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Exhibit R-2, RDT&E Budget Item Justification: PB 2012 Air Force **DATE:** February 2011

| APPROPRIATION/BUDGET ACTIVITY | | | | R-1 ITEM NOMENCLATURE | | | | | | | |
|--|---------|---------|--------------|---|---------------|---------|---------|---------|---------|------------------|------------|
| 3600: <i>Research, Development, Test & Evaluation, Air Force</i> BA 4: <i>Advanced Component Development & Prototypes (ACD&P)</i> | | | | PE 0603430F: <i>Advanced (EHF MILSATCOM (Space)</i> | | | | | | | |
| 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 | 456.238 | 351.817 | 421.687 | - | 421.687 | 392.884 | 360.969 | 343.483 | 215.929 | Continuing | Continuing |
| 644050: <i>Advanced MILSATCOM</i> | 456.238 | 351.817 | 279.495 | - | 279.495 | 160.278 | 64.357 | 37.938 | - | Continuing | Continuing |
| 64A030: <i>Evolved AEHF MILSATCOM</i> | - | - | 142.192 | - | 142.192 | 232.606 | 296.612 | 305.545 | 215.929 | Continuing | Continuing |

Note

Totals include funding for PRCP Program Number 261, AEHF.

The program funding includes Overhead reduction and Reports/Studies/ Boards/Reviews efficiencies that are not intended to impact program content. The efficiencies reductions total \$4.3M in FY12.

The Capability and Affordability Insertion Program (CAIP) is funded in BPAC 64A030, Evolved AEHF MILSATCOM. Prior to FY12PB, BPAC 64A030 funds were included in BPAC 644050.

A. Mission Description and Budget Item Justification

Develop and acquire Advanced Extremely High Frequency (AEHF) Military Satellite Communications (MILSATCOM) satellites, mission control segment and cryptography for survivable, anti-jam, worldwide, secure communications for the strategic and tactical warfighters. AEHF satellites will replenish the existing EHF system (Milstar) providing much higher capacity and data rate (5x increase over Milstar II) capabilities. AEHF is a cooperative program that includes International Partners (Canada, the United Kingdom, and the Kingdom of the Netherlands).

Space Vehicle-1 (SV-1) launched on 14 August 2010. SV-1 experienced a propulsion anomaly and is being raised to its geostationary orbit using alternative orbit raising techniques. SV-1 is projected to reach its on-orbit checkout location in August 2011. SV-2 is in storage and has a No-Earlier-Than (NET) 2QFY12 launch availability. The FY12 funds efforts such as SV-2 launch and on-orbit test & operations support, incremental Mission Control Segment (MCS) development including ground mobile command and control, test/fielding and support, and studies/analyses as required.

With SV-1 launched and SV-2 in storage, the AEHF program has nearly completed its development phase and is now addressing obsolescence, production continuity, supplier stability and industrial base issues. The Evolutionary Acquisition for Space Efficiency (EASE) approach is designed to address obsolescence issues (e.g., SV-6 crypto redevelopment, obsolescence/Diminishing Manufacturing Sources studies) as well as implement a Capability and Affordability Improvement (CAIP) program for SVs 7-8 that will employ key engineering staff with savings realized from a production block buy of satellites (i.e., SVs 5-6). The FY12 funds focus on parts obsolescence and risk reduction activities informed by the FY11 Space Communications Layer (JSCL) Materiel Solutions Analysis (MSA). The fielding of new capabilities will be based on technical maturity to prevent introducing undue risk. Future architecture development occurs in parallel to develop the next generation capability and encourage advanced technological concepts.

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| Exhibit R-2, RDT&E Budget Item Justification: PB 2012 Air Force | | | | DATE: February 2011 | |
| APPROPRIATION/BUDGET ACTIVITY | | R-1 ITEM NOMENCLATURE | | | |
| 3600: Research, Development, Test & Evaluation, Air Force | | PE 0603430F: Advanced (EHF MILSATCOM (Space) | | | |
| BA 4: Advanced Component Development & Prototypes (ACD&P) | | | | | |
| This program is in Budget Activity 4, Advanced Component Development and Prototypes, since it funds Advanced EHF technology validation and modeling. | | | | | |
| B. Program Change Summary (\$ in Millions) | FY 2010 | FY 2011 | FY 2012 Base | FY 2012 OCO | FY 2012 Total |
| Previous President's Budget | 461.380 | 351.817 | 740.127 | - | 740.127 |
| Current President's Budget | 456.238 | 351.817 | 421.687 | - | 421.687 |
| Total Adjustments | -5.142 | - | -318.440 | - | -318.440 |
| • Congressional General Reductions | | - | | | |
| • Congressional Directed Reductions | | - | | | |
| • Congressional Rescissions | - | - | | | |
| • Congressional Adds | | - | | | |
| • Congressional Directed Transfers | | - | | | |
| • Reprogrammings | - | - | | | |
| • SBIR/STTR Transfer | -3.205 | - | | | |
| • Other Adjustments | -1.937 | - | -318.440 | - | -318.440 |
| Change Summary Explanation | | | | | |
| FY12 funds were adjusted to address AEHF Capability and Affordability Insertion Program (CAIP) ramp management; funding is sufficient to address parts obsolescence and risk reduction of key technologies required to enhance AEHF. | | | | | |

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| Exhibit R-2A, RDT&E Project Justification: PB 2012 Air Force | | | | | | | | DATE: February 2011 | | | |
| APPROPRIATION/BUDGET ACTIVITY 3600: Research, Development, Test & Evaluation, Air Force BA 4: Advanced Component Development & Prototypes (ACD&P) | | | | R-1 ITEM NOMENCLATURE PE 0603430F: Advanced (EHF MILSATCOM (Space) | | | | PROJECT 644050: Advanced MILSATCOM | | | |
| 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 |
| 644050: Advanced MILSATCOM | 456.238 | 351.817 | 279.495 | - | 279.495 | 160.278 | 64.357 | 37.938 | - | Continuing | Continuing |
| Quantity of RDT&E Articles | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | |
| Note Totals include funding for PRCP Program Number 261, AEHF. | | | | | | | | | | | |
| A. Mission Description and Budget Item Justification Develop and acquire Advanced Extremely High Frequency (AEHF) Military Satellite Communications (MILSATCOM) satellites, mission control segment and cryptography for survivable, anti-jam, worldwide, secure communications for the strategic and tactical warfighters. AEHF satellites will replenish the existing EHF system (Milstar) providing much higher capacity and data rate (5x increase over Milstar II) capabilities. AEHF is a cooperative program that includes International Partners (Canada, the United Kingdom, and the Kingdom of the Netherlands). Space Vehicle-1 (SV-1) launched on 14 August 2010. SV-1 experienced a propulsion anomaly and is being raised to its geostationary orbit using alternative orbit raising techniques. SV-1 is projected to reach its on-orbit checkout location in August 2011. SV-2 is in storage and has a No-Earlier-Than (NET) 2QFY12 launch availability. The FY12 funds efforts such as SV-2 launch and on-orbit test & operations support, incremental Mission Control Segment (MCS) development including ground mobile command and control, test/fielding and support, and studies/analyses as required. | | | | | | | | | | | |
| B. Accomplishments/Planned Programs (\$ in Millions) | | | | | | | FY 2010 | FY 2011 | FY 2012 Base | FY 2012 OCO | FY 2012 Total |
| Title: AEHF SVs 1-2, MCS | | | | | | | 456.238 | 351.817 | 279.495 | - | 279.495 |
| Description: Develop and acquire AEHF MILSATCOM satellites, mission control segment, and cryptography | | | | | | | | | | | |
| FY 2010 Accomplishments: In FY 2010, completed SV-1 Final Integrated System Test (FIST), launch readiness and launch. Completed SV-2 Integration and Test, FIST, and Intersegment test. Delivered MCS Increment 4 to support AEHF-Milstar Command and Control (C2) cutover and SV-1 launch operations and completed MCS Increment 5. Conducted Interim Contractor Suport, continued technology needs forecasting, obsolescence studies, and initiated an AEHF Capability Insertion Program (CIP) [FY09 OMNIBUS funds]. Conducted qualification and productization of radiation-hardened components for USAF/DOD space programs [FY09 OMNIBUS funds]. | | | | | | | | | | | |
| FY 2011 Plans: | | | | | | | | | | | |

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| Exhibit R-2A, RDT&E Project Justification: PB 2012 Air Force | | | | | | | | | | DATE: February 2011 | |
| APPROPRIATION/BUDGET ACTIVITY 3600: <i>Research, Development, Test & Evaluation, Air Force</i> BA 4: <i>Advanced Component Development & Prototypes (ACD&P)</i> | | | | R-1 ITEM NOMENCLATURE PE 0603430F: <i>Advanced (EHF MILSATCOM (Space)</i> | | | | PROJECT 644050: <i>Advanced MILSATCOM</i> | | | |
| B. Accomplishments/Planned Programs (\$ in Millions) | | | | | | | | | | | |
| | | | | | | FY 2010 | FY 2011 | FY 2012 Base | FY 2012 OCO | FY 2012 Total | |
| In FY 2011, conduct SV-1 on-orbit test and maintain SV-2 in environmentally-controlled storage. Deliver MCS Increment 5 and complete MCS Increment 7. Conduct Interim Contractor Support, continue program office support and related activities, continue technology needs forecasting, obsolescence studies, and support Capability and Insertion Program (CIP) for future capability enhancements. FY 2012 Base Plans: In FY 2012, continue SV-1 on-orbit test and initiate operations. Complete SV-2 launch readiness, launch, and on-orbit test/operations. Deliver MCS Increment 7. Conduct Interim Contractor Support, continue program office support and related activities, and conduct studies/analyses, as required. FY 2012 OCO Plans: | | | | | | | | | | | |
| Accomplishments/Planned Programs Subtotals | | | | | | 456.238 | 351.817 | 279.495 | - | 279.495 | |
| 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 |
| • Related Proc: <i>Title Not Provided</i> | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | Continuing | Continuing |
| • PE 0303604F: <i>Advanced EHF, MPAF</i> | 1,836.687 | 246.598 | 552.833 | 0.000 | 552.833 | 555.421 | 542.388 | 486.405 | 686.469 | Continuing | Continuing |
| • PE 0603854F: <i>Wideband MILSATCOM (Space), Project #644870, CCS-C, RDT&E</i> | 24.685 | 18.174 | 12.804 | 0.000 | 12.804 | 12.494 | 14.548 | 17.492 | 17.801 | Continuing | Continuing |
| • PE 0303601F: <i>MILSATCOM Terminals, RDT&E</i> | 239.352 | 186.582 | 238.729 | 0.000 | 238.729 | 136.666 | 15.970 | 13.030 | 13.275 | Continuing | Continuing |
| D. Acquisition Strategy The Advanced MILSATCOM, also known as Advanced EHF (AEHF), program is a sole source acquisition to a contractor team comprised of Lockheed Martin (prime/integrator) and Northrop-Grumman (provider of the satellite payload). This team will perform the Advanced Component Development and Prototypes (ACD&P) and Systems Development and Demonstration (SDD) of two RDT&E-funded satellites and associated mission command and control ground capabilities under Cost Plus Award Fee line items on the contract. AEHF will incorporate lessons learned and improvements from Milstar and commercial SATCOM practices into the next generation EHF secure, anti-jam military communications satellite system. | | | | | | | | | | | |

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| Exhibit R-2A, RDT&E Project Justification: PB 2012 Air Force | | DATE: February 2011 |
| APPROPRIATION/BUDGET ACTIVITY 3600: <i>Research, Development, Test & Evaluation, Air Force</i> BA 4: <i>Advanced Component Development & Prototypes (ACD&P)</i> | R-1 ITEM NOMENCLATURE PE 0603430F: <i>Advanced (EHF MILSATCOM (Space)</i> | PROJECT 644050: <i>Advanced MILSATCOM</i> |

E. Performance Metrics

Please refer to the Performance Base Budget Overview Book for information on how Air Force resources are applied and how those resources are contributing to Air Force performance goals and most importantly, how they contribute to our mission.

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| Exhibit R-3, RDT&E Project Cost Analysis: PB 2012 Air Force | | | | | | | | | | DATE: February 2011 | | | |
| APPROPRIATION/BUDGET ACTIVITY 3600: Research, Development, Test & Evaluation, Air Force BA 4: Advanced Component Development & Prototypes (ACD&P) | | | | R-1 ITEM NOMENCLATURE PE 0603430F: Advanced (EHF MILSATCOM (Space) | | | | PROJECT 644050: Advanced MILSATCOM | | | | | |
| Product Development (\$ in Millions) | | | | FY 2011 | | FY 2012 Base | | FY 2012 OCO | | FY 2012 Total | | | |
| Cost Category Item | Contract Method & Type | Performing Activity & Location | Total Prior Years Cost | Cost | Award Date | Cost | Award Date | Cost | Award Date | Cost | Cost To Complete | Total Cost | Target Value of Contract |
| Cryptographic Development | MIPR | NSA:Camden, NJ | 252.730 | 9.300 | Dec 2010 | 10.500 | | - | | 10.500 | Continuing | Continuing | 0.000 |
| Terminals Engineering | C/CPFF | JTEO:San Diego, CA | 15.491 | - | | - | | - | | - | 0.000 | 15.491 | 0.000 |
| MILSATCOM Technology Validation | SS/CPAF | MIT/LL:Lexington, MA | 21.538 | - | | - | | - | | - | 0.000 | 21.538 | 0.000 |
| Technical Support | SS/CPAF | MITRE:Bedford, MA | 0.779 | - | | - | | - | | - | 0.000 | 0.779 | 0.000 |
| Processing Subsystem Engineering Model | Various | Hughes:El Segundo, CA | 67.175 | - | | - | | - | | - | 0.000 | 67.175 | 0.000 |
| Processing Subsystem Engineering Model (2) | Various | TRW:Redondo Beach, CA | 62.083 | - | | - | | - | | - | 0.000 | 62.083 | 0.000 |
| Technical Projects | Various | Various:Various, | 66.659 | - | | - | | - | | - | 0.000 | 66.659 | 0.000 |
| Pre-EMD | Various | Lockheed Martin:Sunnyvale, CA | 225.011 | - | | - | | - | | - | 0.000 | 225.011 | 0.000 |
| SDD | Various | Lockheed Martin:Sunnyvale, CA | 4,648.036 | 213.817 | Dec 2010 | 135.295 | Dec 2010 | - | | 135.295 | Continuing | Continuing | 0.000 |
| Interim Contractor Support | Various | Lockheed Martin:Sunnyvale, CA | 78.300 | 54.900 | Dec 2010 | 83.000 | Dec 2011 | - | | 83.000 | Continuing | Continuing | 0.000 |
| Radiation Hardened parts developers | Various | Various:Various, | 117.480 | - | | - | | - | | - | 0.000 | 117.480 | 0.000 |
| Subtotal | | | 5,555.282 | 278.017 | | 228.795 | | - | | 228.795 | | | 0.000 |
| Support (\$ in Millions) | | | | FY 2011 | | FY 2012 Base | | FY 2012 OCO | | FY 2012 Total | | | |
| Cost Category Item | Contract Method & Type | Performing Activity & Location | Total Prior Years Cost | Cost | Award Date | Cost | Award Date | Cost | Award Date | Cost | Cost To Complete | Total Cost | Target Value of Contract |
| Various | Various | Not specified.: | 123.696 | - | | - | | - | | - | 0.000 | 123.696 | 0.000 |
| Technical Support | Various | Not specified.: | 100.371 | 12.800 | Dec 2009 | 4.900 | Dec 2010 | - | | 4.900 | Continuing | Continuing | 0.000 |
| GFP | Various | Not specified.: | 22.437 | 14.900 | Dec 2010 | 12.700 | | - | | 12.700 | 0.000 | 50.037 | 0.000 |
| Program Office Support | Various | Not specified.: | 146.556 | 46.100 | Dec 2010 | 33.100 | Dec 2010 | - | | 33.100 | Continuing | Continuing | 0.000 |
| Subtotal | | | 393.060 | 73.800 | | 50.700 | | - | | 50.700 | | | 0.000 |

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| Exhibit R-3, RDT&E Project Cost Analysis: PB 2012 Air Force | | | | | | | | | | | DATE: February 2011 | | |
| APPROPRIATION/BUDGET ACTIVITY 3600: <i>Research, Development, Test & Evaluation, Air Force</i> BA 4: <i>Advanced Component Development & Prototypes (ACD&P)</i> | | | | R-1 ITEM NOMENCLATURE PE 0603430F: <i>Advanced (EHF MILSATCOM (Space)</i> | | | | PROJECT 644050: <i>Advanced MILSATCOM</i> | | | | | |

| Test and Evaluation (\$ in Millions) | | | | FY 2011 | | FY 2012 Base | | FY 2012 OCO | | FY 2012 Total | | | |
|---|------------------------------|-----------------------------------|------------------------------|---------|---------------|-----------------|---------------|----------------|---------------|------------------|---------------------|------------|--------------------------------|
| Cost Category Item | Contract Method & Type | Performing Activity & Location | Total Prior Years Cost | Cost | Award Date | Cost | Award Date | Cost | Award Date | Cost | Cost To Complete | Total Cost | Target Value of Contract |
| Subtotal | | | - | - | | - | | - | | - | 0.000 | 0.000 | 0.000 |

| Management Services (\$ in Millions) | | | | FY 2011 | | FY 2012 Base | | FY 2012 OCO | | FY 2012 Total | | | |
|---|------------------------------|-----------------------------------|------------------------------|---------|---------------|-----------------|---------------|----------------|---------------|------------------|---------------------|------------|--------------------------------|
| Cost Category Item | Contract Method & Type | Performing Activity & Location | Total Prior Years Cost | Cost | Award Date | Cost | Award Date | Cost | Award Date | Cost | Cost To Complete | Total Cost | Target Value of Contract |
| Subtotal | | | - | - | | - | | - | | - | 0.000 | 0.000 | 0.000 |

| | 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 | 5,948.342 | 351.817 | | 279.495 | | - | | 279.495 | | | 0.000 |

Remarks

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| Exhibit R-4, RDT&E Schedule Profile: PB 2012 Air Force | | DATE: February 2011 |
| APPROPRIATION/BUDGET ACTIVITY 3600: <i>Research, Development, Test & Evaluation, Air Force</i> BA 4: <i>Advanced Component Development & Prototypes (ACD&P)</i> | R-1 ITEM NOMENCLATURE PE 0603430F: <i>Advanced (EHF MILSATCOM</i> <i>(Space)</i> | PROJECT 644050: <i>Advanced MILSATCOM</i> |
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| Exhibit R-4A, RDT&E Schedule Details: PB 2012 Air Force | | | DATE: February 2011 |
| APPROPRIATION/BUDGET ACTIVITY 3600: <i>Research, Development, Test & Evaluation, Air Force</i> BA 4: <i>Advanced Component Development & Prototypes (ACD&P)</i> | R-1 ITEM NOMENCLATURE PE 0603430F: <i>Advanced (EHF MILSATCOM (Space)</i> | PROJECT 644050: <i>Advanced MILSATCOM</i> | |

Schedule Details

| Events | Start | | End | |
|---|---------|------|---------|------|
| | Quarter | Year | Quarter | Year |
| Field Ground Segment Software Increment 4 (World-wide Flight and Payload Control of 5 Milstar satellites and 1 AEHF satellite - BWC Products) | 3 | 2010 | 3 | 2010 |
| Launch first AEHF satellite | 4 | 2010 | 4 | 2010 |
| Field Ground Segment Software Increment 5 (eXtended Data Rate) | 3 | 2011 | 3 | 2011 |
| Launch second AEHF satellite | 2 | 2012 | 2 | 2012 |
| Field Ground Segment Software Increment 7 (eXtended Data Rate capability to International Partners) | 3 | 2012 | 3 | 2012 |

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| Exhibit R-2A, RDT&E Project Justification: PB 2012 Air Force | | | | | | | | DATE: February 2011 | | | |
| APPROPRIATION/BUDGET ACTIVITY 3600: Research, Development, Test & Evaluation, Air Force BA 4: Advanced Component Development & Prototypes (ACD&P) | | | | R-1 ITEM NOMENCLATURE PE 0603430F: Advanced (EHF MILSATCOM (Space) | | | | PROJECT 64A030: Evolved AEHF MILSATCOM | | | |
| 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 |
| 64A030: Evolved AEHF MILSATCOM | - | - | 142.192 | - | 142.192 | 232.606 | 296.612 | 305.545 | 215.929 | Continuing | Continuing |
| Quantity of RDT&E Articles | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | |
| Note The AEHF Capability and Affordability Insertion Program (CAIP) begins in FY12. Prior to the FY12PB, BPAC 64A030 funds were included in BPAC 644050. | | | | | | | | | | | |
| A. Mission Description and Budget Item Justification This project funds the AEHF Capability and Affordability Insertion Program (CAIP) which advances capability maturation for insertion in future space vehicle increments (i.e., SV 7-8) and establishes long-term, strategic innovation of advanced capabilities. CAIP supports the replenishment of AEHF satellites which will be procured through the Department of Defense (DOD) Evolutionary Acquisition for Space Efficiency (EASE) approach. EASE enables stable production, strategic sub-tier management and a capability and affordability insertion program. The AEHF satellite design has been frozen for many years and several systems with obsolete parts now require substantial redesign efforts to accommodate more modern replacements. CAIP technology refresh will be prioritized in joint coordination with the user and be incrementally implemented to mitigate schedule delivery impacts and ground mission control segment changes. The redesign will also result in improved manufacturability, fewer boxes and lower recurring costs. The FY12 funds focus on parts obsolescence (e.g., SV-6 crypto redesign). Also, the FY12 funds Protected SATCOM studies to include Broad Agency Announcements (BAA), alternative definition efforts, efforts to mature future SATCOM capabilities enhancements that may lead to a more capable protected SATCOM technology, technology demonstrations, AoA efforts, and program office and related activities. The FY11 Space Communications Layer (JSCL) Materiel Solutions Analysis (MSA) will inform risk reduction activities. | | | | | | | | | | | |
| B. Accomplishments/Planned Programs (\$ in Millions) | | | | | | | FY 2010 | FY 2011 | FY 2012 Base | FY 2012 OCO | FY 2012 Total |
| Title: Evolved AEHF | | | | | | | - | - | 130.692 | - | 130.692 |
| Description: AEHF parts obsolescence redesign effort and CAIP risk reduction activities. | | | | | | | | | | | |
| FY 2010 Accomplishments: Not applicable. | | | | | | | | | | | |
| FY 2011 Plans: Not applicable. | | | | | | | | | | | |
| FY 2012 Base Plans: Funds parts obsolescence redesign to include SV-6 crypto redevelopment, SV 7-8 CAIP acquisition architecture and strategy program with risk reduction activities informed by the FY11 JSCL MSA, Program Office support and other related activities, AoA efforts, Information Assurance efforts, technology demonstrations, SATCOM | | | | | | | | | | | |

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| Exhibit R-2A, RDT&E Project Justification: PB 2012 Air Force | | | | | | | DATE: February 2011 | | | | |
| APPROPRIATION/BUDGET ACTIVITY 3600: Research, Development, Test & Evaluation, Air Force BA 4: Advanced Component Development & Prototypes (ACD&P) | | | R-1 ITEM NOMENCLATURE PE 0603430F: Advanced (EHF MILSATCOM (Space) | | | PROJECT 64A030: Evolved AEHF MILSATCOM | | | | | |
| B. Accomplishments/Planned Programs (\$ in Millions) | | | | | | FY 2010 | FY 2011 | FY 2012 Base | FY 2012 OCO | FY 2012 Total | |
| technology needs efforts, and production and qualification of radiation-hardended components for SAF/DoD space programs. FY 2012 OCO Plans: Not applicable. | | | | | | | | | | | |
| Title: Protected MILSATCOM Architecuture studies Description: Protected MILSATCOM Enterprise architecture planning and studies FY 2010 Accomplishments: Not applicable. FY 2011 Plans: Not applicable. FY 2012 Base Plans: Funds protected MILSATCOM architecture development for next generation capability to be inserted in future AEHF block buy increments, Protected BAAs, capability enhancement studies, technology demonstration efforts and risk mitigation and alternative definitions efforts. FY 2012 OCO Plans: Not applicable. | | | | | | - | - | 11.500 | - | 11.500 | |
| Accomplishments/Planned Programs Subtotals | | | | | | - | - | 142.192 | - | 142.192 | |
| 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 |
| • PE 0604436F: Next Generation MILSATCOM Technology, RDT&E | 49.791 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | Continuing | Continuing |
| • PE 0303604F: Advanced EHF, MPAF | 1,836.687 | 246.598 | 552.833 | 0.000 | 552.833 | 555.421 | 542.388 | 486.405 | 686.469 | Continuing | Continuing |
| D. Acquisition Strategy | | | | | | | | | | | |
| AEHF CAIP will include parts obsolescence redesign and incremental capability upgrades for future block buys contracted with the current prime contractor. Architecture studies for next generation capabilities will include full and open competition efforts. | | | | | | | | | | | |

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| APPROPRIATION/BUDGET ACTIVITY 3600: <i>Research, Development, Test & Evaluation, Air Force</i> BA 4: <i>Advanced Component Development & Prototypes (ACD&P)</i> | R-1 ITEM NOMENCLATURE PE 0603430F: <i>Advanced (EHF MILSATCOM (Space)</i> | PROJECT 64A030: <i>Evolved AEHF MILSATCOM</i> |

E. Performance Metrics

Please refer to the Performance Base Budget Overview Book for information on how Air Force resources are applied and how those resources are contributing to Air Force performance goals and most importantly, how they contribute to our mission.

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| Exhibit R-3, RDT&E Project Cost Analysis: PB 2012 Air Force | | | | | | | | | | DATE: February 2011 | | | | |
| APPROPRIATION/BUDGET ACTIVITY 3600: Research, Development, Test & Evaluation, Air Force BA 4: Advanced Component Development & Prototypes (ACD&P) | | | | | R-1 ITEM NOMENCLATURE PE 0603430F: Advanced (EHF MILSATCOM (Space) | | | | PROJECT 64A030: Evolved AEHF MILSATCOM | | | | | |
| Product Development (\$ in Millions) | | | | | FY 2011 | | FY 2012 Base | | FY 2012 OCO | | FY 2012 Total | | | |
| Cost Category Item | Contract Method & Type | Performing Activity & Location | Total Prior Years Cost | Cost | Award Date | Cost | Award Date | Cost | Award Date | Cost | Cost To Complete | Total Cost | Target Value of Contract | |
| Evolved AEHF Capability & Affordability Insertion Program (CAIP) | SS/TBD | Lockheed Martin:Sunnyvale, CA | - | - | | 45.023 | Dec 2011 | - | | 45.023 | Continuing | Continuing | TBD | |
| AEHF Parts Obsolescence | SS/CPIF | Lockheed Martin:Sunnyvale, CA | - | - | | 49.800 | Dec 2011 | - | | 49.800 | 0.000 | 49.800 | 0.000 | |
| Radiation Hardened Parts developers | Various | Various:, | - | - | | 20.000 | Dec 2011 | - | | 20.000 | 0.000 | 20.000 | 0.000 | |
| Subtotal | | | - | - | | 114.823 | | - | | 114.823 | | | | |
| Support (\$ in Millions) | | | | | FY 2011 | | FY 2012 Base | | FY 2012 OCO | | FY 2012 Total | | | |
| Cost Category Item | Contract Method & Type | Performing Activity & Location | Total Prior Years Cost | Cost | Award Date | Cost | Award Date | Cost | Award Date | Cost | Cost To Complete | Total Cost | Target Value of Contract | |
| Technical & Analysis Support | WR | MIT/Lincoln Lab:Lexington, MA | - | - | | 7.800 | Dec 2011 | - | | 7.800 | Continuing | Continuing | 0.000 | |
| Program Office Support & Other Related Activities | Various | Various:, | - | - | | 8.069 | Dec 2011 | - | | 8.069 | Continuing | Continuing | 0.000 | |
| Protected MILSATCOM Architecture Studies | Various | The Aerospace Corporation:El Segundo, CA | - | - | | 11.500 | Dec 2011 | - | | 11.500 | 0.000 | 11.500 | 0.000 | |
| Subtotal | | | - | - | | 27.369 | | - | | 27.369 | | | 0.000 | |
| Test and Evaluation (\$ in Millions) | | | | | FY 2011 | | FY 2012 Base | | FY 2012 OCO | | FY 2012 Total | | | |
| Cost Category Item | Contract Method & Type | Performing Activity & Location | Total Prior Years Cost | Cost | Award Date | Cost | Award Date | Cost | Award Date | Cost | Cost To Complete | Total Cost | Target Value of Contract | |
| Subtotal | | | - | - | | - | | - | | - | 0.000 | 0.000 | 0.000 | |
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| Exhibit R-3, RDT&E Project Cost Analysis: PB 2012 Air Force | | | | | | | | | | | DATE: February 2011 | | |
| APPROPRIATION/BUDGET ACTIVITY 3600: <i>Research, Development, Test & Evaluation, Air Force</i> BA 4: <i>Advanced Component Development & Prototypes (ACD&P)</i> | | | | R-1 ITEM NOMENCLATURE PE 0603430F: <i>Advanced (EHF MILSATCOM (Space)</i> | | | | PROJECT 64A030: <i>Evolved AEHF MILSATCOM</i> | | | | | |

| Management Services (\$ in Millions) | | | | FY 2011 | | FY 2012 Base | | FY 2012 OCO | | FY 2012 Total | | | |
|--------------------------------------|------------------------|--------------------------------|------------------------|---------|------------|--------------|------------|-------------|------------|---------------|------------------|------------|--------------------------|
| Cost Category Item | Contract Method & Type | Performing Activity & Location | Total Prior Years Cost | Cost | Award Date | Cost | Award Date | Cost | Award Date | Cost | Cost To Complete | Total Cost | Target Value of Contract |
| Subtotal | | | - | - | | - | | - | | - | 0.000 | 0.000 | 0.000 |

| | 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 | - | - | | 142.192 | | - | | 142.192 | | | |

Remarks

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| Exhibit R-4, RDT&E Schedule Profile: PB 2012 Air Force | | DATE: February 2011 |
| APPROPRIATION/BUDGET ACTIVITY 3600: Research, Development, Test & Evaluation, Air Force BA 4: Advanced Component Development & Prototypes (ACD&P) | R-1 ITEM NOMENCLATURE PE 0603430F: Advanced (EHF MILSATCOM (Space) | PROJECT 64A030: Evolved AEHF MILSATCOM |

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| Exhibit R-4A, RDT&E Schedule Details: PB 2012 Air Force | | | DATE: February 2011 |
| APPROPRIATION/BUDGET ACTIVITY 3600: <i>Research, Development, Test & Evaluation, Air Force</i> BA 4: <i>Advanced Component Development & Prototypes (ACD&P)</i> | R-1 ITEM NOMENCLATURE PE 0603430F: <i>Advanced (EHF MILSATCOM (Space)</i> | PROJECT 64A030: <i>Evolved AEHF MILSATCOM</i> | |

Schedule Details

| Events | Start | | End | |
|---------------------------------------|---------|------|---------|------|
| | Quarter | Year | Quarter | Year |
| JCSL AoA MDD | 3 | 2012 | 1 | 2014 |
| AEHF SV 7-8 CAIP Contract Award | 3 | 2012 | 3 | 2012 |
| AEHF SV 7-8 CAIP Milestone A decision | 4 | 2012 | 4 | 2012 |