| Exhibit R-2, RDT&E Budget Item Justification: PB 2012 Navy | | | | | | | | | | DATE: February 2011 | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>1319: *Research, Development, Test & Evaluation, Navy*<br>BA 7: *Operational Systems Development* | | | | R-1 ITEM NOMENCLATURE<br>PE 0303109N: *Satellite Communications (Space)* | | | | | | | |
| **COST ($ in Millions)** | **FY 2010** | **FY 2011** | **FY 2012 Base** | **FY 2012 OCO** | **FY 2012 Total** | **FY 2013** | **FY 2014** | **FY 2015** | **FY 2016** | **Cost To Complete** | **Total Cost** |
| Total Program Element | 481.831 | 422.268 | 263.712 | - | 263.712 | 143.689 | 0.083 | 0.224 | - | 0.000 | 1,311.807 |
| 0728: *EHF SATCOM Terminals* | 79.956 | 16.145 | 18.805 | - | 18.805 | 22.912 | 0.083 | 0.224 | - | 0.000 | 138.125 |
| 0731: *FLTSATCOM* | 1.049 | 0.424 | 0.721 | - | 0.721 | 0.730 | - | - | - | 0.000 | 2.924 |
| 2472: *Mobile User Objective Sys (MUOS)* | 398.317 | 405.699 | 244.186 | - | 244.186 | 120.047 | - | - | - | 0.000 | 1,168.249 |
| 9122: *Adv Wideband System Integrated Term Prog* | 2.509 | - | - | - | - | - | - | - | - | 0.000 | 2.509 |

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

The Navy Multiband Terminal (NMT) Program is the required Navy component to the Advanced Extremely High Frequency (AEHF) Program for enhancing protected and survivable satellite communications to Naval forces. The NMT system provides an increase in single service capability from 1.5 Megabits per second (Mbps) to 8 Mbps, increases the number of coverage areas and retains Anti-Jam/Low Probability of Intercept (AJ/LPI) protection characteristics. It is compatible with today's Navy Low Data Rate/Medium Data Rate (LDR/MDR) terminals and will sustain the Military Satellite Communications (MILSATCOM) architecture by providing connectivity across the spectrum of mission areas, to include land, air and naval warfare, special operations, strategic nuclear operations, strategic defense, theater missile defense, and space operations and intelligence. The NMT system will replenish and improve on Navy terminal capabilities of the Military Strategic, Tactical & Relay System (MILSTAR), Defense Satellite Communications System (DSCS), Wideband Global Satellite (WGS) and Global Broadcast System (GBS). The new system will equip the warfighters with the assured, jam resistant, secure communications as described in the joint AEHF Satellite Communications System and WGS Operational Requirements Documents (ORD). Mission requirements specific to Navy operations, including threat levels and scenarios, are contained in the ORD. The NMT will provide multiband Satellite Communications (SATCOM) capability for ship, submarine, and shore platforms.

The Joint (UHF) MILSATCOM Network Integrated Control System (JMINI CS) is a legacy system that commenced in 1998. JMINI CS is a Navy-led, Joint-interest program providing integrated, dynamic, and centralized control of non-processed UHF MILSATCOM 5/25 kHz Demand Assigned Multiple Access (DAMA) and Demand Assign Single Access (DASA) channels to maximize existing highly sought after SATCOM resources. The system also provides decentralized web-based management of those resources for use as a situational awareness tool for Combatant Commanders, Global SATCOM Support Centers, and Regional SATCOM Support Centers. The system is expected to operate well beyond the original 2015 End of Life (EoL) date to 2025. The JMINI Program of Record (POR) will perform concept development and exploration to identify cost-effective solutions to address multiple life cycle support issues, in order to minimize loss of service to the fleet. The effort will involve evaluation, development, laboratory and integration testing of COTS and GOTS hardware and software to replace obsolete components or subsystems for effectiveness with existing systems.

The Sensitive Compartmented Information Networks (SCI Networks) will provide enabling technology for Intelligence, Cryptologic, and Information Warfare Systems with protected and reliable delivery of Special Intelligence (SI)/SCI data through a secure, controllable network interface with the Automated Digital Network System (ADNS) architecture. Specifically, SCI Networks shall ensure the availability of networks in defiance of hostile Information Warfare (IW). Technical, physical, and

| Exhibit R-2, RDT&E Budget Item Justification: PB 2012 Navy | DATE: February 2011 |
|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>1319: *Research, Development, Test & Evaluation, Navy*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0303109N: *Satellite Communications (Space)* |

procedural security will control access, protect Department of Navy (DoN) information technology resources, and ensure continuous operation of the system within an accredited security posture. This network connectivity will expand the capability of cryptologic and intelligence personnel to fully interact with shore based nodes to provide expanding support to their commanders, including situational awareness, indications and warning (I&W), enemy force intentions, intelligence preparation for the Battlefield, and Battle Damage Assessment (BDA). SCI Networks will provide real time indications and warning support to joint and component commanders through reliable high-speed transfer of sensor data and intelligence information. Enhanced interoperability with other Services, agencies, and allies will permit a level of integration of Sensitive Information (SI) operations not achievable with current systems.

The SCI Networks program migrated to the Integrated Shipboard Network System (ISNS) Increment 2/Consolidated Afloat Networks and Enterprise Services (CANES) in FY09. ISNS Inc 2/CANES will serve to transition numerous Fleet networks to a single, adaptive, available, and secure computing network infrastructure while delivering enhanced technologies in: Integrated Voice, Video, and Data; Common Computing Environment (CCE); Afloat Core Services (ACS) and Multi-Level Security (MLS)/Cross Domain Solutions (CDS).

Maritime Integrated Broadcast Service (MIBS) Project Charter is to deliver Integrated Broadcast Service (IBS) data to operational and tactical decision makers aboard United States (US) Navy surface ships and ashore headquarters. It disseminates organically derived data from Navy platforms and shore sites to other theater tactical, operational, and strategic users. MIBS will give the Navy a capability to recieve and transmit near real time IBS data, enhancing the Common Operational Picture (COP), to support operations in all warfare areas, including: Ballistic Missile Defense (BMD), Anti-Air Warfare (AAW), Anti-Surface Warfare (ASUW), Undersea Warfare (USW), Electronic Warfare (EW). In order to address IBS terminal inventory shortfalls on AEGIS platforms in the Navy, a software IBS capability Network Enabled IBS (NEIBS) developed by Tactical Exploitation of National Capabilities (TENCAP) will be implemented as a back-fill capability for carriers and large deck amphibious ships that would lose Joint Tactical Terminals (JTT) IBS terminal assets to AEGIS platforms. It was determined that carriers and large deck amphibious ships require over-the-air IBS capability, effectively cancelling NEIBS.

Internet Protocol version 6 (IPv6): Manage and resource/coordinate resourcing of experiments and pilot testing of IPv6 technologies to reduce acquisition and operational risk associated with the IPv6 Transition. Experiments identified are in direct support of and identified in the Navy Technical Transition Strategy for IPv6.

The Mobile User Objective System (MUOS) program provides for the development of the next generation Department of Defense (DoD) advanced narrowband communications satellite constellation. The current Ultra-High Frequency (UHF) Follow-On (UFO) constellation is projected to degrade below acceptable availability parameters in 2012.

This MUOS Research Development Test & Evaluation, Navy (RDT&E,N) effort supports an On-Orbit Capability (OOC) in fiscal year (FY) 2012 and Full Operational Capability (FOC) in FY 2015.

FY12: MUOS program will complete all remaining testing and preparation efforts to support launch for satellite 2. The MUOS activities planned for the Ground segment will include system software testing and fixes; and installation and testing of the ground site software.

| Exhibit R-2, RDT&E Budget Item Justification: PB 2012 Navy | DATE: February 2011 |
|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>1319: *Research, Development, Test & Evaluation, Navy*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0303109N: *Satellite Communications (Space)* |

9122 Advanced Wideband System/Transformational Communications: The Navy Transformational Communications (NTC) terminal program was to provide US Navy ships, submarines and shore sites with access to the Transformational Communications Satellite. SECDEF has recommended this program for termination. As a consequence the basis for the NTC is no longer valid. Navy has closed out the program and properly documented the research and development done to date.

| B. Program Change Summary ($ in Millions) | FY 2010 | FY 2011 | FY 2012 Base | FY 2012 OCO | FY 2012 Total |
|---|---|---|---|---|---|
| Previous President's Budget | 471.917 | 422.268 | 267.740 | - | 267.740 |
| Current President's Budget | 481.831 | 422.268 | 263.712 | - | 263.712 |
| Total Adjustments | 9.914 | - | -4.028 | - | -4.028 |
| • Congressional General Reductions | | - | | | |
| • Congressional Directed Reductions | | - | | | |
| • Congressional Rescissions | - | - | | | |
| • Congressional Adds | | - | | | |
| • Congressional Directed Transfers | | - | | | |
| • Reprogrammings | 24.553 | - | | | |
| • SBIR/STTR Transfer | -14.161 | - | | | |
| • Program Adjustments | - | - | -3.438 | - | -3.438 |
| • Section 219 Reprogramming | -0.419 | - | - | - | - |
| • Rate/Misc Adjustments | - | - | -0.590 | - | -0.590 |
| • Congressional General Reductions Adjustments | -0.059 | - | - | - | - |

**Change Summary Explanation**

Schedule:
EHF SATCOM Terminals (project 0728)
Milestone C was achieved on 29 July 2010.

Fleet Satellite Comm. (project 0731)
Sensitive Compartmented Information (SCI) Networks: Minor software delivery and testing updates. Events added for migration to Integrated Shipboard Network System (ISNS) Inc 2/Consolidated Afloat Networks and Enterprise Services (CANES) began in FY 2009 to move to a Common Computing Environment (CCE) and Afloat Core Services (ACS). System development for AN/USQ 148A(V)5 and B(V)3 shifts from 4Q/FY09 to 2Q/FY10 with associated Development Test Assist (DTA) from 4Q/FY09 to 3Q/FY10 and equipment delivery from 4Q/FY09 to 4Q/FY10. Added System development for AN/USQ-148F(V)2 with Lab DTA in 2Q/FY11. CANES transition began in FY 2010.

Mobile User Objective System (project 2472)
MUOS schedule reflects adjustments to completion date for the Italy Build 3.1 Ground site in Sicily.

| Exhibit R-2, RDT&E Budget Item Justification: PB 2012 Navy | DATE: February 2011 |
|---|---|
| **APPROPRIATION/BUDGET ACTIVITY**<br>1319: *Research, Development, Test & Evaluation, Navy*<br>BA 7: *Operational Systems Development* | **R-1 ITEM NOMENCLATURE**<br>PE 0303109N: *Satellite Communications (Space)* |

Technical:
No significant technical changes.

| Exhibit R-2A, RDT&E Project Justification: PB 2012 Navy | | | DATE: February 2011 |
|---|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>1319: *Research, Development, Test & Evaluation, Navy*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0303109N: *Satellite Communications (Space)* | PROJECT<br>0728: *EHF SATCOM Terminals* | |

| COST ($ in Millions) | FY 2010 | FY 2011 | FY 2012 Base | FY 2012 OCO | FY 2012 Total | FY 2013 | FY 2014 | FY 2015 | FY 2016 | Cost To Complete | Total Cost |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 0728: *EHF SATCOM Terminals* | 79.956 | 16.145 | 18.805 | - | 18.805 | 22.912 | 0.083 | 0.224 | - | 0.000 | 138.125 |
| Quantity of RDT&E Articles | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | |

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

The Navy Multiband Terminal (NMT) Program is the required Navy component to the Advanced Extremely High Frequency (AEHF) Program for enhancing protected and survivable satellite communications to Naval forces. The NMT system provides an increase in single service capability from 1.5 Megabits per second (Mbps) to 8 Mbps, increases the number of coverage areas, and retains Anti-Jam/Low Probability of Intercept (AJ/LPI) protection characteristics. It is compatible with today's Navy Low Data Rate/Medium Data Rate (LDR/MDR) terminals and will sustain the Military Satellite Communications (MILSATCOM) architecture by providing connectivity across the spectrum of mission areas, to include land, air and naval warfare, special operations, strategic nuclear operations, strategic defense, theater missile defense, and space operations and intelligence. The NMT system will replenish and improve on Navy terminal capabilities of the Military Strategic, Tactical & Relay System (MILSTAR), Defense Satellite Communications System (DSCS), Wideband Global Satellite (WGS), and Global Broadcast System (GBS). The new system will equip the warfighters with assured, jam resistant, secure communications as described in both the joint AEHF Satellite Communications System and the WGS Operational Requirement Documents (ORD). Mission requirements specific to Navy operations, including threat levels and scenarios, are contained in the ORD. The NMT will provide multiband Satellite Communications (SATCOM) capability for ship, submarine, and shore platforms.

FY12 Base Funding will be used to complete the integration of the X/Ka and X-band capability. Continue the execution of the NMT test program. Prepare for the program's follow on test and evalution (FOT&E) of the NMT system for testing with the on-orbit XDR waveform. Resolve system Software (SW) and Hardware (HW) deficiencies within the NMT system to correct issues identified during testing. Incorporate and begin testing the Enhanced Polar System functionality within the NMT system.

The Commercial Broadband Satellite Program (CBSP) will support satellite communications terminals and shore connectivity to the Navy Points of Presence through the use of Commercial off-the-shelf (COTS) terminals, commercial satellite land earth stations, and terrestrial fiber services. Program efforts include investment of emergent technology through studying, development, and testing of insertion feasibility.

| B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each) | FY 2010 | FY 2011 | FY 2012 |
|---|---|---|---|
| ***Title:*** NMT Development | 78.956 | 16.145 | 18.805 |
| ***Articles:*** | 0 | 0 | 0 |
| ***Description:*** Overall program efforts include investigation of emerging technologies through study, development, and associated testing for feasibility of satellite communications-related program insertion. They also include first and second phases of Navy Multiband Terminal (NMT) development for System Design and Development (SDD) for ship, shore, and submarine platforms. | | | |
| ***FY 2010 Accomplishments:*** | | | |

| Exhibit R-2A, RDT&E Project Justification: PB 2012 Navy | | DATE: February 2011 |
|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>1319: *Research, Development, Test & Evaluation, Navy*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0303109N: *Satellite Communications (Space)* | PROJECT<br>0728: *EHF SATCOM Terminals* |

| B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each) | FY 2010 | FY 2011 | FY 2012 |
|---|---|---|---|
| Conducted Developmental Testing (DT), Operational Testing (OT) and Operational Assessment (OA) of Q/Ka-band capabilities and performed associated system modifications as merited by the test results. Continued on-going development of the X/Ka and X-band capability. Obtained Milestone C approval.<br>***FY 2011 Plans:***<br>Continue the development and integration of X/Ka and submarine X-band capabilities. Conduct X/Ka and X-band Developmental Testing (DT) and Operational Testing (OT). Conduct Q/Ka Design Verification Testing (DVT), X/Ka Design Verification Testing (DVT), Submarine X-band DVT, and Anti-Jam/Low Probability of Intercept Testing. Perform system modifications to correct deficiencies discovered during testing. Continue efforts to incorporate the Enhanced Polar System (EPS) capability.<br>***FY 2012 Plans:***<br>Complete the development and integration of the X/Ka and X-band capabilities. Continue on going efforts to test the Enhanced Polar System (EPS) functionality within the NMT system. Continue on going testing of X/Ka and X-band capabilities. Resolve hardware and software deficiencies to correct issues identified during testing activities. Prepare for the program's Follow On Test and Evalution (FOT&E) of the NMT system for testing with the on-orbit Extended Data Rate (XDR) waveform. | | | |
| ***Title:*** Commercial Broadband Satellite Program<br>***Articles:***<br><br>***FY 2010 Accomplishments:***<br>Completed Force Level Variant (FLV) technical evaluation and operational testing of Commercial Off-The-Shelf (COTS) terminals. | 1.000<br>0 | - | - |
| **Accomplishments/Planned Programs Subtotals** | 79.956 | 16.145 | 18.805 |

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

| Line Item | FY 2010 | FY 2011 | FY 2012 Base | FY 2012 OCO | FY 2012 Total | FY 2013 | FY 2014 | FY 2015 | FY 2016 | Cost To Complete | Total Cost |
|---|---|---|---|---|---|---|---|---|---|---|---|
| • OPN/3216: *NMT* | 61.613 | 161.021 | 109.022 | 0.000 | 109.022 | 175.163 | 184.893 | 231.973 | 162.318 | 0.000 | 1,086.003 |
| • OPN/3215: *CBSP* | 16.474 | 8.302 | 13.968 | 0.000 | 13.968 | 15.524 | 18.053 | 20.562 | 25.139 | 0.000 | 183.771 |

**D. Acquisition Strategy**

Navy Multiband Terminal concept exploration contracts were awarded in FY 2001. Two System Development and Demonstration (SDD) contracts were competitively awarded in FY 2004 for the development and demonstration of four prototype terminals per vendor (eight total). In FY 2007, a down select to Raytheon occurred for the development, demonstration and procurement of 20 Engineering Development Models (EDMs) which will incorporate integrated multi-band capabilities for Q/Ka band, Submarine X-Band, and Ship X/Ka frequency band communication requirements.

| Exhibit R-2A, RDT&E Project Justification: PB 2012 Navy | | DATE: February 2011 |
|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>1319: *Research, Development, Test & Evaluation, Navy*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0303109N: *Satellite Communications (Space)* | PROJECT<br>0728: *EHF SATCOM Terminals* |

CBSP acquisition documentation development and concept studies and analyses will be accomplished using existing contracts.

**E. Performance Metrics**

The RDT&E goal for the NMT program is to create a military satellite communications system that consolidates capabilities of current and future satellite systems in a single terminal.

CBSP will complete operational testing and technical evaluation on the Force Level Variant (FLV).

| Exhibit R-3, RDT&E Project Cost Analysis: PB 2012 Navy | | DATE: February 2011 |
|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>1319: *Research, Development, Test & Evaluation, Navy*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0303109N: *Satellite Communications (Space)* | PROJECT<br>0728: *EHF SATCOM Terminals* |

**Product Development ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | Total Prior Years Cost | FY 2011 Cost | FY 2011 Award Date | FY 2012 Base Cost | FY 2012 Base Award Date | FY 2012 OCO Cost | FY 2012 OCO Award Date | FY 2012 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Hardware Development | C/CPAF | Various:Various | 166.499 | - | | - | | - | | - | 0.000 | 166.499 | |
| Hardware Development | C/FFP | Harris:Melbourne, FL | 6.136 | - | | - | | - | | - | 0.000 | 6.136 | |
| NMT EDM Development | C/CPAF | Raytheon:Marlborough, MA | 201.857 | 7.448 | Nov 2010 | - | | - | | - | 0.000 | 209.305 | |
| Hardware Development | WR | SSC PAC:San Diego, CA | 1.009 | - | | - | | - | | - | 0.000 | 1.009 | |
| Ancillary Hardware Development | C/CPAF | Raytheon:Marlborough, MA | 55.923 | - | | - | | - | | - | 0.000 | 55.923 | |
| Software Development | WR | NUWC:Newport, RI | 8.581 | - | | - | | - | | - | 0.000 | 8.581 | |
| Software Development | C/CPAF | Raytheon:Marlborough, MA | 37.367 | 2.174 | Nov 2010 | 4.477 | Nov 2011 | - | | 4.477 | 0.000 | 44.018 | |
| Systems Engineering | WR | SSC PAC:San Diego, CA | 21.843 | 0.245 | Nov 2010 | 1.500 | Nov 2011 | - | | 1.500 | 0.000 | 23.588 | |
| Systems Engineering | WR | NUWC:Newport, RI | 24.416 | 0.500 | Nov 2010 | 2.250 | Nov 2011 | - | | 2.250 | 0.000 | 27.166 | |
| Systems Engineering | C/CPAF | Linquest:San Diego, CA | 34.905 | - | | 1.500 | Nov 2011 | - | | 1.500 | 0.000 | 36.405 | |
| Software Development - ATIP | SS/FPIF | Unknown:Unknown | - | - | | 2.500 | Nov 2011 | - | | 2.500 | 0.000 | 2.500 | |
| | | **Subtotal** | 558.536 | 10.367 | | 12.227 | | - | | 12.227 | 0.000 | 581.130 | |

**Support ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | Total Prior Years Cost | FY 2011 Cost | FY 2011 Award Date | FY 2012 Base Cost | FY 2012 Base Award Date | FY 2012 OCO Cost | FY 2012 OCO Award Date | FY 2012 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Development Support | WR | SSC PAC:San Diego, CA | 11.012 | 0.400 | Nov 2010 | - | | - | | - | 0.000 | 11.412 | |
| Logistics Support 1 | WR | SSC PAC:San Diego, CA | 3.305 | 0.250 | Nov 2010 | - | | - | | - | 0.000 | 3.555 | |
| Studies & Analysis | WR | NUWC:Newport, RI | 6.869 | - | | - | | - | | - | 0.000 | 6.869 | |
| Information Assurance 1 | WR | SSC PAC:San Diego, CA | 3.486 | 0.400 | Nov 2010 | - | | - | | - | 0.000 | 3.886 | |
| Logistics Support 2 | WR | SSC PAC:San Diego, CA | - | - | | 3.163 | Nov 2011 | - | | 3.163 | 0.000 | 3.163 | |

| Exhibit R-3, RDT&E Project Cost Analysis: PB 2012 Navy | | | DATE: February 2011 |
|---|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>1319: *Research, Development, Test & Evaluation, Navy*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0303109N: *Satellite Communications (Space)* | PROJECT<br>0728: *EHF SATCOM Terminals* | |

**Support ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | Total Prior Years Cost | FY 2011 Cost | FY 2011 Award Date | FY 2012 Base Cost | FY 2012 Base Award Date | FY 2012 OCO Cost | FY 2012 OCO Award Date | FY 2012 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Information Assurance 2 | WR | SSC PAC:San Diego, CA | - | - | | 0.500 | Nov 2011 | - | | 0.500 | 0.000 | 0.500 | |
| | | **Subtotal** | 24.672 | 1.050 | | 3.663 | | - | | 3.663 | 0.000 | 29.385 | |

**Test and Evaluation ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | Total Prior Years Cost | FY 2011 Cost | FY 2011 Award Date | FY 2012 Base Cost | FY 2012 Base Award Date | FY 2012 OCO Cost | FY 2012 OCO Award Date | FY 2012 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Developmental Test & Evaluation | WR | SSC PAC:San Diego, CA | 15.341 | 2.000 | Nov 2010 | 1.500 | Nov 2011 | - | | 1.500 | 0.000 | 18.841 | |
| Operational Test & Evaluation 1 | WR | COMOPTEVFOR:Not Specified | 1.956 | 1.800 | Nov 2010 | - | | - | | - | 0.000 | 3.756 | |
| Operational Test & Evaluation 2 | WR | COMOPTEVFOR:Not Specified | - | - | | 0.500 | Nov 2011 | - | | 0.500 | 0.000 | 0.500 | |
| | | **Subtotal** | 17.297 | 3.800 | | 2.000 | | - | | 2.000 | 0.000 | 23.097 | |

**Management Services ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | Total Prior Years Cost | FY 2011 Cost | FY 2011 Award Date | FY 2012 Base Cost | FY 2012 Base Award Date | FY 2012 OCO Cost | FY 2012 OCO Award Date | FY 2012 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Contract Management | C/CPAF | BAH:San Diego | 10.069 | 0.125 | Nov 2010 | 0.250 | Nov 2011 | - | | 0.250 | 0.000 | 10.444 | |
| Program Management | C/CPAF | BAH:San Diego | 15.875 | 0.245 | Nov 2010 | 0.250 | Nov 2011 | - | | 0.250 | 0.000 | 16.370 | |
| Acquisition Management | C/CPAF | BAH:San Diego | 11.197 | 0.245 | Nov 2010 | 0.300 | Nov 2011 | - | | 0.300 | 0.000 | 11.742 | |
| Acquisition Management | WR | NCCA:Various | 0.653 | - | | - | | - | | - | 0.000 | 0.653 | |
| Travel | Reqn | SPAWAR:Various | 1.294 | 0.313 | Nov 2010 | 0.115 | Nov 2011 | - | | 0.115 | 0.000 | 1.722 | |
| | | **Subtotal** | 39.088 | 0.928 | | 0.915 | | - | | 0.915 | 0.000 | 40.931 | |

| | Total Prior Years Cost | FY 2011 Cost | FY 2011 Award Date | FY 2012 Base Cost | FY 2012 Base Award Date | FY 2012 OCO Cost | FY 2012 OCO Award Date | FY 2012 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Project Cost Totals** | 639.593 | 16.145 | | 18.805 | | - | | 18.805 | 0.000 | 674.543 | |

| Exhibit R-3, RDT&E Project Cost Analysis: PB 2012 Navy | | | DATE: February 2011 |
|---|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>1319: *Research, Development, Test & Evaluation, Navy*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0303109N: *Satellite Communications (Space)* | PROJECT<br>0728: *EHF SATCOM Terminals* | |

| | Total Prior Years Cost | FY 2011 | FY 2012 Base | FY 2012 OCO | FY 2012 Total | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|

**Remarks**

| Exhibit R-4, RDT&E Schedule Profile: PB 2012 Navy | | DATE: February 2011 |
|---|---|---|
| **APPROPRIATION/BUDGET ACTIVITY**<br>1319: *Research, Development, Test & Evaluation, Navy*<br>BA 7: *Operational Systems Development* | **R-1 ITEM NOMENCLATURE**<br>PE 0303109N: *Satellite Communications (Space)* | **PROJECT**<br>0728: *EHF SATCOM Terminals* |

| Exhibit R-4A, RDT&E Schedule Details: PB 2012 Navy | | DATE: February 2011 |
|---|---|---|
| **APPROPRIATION/BUDGET ACTIVITY**<br>1319: *Research, Development, Test & Evaluation, Navy*<br>BA 7: *Operational Systems Development* | **R-1 ITEM NOMENCLATURE**<br>PE 0303109N: *Satellite Communications (Space)* | **PROJECT**<br>0728: *EHF SATCOM Terminals* |

## Schedule Details

| | Start | | End | |
|---|---|---|---|---|
| **Events by Sub Project** | **Quarter** | **Year** | **Quarter** | **Year** |
| ***Proj 0728*** | | | | |
| Q/Ka, X/Ka, & X-band Development | 1 | 2010 | 1 | 2012 |
| Q/Ka DT/OT/OA/Integration | 1 | 2010 | 4 | 2011 |
| Milestone C | 4 | 2010 | 4 | 2010 |
| Low Rate Initial Production (LRIP) Procurement Year 1 (PY1) | 4 | 2010 | 4 | 2010 |
| X/Ka, X-band DT/OT, FOT&E & Integration | 1 | 2011 | 4 | 2013 |
| Low Rate Initial Production (LRIP) Procurement Year 2 (PY2) | 2 | 2011 | 2 | 2011 |
| LRIP PY1 Delivery | 4 | 2011 | 4 | 2011 |
| Procurement Year 3 (PY3) | 2 | 2012 | 2 | 2012 |
| LRIP PY2 Delivery | 3 | 2012 | 3 | 2012 |
| Initial Operational Capability (IOC) | 4 | 2012 | 4 | 2012 |
| Procurement Year 4 (PY4) | 2 | 2013 | 2 | 2013 |
| Procurement Year 5 (PY5) | 2 | 2014 | 2 | 2014 |
| Procurement Year 6 (PY6) | 2 | 2015 | 2 | 2015 |
| PY3 Delivery | 3 | 2013 | 3 | 2013 |
| PY4 Delivery | 3 | 2014 | 3 | 2014 |
| PY5 Delivery | 3 | 2015 | 3 | 2015 |
| PY6 Delivery | 3 | 2016 | 3 | 2016 |
| 1st Install | 1 | 2012 | 1 | 2012 |
| AEHF Launch SV-1 | 4 | 2010 | 4 | 2010 |
| AEHF Launch SV-2 | 2 | 2012 | 2 | 2012 |
| AEHF Launch SV-3 | 1 | 2013 | 1 | 2013 |

| Exhibit R-4A, RDT&E Schedule Details: PB 2012 Navy | | DATE: February 2011 |
|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>1319: *Research, Development, Test & Evaluation, Navy*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0303109N: *Satellite Communications (Space)* | PROJECT<br>0728: *EHF SATCOM Terminals* |

| | Start | | End | |
|---|---|---|---|---|
| **Events by Sub Project** | **Quarter** | **Year** | **Quarter** | **Year** |
| AEHF Launch SV-4 | 4 | 2016 | 4 | 2016 |
| WGS Launch #3 | 1 | 2010 | 1 | 2010 |
| WGS Launch #4 | 1 | 2012 | 1 | 2012 |
| WGS Launch #5 | 3 | 2012 | 3 | 2012 |
| WGS Launch #6 | 2 | 2013 | 2 | 2013 |
| FRPDR | 1 | 2012 | 1 | 2012 |

| Exhibit R-2A, RDT&E Project Justification: PB 2012 Navy | | | DATE: February 2011 |
|---|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>1319: *Research, Development, Test & Evaluation, Navy*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0303109N: *Satellite Communications (Space)* | PROJECT<br>0731: *FLTSATCOM* | |

| COST ($ in Millions) | FY 2010 | FY 2011 | FY 2012 Base | FY 2012 OCO | FY 2012 Total | FY 2013 | FY 2014 | FY 2015 | FY 2016 | Cost To Complete | Total Cost |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 0731: *FLTSATCOM* | 1.049 | 0.424 | 0.721 | - | 0.721 | 0.730 | - | - | - | 0.000 | 2.924 |
| Quantity of RDT&E Articles | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | |

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

The Joint (UHF) MILSATCOM Network Integrated Control System (JMINI CS) is a legacy system that commenced in 1998. JMINI CS is a Navy-led, Joint-interest program providing integrated, dynamic, and centralized control of non-processed UHF MILSATCOM 5/25 kHz Demand Assigned Multiple Access (DAMA) and Demand Assign Single Access (DASA) channels to maximize existing highly sought after SATCOM resources. The system also provides decentralized web-based management of those resources for use as a situational awareness tool for Combatant Commanders, Global SATCOM Support Centers, and Regional SATCOM Support Centers. The system is expected to operate well beyond the original 2015 End of Life (EoL) date to 2025. The JMINI Program of Record (POR) will perform concept development and exploration to identify cost-effective solutions to address multiple life cycle support issues, in order to minimize loss of service to the fleet. The effort will involve evaluation, development, laboratory and integration testing of COTS and GOTS hardware and software to replace obsolete components or subsystems for effectiveness with existing systems.

The Sensitive Compartmented Information Networks (SCI Networks), is an evolutionary acquisition program designed to provide enabling technology necessary to provide Intelligence, Cryptologic, and Information Warfare Systems with protected and reliable delivery of Special Intelligence (SI)/SCI data through a secure, controllable network interface with the Automated Digital Network System (ADNS) architecture. Specifically, SCI Networks shall ensure the availability of networks in defiance of hostile Information Warfare (IW). Technical, physical, and procedural security will be used to control access, protect Department of Navy (DoN) information technology resources, and ensure continuous operation of the system within an accredited security posture. This network connectivity will greatly expand the capability of cryptologic and intelligence personnel to fully interact with shore based nodes to provide expanding support to their commanders, including situational awareness, indications and warning (I&W), enemy force intentions, intelligence preparation for the Battlefield, and Battle Damage Assessment (BDA). The SCI Networks will provide real time indications and warning support to joint and component commanders through reliable high-speed transfer of sensor data and intelligence information. Enhanced interoperability with other services, agencies, and allies will permit a level of integration of Sensitive Information (SI) operations not achievable with current systems.

The SCI Networks program started migrating to the Integrated Shipboard Network System (ISNS) Increment 2/Consolidated Afloat Networks Enterprise Services (CANES) in FY09. ISNS Inc 2/CANES will serve to transition numerous Fleet networks to a single, adaptive, available, and secure computing network infrastructure while delivering enhanced technologies in: Integrated Voice, Video, and Data; Common Computing Environment (CCE); Afloat Core Services (ACS) and Multi-Level Security (MLS)/Cross Domain Solutions (CDS). CANES RDT&E development transition began in FY10.

Maritime Integrated Broadcast Service (MIBS) Project Charter is to deliver Integrated Broadcast Service (IBS) data to operational and tactical decision makers aboard United States (US) Navy surface ships and ashore headquarters. It disseminates organically derived data from Navy platforms and shore sites to other theater tactical, operational, and strategic users. MIBS will give the Navy a capability to recieve and transmit near real time IBS data, enhancing the Common Operational Picture (COP), to support operations in all warfare areas, including; Ballistic Missile Defense (BMD), Anti-Air Warfare (AAW), Anti-Surface Warfare (ASUW), Undersea Warfare

| Exhibit R-2A, RDT&E Project Justification: PB 2012 Navy | | DATE: February 2011 |
|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>1319: *Research, Development, Test & Evaluation, Navy*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0303109N: *Satellite Communications (Space)* | PROJECT<br>0731: *FLTSATCOM* |

(USW), Electronic Warfare (EW). In order to address IBS terminal inventory shortfalls on AEGIS platforms in the Navy, a software IBS capability Network Enabled IBS (NEIBS) developed by Tactical Exploitation of National Capabilities (TENCAP) will be implemented as a back-fill capability for carriers and large deck amphibious ships that would lose Joint Tactical Terminals (JTT) IBS terminal assets to AEGIS platforms. It was determined that carriers and large deck amphibious ships require over-the-air IBS capability, effectively cancelling NEIBS. FY12 funding will be used to perform Navy integration testing of the AN/USC-62, JTT-Senior upgrade kit, which will enhance existing terminal capability to support the Common Integrated Broadcast (CIB) waverform, Common Message Format (CMF), and the National Security Agency (NSA) mandated Crypto Modernization Intitiative (CMI).

Internet Protocol version 6 (IPv6): Manage and resource / coordinate resourcing of experiments and pilot testing of IPv6 technologies to reduce acquisition and operational risk associated with the IPv6 Transition. Experiments identified are in direct support of and identified in the Navy Technical Transition Strategy for IPv6.

FY12 will be utilized for continued Maritime Integrated Broadcast Service (MIBS) and concept development exploration for JMINI.

| B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each) | FY 2010 | FY 2011 | FY 2012 |
|---|---|---|---|
| ***Title:*** Maritime Integrated Broadcast Service (MIBS) | 0.200 | 0.128 | 0.069 |
| ***Articles:*** | 0 | 0 | 0 |
| ***FY 2010 Accomplishments:***<br>Funds continued to support the integration of Network Enabled Integrated Broadcast Service (NEIBS) to receive, process, display IBS data for the Navy. Efforts entailed completing platform integration and developmental testing (DT), incorporate changes in architecture, technical documentation, & training curriculum resulting from DT. | | | |
| ***FY 2011 Plans:***<br>Funds continue to support NEIBS to receive, process, display IBS data for the Navy. Efforts entail conducting DT/Operational Testing (OT), Joint Interoperability Test Command (JITC) interoperability certification and finalizing of all technical documentation. | | | |
| ***FY 2012 Plans:***<br>Funds will support Navy integration testing of the AN/USC-62, Joint Tacticial Terminal Senior (JTT-Sr) Upgrade Kit, which will enhance existing terminal capability to support the Common Integrated Broadcast (CIB) waverform, Common Message Format (CMF), and the National Security Agency (NSA) mandated Crypto Modernization Initiative (CMI). | | | |
| ***Title:*** SCI Networks | 0.650 | 0.193 | - |
| ***Articles:*** | 0 | 0 | |
| ***FY 2010 Accomplishments:***<br>Completed development of AN/USQ-148G(V)2 system. Conducted initial AN/USQ-148G(V)2 system testing with Compose 4.0. Program continued transition to CANES. Conducted AN/USQ-148A(V)5 and AN/USQ-148B(V)3 Lab Development Test Assist (DTA). | | | |
| ***FY 2011 Plans:*** | | | |

| Exhibit R-2A, RDT&E Project Justification: PB 2012 Navy | | DATE: February 2011 |
|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>1319: *Research, Development, Test & Evaluation, Navy*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0303109N: *Satellite Communications (Space)* | PROJECT<br>0731: *FLTSATCOM* |

| B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each) | FY 2010 | FY 2011 | FY 2012 |
|---|---|---|---|
| Conduct 148G(V)2 with COMPOSE 4.0 Lab Development Test Assis (DTA). Begin 148G(V)2 with COMPOSE 4.0 DT/OT. Conduct Lab Development Test Assist (DTA) of 148F(V)2. | | | |
| ***Title:*** IPv6 Transition | 0.199 | 0.103 | - |
| ***Articles:*** | 0 | 0 | |
| ***FY 2010 Accomplishments:***<br>Managed and coordinated resourcing of experiments and pilot testing of IPv6 technologies. Provided technical leadership for Navy IPv6 transition; developed and implemented the Navy IPv6 migration strategy to achieve transition in accordance with guidance and current mission focus. Provided support & representation to OPNAV, DON CIO, DoD and other service IPTs and working groups. Additionally, provided Navy Programs of Record (POR) support to include software application migration and transition mechanism support.<br>***FY 2011 Plans:***<br>Manage and resource / coordinate resourcing of experiments and pilot testing of IPv6 technologies. The projected work products will include continuation of FY10 efforts. Additionally, Navy programs of record supported will continue to include software application migration and transition mechanism support. | | | |
| ***Title:*** JMINI | - | - | 0.652 |
| ***Articles:*** | | | 0 |
| ***FY 2012 Plans:***<br>Funding will enable concept exploration and development to support product improvement that will result in an extension of the product life cycle, and continuation of service for the warfighter. | | | |
| **Accomplishments/Planned Programs Subtotals** | 1.049 | 0.424 | 0.721 |

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

| Line Item | FY 2010 | FY 2011 | FY 2012 Base | FY 2012 OCO | FY 2012 Total | FY 2013 | FY 2014 | FY 2015 | FY 2016 | Cost To Complete | Total Cost |
|---|---|---|---|---|---|---|---|---|---|---|---|
| • OPN/2900: *Maritime Integrated Broadcast Service (MIBS)* | 0.791 | 6.909 | 13.529 | 0.000 | 13.529 | 16.080 | 12.729 | 4.453 | 0.472 | Continuing | Continuing |
| • OPN/3050: *Comm Auto - SCI NETWORKS* | 33.827 | 24.619 | 10.082 | 0.000 | 10.082 | 1.737 | 0.000 | 0.000 | 0.000 | Continuing | Continuing |

| Exhibit R-2A, RDT&E Project Justification: PB 2012 Navy | | DATE: February 2011 |
|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>1319: *Research, Development, Test & Evaluation, Navy*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0303109N: *Satellite Communications (Space)* | PROJECT<br>0731: *FLTSATCOM* |

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

| Line Item | FY 2010 | FY 2011 | FY 2012 Base | FY 2012 OCO | FY 2012 Total | FY 2013 | FY 2014 | FY 2015 | FY 2016 | Cost To Complete | Total Cost |
|---|---|---|---|---|---|---|---|---|---|---|---|
| • OPN/3215: *Sat Comm - JMINI* | 0.000 | 3.362 | 1.545 | 0.000 | 1.545 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 7.249 |

**D. Acquisition Strategy**

JMINI: The Joint (UHF) MILSATCOM Network Integrated Control System (JMINI CS) is an ACAT IV (T) system that is post-FRP. As a legacy system that commenced in 1998, JMINI is expected to operate well beyond the original 2015 End of Life (EoL) date to 2025. The JMINI Program of Record (POR) will evaluate the most cost-effective solutions to address multiple life cycle support issues, in order to minimize loss of service to the fleet. The effort will involve evaluating and conducting laboratory testing and the integration of COTS and GOTS hardware and software for effectiveness with existing systems.

SCI Networks: Sensitive Compartmented Information (SCI) Networks variants are comprised of Commercial Off the Shelf (COTS) equipment and Government Off the Shelf (GOTS) software integrated into SCI Networks designs associated with each class of ship. Procurement equipment buys are done via the Common Afloat Local Area Network (LAN) Infrastructure (CALI) contract vehicle.

IPv6: IPv6 testing and experimentation will be used to manage the risk of transition within existing Programs of Record (PORs). Ultimately, the results of the testing and experimentation will influence the acquisition of IPv6 capable products and minimize risk of transition.

**E. Performance Metrics**

JMINI: The JMINI POR will perform concept development and exploration of the JMINI 5 KHz and 25 KHz systems, to analyze alternatives for the most advantageous use of new technologies to lengthen the JMINI system life span in order to minimize loss of service to the Fleet.

Sensitive Compartmented Information (SCI) Networks: Develops a consolidated SCI architecture that reduces total ownership cost (TOC) of the afloat SI Local Area Network (LAN) systems and reduces the risk for implementation of CANES by introducing a Common Computing Environment (CCE) and an Afloat Cores Services (ACS) Architecture. SCI Networks RDT&E development began migrating to ISNS Inc 2/Consolidated Afloat Networks and Enterprise Services (CANES) in FY10. ISNS Inc 2/CANES will serve to transition numerous Fleet networks to a single, adaptive, available, secure computing network infrastructure while delivering enhanced technologies in: Integrated Voice, Video and Data; Common Computing Environment (CCE); Service Oriented Architecture (SOA); and Multi-Level Security (MLS)/ Cross Domain Solutions (CDS).

| Exhibit R-3, RDT&E Project Cost Analysis: PB 2012 Navy | | DATE: February 2011 |
|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>1319: *Research, Development, Test & Evaluation, Navy*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0303109N: *Satellite Communications (Space)* | PROJECT<br>0731: *FLTSATCOM* |

**Product Development ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | Total Prior Years Cost | FY 2011 Cost | FY 2011 Award Date | FY 2012 Base Cost | FY 2012 Base Award Date | FY 2012 OCO Cost | FY 2012 OCO Award Date | FY 2012 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| JMINI Contractor Engineering Support | C/CPFF | TBD:Not Specified | 12.188 | - | | 0.461 | Nov 2011 | - | | 0.461 | 0.000 | 12.649 | |
| JMINI Government Engineering | WR | SSC PAC:San Diego, CA. | 0.295 | - | | 0.191 | Oct 2011 | - | | 0.191 | 0.000 | 0.486 | |
| SCI Networks System Engineering | WR | SSC PAC:San Diego, CA. | 2.177 | 0.023 | Jan 2011 | - | | - | | - | 0.000 | 2.200 | |
| SCI Networks System Engineering | C/CPFF | XFEDS:San Diego, CA | 0.134 | 0.086 | Nov 2010 | - | | - | | - | 0.000 | 0.220 | |
| | | **Subtotal** | 14.794 | 0.109 | | 0.652 | | - | | 0.652 | 0.000 | 15.555 | |

**Support ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | Total Prior Years Cost | FY 2011 Cost | FY 2011 Award Date | FY 2012 Base Cost | FY 2012 Base Award Date | FY 2012 OCO Cost | FY 2012 OCO Award Date | FY 2012 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| IPv6 Support | WR | SSC PAC:San Diego | 2.315 | 0.103 | Feb 2011 | - | | - | | - | 0.000 | 2.418 | |
| SCI Networks Development support | C/CPFF | XFEDS:San Diego | 0.432 | 0.017 | Nov 2010 | - | | - | | - | 0.000 | 0.449 | |
| SCI Networks ILS support | WR | SSC PAC:San Diego | 0.376 | 0.020 | Nov 2010 | - | | - | | - | 0.000 | 0.396 | |
| | | **Subtotal** | 3.123 | 0.140 | | - | | - | | - | 0.000 | 3.263 | |

**Test and Evaluation ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | Total Prior Years Cost | FY 2011 Cost | FY 2011 Award Date | FY 2012 Base Cost | FY 2012 Base Award Date | FY 2012 OCO Cost | FY 2012 OCO Award Date | FY 2012 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SCI Networks Development Test & Evaluation | WR | SSC PAC/LANT:San Diego/Charleston | 1.012 | 0.011 | Dec 2010 | - | | - | | - | 0.000 | 1.023 | |
| SCI Networks Development Test & Evaluation | Reqn | NSMA:VA | 0.205 | 0.011 | Dec 2010 | - | | - | | - | 0.000 | 0.216 | |
| MIBS Development Test & Evaluation | WR | SSC PAC:San Diego, CA. | 0.200 | 0.114 | Nov 2010 | 0.050 | Nov 2011 | - | | 0.050 | 0.000 | 0.364 | |
| | | **Subtotal** | 1.417 | 0.136 | | 0.050 | | - | | 0.050 | 0.000 | 1.603 | |

| Exhibit R-3, RDT&E Project Cost Analysis: PB 2012 Navy | | DATE: February 2011 |
|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>1319: *Research, Development, Test & Evaluation, Navy*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0303109N: *Satellite Communications (Space)* | PROJECT<br>0731: *FLTSATCOM* |

**Management Services ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | Total Prior Years Cost | FY 2011 Cost | FY 2011 Award Date | FY 2012 Base Cost | FY 2012 Base Award Date | FY 2012 OCO Cost | FY 2012 OCO Award Date | FY 2012 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SCI Networks Program Management support | WR | SSC PAC/LANT:San Diego/Charleston | 0.256 | 0.025 | Dec 2010 | - | | - | | - | 0.000 | 0.281 | |
| MIBS Program Management | WR | SSC PAC:San Diego, CA. | - | 0.014 | Nov 2010 | 0.019 | Nov 2011 | - | | 0.019 | 0.000 | 0.033 | |
| | | **Subtotal** | 0.256 | 0.039 | | 0.019 | | - | | 0.019 | 0.000 | 0.314 | |

| | Total Prior Years Cost | FY 2011 | | FY 2012 Base | | FY 2012 OCO | | FY 2012 Total | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Project Cost Totals** | 19.590 | 0.424 | | 0.721 | | - | | 0.721 | 0.000 | 20.735 | |

**Remarks**

| Exhibit R-2A, RDT&E Project Justification: PB 2012 Navy | | | DATE: February 2011 |
|---|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>1319: *Research, Development, Test & Evaluation, Navy*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0303109N: *Satellite Communications (Space)* | PROJECT<br>2472: *Mobile User Objective Sys (MUOS)* | |

| COST ($ in Millions) | FY 2010 | FY 2011 | FY 2012 Base | FY 2012 OCO | FY 2012 Total | FY 2013 | FY 2014 | FY 2015 | FY 2016 | Cost To Complete | Total Cost |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 2472: *Mobile User Objective Sys (MUOS)* | 398.317 | 405.699 | 244.186 | - | 244.186 | 120.047 | - | - | - | 0.000 | 1,168.249 |
| Quantity of RDT&E Articles | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | |

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

The Mobile User Objective System (MUOS) program provides for the development of the next generation Department of Defense (DoD) advanced narrowband communications satellite constellation. The current Ultra-High Frequency (UHF) Follow-On (UFO) constellation is projected to degrade below acceptable availability parameters in 2012.

This MUOS Research Development Test & Evaluation, Navy (RDT&E,N) effort supports an On-Orbit Capability (OOC) in fiscal year (FY) 2012 and Full Operational Capability (FOC) in FY 2015.

FY12: MUOS program will complete all remaining testing and preparation efforts to support launch for satellite 2. The MUOS activities planned for the Ground segment will include system software testing and fixes; and installation and testing of the ground site software.

| B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each) | FY 2010 | FY 2011 | FY 2012 |
|---|---|---|---|
| ***Title:*** Mobile User Objective Sys (MUOS) | 369.243 | 405.699 | 244.186 |
| ***Articles:*** | 0 | 0 | 0 |
| ***FY 2010 Accomplishments:***<br>Continued work on the assembly, integration and testing of satellite 1, continued fabrication of satellite 2, and developed and tested early versions of the Common Air Interface (CAI) waveform, including spectrum and certification testing. Designed and tested additional engineering changes to the contract baseline primarily due to National Security Agency (NSA) requirements. Continued software development and testing for the integrated ground system, which includes the MUOS CAI waveform, as well as continued fielding and testing of the equipment for the ground infrastructure. | | | |
| ***FY 2011 Plans:***<br>Complete work on the assembly, integration and testing of satellite 1, satellite 1 shipment and launch vehicle mate operations and launch. Continue work on assembly, integration and testing of satellite 2. Continue development and test of follow-on versions of the CAI waveform. Complete ground systems software development/final acceptance tests. Provide fixes to ground software resulting from system testing. Complete installation and testing of ground software at the Australia site. Begin installation and testing of the final ground software at the Wahiawa and Northwest sites. | | | |
| ***FY 2012 Plans:*** | | | |

| Exhibit R-2A, RDT&E Project Justification: PB 2012 Navy | | DATE: February 2011 |
|---|---|---|
| **APPROPRIATION/BUDGET ACTIVITY**<br>1319: *Research, Development, Test & Evaluation, Navy*<br>BA 7: *Operational Systems Development* | **R-1 ITEM NOMENCLATURE**<br>PE 0303109N: *Satellite Communications (Space)* | **PROJECT**<br>2472: *Mobile User Objective Sys (MUOS)* |

| B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each) | FY 2010 | FY 2011 | FY 2012 |
|---|---|---|---|
| Complete work on the assembly, integration and testing of satellite 2, satellite 2 shipment and launch vehicle mate operations and launch. Provide fixes to ground software resulting from system testing. Complete installation and testing of final ground software at the Wahiawa and Northwest sites. Begin installation and testing of final ground software at the site in Sicily. | | | |
| ***Title:*** UHF Augmentation (formerly known as UHF Hosted Payload)<br>***Articles:***<br><br>***FY 2010 Accomplishments:***<br>Consistent with the Mitigation Report delivered to Congress in March 2010, studies have identified options to augment legacy payload capability and accelerate availability of MUOS-compatible terminals. FY10 pursued plans for additional UHF capability and incorporate into the MUOS spacecraft's final assembly and integration for Flight 1 and Flight 2. | 29.074<br>0 | - | - |
| **Accomplishments/Planned Programs Subtotals** | 398.317 | 405.699 | 244.186 |

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

| Line Item | FY 2010 | FY 2011 | FY 2012 Base | FY 2012 OCO | FY 2012 Total | FY 2013 | FY 2014 | FY 2015 | FY 2016 | Cost To Complete | Total Cost |
|---|---|---|---|---|---|---|---|---|---|---|---|
| • WPN/2433: *Mobile User Objective System (MUOS)* | 509.862 | 505.734 | 238.215 | 0.000 | 238.215 | 204.957 | 22.870 | 8.894 | 9.219 | Continuing | Continuing |

**D. Acquisition Strategy**

Two Component Advancement Development (CAD) contracts were awarded in Q4 FY 2002. A Risk Reduction & Design Development (RRDD) contract was awarded in September 2004 for the first two satellites, system engineering and associated ground infrastructure. Research Development Test & Evaluation, Navy (RDT&E,N) funds will be used to procure the first two satellites and to prepare the MUOS ground site located in Australia. Weapons Procurement, Navy (WPN) funds will be used to procure the remaining four satellites and launch services for all six satellites.

**E. Performance Metrics**

Completion of the RDT&E,N funded portion of the contract (CLIN 1) is expected in FY 2013.

The RDT&E,N funding profile from contract award to completion is represented by the following efforts:

FY 2005-2006: System Engineering efforts associated with preparation and completion of the Preliminary Design Review (PDR); and preparation for the Critical Design Review (CDR).

FY 2007-2008: Completion of CDR phase; procure material and begin fabrication of satellites (Qty 2); and begin design and development of entire ground segment.

| Exhibit R-2A, RDT&E Project Justification: PB 2012 Navy | | DATE: February 2011 |
|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>1319: *Research, Development, Test & Evaluation, Navy*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0303109N: *Satellite Communications (Space)* | PROJECT<br>2472: *Mobile User Objective Sys (MUOS)* |

FY 2009-2012: Continue assembly, integration and testing, launch and achieve On-Orbit Capability of satellites 1 and 2; develop and test Common Air Interface (CAI) waveform; complete ground system software development/final qualification and acceptance testing. Complete site acceptance test of Wahiawa, Australia, and Northwest ground stations.

| Exhibit R-3, RDT&E Project Cost Analysis: PB 2012 Navy | | DATE: February 2011 |
|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>1319: *Research, Development, Test & Evaluation, Navy*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0303109N: *Satellite Communications (Space)* | PROJECT<br>2472: *Mobile User Objective Sys (MUOS)* |

**Product Development ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | Total Prior Years Cost | FY 2011 Cost | FY 2011 Award Date | FY 2012 Base Cost | FY 2012 Base Award Date | FY 2012 OCO Cost | FY 2012 OCO Award Date | FY 2012 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| RRDD AOS Contract | C/CPAF | Lockheed Martin (LM):Sunnyvale, CA | 2,763.354 | 373.976 | Nov 2010 | 231.273 | Nov 2011 | - | | 231.273 | 0.000 | 3,368.603 | Continuing |
| CE Contracts & Demos | C/FFP | LM / Raytheon / Spec Astro / Boeing:VAR | 21.320 | - | | - | | - | | - | 0.000 | 21.320 | Continuing |
| CAD Contracts | C/FFP | LM / Raytheon:VAR | 105.154 | - | | - | | - | | - | 0.000 | 105.154 | Continuing |
| AoA for MUOS | MIPR | Aerospace:El Segundo, CA | 2.782 | - | | - | | - | | - | 0.000 | 2.782 | Continuing |
| Government Studies | MIPR | Aerospace:El Segundo, CA | 0.711 | - | | - | | - | | - | 0.000 | 0.711 | Continuing |
| Crypto Procurement | MIPR | NSA:Fort Meade, MD | 3.703 | - | | - | | - | | - | 0.000 | 3.703 | Continuing |
| UHF Augmentation | C/CPAF | Lockheed Martin (LM):Sunnyvale, CA | 29.565 | - | | - | | - | | - | 0.000 | 29.565 | Continuing |
| | | **Subtotal** | 2,926.589 | 373.976 | | 231.273 | | - | | 231.273 | 0.000 | 3,531.838 | |

**Support ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | Total Prior Years Cost | FY 2011 Cost | FY 2011 Award Date | FY 2012 Base Cost | FY 2012 Base Award Date | FY 2012 OCO Cost | FY 2012 OCO Award Date | FY 2012 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| UFO TT&C Terminal Upgrades | WR | SSC PAC:San Diego, CA | 10.691 | - | | - | | - | | - | 0.000 | 10.691 | Continuing |
| Facilities Modifications | WR | SSC LANT:Norfolk, VA | 2.537 | 0.325 | Oct 2010 | 0.217 | Apr 2012 | - | | 0.217 | 0.000 | 3.079 | Continuing |
| Australian Site Prep | C/FFP | Boeing:Brisbane, AUS | 26.272 | - | | - | | - | | - | 0.000 | 26.272 | Continuing |
| Leased Lines | C/FFP | Australian Government:Brisbane, AUS | - | - | | - | | - | | - | 0.000 | 0.000 | Continuing |
| Studies & Analyses (EELV) | MIPR | SMC/FMAIC:El Segundo, CA | 0.825 | - | | - | | - | | - | 0.000 | 0.825 | Continuing |
| ISCS Integration | WR | NAVSOC:Point Mugu, CA | 6.964 | 0.466 | Jan 2011 | 0.238 | Apr 2012 | - | | 0.238 | 0.000 | 7.668 | Continuing |
| Narrowband SATCOM SE Group (NSSEG) - MUOS N2N | WR | SSC LANT:Charleston, SC | 1.246 | 0.623 | Jan 2011 | - | | - | | - | 0.000 | 1.869 | Continuing |

| Exhibit R-3, RDT&E Project Cost Analysis: PB 2012 Navy | | DATE: February 2011 |
|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>1319: *Research, Development, Test & Evaluation, Navy*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0303109N: *Satellite Communications (Space)* | PROJECT<br>2472: *Mobile User Objective Sys (MUOS)* |

**Support ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | Total Prior Years Cost | FY 2011 Cost | FY 2011 Award Date | FY 2012 Base Cost | FY 2012 Base Award Date | FY 2012 OCO Cost | FY 2012 OCO Award Date | FY 2012 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | **Subtotal** | 48.535 | 1.414 | | 0.455 | | - | | 0.455 | 0.000 | 50.404 | |

**Test and Evaluation ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | Total Prior Years Cost | FY 2011 Cost | FY 2011 Award Date | FY 2012 Base Cost | FY 2012 Base Award Date | FY 2012 OCO Cost | FY 2012 OCO Award Date | FY 2012 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Developmental Test & Evaluation | WR | JITC:Fort Huachuca, AZ | 7.199 | - | | 4.029 | Jan 2012 | - | | 4.029 | 0.000 | 11.228 | |
| Operational Test & Evaluation | WR | OPTEVFOR:Norfolk, VA | 2.974 | 0.701 | Oct 2010 | 2.000 | Jan 2012 | - | | 2.000 | 0.000 | 5.675 | |
| | | **Subtotal** | 10.173 | 0.701 | | 6.029 | | - | | 6.029 | 0.000 | 16.903 | |

**Management Services ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | Total Prior Years Cost | FY 2011 Cost | FY 2011 Award Date | FY 2012 Base Cost | FY 2012 Base Award Date | FY 2012 OCO Cost | FY 2012 OCO Award Date | FY 2012 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Contractor Engineering Support | C/CPAF | Accenture:San Diego, CA | 125.948 | 23.378 | Nov 2010 | - | | - | | - | 0.000 | 149.326 | |
| Contractor Engineering Support - FY2012 | C/CPAF | Unknown:Unknown | - | - | | 3.684 | Nov 2011 | - | | 3.684 | 0.000 | 3.684 | Continuing |
| Government Engineering | WR | SSC PAC:San Diego, CA | 28.312 | 5.141 | Mar 2011 | 1.703 | Nov 2011 | - | | 1.703 | 0.000 | 35.156 | |
| Program Management Support | C/CPAF | Booz Allen Hamilton:McLean, VA | 36.398 | 0.099 | Mar 2011 | - | | - | | - | 0.000 | 36.497 | |
| Program Management Support - FY2012 | C/CPAF | Unknown:Unknown | - | - | | 0.867 | Nov 2011 | - | | 0.867 | 0.000 | 0.867 | |
| Travel | WR | PMW 146:San Diego, CA | 2.420 | 0.550 | Nov 2010 | 0.175 | Nov 2011 | - | | 0.175 | 0.000 | 3.145 | |
| Frequency Filing | C/FFP | ITU:Geneva, CH | 0.855 | 0.440 | Aug 2011 | - | | - | | - | 0.000 | 1.295 | |
| IPA/ICAT | WR | Aerospace:El Segundo, CA | 0.390 | - | | - | | - | | - | 0.000 | 0.390 | |

| Exhibit R-3, RDT&E Project Cost Analysis: PB 2012 Navy | | DATE: February 2011 |
|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>1319: *Research, Development, Test & Evaluation, Navy*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0303109N: *Satellite Communications (Space)* | PROJECT<br>2472: *Mobile User Objective Sys (MUOS)* |

**Management Services ($ in Millions)**

| Cost Category Item | Contract Method & Type | Performing Activity & Location | Total Prior Years Cost | FY 2011 Cost | FY 2011 Award Date | FY 2012 Base Cost | FY 2012 Base Award Date | FY 2012 OCO Cost | FY 2012 OCO Award Date | FY 2012 Total Cost | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Acquisition Workforce Fund | C/FP | Not Specified:Not Specified | 2.454 | - | | - | | - | | - | 0.000 | 2.454 | |
| | | **Subtotal** | 196.777 | 29.608 | | 6.429 | | - | | 6.429 | 0.000 | 232.814 | |

| | Total Prior Years Cost | FY 2011 | | FY 2012 Base | | FY 2012 OCO | | FY 2012 Total | Cost To Complete | Total Cost | Target Value of Contract |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Project Cost Totals** | 3,182.074 | 405.699 | | 244.186 | | - | | 244.186 | 0.000 | 3,831.959 | |

**Remarks**

| Exhibit R-4, RDT&E Schedule Profile: PB 2012 Navy | | DATE: February 2011 |
|---|---|---|
| **APPROPRIATION/BUDGET ACTIVITY**<br>1319: *Research, Development, Test & Evaluation, Navy*<br>BA 7: *Operational Systems Development* | **R-1 ITEM NOMENCLATURE**<br>PE 0303109N: *Satellite Communications (Space)* | **PROJECT**<br>2472: *Mobile User Objective Sys (MUOS)* |

| Exhibit R-4A, RDT&E Schedule Details: PB 2012 Navy | | DATE: February 2011 |
|---|---|---|
| **APPROPRIATION/BUDGET ACTIVITY**<br>1319: *Research, Development, Test & Evaluation, Navy*<br>BA 7: *Operational Systems Development* | **R-1 ITEM NOMENCLATURE**<br>PE 0303109N: *Satellite Communications (Space)* | **PROJECT**<br>2472: *Mobile User Objective Sys (MUOS)* |

## Schedule Details

| | Start | | End | |
|---|---|---|---|---|
| **Events by Sub Project** | **Quarter** | **Year** | **Quarter** | **Year** |
| ***Proj 2472*** | | | | |
| Segment/Intersegment Testing | 1 | 2010 | 1 | 2012 |
| Build and Operations Phase | 1 | 2010 | 4 | 2016 |
| Operational Assessment (OT-D1) | 1 | 2010 | 1 | 2010 |
| Operational Test Readiness Review (OTRR) #1 | 2 | 2012 | 2 | 2012 |
| DT-D2 | 1 | 2010 | 4 | 2012 |
| Defense Acquisition Executive (DAE) Review/Follow-on Buy Decision #1 | 1 | 2010 | 1 | 2010 |
| DT-D3 Tech Eval 1 | 1 | 2012 | 2 | 2012 |
| Defense Acquisition Executive (DAE) Review/Follow-on Buy Decision #2 | 4 | 2010 | 4 | 2010 |
| Mission Readiness Review (MRR) | 3 | 2011 | 3 | 2011 |
| Operational Assessment (OT-D2) | 4 | 2010 | 4 | 2010 |
| Launch of Satellite #1 (MUOS 1) | 4 | 2011 | 4 | 2011 |
| On-Orbit Capability for Satellite #1 (MUOS 1) | 1 | 2012 | 1 | 2012 |
| MUOS Ground System Installation | 1 | 2010 | 1 | 2013 |
| Operational Test Readiness Review (OTRR) #2 | 1 | 2013 | 1 | 2013 |
| On-Orbit Testing | 1 | 2012 | 4 | 2016 |
| OT-D3 Multi-Service Operational Testing & Evaluation (MOT&E 1) | 2 | 2012 | 3 | 2012 |
| OT-D4 Multi-Service Operational Testing & Evaluation (MOT&E 2) | 1 | 2013 | 2 | 2013 |
| Launch of Satellite #2 (MUOS 2) | 3 | 2012 | 3 | 2012 |
| On-Orbit Capability for Satellite #2 (MUOS 2) | 4 | 2012 | 4 | 2012 |
| DT-D4 Tech Eval 2 | 4 | 2012 | 1 | 2013 |
| Follow-On Test Evaluation (FOT&E) | 4 | 2013 | 2 | 2015 |

| Exhibit R-4A, RDT&E Schedule Details: PB 2012 Navy | | DATE: February 2011 |
|---|---|---|
| **APPROPRIATION/BUDGET ACTIVITY**<br>1319: *Research, Development, Test & Evaluation, Navy*<br>BA 7: *Operational Systems Development* | **R-1 ITEM NOMENCLATURE**<br>PE 0303109N: *Satellite Communications (Space)* | **PROJECT**<br>2472: *Mobile User Objective Sys (MUOS)* |

| | Start | | End | |
|---|---|---|---|---|
| **Events by Sub Project** | **Quarter** | **Year** | **Quarter** | **Year** |
| Deployment Decision Review (DDR) | 2 | 2012 | 2 | 2012 |
| Launch of Satellite #3 (MUOS 3) | 3 | 2013 | 3 | 2013 |
| On-Orbit Capability for Satellite #3 (MUOS 3) | 4 | 2013 | 4 | 2013 |
| Launch of Satellite #4 (MUOS 4) | 3 | 2014 | 3 | 2014 |
| On-Orbit Capability for Satellite #4 (MUOS 4) | 4 | 2014 | 4 | 2014 |
| Launch of Satellite #5 (MUOS 5) | 3 | 2015 | 3 | 2015 |
| On-Orbit Capability for Satellite #5 (MUOS 5) | 4 | 2015 | 4 | 2015 |
| Full Operational Capability (FOC) | 4 | 2015 | 4 | 2015 |

| Exhibit R-2A, RDT&E Project Justification: PB 2012 Navy | | | DATE: February 2011 |
|---|---|---|---|
| APPROPRIATION/BUDGET ACTIVITY<br>1319: *Research, Development, Test & Evaluation, Navy*<br>BA 7: *Operational Systems Development* | R-1 ITEM NOMENCLATURE<br>PE 0303109N: *Satellite Communications (Space)* | PROJECT<br>9122: *Adv Wideband System Integrated Term Prog* | |

| COST ($ in Millions) | FY 2010 | FY 2011 | FY 2012 Base | FY 2012 OCO | FY 2012 Total | FY 2013 | FY 2014 | FY 2015 | FY 2016 | Cost To Complete | Total Cost |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 9122: *Adv Wideband System Integrated Term Prog* | 2.509 | - | - | - | - | - | - | - | - | 0.000 | 2.509 |
| Quantity of RDT&E Articles | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | |

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

The Navy Transformational Communications (NTC) terminal program provides for the development and production of terminals to provide high capacity, reliable, Anti-Jam/Low Probability of Intercept (AJ/LPI) communications capability to the fleet. Terminals will support multiple data streams over Q-band, Ka-band, and X-band. The Secretary of Defense (SECDEF) recommended this program for termination. As a consequence, the basis for the NTC is no longer valid. Navy has closed out the program and properly documented the research and development done to date.

| B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each) | FY 2010 | FY 2011 | FY 2012 |
|---|---|---|---|
| ***Title:*** Adv Wideband System Integrated Term Prog | 2.509 | - | - |
| ***Articles:*** | 0 | | |
| ***FY 2010 Accomplishments:***<br>The Secretary of Defense (SECDEF) recommended this program for termination. As a consequence the basis for the NTC is no longer valid. Navy utilized funds to close out the program and properly documented the research and development done to date. | | | |
| **Accomplishments/Planned Programs Subtotals** | 2.509 | - | - |

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

N/A

**D. Acquisition Strategy**

Navy has closed out the program and properly documented the research and development done to date.

**E. Performance Metrics**

N/A.