the Services, Agencies and Combatant Commands and delivered the FY15-20 version of the Joint C2 Sustainment and Modernization Plan. - Adaptive Planning and Execution (APEX): Provided management oversight of APEX acquisition activities and authoritative data sources as the APEX technical integrator. Updated the APEX technical architecture to better integrate operational, logistics and intelligence planning with force projection and execution. Updated APEX data architecture and standards and synchronize with APEX framework for application across DoD. - C2 Data: Provided technical expertise for ensuring C2 data is 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 to 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. - Acquisition Management: Provided technical assistance in developing IT related acquisition policy, including updates to DoD Series 5000 necessitated by changes in statue, regulation and management direction. -Space Access: Conducted SATOPS modernization assessment; conducted AFSCN Event-driven Net Centric Review/Technical Assessment. - Environmental Monitoring: Developed DoD inputs for annual Federal Plan for Meteorological Services and Supporting Research; Lead METOC Data Denial Implementation team; Developed METOC/Weather Enterprise Strategy and Roadmap implementing results of Defense Weather Analysis of Alternatives (AoA); conducted assessment of USG weather satellite common ground system compliance with DoD Data Denial requirements; DoD Lead on Antarctic treaty activities at McMurdo Station, Antarctica; implemented METOC data strategy; implemented DoD National Space Weather Strategy - Space Control/Space C2/SSA: Completed GEO SSA Architectural/Cost-Benefit Analysis. Developed and published study outlining approaches for use of civil and international sources of SSA data in military operations. Supported and facilitated increased cyber testing of the JMS program. Evaluated and updated as necessary Enterprise Strategy & Roadmap for Space Control Mission Area. Increased interface with intelligence community especially related to vulnerability assessments. - Non-Intelligence Space Programs Technical Assessments: Performed cyber vulnerability assessments on space, PNT, and METOC programs, including JMS, GPS, OCX, AFSCN, MGUE and others. Reviewed system design documents, control plans, remote management control ports and methods. Recommended 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 | | | |

UNCLASSIFIED

| | |
|---|----------------------------|
| Exhibit R-2, RDT&E Budget Item Justification: PB 2016 Office of the Secretary Of Defense | Date: February 2015 |
|---|----------------------------|

| | |
|--|---|
| Appropriation/Budget Activity 0400: <i>Research, Development, Test & Evaluation, Defense-Wide I BA 5: System Development & Demonstration (SDD)</i> | R-1 Program Element (Number/Name) PE 0604771D8Z <i>I Joint Tactical Information Distribution System (JTIDS)</i> |
|--|---|

| | | | |
|---|----------------|----------------|----------------|
| C. Accomplishments/Planned Programs (\$ in Millions) | FY 2014 | FY 2015 | FY 2016 |
|---|----------------|----------------|----------------|

| | | | |
|---|--|--|--|
| <p>on to include data strategies, systems engineering, risks and mitigations. Supported acquisition milestone decisions for programs including Weather System Follow-on, Launch Vehicle New Entrants, and SSBS follow-on activities.</p> <ul style="list-style-type: none"> - PNT Programs Technical Assessments: Took over OIPT lead for the PNT mission area. Conducted Annual GPS Enterprise Review to review synchronization of GPS III, MGUE, and OCX programs. Performed analysis of individual major defense acquisition programs to balance cost, schedule, and performance to deliver PNT capability to combatant users in a responsive manner. Conducted deep dive technical analyses to understand all phases of the GPS enterprise programs. Reviewed PNT programs for data strategies, systems engineering, risks and mitigations in support of milestone decisions. Supported/facilitated DASD-level deep dive of OCX program. - PNT Portfolio Management: Took over OIPT lead for the PNT mission area. Developed recommendations for USD approval on acquisition strategies and satellite purchases. Implemented GPSEM/PNT Assurance Investment Strategy and Roadmap, ensuring AoA recommendations are addressed. Implemented NAVWAR Investment Strategy and Roadmap as well as material in support of major program milestones and internal OSD reviews. <p>FY 2015 Plans:</p> <ul style="list-style-type: none"> - 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. - Oversee implementation of the Cyber Situational Awareness Evaluation of Alternatives (EoA) (phase I and II) recommendations. - Conduct EoA on Cyber Command and Control to determine C2 tools for Cyber Operations. - Assess, develop report and provide recommendations on Cyber vulnerabilities of Department of Defense weapon systems and tactical communications systems; provide report to Congress and begin implementation of recommendations to ensure Platform Resilience/Mission Assurance (PR/MA). - Enact a Cyber Range Focal point to be the central coordination point and oversight for Cyber Ranges that support Cyber Training and Testing & Evaluations. | | | |
|---|--|--|--|

UNCLASSIFIED

| | |
|---|----------------------------|
| Exhibit R-2, RDT&E Budget Item Justification: PB 2016 Office of the Secretary Of Defense | Date: February 2015 |
|---|----------------------------|

| | |
|--|---|
| Appropriation/Budget Activity 0400: <i>Research, Development, Test & Evaluation, Defense-Wide I BA 5: System Development & Demonstration (SDD)</i> | R-1 Program Element (Number/Name) PE 0604771D8Z <i>I Joint Tactical Information Distribution System (JTIDS)</i> |
|--|---|

| C. Accomplishments/Planned Programs (\$ in Millions) | FY 2014 | FY 2015 | FY 2016 |
|--|----------------|----------------|----------------|
| <ul style="list-style-type: none"> - 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 and conduct a EoA for Cyber Range capabilities. - Conduct OCO/DCO Requirements and Architecture Analysis in collaboration with USCYBERCOM: support 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; develop and refine OCO / DCO architectures as required to support equipping of the cyber mission force. - 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 to oversee development and validation of documentation for Remote Video Terminal (RVT) waveforms to enable competition of CDL procurements. Continue development of transition strategy to converge on a DoD standard for tactical ISR communications. 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. - 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: Continue 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 prepare for staffing Acquisition Strategy, Milestone C DAB preparation, ADMs, ICE, APB, TEMP, and SEP as well as other acquisition documents. - 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 completes DT&E and enters dedicated OT&E phases of MOT&E, and fielding of the Mission Planning Element. - 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 program goes through its Critical Design Review process. - National Leadership Command Capability (NLCC): Continue 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). 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. - MUOS AoA Support: Provide technical and programmatic analysis and insights in support of C3CB oversight of the MUOS risk reduction efforts, Multi-Service OT&E and follow-on development and operational test activities. Support C3CB contribution to the | | | |

UNCLASSIFIED

| | |
|---|----------------------------|
| Exhibit R-2, RDT&E Budget Item Justification: PB 2016 Office of the Secretary Of Defense | Date: February 2015 |
|---|----------------------------|

| | |
|--|---|
| Appropriation/Budget Activity 0400: <i>Research, Development, Test & Evaluation, Defense-Wide I BA 5: System Development & Demonstration (SDD)</i> | R-1 Program Element (Number/Name) PE 0604771D8Z <i>I Joint Tactical Information Distribution System (JTIDS)</i> |
|--|---|

| C. Accomplishments/Planned Programs (\$ in Millions) | FY 2014 | FY 2015 | FY 2016 |
|--|----------------|----------------|----------------|
| <p>narrowband requirements review. Provide C3CB with technical expertise in the development of the narrowband AOA Guidance and Plan and to support C&N co-lead of the narrowband AoA.</p> <ul style="list-style-type: none"> - 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. - Mid-Tier Networking Vehicular Radio (MNVR) JTRS: Assess the MNVR 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. - 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. - Provide assessments of DoD Business System programs 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. - 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. FY15 focus will be on selected communications systems. - Tactical Data Link Modernization: Continue TDL improvements to enable U.S. Air Dominance capabilities. Coordinate DEPSECDEF instruction for standup of Executive Agent (EA) for Air Warfare. Begin first phase of Link 16 evolution plans. Complete open architecture implementation of MADL Lob Observable (LO) waveform. Mature common next generation open architecture TDL terminal design. Perform continued oversight of NEW weapons and develop policy/guidance to manage export control of associated TDL. - Warfighter Information Network – Tactical (WIN-T): Provide 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. Review and track soldier feedback and test results to assess corrections to deficiencies | | | |

UNCLASSIFIED

| | |
|---|----------------------------|
| Exhibit R-2, RDT&E Budget Item Justification: PB 2016 Office of the Secretary Of Defense | Date: February 2015 |
|---|----------------------------|

| | |
|--|---|
| Appropriation/Budget Activity 0400: <i>Research, Development, Test & Evaluation, Defense-Wide I BA 5: System Development & Demonstration (SDD)</i> | R-1 Program Element (Number/Name) PE 0604771D8Z <i>I Joint Tactical Information Distribution System (JTIDS)</i> |
|--|---|

| C. Accomplishments/Planned Programs (\$ in Millions) | FY 2014 | FY 2015 | FY 2016 |
|---|----------------|----------------|----------------|
| <p>identified during the previous FOT&E. Track and monitor the performance of the Inc 3 Network Operations Build 3/4, NetCentric Waveform 10.x and Highband Networking Waveform 3.0 capabilities.</p> <ul style="list-style-type: none"> - 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. Present to Senior Advisory Group for review and approval. - Joint C2 Portfolio Management: Support 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: 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 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: Provide conceptual foundation, metrics and empirical evidence to operationalize Agile C2. Provide technical support to US participation in NATO and other international C2 research efforts. - 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 IT related acquisition policy, including updates to DoD Series 5000 necessitated by changes in statute, regulation and management direction. - Space Ops: Conduct SATOPS Modernization technical assessments; provide technical Oversight/AFSCN Modernization Implementation; conduct AFSCN Event Driven Net Centric Review/Technical Assessment. - 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. - Space Control/Space C2/SSA: Perform continued monitoring of cyber testing and cyber vulnerabilities of critical space programs. Support SSI as OIPT lead for space control programs. - Non-Intelligence Space Programs Technical Assessments: Perform cyber vulnerability and cyber suitability assessments on space, PNT, and METOC programs, including EELV, SBSS Follow on, Space Fence, and others. Review system design documents, control plans, remote management control ports and methods. Recommend corrective actions to specific space, | | | |

UNCLASSIFIED

| | |
|---|----------------------------|
| Exhibit R-2, RDT&E Budget Item Justification: PB 2016 Office of the Secretary Of Defense | Date: February 2015 |
|---|----------------------------|

| | |
|--|---|
| Appropriation/Budget Activity 0400: <i>Research, Development, Test & Evaluation, Defense-Wide I BA 5: System Development & Demonstration (SDD)</i> | R-1 Program Element (Number/Name) PE 0604771D8Z <i>I Joint Tactical Information Distribution System (JTIDS)</i> |
|--|---|

| C. Accomplishments/Planned Programs (\$ in Millions) | FY 2014 | FY 2015 | FY 2016 |
|---|----------------|----------------|----------------|
| <p>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 System Follow-on, Launch Vehicle New Entrants, and SSBS follow-on activities.</p> <ul style="list-style-type: none"> - 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. Review PNT programs for data strategies, systems engineering, risks and mitigations in support of milestone decisions. - PNT Portfolio Management: Continue implementation of GPSEM/PNT Assurance Investment Strategy and Roadmap, ensuring AoA recommendations are addressed. Continue implementation of NAVWAR Investment Strategy and Roadmap as well as material in support of major program milestones and internal OSD reviews. <p>FY 2016 Plans:</p> <p>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. - Oversee implementation of the Cyber Situational Awareness EoA (phase I and II) recommendations. - Oversee implementation of the Cyber Command and Control (C2) EoA recommendations for C2 tools supporting Cyber Operations. - 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. | | | |

UNCLASSIFIED

| | |
|---|----------------------------|
| Exhibit R-2, RDT&E Budget Item Justification: PB 2016 Office of the Secretary Of Defense | Date: February 2015 |
|---|----------------------------|

| | |
|--|---|
| Appropriation/Budget Activity 0400: <i>Research, Development, Test & Evaluation, Defense-Wide I BA 5: System Development & Demonstration (SDD)</i> | R-1 Program Element (Number/Name) PE 0604771D8Z I <i>Joint Tactical Information Distribution System (JTIDS)</i> |
|--|---|

| C. Accomplishments/Planned Programs (\$ in Millions) | FY 2014 | FY 2015 | FY 2016 |
|--|----------------|----------------|----------------|
| <ul style="list-style-type: none"> - 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. - 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 to oversee development and validation of documentation for Remote Video Terminal (RVT) waveforms to enable competition of CDL procurements. Continue development of transition strategy to converge on a DoD standard for tactical ISR communications. 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. - 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. - Wideband AoA Support: Support an AoA to determine future wideband SATCOM (MILSATCOM and COMSATCOM) to include planning, organizing and conducting the AoA as assigned. - 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. - 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. - 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. - MUOS AoA Support: Provide technical and programmatic analysis and insights in support of C3CB oversight of the completion of the MUOS Multi-Service OT&E and follow-on development and operational test activities. Continue to support C3CB | | | |

UNCLASSIFIED

| | |
|---|----------------------------|
| Exhibit R-2, RDT&E Budget Item Justification: PB 2016 Office of the Secretary Of Defense | Date: February 2015 |
|---|----------------------------|

| | |
|--|---|
| Appropriation/Budget Activity 0400: <i>Research, Development, Test & Evaluation, Defense-Wide I BA 5: System Development & Demonstration (SDD)</i> | R-1 Program Element (Number/Name) PE 0604771D8Z I <i>Joint Tactical Information Distribution System (JTIDS)</i> |
|--|---|

| C. Accomplishments/Planned Programs (\$ in Millions) | FY 2014 | FY 2015 | FY 2016 |
|---|----------------|----------------|----------------|
| <p>contribution to the narrowband requirements review. Continue to provide C3CB with technical expertise to support C&N co-lead of the narrowband AoA</p> <ul style="list-style-type: none"> - 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. Review and track Rifleman Radio IOT&E results and assess correction to deficiencies. Track and monitor the performance of both Rifleman and Manpack capabilities. - 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. - 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. - Provide assessments of DoD Business System programs 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. - 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 Air Warfare Communications 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). | | | |

UNCLASSIFIED

| | |
|---|----------------------------|
| Exhibit R-2, RDT&E Budget Item Justification: PB 2016 Office of the Secretary Of Defense | Date: February 2015 |
|---|----------------------------|

| | |
|--|---|
| Appropriation/Budget Activity 0400: <i>Research, Development, Test & Evaluation, Defense-Wide I BA 5: System Development & Demonstration (SDD)</i> | R-1 Program Element (Number/Name) PE 0604771D8Z <i>I Joint Tactical Information Distribution System (JTIDS)</i> |
|--|---|

| C. Accomplishments/Planned Programs (\$ in Millions) | FY 2014 | FY 2015 | FY 2016 |
|--|----------------|----------------|----------------|
| <ul style="list-style-type: none"> - 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 IT related acquisition policy, including updates to DoD Series 5000 necessitated by changes in statute, regulation and management direction. - Space Ops: Conduct SATOPS Modernization technical assessments; provide technical Oversight/AFSCN Modernization Implementation; conduct AFSCN Event Driven Net Centric Review/Technical Assessment. - 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. - Space Control/Space C2/SSA: Perform continued monitoring of cyber testing and cyber vulnerabilities of critical space programs. Support SSI as OIPT lead for space control programs. - Non-Intelligence Space Programs Technical Assessments: Perform cyber vulnerability and cyber suitability assessments on space, PNT, and METOC programs, including EELV, SBSS Follow on, Space Fence, 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, Launch Vehicle New Entrants, and SSBS 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 | | | |

UNCLASSIFIED

| | |
|---|----------------------------|
| Exhibit R-2, RDT&E Budget Item Justification: PB 2016 Office of the Secretary Of Defense | Date: February 2015 |
|---|----------------------------|

| | |
|--|---|
| Appropriation/Budget Activity 0400: <i>Research, Development, Test & Evaluation, Defense-Wide I BA 5: System Development & Demonstration (SDD)</i> | R-1 Program Element (Number/Name) PE 0604771D8Z <i>I Joint Tactical Information Distribution System (JTIDS)</i> |
|--|---|

| C. Accomplishments/Planned Programs (\$ in Millions) | FY 2014 | FY 2015 | FY 2016 |
|--|---------|---------|---------|
| 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. Review PNT programs for data strategies, systems engineering, risks and mitigations in support of milestone decisions. - PNT Portfolio Management: Continue implementation of GPSEM/PNT Assurance Investment Strategy and Roadmap, ensuring AoA recommendations are addressed. Continue implementation of NAVWAR Investment Strategy and Roadmap as well as material in support of major program milestones and internal OSD reviews. | | | |
| Accomplishments/Planned Programs Subtotals | 16.938 | 17.537 | 14.285 |

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

Remarks

E. 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.

F. Performance Metrics
Enterprise-Wide Alignment: Accelerate DoD information age transformation to increase the effectiveness and efficiency of the warfighting, intelligence and business missions.
Measures:
- Timely development and issuance of policy and guidance
- Instantiation of enterprise-wide system engineering for the Joint Information Environment (JIE)

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).
Measures:
- Key milestones completed for major net-centric acquisitions
- Number of major systems successfully completing net-centric critical performance reviews

UNCLASSIFIED

Exhibit R-3, RDT&E Project Cost Analysis: PB 2016 Office of the Secretary Of Defense **Date:** February 2015

| | | |
|--|---|--|
| 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> |
|--|---|--|

| Management Services (\$ in Millions) | | | | FY 2014 | | FY 2015 | | FY 2016 Base | | FY 2016 OCO | | FY 2016 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 | 35.111 | 16.938 | | 17.537 | | 14.285 | | - | | 14.285 | - | - | - |
| Subtotal | | | 35.111 | 16.938 | | 17.537 | | 14.285 | | - | | 14.285 | - | - | - |
| Project Cost Totals | | | 35.111 | 16.938 | | 17.537 | | 14.285 | | - | | 14.285 | - | - | - |

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.

UNCLASSIFIED

Exhibit R-4, RDT&E Schedule Profile: PB 2016 Office of the Secretary Of Defense **Date:** February 2015

| | | |
|--|---|--|
| 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> |
|--|---|--|

| FY 2014 | | | | FY 2015 | | | | FY 2016 | | | | FY 2017 | | | | FY 2018 | | | | FY 2019 | | | | FY 2020 | | | |
|---------|---|---|---|---------|---|---|---|---------|---|---|---|---------|---|---|---|---------|---|---|---|---------|---|---|---|---------|---|---|---|
| 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 | |

UNCLASSIFIED

| | | |
|---|---|--|
| Exhibit R-4A, RDT&E Schedule Details: PB 2016 Office of the Secretary Of Defense | | Date: February 2015 |
| 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 | 2014 | 4 | 2020 |