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Exhibit R-2, RDT&E Budget Item Justification: FY 2018 Air Force **Date:** May 2017

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| Appropriation/Budget Activity 3600: Research, Development, Test & Evaluation, Air Force I BA 7: Operational Systems Development | R-1 Program Element (Number/Name) PE 0303131F I Minimum Essential Emergency Communications Network (MEECN) |
|--|--|

| COST (\$ in Millions) | Prior Years | FY 2016 | FY 2017 | FY 2018 Base | FY 2018 OCO | FY 2018 Total | FY 2019 | FY 2020 | FY 2021 | FY 2022 | Cost To Complete | Total Cost |
|---|-------------|---------|---------|--------------|-------------|---------------|---------|---------|---------|---------|------------------|------------|
| Total Program Element | - | 92.036 | 47.471 | 48.841 | 0.000 | 48.841 | 82.603 | 52.532 | 46.828 | 6.248 | Continuing | Continuing |
| 672832: MEECN System Improvements | - | 20.233 | 0.903 | 0.923 | 0.000 | 0.923 | 0.937 | 0.955 | 0.973 | 0.994 | Continuing | Continuing |
| 672835: Common VLF/LF Receiver Inc 2 | - | 1.485 | 15.545 | 22.526 | 0.000 | 22.526 | 64.702 | 46.519 | 40.707 | 0.000 | Continuing | Continuing |
| 676029: Global Aircrew Strategic Network Terminal | - | 67.282 | 19.835 | 10.026 | 0.000 | 10.026 | 0.162 | 0.044 | 0.047 | 0.048 | Continuing | Continuing |
| 676030: Global ASNT Inc 2 | - | 3.036 | 11.188 | 15.366 | 0.000 | 15.366 | 16.802 | 5.014 | 5.101 | 5.206 | Continuing | Continuing |

A. Mission Description and Budget Item Justification

Nuclear Deterrence Operations (NDO) is an Air Force Core Function. Within this core function, Nuclear Command and Control (NC2) is the exercise of authority and direction by the President, as Commander in Chief, through established command lines, over nuclear weapon operations of military forces. The President's authority and direction are exercised through the Nuclear Command and Control System (NCCS). The NCCS is the designated combination of flexible and enduring elements including facilities, equipment, communications, procedures, personnel, and the structure in which these elements are integrated, all of which are essential for planning, directing, and controlling nuclear weapon operations.

The Minimum Essential Emergency Communications Network (MEECN) portfolio modernizes the systems necessary to effectively provide assured communications connectivity between the President and the strategic deterrence forces in stressed environments.

MEECN System Improvements (MSI) is a long-range planning process with users (Air Force Global Strike Command (AFGSC), Air Combat Command (ACC), Air Force Space Command (AFSPC), Air Mobility Command (AMC), Air Force Special Operations Command (AFSOC), US Strategic Command (USSTRATCOM), and the Navy) to monitor and assess the performance of Nuclear Command, Control, and Communications (NC3) systems and develop recommendations for current and future strategic and tactical architectures, requirements, and issues based on available and emerging technologies. MSI is used to conduct technology testing; analyze technology strategies; conduct requirement trade space analysis, technology maturation and risk reduction efforts, and mission analysis; and build technology roadmaps as proactive support to the NC3 community. MSI performs analysis, integration, and testing activities for the NC3 Weapon System.

Common Very Low Frequency/Low Frequency (VLF/LF) Receiver (CVR) Increment 2 (CVR Inc 2) will deliver a survivable, beyond-line-of-sight path for Emergency Action Message (EAM) reception. The intent of CVR Inc 2 is to develop and produce a common VLF/LF receiver, capable of implementing an interoperable waveform, to integrate into current and future airborne and ground based platforms, improve system performance, and reduce supportability costs through commonality. The program will also lead the development of the Uniform MEECN Mode (UMM) waveform also expected to be used by the United States Navy.

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| Exhibit R-2, RDT&E Budget Item Justification: FY 2018 Air Force | | | Date: May 2017 | | | |
| Appropriation/Budget Activity | | R-1 Program Element (Number/Name) | | | | |
| 3600: Research, Development, Test & Evaluation, Air Force I BA 7: Operational Systems Development | | PE 0303131F I Minimum Essential Emergency Communications Network (MEECN) | | | | |
| Global Aircrew Strategic Network Terminal (Global ASNT) replaces inadequate, unsustainable strategic communications equipment at bomber, tanker and reconnaissance Wing Command Posts (WCPs), Nuclear Task Forces, Munitions Support Squadrons (MUNSS), and for Mobile Support Teams (MSTs). Global ASNT is a ground-based system that will provide survivable, secure communication paths to receive Emergency Action Messages (EAMs), Force Management messages, and Force Direction messages and disseminate them to bomber, tanker, and reconnaissance aircrews. | | | | | | |
| Global ASNT is being fielded in separate capability increments. Global ASNT Increment 1 (Inc 1) includes early system engineering support for the planning and development for the future Global ASNT Increments. | | | | | | |
| Global ASNT Inc 1 fields required Extremely High Frequency/Advanced Extremely High Frequency (EHF/AEHF) capabilities and replaces inadequate, unsustainable strategic mobile and fixed-site Single Channel Anti-jam Man-Portable (SCAMP) terminals and Secure, Mobile, Anti-Jam, Reliable, Tactical – Terminal (SMART-T) equipment. | | | | | | |
| Global ASNT Increment 2 delivers a replacement Aircrew Alerting System (AAS) consisting of personal and general alerting equipment, and High Frequency (HF) and Ultra High Frequency (UHF) capabilities. Increment 2 replaces inadequate, unsustainable Electromagnetic Pulse Hardened Dispersal Communication (EHDC) systems and Aircrew Alerting Communications Electromagnetic Pulse (AACE) systems. | | | | | | |
| This program is in Budget Activity 07, Operational System Development, because this budget activity includes development efforts to upgrade systems that have been fielded or have received approval for full rate production and anticipate production funding in the current or subsequent fiscal years. | | | | | | |
| B. Program Change Summary (\$ in Millions) | | FY 2016 | FY 2017 | FY 2018 Base | FY 2018 OCO | FY 2018 Total |
| Previous President's Budget | | 74.712 | 47.471 | 74.680 | 0.000 | 74.680 |
| Current President's Budget | | 92.036 | 47.471 | 48.841 | 0.000 | 48.841 |
| Total Adjustments | | 17.324 | 0.000 | -25.839 | 0.000 | -25.839 |
| • Congressional General Reductions | | 0.000 | 0.000 | | | |
| • Congressional Directed Reductions | | 0.000 | 0.000 | | | |
| • Congressional Rescissions | | 0.000 | 0.000 | | | |
| • Congressional Adds | | 0.000 | 0.000 | | | |
| • Congressional Directed Transfers | | 0.000 | 0.000 | | | |
| • Reprogrammings | | 19.839 | 0.000 | | | |
| • SBIR/STTR Transfer | | -2.515 | 0.000 | | | |
| • Other Adjustments | | 0.000 | 0.000 | -25.839 | 0.000 | -25.839 |
| Change Summary Explanation | | | | | | |
| FY16 funding increased by \$19.339M for BPAC 672832 to stand up NC3 Program Executive Officer (PEO) and by \$0.500M for CVR Inc 2 BPAC 672835. | | | | | | |

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| Exhibit R-2, RDT&E Budget Item Justification: FY 2018 Air Force | | Date: May 2017 |
| Appropriation/Budget Activity 3600: Research, Development, Test & Evaluation, Air Force I BA 7: Operational Systems Development | R-1 Program Element (Number/Name) PE 0303131F I Minimum Essential Emergency Communications Network (MEECN) | |
| FY18 funding request increased by \$9.4M for Global ASNT Inc 1 to complete development due to Critical Design Review (CDR) technical delays. \$35.314M CVR Inc 2 funding rephased to FY21. | | |

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| Exhibit R-2A, RDT&E Project Justification: FY 2018 Air Force | | | | | | | | | | Date: May 2017 | | |
| Appropriation/Budget Activity 3600 / 7 | | | | | R-1 Program Element (Number/Name) PE 0303131F / Minimum Essential Emergency Communications Network (MEECN) | | | | Project (Number/Name) 672832 / MEECN System Improvements | | | |
| COST (\$ in Millions) | Prior Years | FY 2016 | FY 2017 | FY 2018 Base | FY 2018 OCO | FY 2018 Total | FY 2019 | FY 2020 | FY 2021 | FY 2022 | Cost To Complete | Total Cost |
| 672832: MEECN System Improvements | - | 20.233 | 0.903 | 0.923 | 0.000 | 0.923 | 0.937 | 0.955 | 0.973 | 0.994 | Continuing | Continuing |
| Quantity of RDT&E Articles | - | - | - | - | - | - | - | - | - | - | | |
| A. Mission Description and Budget Item Justification | | | | | | | | | | | | |
| MEECN System Improvements (MSI) is a long-range planning process with users (Air Force Global Strike Command (AFGSC), Air Combat Command (ACC), Air Force Space Command (AFSPC), Air Mobility Command (AMC), Air Force Special Operations Command (AFSOC), US Strategic Command (USSTRATCOM), and the Navy) to monitor and assess the performance of Nuclear Command, Control, and Communications (NC3) systems and develop recommendations for current and future strategic and tactical architectures, requirements, and issues based on available and emerging technologies. MSI is used to conduct technology testing; analyze technology strategies; conduct requirement trade space analysis, technology maturation and risk reduction efforts, and mission analysis; and build technology roadmaps as proactive support to the NC3 enterprise. MSI performs analysis, integration, and testing activities for the NC3 Weapon System. | | | | | | | | | | | | |
| B. Accomplishments/Planned Programs (\$ in Millions) | | | | | | | | | FY 2016 | FY 2017 | FY 2018 | |
| Title: MEECN System Improvements | | | | | | | | | 20.233 | 0.903 | 0.923 | |
| Description: Conduct Nuclear Command, Control, and Communications (NC3) technology testing, integrate the NC3 Weapon System, build comprehensive technology strategies and roadmaps. Conduct VLF/LF tradeoff analysis. Deliver results of analytic tasks in an annual NC3 report. | | | | | | | | | | | | |
| FY 2016 Accomplishments: Refreshed NC3 Architecture Roadmap Conducted integration and test planning for the NC3 Weapon System Performed VLF/LF coverage analysis Tested Transverse Electric/Transverse Magnetic (TE/TM) antenna performance Performed Electromagnetic Interference (EMI) coverage impact analysis Conducted antenna obsolescence investigation Continued model improvement efforts Established AFNWC NC3 Integration Directorate Assessed AF NC3 WS integration status Identified, planned and developed AF NC3 WS analysis, integration, and testing activities Consolidated and expanded upon previously stove-piped management of the weapon system | | | | | | | | | | | | |
| FY 2017 Plans: | | | | | | | | | | | | |

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| Exhibit R-2A, RDT&E Project Justification: FY 2018 Air Force | | Date: May 2017 | |
| Appropriation/Budget Activity 3600 / 7 | R-1 Program Element (Number/Name) PE 0303131F / <i>Minimum Essential Emergency Communications Network (MEECN)</i> | Project (Number/Name) 672832 / <i>MEECN System Improvements</i> | |
| B. Accomplishments/Planned Programs (\$ in Millions) | | FY 2016 | FY 2017 |
| Continue to refresh NC3 Architecture Roadmap Analyze ground and bomber coverage and connectivity performance Assess impact of NC3 concepts on aircraft refueling requirements Perform technology maturation and risk reduction activities in support of the NC3 enterprise Continue planning and initiate integration, analysis, and testing activities for NC3 WS Continue assessment of NC3 weapon system Develop AF NC3 WS test plans FY 2018 Plans: Continue to refresh NC3 Architecture Roadmap Analyze VLF/LF timing Conduct NC3 Connectivity Assessment Perform technology maturation and risk reduction activities in support of the NC3 enterprise | | | |
| Accomplishments/Planned Programs Subtotals | | 20.233 | 0.903 |
| C. Other Program Funding Summary (\$ in Millions) | | | |
| Line Item | FY 2016 | FY 2017 | FY 2018 Base |
| • None: None | 0.000 | 0.000 | 0.000 |
| | | | FY 2018 OCO |
| | | | 0.000 |
| | | | FY 2018 Total |
| | | | 0.000 |
| | | | FY 2019 |
| | | | 0.000 |
| | | | FY 2020 |
| | | | 0.000 |
| | | | FY 2021 |
| | | | 0.000 |
| | | | FY 2022 |
| | | | 0.000 |
| | | | Cost To Complete |
| | | | 0.00 |
| | | | Total Cost |
| | | | 0.000 |
| Remarks | | | |
| D. Acquisition Strategy | | | |
| MSI will continue to evaluate the performance of the NC3 Weapon System, by assessing performance and technology areas for improvement with the assistance of expert technical support from FFRDCs, UARCs, and may include competitively awarded technical support contracts with industry. Johns Hopkins University/Applied Physics Laboratory will support NC3 Weapon System Architecture Roadmap updates. | | | |
| 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-2A, RDT&E Project Justification: FY 2018 Air Force | | | | | | | | | | Date: May 2017 | | |
| Appropriation/Budget Activity 3600 / 7 | | | | | R-1 Program Element (Number/Name) PE 0303131F / Minimum Essential Emergency Communications Network (MEECN) | | | | Project (Number/Name) 672835 / Common VLF/LF Receiver Inc 2 | | | |
| COST (\$ in Millions) | Prior Years | FY 2016 | FY 2017 | FY 2018 Base | FY 2018 OCO | FY 2018 Total | FY 2019 | FY 2020 | FY 2021 | FY 2022 | Cost To Complete | Total Cost |
| 672835: Common VLF/LF Receiver Inc 2 | - | 1.485 | 15.545 | 22.526 | 0.000 | 22.526 | 64.702 | 46.519 | 40.707 | 0.000 | Continuing | Continuing |
| Quantity of RDT&E Articles | - | - | - | - | - | - | - | - | - | - | | |

Note

This program, BA 07 PE 0303131F, project 672835, CVR Inc. 2, is an FY17 new start (\$15.545M).

A. Mission Description and Budget Item Justification

Common Very Low Frequency/Low Frequency (VLF/LF) Receiver (CVR) Increment 2 (CVR Inc 2) will deliver a survivable, beyond-line-of-sight path for Emergency Action Message (EAM) reception. The intent of CVR Inc 2 is to develop and produce a common VLF/LF receiver, capable of implementing an interoperable waveform, for future platform integration to include airborne and ground based nodes, improve system performance, and reduce supportability costs through commonality. The program will also lead development of the Unified MEECN Mode (UMM) waveform.

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

| | | | |
|--|----------------|----------------|----------------|
| | FY 2016 | FY 2017 | FY 2018 |
| Title: CVR Inc 2 | 1.485 | 15.545 | 22.526 |
| Description: Pre-Milestone B Activities | | | |
| FY 2016 Accomplishments: Initiated pre-development and upfront system engineering activities Initiated program office stand-up | | | |
| FY 2017 Plans: Continue pre-development and upfront system engineering activities Perform requirements and technology analysis and market research Develop new VLF/LF waveform standard Perform inspection/modification of Waveguide Integrated Series of Programs (WISP) model Conduct VLF/LF antenna characterization performance assessment Begin Validated Online Lifecycle Threat (VOLT) Assessment. Issue Broad Agency Announcement (BAA) and provide responses to AFGSC Establish VLF/LF and UMM working groups Complete Materiel Development Decision (MDD) and obtain Acquisition Decision Memorandum (ADM) Work towards UMM Waveform Reference Architecture | | | |

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| Exhibit R-2A, RDT&E Project Justification: FY 2018 Air Force | | | | | | | | Date: May 2017 | | | |
| Appropriation/Budget Activity 3600 / 7 | | | | R-1 Program Element (Number/Name) PE 0303131F / <i>Minimum Essential Emergency Communications Network (MEECN)</i> | | | | Project (Number/Name) 672835 / <i>Common VLF/LF Receiver Inc 2</i> | | | |

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|--|----------------|----------------|----------------|
| B. Accomplishments/Planned Programs (\$ in Millions) | FY 2016 | FY 2017 | FY 2018 |
| Work on Milestone B Documentation Build-out program office to appropriate size Continue program office stand-up <i>FY 2018 Plans:</i> Develop acquisition strategy in preparation for Milestone B Draft system requirements documentation and validate requirements Continue work on UMM VLF/LF waveform standard Conduct Platform Interface Assessments Plan for and participate in AFGSC High Performance Team (HPT) Complete BAA Continue to develop Milestone B documentation | | | |
| Accomplishments/Planned Programs Subtotals | 1.485 | 15.545 | 22.526 |

| | | | | | | | | | | | |
|--|----------------|----------------|-------------------------|------------------------|--------------------------|----------------|----------------|----------------|----------------|-----------------------------|-------------------|
| C. Other Program Funding Summary (\$ in Millions) | | | | | | | | | | | |
| Line Item | FY 2016 | FY 2017 | FY 2018 Base | FY 2018 OCO | FY 2018 Total | FY 2019 | FY 2020 | FY 2021 | FY 2022 | Cost To Complete | Total Cost |
| • APAF: BA03 Line Item # 672835: CVR Inc 2 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 3.795 | 45.677 | 52.022 | Continuing | Continuing |

Remarks

D. Acquisition Strategy
 CVR Inc 2 will use a full and open competitive source selection to award an EMD contract for increment 2. CVR Inc 2 will use a competitive approach to fulfill the overall requirements of the program.

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: FY 2018 Air Force | | | | | | | | | | | | Date: May 2017 | | | |
| Appropriation/Budget Activity 3600 / 7 | | | | | | R-1 Program Element (Number/Name) PE 0303131F / <i>Minimum Essential Emergency Communications Network (MEECN)</i> | | | | Project (Number/Name) 672835 / <i>Common VLF/LF Receiver Inc 2</i> | | | | | |
| Product Development (\$ in Millions) | | | | FY 2016 | | FY 2017 | | FY 2018 Base | | FY 2018 OCO | | FY 2018 Total | | | |
| Cost Category Item | Contract Method & Type | Performing Activity & Location | Prior Years | Cost | Award Date | Cost | Award Date | Cost | Award Date | Cost | Award Date | Cost | Cost To Complete | Total Cost | Target Value of Contract |
| CVR Inc 2 - Early Development | Various | Various : TBD | - | 1.105 | May 2017 | 12.847 | Jul 2017 | 14.646 | Feb 2018 | 0.000 | | 14.646 | Continuing | Continuing | - |
| UMM Development | TBD | TBD : TBD | - | 0.000 | | 0.600 | Jun 2017 | 0.600 | Jun 2018 | 0.000 | | 0.600 | Continuing | Continuing | - |
| Subtotal | | | - | 1.105 | | 13.447 | | 15.246 | | 0.000 | | 15.246 | - | - | - |
| Support (\$ in Millions) | | | | FY 2016 | | FY 2017 | | FY 2018 Base | | FY 2018 OCO | | FY 2018 Total | | | |
| Cost Category Item | Contract Method & Type | Performing Activity & Location | Prior Years | Cost | Award Date | Cost | Award Date | Cost | Award Date | Cost | Award Date | Cost | Cost To Complete | Total Cost | Target Value of Contract |
| GFE | Various | Not specified : TBD | - | 0.000 | | 0.000 | | 2.292 | Jun 2018 | 0.000 | | 2.292 | Continuing | Continuing | - |
| Subtotal | | | - | 0.000 | | 0.000 | | 2.292 | | 0.000 | | 2.292 | - | - | - |
| Test and Evaluation (\$ in Millions) | | | | FY 2016 | | FY 2017 | | FY 2018 Base | | FY 2018 OCO | | FY 2018 Total | | | |
| Cost Category Item | Contract Method & Type | Performing Activity & Location | Prior Years | Cost | Award Date | Cost | Award Date | Cost | Award Date | Cost | Award Date | Cost | Cost To Complete | Total Cost | Target Value of Contract |
| Government Test Planning | TBD | Not Specified : TBD | - | 0.000 | | 0.000 | | 0.354 | Feb 2018 | 0.000 | | 0.354 | Continuing | Continuing | - |
| Subtotal | | | - | 0.000 | | 0.000 | | 0.354 | | 0.000 | | 0.354 | - | - | - |
| Management Services (\$ in Millions) | | | | FY 2016 | | FY 2017 | | FY 2018 Base | | FY 2018 OCO | | FY 2018 Total | | | |
| Cost Category Item | Contract Method & Type | Performing Activity & Location | Prior Years | Cost | Award Date | Cost | Award Date | Cost | Award Date | Cost | Award Date | Cost | Cost To Complete | Total Cost | Target Value of Contract |
| PSC (Eng/Acq Spt/Travel/IMPAC) | Various | Various : TBD | - | 0.042 | Oct 2016 | 1.760 | Jun 2017 | 2.822 | Oct 2017 | 0.000 | | 2.822 | Continuing | Continuing | - |
| PSC - MITRE | SS/CPFF | MITRE : Bedford, MA | - | 0.338 | Nov 2016 | 0.338 | May 2017 | 1.812 | Oct 2017 | 0.000 | | 1.812 | Continuing | Continuing | - |
| Subtotal | | | - | 0.380 | | 2.098 | | 4.634 | | 0.000 | | 4.634 | - | - | - |

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| Exhibit R-3, RDT&E Project Cost Analysis: FY 2018 Air Force | | | | | | | | | | Date: May 2017 | | | |
| Appropriation/Budget Activity 3600 / 7 | | | | | R-1 Program Element (Number/Name) PE 0303131F / <i>Minimum Essential Emergency Communications Network (MEECN)</i> | | | | | Project (Number/Name) 672835 / <i>Common VLF/LF Receiver Inc 2</i> | | | |
| | Prior Years | FY 2016 | | FY 2017 | | FY 2018 Base | | FY 2018 OCO | | FY 2018 Total | Cost To Complete | Total Cost | Target Value of Contract |
| Project Cost Totals | - | 1.485 | | 15.545 | | 22.526 | | 0.000 | | 22.526 | - | - | - |
| Remarks | | | | | | | | | | | | | |
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| Exhibit R-4, RDT&E Schedule Profile: FY 2018 Air Force | | | Date: May 2017 | | |
| Appropriation/Budget Activity 3600 / 7 | | | R-1 Program Element (Number/Name) PE 0303131F / <i>Minimum Essential Emergency Communications Network (MEECN)</i> | | |
| | | | Project (Number/Name) 672835 / <i>Common VLF/LF Receiver Inc 2</i> | | |

| | FY 2016 | | | | FY 2017 | | | | FY 2018 | | | | FY 2019 | | | | FY 2020 | | | | FY 2021 | | | | FY 2022 | | | |
|---|---------|---|---|---|---------|---|---|---|---------|---|---|---|---------|---|---|---|---------|---|---|---|---------|---|---|---|---------|---|---|---|
| | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 |
| Early Systems Engineering | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Requirements Development | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Materiel Development Decision (MDD) | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| RFP Release | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Milestone B Decision | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Contract Award | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Engineering and Manufacturing Development (EMD) | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

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| Exhibit R-4A, RDT&E Schedule Details: FY 2018 Air Force | | | Date: May 2017 |
| Appropriation/Budget Activity 3600 / 7 | R-1 Program Element (Number/Name) PE 0303131F / <i>Minimum Essential Emergency Communications Network (MEECN)</i> | Project (Number/Name) 672835 / <i>Common VLF/LF Receiver Inc 2</i> | |

Schedule Details

| Events | Start | | End | |
|---|---------|------|---------|------|
| | Quarter | Year | Quarter | Year |
| Early Systems Engineering | 4 | 2016 | 1 | 2019 |
| Requirements Development | 1 | 2017 | 3 | 2018 |
| Materiel Development Decision (MDD) | 3 | 2017 | 3 | 2017 |
| RFP Release | 1 | 2019 | 1 | 2019 |
| Milestone B Decision | 3 | 2019 | 3 | 2019 |
| Contract Award | 2 | 2020 | 2 | 2020 |
| Engineering and Manufacturing Development (EMD) | 2 | 2020 | 4 | 2022 |

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| Appropriation/Budget Activity 3600 / 7 | | | | | R-1 Program Element (Number/Name) PE 0303131F / Minimum Essential Emergency Communications Network (MEECN) | | | | Project (Number/Name) 676029 / Global Aircrew Strategic Network Terminal | | | |
| COST (\$ in Millions) | Prior Years | FY 2016 | FY 2017 | FY 2018 Base | FY 2018 OCO | FY 2018 Total | FY 2019 | FY 2020 | FY 2021 | FY 2022 | Cost To Complete | Total Cost |
| 676029: Global Aircrew Strategic Network Terminal | - | 67.282 | 19.835 | 10.026 | 0.000 | 10.026 | 0.162 | 0.044 | 0.047 | 0.048 | Continuing | Continuing |
| Quantity of RDT&E Articles | - | - | - | - | - | - | - | - | - | - | | |

A. Mission Description and Budget Item Justification

Global ASNT replaces inadequate, unsustainable strategic communications equipment at bomber, tanker and reconnaissance Wing Command Posts (WCPs), Nuclear Task Forces, Munitions Support Squadrons (MUNSS), and for Mobile Support Teams (MSTs). Global ASNT is a ground-based system that will provide survivable, secure communication paths to receive Emergency Action Messages (EAMs), Force Management messages, and Force Direction messages and disseminate them to bomber, tanker, and reconnaissance aircrews.

Global ASNT is being fielded in separate capability increments. Global ASNT Increment 1 (Inc 1) includes early system engineering support for the planning and development for the future Global ASNT Increments.

Global ASNT Inc 1 fields required Extremely High Frequency/Advanced Extremely High Frequency (EHF/AEHF) capabilities and replaces inadequate, unsustainable strategic mobile and fixed-site Single Channel Anti-jam Man-Portable (SCAMP) terminals and Secure, Mobile, Anti-Jam, Reliable, Tactical – Terminal (SMART-T) equipment.

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

| | FY 2016 | FY 2017 | FY 2018 |
|--|----------------|----------------|----------------|
| Title: Global ASNT Inc 1 | 67.282 | 19.835 | 10.026 |
| Description: Engineering & Manufacturing Development (EMD) | | | |
| FY 2016 Accomplishments: Continued development of EHF and AEHF integration of modem, cryptographic equipment, software development, antenna integration Initiated contractor integration of system level hardware and software Prepared for Government Developmental Testing/Operational Testing (DT/OT) in advance of Milestone C Initiated MS C documentation and implemented Engineering Change Orders (ECOs) Conducted satellite network simulations and associated MITRE Lab analytic activities through Direct Mission Support (DMS)/ Program Support Costs (PSC) | | | |
| FY 2017 Plans: Complete Contractor integration and test of system level hardware and software | | | |

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| Exhibit R-2A, RDT&E Project Justification: FY 2018 Air Force | | Date: May 2017 | |
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| | | | |
|--|----------------|----------------|----------------|
| B. Accomplishments/Planned Programs (\$ in Millions) | FY 2016 | FY 2017 | FY 2018 |
| Continue preparation for Government Developmental Testing/Operational Testing (DT/OT) for Milestone C Continue MS C documentation and Engineering Change Orders (ECOs) Continue satellite network simulations and associated MITRE lab analytic activities through DMS/PSC <i>FY 2018 Plans:</i> Complete Government Developmental Testing/Operational Testing (DT/OT) in preparation for Milestone C. Resolve any Deficiency Reports (DRs) identified in DT/OT testing Complete MS C documentation and Engineering Change Orders (ECOs) Complete satellite network simulations and associated MITRE lab analytic activities through DMS/PSC | | | |
| Accomplishments/Planned Programs Subtotals | 67.282 | 19.835 | 10.026 |

| | | | | | | | | | | | |
|---|----------------|----------------|-------------------------|------------------------|--------------------------|----------------|----------------|----------------|----------------|-----------------------------|-------------------|
| C. Other Program Funding Summary (\$ in Millions) | | | | | | | | | | | |
| Line Item | FY 2016 | FY 2017 | FY 2018 Base | FY 2018 OCO | FY 2018 Total | FY 2019 | FY 2020 | FY 2021 | FY 2022 | Cost To Complete | Total Cost |
| • OPAF: BA03: Line item # 834210: <i>Global ASNT Inc 1</i> | 5.232 | 198.925 | 0.292 | 0.000 | 0.292 | 172.062 | 11.912 | 0.000 | 12.347 | Continuing | Continuing |
| Remarks | | | | | | | | | | | |
| D. Acquisition Strategy Global ASNT used a full and open competitive approach to award an EMD contract for Increment 1. Global ASNT will continue to use a competitive incremental approach to fulfill the overall requirements for Increments 2 and 3. | | | | | | | | | | | |
| 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: FY 2018 Air Force | | | | | | | | | | | | Date: May 2017 | | | |
| Appropriation/Budget Activity 3600 / 7 | | | | | | R-1 Program Element (Number/Name) PE 0303131F / <i>Minimum Essential Emergency Communications Network (MEECN)</i> | | | | Project (Number/Name) 676029 / <i>Global Aircrew Strategic Network Terminal</i> | | | | | |
| Product Development (\$ in Millions) | | | | FY 2016 | | FY 2017 | | FY 2018 Base | | FY 2018 OCO | | FY 2018 Total | | | |
| Cost Category Item | Contract Method & Type | Performing Activity & Location | Prior Years | Cost | Award Date | Cost | Award Date | Cost | Award Date | Cost | Award Date | Cost | Cost To Complete | Total Cost | Target Value of Contract |
| Global ASNT Inc 1 - Engineering & Manufacturing Development | C/FPIF | Raytheon : Marlborough, MA | - | 44.046 | Oct 2015 | 19.095 | Jun 2017 | 1.210 | Mar 2018 | 0.000 | | 1.210 | Continuing | Continuing | - |
| Global ASNT Inc 1 - Satellite Simulations | SS/FFP | MIT/Lincoln Laboratory : Lexington, MA | - | 2.955 | Nov 2015 | 0.000 | | 1.636 | Oct 2017 | 0.000 | | 1.636 | Continuing | Continuing | - |
| Subtotal | | | - | 47.001 | | 19.095 | | 2.846 | | 0.000 | | 2.846 | - | - | - |
| Remarks | | | | | | | | | | | | | | | |
| - Raytheon Global ASNT Inc 1 EMD contract is an incrementally funded continuing effort on the existing contract. | | | | | | | | | | | | | | | |
| Support (\$ in Millions) | | | | FY 2016 | | FY 2017 | | FY 2018 Base | | FY 2018 OCO | | FY 2018 Total | | | |
| Cost Category Item | Contract Method & Type | Performing Activity & Location | Prior Years | Cost | Award Date | Cost | Award Date | Cost | Award Date | Cost | Award Date | Cost | Cost To Complete | Total Cost | Target Value of Contract |
| Global ASNT Inc 1 - MITRE Lab | SS/CPFF | MITRE : Bedford, MA | - | 0.694 | Oct 2015 | 0.000 | | 0.303 | Oct 2017 | 0.000 | | 0.303 | Continuing | Continuing | - |
| Global ASNT Inc 1 - Software Support | Various | Various : TBD | - | 5.557 | Oct 2015 | 0.000 | | 0.831 | Mar 2018 | 0.000 | | 0.831 | Continuing | Continuing | - |
| Global ASNT Inc 1 - GFE | Various | Various : TBD | - | 0.002 | Aug 2016 | 0.002 | May 2017 | 0.000 | | 0.000 | | 0.000 | Continuing | Continuing | - |
| Subtotal | | | - | 6.253 | | 0.002 | | 1.134 | | 0.000 | | 1.134 | - | - | - |
| Test and Evaluation (\$ in Millions) | | | | FY 2016 | | FY 2017 | | FY 2018 Base | | FY 2018 OCO | | FY 2018 Total | | | |
| Cost Category Item | Contract Method & Type | Performing Activity & Location | Prior Years | Cost | Award Date | Cost | Award Date | Cost | Award Date | Cost | Award Date | Cost | Cost To Complete | Total Cost | Target Value of Contract |
| Global ASNT Inc 1 - Government Test and Evaluation | Various | Various : TBD | - | 2.662 | Nov 2015 | 0.000 | | 0.986 | Jan 2018 | 0.000 | | 0.986 | Continuing | Continuing | - |

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| Exhibit R-3, RDT&E Project Cost Analysis: FY 2018 Air Force | | | | | | | | | | | | | Date: May 2017 | | |
| Appropriation/Budget Activity 3600 / 7 | | | | | | R-1 Program Element (Number/Name) PE 0303131F / <i>Minimum Essential Emergency Communications Network (MEECN)</i> | | | | | | Project (Number/Name) 676029 / <i>Global Aircrew Strategic Network Terminal</i> | | | |
| Test and Evaluation (\$ in Millions) | | | | FY 2016 | | FY 2017 | | FY 2018 Base | | FY 2018 OCO | | FY 2018 Total | | | |
| Cost Category Item | Contract Method & Type | Performing Activity & Location | Prior Years | Cost | Award Date | Cost | Award Date | Cost | Award Date | Cost | Award Date | Cost | Cost To Complete | Total Cost | Target Value of Contract |
| Global ASNT Inc 1 - NSA | MIPR | NSA, Maryland : TBD | - | 0.000 | | 0.013 | Feb 2017 | 0.009 | Oct 2017 | 0.000 | | 0.009 | Continuing | Continuing | - |
| Subtotal | | | - | 2.662 | | 0.013 | | 0.995 | | 0.000 | | 0.995 | - | - | - |
| Management Services (\$ in Millions) | | | | FY 2016 | | FY 2017 | | FY 2018 Base | | FY 2018 OCO | | FY 2018 Total | | | |
| Cost Category Item | Contract Method & Type | Performing Activity & Location | Prior Years | Cost | Award Date | Cost | Award Date | Cost | Award Date | Cost | Award Date | Cost | Cost To Complete | Total Cost | Target Value of Contract |
| Global ASNT Inc 1 - PSC (Eng/Acq Support, Travel) | Various | Various : TBD | - | 5.499 | Nov 2015 | 0.725 | Aug 2017 | 2.125 | Oct 2017 | 0.000 | | 2.125 | Continuing | Continuing | - |
| Global ASNT Inc 1 - PSC (MITRE) | SS/CPFF | MITRE : Bedford, MA | - | 5.867 | Oct 2015 | 0.000 | | 2.926 | Oct 2017 | 0.000 | | 2.926 | Continuing | Continuing | - |
| Subtotal | | | - | 11.366 | | 0.725 | | 5.051 | | 0.000 | | 5.051 | - | - | - |
| | | | Prior Years | FY 2016 | | FY 2017 | | FY 2018 Base | | FY 2018 OCO | | FY 2018 Total | Cost To Complete | Total Cost | Target Value of Contract |
| Project Cost Totals | | | - | 67.282 | | 19.835 | | 10.026 | | 0.000 | | 10.026 | - | - | - |
| Remarks | | | | | | | | | | | | | | | |

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| Exhibit R-4, RDT&E Schedule Profile: FY 2018 Air Force | | | Date: May 2017 | | |
| Appropriation/Budget Activity 3600 / 7 | | R-1 Program Element (Number/Name) PE 0303131F / <i>Minimum Essential Emergency Communications Network (MEECN)</i> | | | Project (Number/Name) 676029 / <i>Global Aircrew Strategic Network Terminal</i> |

| | FY 2016 | | | | FY 2017 | | | | FY 2018 | | | | FY 2019 | | | | FY 2020 | | | | FY 2021 | | | | FY 2022 | | | |
|---|---------|---|---|---|---------|---|---|---|---------|---|---|---|---------|---|---|---|---------|---|---|---|---------|---|---|---|---------|---|---|---|
| | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 |
| Global ASNT Inc 1 - Engineering and Manufacturing Development | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Global ASNT Inc 1 - Test | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Global ASNT Inc 1 - Milestone C Decision | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Global ASNT Inc 1 - Production and Deployment | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Global ASNT Inc 1 - IOC | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Global ASNT Inc 1 - Interim Contractor Support | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

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| Exhibit R-4A, RDT&E Schedule Details: FY 2018 Air Force | | | Date: May 2017 |
| Appropriation/Budget Activity 3600 / 7 | R-1 Program Element (Number/Name) PE 0303131F / <i>Minimum Essential Emergency Communications Network (MEECN)</i> | Project (Number/Name) 676029 / <i>Global Aircrew Strategic Network Terminal</i> | |

Schedule Details

| Events | Start | | End | |
|---|----------------|-------------|----------------|-------------|
| | Quarter | Year | Quarter | Year |
| Global ASNT Inc 1 - Engineering and Manufacturing Development | 1 | 2016 | 2 | 2019 |
| Global ASNT Inc 1 - Test | 4 | 2016 | 1 | 2019 |
| Global ASNT Inc 1 - Milestone C Decision | 2 | 2019 | 2 | 2019 |
| Global ASNT Inc 1 - Production and Deployment | 2 | 2019 | 4 | 2022 |
| Global ASNT Inc 1 - IOC | 4 | 2020 | 4 | 2020 |
| Global ASNT Inc 1 - Interim Contractor Support | 2 | 2020 | 4 | 2022 |

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|--|----------------|---------|---------|-----------------|--|------------------|---------|---------|--|----------------|---------------------|---------------|
| Exhibit R-2A, RDT&E Project Justification: FY 2018 Air Force | | | | | | | | | | Date: May 2017 | | |
| Appropriation/Budget Activity 3600 / 7 | | | | | R-1 Program Element (Number/Name) PE 0303131F / <i>Minimum Essential Emergency Communications Network (MEECN)</i> | | | | Project (Number/Name) 676030 / <i>Global ASNT Inc 2</i> | | | |
| COST (\$ in Millions) | Prior Years | FY 2016 | FY 2017 | FY 2018 Base | FY 2018 OCO | FY 2018 Total | FY 2019 | FY 2020 | FY 2021 | FY 2022 | Cost To Complete | Total Cost |
| 676030: <i>Global ASNT Inc 2</i> | - | 3.036 | 11.188 | 15.366 | 0.000 | 15.366 | 16.802 | 5.014 | 5.101 | 5.206 | Continuing | Continuing |
| Quantity of RDT&E Articles | - | - | - | - | - | - | - | - | - | - | | |
| A. Mission Description and Budget Item Justification | | | | | | | | | | | | |
| Global ASNT replaces inadequate, unsustainable strategic communications equipment at bomber, tanker and reconnaissance Wing Command Posts (WCPs), Nuclear Task Forces, Munitions Support Squadrons (MUNSS), and for Mobile Support Teams (MSTs). Global ASNT is a ground-based system that will provide survivable, secure communication paths to receive Emergency Action Messages (EAMs), Force Management messages, and Force Direction messages and disseminate them to bomber, tanker, and reconnaissance aircrews. | | | | | | | | | | | | |
| Global ASNT is being fielded in separate capability increments. | | | | | | | | | | | | |
| Global ASNT Increment 2 delivers a replacement Aircrew Alerting System (AAS) consisting of personal and general alerting equipment, and High Frequency (HF) and Ultra High Frequency (UHF) capabilities. Increment 2 replaces inadequate, unsustainable Electromagnetic Pulse Hardened Dispersal Communication (EHDC) systems and Aircrew Alerting Communications Electromagnetic Pulse (AACE) systems. | | | | | | | | | | | | |
| B. Accomplishments/Planned Programs (\$ in Millions) | | | | | | | | | FY 2016 | FY 2017 | FY 2018 | |
| Title: Global ASNT Inc 2 | | | | | | | | | 3.036 | 11.188 | 15.366 | |
| Description: Pre-Milestone B Activites | | | | | | | | | | | | |
| FY 2016 Accomplishments: Completed development and system engineering activities in preparation for Milestone B Initiated draft of drafting system requirements documentation Initiated acquisition strategy development in preparation for Milestone B Completed draft of system requirements documentation and validation process | | | | | | | | | | | | |
| FY 2017 Plans: Continue pre-development and system engineering activities in preparation for Milestone B Continue to develop system requirements documentation Develop EMD Phase request for proposal (RFP) Develop acquisition strategy in preparation for Milestone B Complete system requirements documentation and validate requirements | | | | | | | | | | | | |
| FY 2018 Plans: | | | | | | | | | | | | |

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| Exhibit R-2A, RDT&E Project Justification: FY 2018 Air Force | | Date: May 2017 | |
| Appropriation/Budget Activity 3600 / 7 | R-1 Program Element (Number/Name) PE 0303131F / <i>Minimum Essential Emergency Communications Network (MEECN)</i> | Project (Number/Name) 676030 / <i>Global ASNT Inc 2</i> | |

| | | | |
|--|----------------|----------------|----------------|
| B. Accomplishments/Planned Programs (\$ in Millions) | FY 2016 | FY 2017 | FY 2018 |
| Finalize documentation for Request for Proposal (RFP) release | | | |
| Review proposal submissions and engage in Source Selection/Technical Evaluation Activities | | | |
| Complete preparation for Milestone B and Contract Award | | | |
| Accomplishments/Planned Programs Subtotals | 3.036 | 11.188 | 15.366 |

| | | | | | | | | | | | |
|--|----------------|----------------|-------------------------|------------------------|--------------------------|----------------|----------------|----------------|----------------|-----------------------------|-------------------|
| C. Other Program Funding Summary (\$ in Millions) | | | | | | | | | | | |
| Line Item | FY 2016 | FY 2017 | FY 2018 Base | FY 2018 OCO | FY 2018 Total | FY 2019 | FY 2020 | FY 2021 | FY 2022 | Cost To Complete | Total Cost |
| • OPAF: BA03: Line item # 834210: <i>Global ASNT Inc 2</i> | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 13.112 | 25.477 | 13.590 | Continuing | Continuing |
| Remarks | | | | | | | | | | | |
| D. Acquisition Strategy | | | | | | | | | | | |
| Global ASNT used a full and open competitive approach to award an EMD contract for Increment 1. Global ASNT will continue to use a competitive incremental approach to fulfill the overall requirements for Increments 2 and 3. | | | | | | | | | | | |
| 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: FY 2018 Air Force | | | | | | | | | | | | Date: May 2017 | | | |
|---|------------------------------|-----------------------------------|----------------|---------|---------------|--|---------------|-----------------|---------------|--|---------------|------------------|---------------------|---------------|--------------------------------|
| Appropriation/Budget Activity 3600 / 7 | | | | | | R-1 Program Element (Number/Name) PE 0303131F / <i>Minimum Essential Emergency Communications Network (MEECN)</i> | | | | Project (Number/Name) 676030 / <i>Global ASNT Inc 2</i> | | | | | |
| Product Development (\$ in Millions) | | | | FY 2016 | | FY 2017 | | FY 2018 Base | | FY 2018 OCO | | FY 2018 Total | | | |
| Cost Category Item | Contract Method & Type | Performing Activity & Location | Prior Years | Cost | Award Date | Cost | Award Date | Cost | Award Date | Cost | Award Date | Cost | Cost To Complete | Total Cost | Target Value of Contract |
| Global ASNT Inc 2 - Pre Milestone B Activities | TBD | Not specified. : TBD | - | 0.000 | | 7.300 | Jul 2017 | 11.705 | Sep 2018 | 0.000 | | 11.705 | Continuing | Continuing | - |
| Subtotal | | | - | 0.000 | | 7.300 | | 11.705 | | 0.000 | | 11.705 | - | - | - |
| Support (\$ in Millions) | | | | FY 2016 | | FY 2017 | | FY 2018 Base | | FY 2018 OCO | | FY 2018 Total | | | |
| Cost Category Item | Contract Method & Type | Performing Activity & Location | Prior Years | Cost | Award Date | Cost | Award Date | Cost | Award Date | Cost | Award Date | Cost | Cost To Complete | Total Cost | Target Value of Contract |
| Global ASNT Inc 2 - MITRE Lab | Various | MITRE : Bedford, MA | - | 0.000 | | 0.236 | Jul 2017 | 0.243 | Nov 2017 | 0.000 | | 0.243 | Continuing | Continuing | - |
| Global ASNT Inc 2 - GFE | Various | Various : TBD | - | 0.000 | | 0.000 | | 0.000 | | 0.000 | | 0.000 | Continuing | Continuing | - |
| Subtotal | | | - | 0.000 | | 0.236 | | 0.243 | | 0.000 | | 0.243 | - | - | - |
| Test and Evaluation (\$ in Millions) | | | | FY 2016 | | FY 2017 | | FY 2018 Base | | FY 2018 OCO | | FY 2018 Total | | | |
| Cost Category Item | Contract Method & Type | Performing Activity & Location | Prior Years | Cost | Award Date | Cost | Award Date | Cost | Award Date | Cost | Award Date | Cost | Cost To Complete | Total Cost | Target Value of Contract |
| Global ASNT Inc 2 - Test Planning | Various | Various : TBD | - | 0.040 | Oct 2016 | 0.160 | Jul 2017 | 0.208 | Jan 2018 | 0.000 | | 0.208 | Continuing | Continuing | - |
| Subtotal | | | - | 0.040 | | 0.160 | | 0.208 | | 0.000 | | 0.208 | - | - | - |
| Management Services (\$ in Millions) | | | | FY 2016 | | FY 2017 | | FY 2018 Base | | FY 2018 OCO | | FY 2018 Total | | | |
| Cost Category Item | Contract Method & Type | Performing Activity & Location | Prior Years | Cost | Award Date | Cost | Award Date | Cost | Award Date | Cost | Award Date | Cost | Cost To Complete | Total Cost | Target Value of Contract |
| Global ASNT Inc 2 - PSC (Eng/Acq Support, Travel) | Various | Various : TBD | - | 0.860 | Oct 2016 | 0.772 | Jun 2017 | 1.831 | Nov 2017 | 0.000 | | 1.831 | Continuing | Continuing | - |
| Global ASNT Inc 2 - PSC (MITRE) | SS/CPFF | MITRE : Bedford, MA | - | 2.136 | Jan 2017 | 2.720 | Sep 2017 | 1.379 | Sep 2018 | 0.000 | | 1.379 | Continuing | Continuing | - |

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| Exhibit R-3, RDT&E Project Cost Analysis: FY 2018 Air Force | | | | | | | | | | | | Date: May 2017 | | |
| Appropriation/Budget Activity 3600 / 7 | | | | | R-1 Program Element (Number/Name) PE 0303131F / <i>Minimum Essential Emergency Communications Network (MEECN)</i> | | | | | Project (Number/Name) 676030 / <i>Global ASNT Inc 2</i> | | | | |

| Management Services (\$ in Millions) | | | | FY 2016 | | FY 2017 | | FY 2018 Base | | FY 2018 OCO | | FY 2018 Total | | | |
|--------------------------------------|------------------------------|-----------------------------------|----------------|---------|---------------|---------|---------------|-----------------|---------------|----------------|---------------|------------------|---------------------|---------------|--------------------------------|
| Cost Category Item | Contract Method & Type | Performing Activity & Location | Prior Years | Cost | Award Date | Cost | Award Date | Cost | Award Date | Cost | Award Date | Cost | Cost To Complete | Total Cost | Target Value of Contract |
| Subtotal | | | - | 2.996 | | 3.492 | | 3.210 | | 0.000 | | 3.210 | - | - | - |

| | Prior Years | FY 2016 | FY 2017 | FY 2018 Base | FY 2018 OCO | FY 2018 Total | Cost To Complete | Total Cost | Target Value of Contract |
|----------------------------|----------------|---------|---------|-----------------|----------------|------------------|---------------------|---------------|--------------------------------|
| Project Cost Totals | - | 3.036 | 11.188 | 15.366 | 0.000 | 15.366 | - | - | - |

Remarks
 FY17 funding was decreased by \$7.3M due to congressional mark as a result of contract award delay.

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| Exhibit R-4, RDT&E Schedule Profile: FY 2018 Air Force | | | Date: May 2017 | | |
| Appropriation/Budget Activity 3600 / 7 | | R-1 Program Element (Number/Name) PE 0303131F / <i>Minimum Essential Emergency Communications Network (MEECN)</i> | | | Project (Number/Name) 676030 / <i>Global ASNT Inc 2</i> |

| | FY 2016 | | | | FY 2017 | | | | FY 2018 | | | | FY 2019 | | | | FY 2020 | | | | FY 2021 | | | | FY 2022 | | | |
|---|---------|---|---|---|---------|---|---|---|---------|---|---|---|---------|---|---|---|---------|---|---|---|---------|---|---|---|---------|---|---|---|
| | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 |
| Global ASNT Inc 2 Pre-Milestone B Activities | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Global ASNT Inc 2 - Release Request for Proposal | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Global ASNT Inc 2 - Milestone B Decision | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Global ASNT Inc 2 - Contract Award | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Global ASNT Inc 2 - Engineering and Manufacturing Development | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Global ASNT Inc 2 - Preliminary Design Review (PDR) | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Global ASNT Inc 2 - Critical Design Review (CDR) | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Global ASNT Inc 2 - Test | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Global ASNT Inc 2 - Milestone C Decision | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Global ASNT Inc 2 - Production & Deployment | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Global ASNT Inc 2 - IOC | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

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| Exhibit R-4A, RDT&E Schedule Details: FY 2018 Air Force | | | Date: May 2017 |
| Appropriation/Budget Activity 3600 / 7 | R-1 Program Element (Number/Name) PE 0303131F / <i>Minimum Essential Emergency Communications Network (MEECN)</i> | Project (Number/Name) 676030 / <i>Global ASNT Inc 2</i> | |

Schedule Details

| Events | Start | | End | |
|---|---------|------|---------|------|
| | Quarter | Year | Quarter | Year |
| Global ASNT Inc 2 Pre-Milestone B Activities | 1 | 2016 | 3 | 2018 |
| Global ASNT Inc 2 - Release Request for Proposal | 1 | 2018 | 1 | 2018 |
| Global ASNT Inc 2 - Milestone B Decision | 4 | 2018 | 4 | 2018 |
| Global ASNT Inc 2 - Contract Award | 1 | 2019 | 1 | 2019 |
| Global ASNT Inc 2 - Engineering and Manufacturing Development | 1 | 2019 | 1 | 2021 |
| Global ASNT Inc 2 - Preliminary Design Review (PDR) | 2 | 2019 | 2 | 2019 |
| Global ASNT Inc 2 - Critical Design Review (CDR) | 4 | 2019 | 4 | 2019 |
| Global ASNT Inc 2 - Test | 4 | 2019 | 1 | 2021 |
| Global ASNT Inc 2 - Milestone C Decision | 1 | 2021 | 1 | 2021 |
| Global ASNT Inc 2 - Production & Deployment | 1 | 2021 | 4 | 2022 |
| Global ASNT Inc 2 - IOC | 4 | 2022 | 4 | 2022 |