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 5: System

PE 0604329F I Small Diameter Bomb (SDB) - EMD

Development & Demonstration (SDD)

| COST (\$ in Millions) | Prior | | | FY 2018 | FY 2018 | FY 2018 | | | | | Cost To | Total |
|----------------------------|-----------|---------|---------|---------|---------|---------|---------|---------|---------|---------|----------|-----------|
| COO1 (ψ III WIIIIOII3) | Years | FY 2016 | FY 2017 | Base | oco | Total | FY 2019 | FY 2020 | FY 2021 | FY 2022 | Complete | Cost |
| Total Program Element | 1,032.472 | 27.950 | 54.838 | 38.979 | 0.000 | 38.979 | 73.709 | 31.477 | 17.442 | 27.626 | 0.000 | 1,304.493 |
| 655191: SDB Increment II | 1,032.472 | 27.950 | 54.838 | 38.979 | 0.000 | 38.979 | 73.709 | 31.477 | 17.442 | 27.626 | 0.000 | 1,304.493 |
| Quantity of RDT&E Articles | - | - | - | - | - | - | - | - | - | - | | |

Program MDAP/MAIS Code: 439

Note

Air Force

A. Mission Description and Budget Item Justification

Small Diameter Bomb Increment II (SDB II) is a joint interest United States Air Force (USAF) and Department of Navy (DoN) ACAT ID program, with the Air Force (AF) as the lead service. SDB II provides the warfighter the capability to attack mobile targets from stand-off, through weather. SDB II addresses the following warfighter requirements: attack moving and stationary targets, adverse weather operations, multiple kills per pass, multiple ordnance carriage, precision munitions capability, reduced munitions footprint, increased weapons effectiveness, minimized potential for collateral damage, reduced susceptibility of munitions to countermeasures and provides a network enabled weapon capability via Link-16 and Ultra High Frequency (UHF) Weapon Data Link. The threshold aircraft for the AF is the F-15E, and the threshold aircraft for the (DoN) are the F-35B and F-35C. Objective aircraft include the F-22, F-16, F-35A, B-2, A-10, MQ-9, B-1, B-52, AC-130 and the F/A-18E/F. SDB II will be compatible with the BRU-61 (Bomb Rack Unit) miniature munitions carriage, the Joint Miniature Munitions BRU, the CNU-660/E carriage system, the Common Munitions BIT/Reprogramming Equipment (CMBRE), and the Joint Mission Planning System (JMPS). The SDB II program will develop and field a single weapon storage container (USAF) and a dual weapon container (DoN).

SDB II completed a 42-month competitive Risk Reduction phase in October 2009 and entered the Milestone B Engineering and Manufacturing Development (EMD) phase in August 2010. A Fixed Price Incentive Firm EMD contract was awarded on 09 August 2010. The SDB II Program received Milestone C approval to enter Low Rate Initial Production (LRIP) on 3 June 2015. A Fixed Price Incentive Firm Contract for Lot 1 production of 144 weapons was awarded on 12 June 2015, Lot 2 production contract option for 250 weapons was exercised on 8 September 2016, and Lot 3 production contract option for 312 weapons was exercised on 27 January 2017. An updated Milestone C Acquisition Program Baseline is complete.

SDB II is a key component of the Air Force's Global Strike Task Force CONOPs and Global Precision Attack Core Function.

This program is in Budget Activity 5, System Development and Demonstration (SDD) because it has passed Milestone B approval and is conducting Engineering and Manufacturing Development tasks aimed at meeting validated requirements prior to full-rate production.

PE 0604329F: Small Diameter Bomb (SDB) - EMD

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^{*}Totals include funding from PRCP Program Number 439, SDB II

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 5: System

Development & Demonstration (SDD)

R-1 Program Element (Number/Name)

PE 0604329F I Small Diameter Bomb (SDB) - EMD

| B. Program Change Summary (\$ in Millions) | FY 2016 | FY 2017 | FY 2018 Base | FY 2018 OCO | FY 2018 Total |
|---|---------|---------|--------------|-------------|---------------|
| Previous President's Budget | 29.083 | 54.838 | 47.369 | 0.000 | 47.369 |
| Current President's Budget | 27.950 | 54.838 | 38.979 | 0.000 | 38.979 |
| Total Adjustments | -1.133 | 0.000 | -8.390 | 0.000 | -8.390 |
| 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 | 0.000 | 0.000 | | | |
| SBIR/STTR Transfer | -1.133 | 0.000 | | | |
| Other Adjustments | 0.000 | 0.000 | -8.390 | 0.000 | -8.390 |

Change Summary Explanation

FY18 decrease for higher AF priorities.

| C. Accomplishments/Planned Programs (\$ in Millions) | | | FY 2018 | FY 2018 | FY 2018 |
|---|---------|---------|---------|---------|---------|
| | FY 2016 | FY 2017 | Base | oco | Total |
| Title: SDB II Development | 11.517 | 24.128 | 20.010 | 0.000 | 20.010 |
| Description: Development of SDB II to deliver the capability described in the SDB II Capability Development Document (CDD), in lieu of Capability Production Document (CPD) as specified in the government approved SDB II System Performance Specification (SPS) for production, deployment, and sustainment. Upgrades to SDB II hardware and software to meet emerging threats (i.e., M-Code, GPS, Cryptographic Modernization, advanced guidance, navigation and control). Development of the SDB II design to ensure exportability, cyber security, and program protection, and address obsolescence issues and affordability opportunities. | | | | | |
| FY 2016 Accomplishments: Continued Guided Test Vehicle (GTV), Captive Flight Test (CFT), Live Fire Test and Evaluation (LFT&E) program for Normal Attack (NA) Mode, Coordinate Attack (CA) Mode and Laser Illuminated Attack (LIA) Mode. Executed F-15E captive cueing missions to better understand on- and off-board tactical targeting sources. Continued the Developmental Testing (DT) Captive Carry Reliability Test (CCRT) program. Completed detailed planning and began Government Confidence Test (GCT) program, which consists of 28 government-directed GTV test shots. GCT is part of the DT program and will complete prior to dedicated Multiservice Operational Test and Evaluation (MOT&E). | | | | | |

PE 0604329F: Small Diameter Bomb (SDB) - EMD Air Force

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

Appropriation/Budget Activity
3600: Research, Development, Test & Evaluation, Air Force I BA 5: System Development & Demonstration (SDD)

R-1 Program Element (Number/Name)
PE 0604329F I Small Diameter Bomb (SDB) - EMD

FY 2018 C. Accomplishments/Planned Programs (\$ in Millions) FY 2018 FY 2018 FY 2016 FY 2017 **Base** OCO Total Continued planning for the Operational Test Readiness Review (OTRR) that must be completed prior to the start of the dedicated MOT&E. Continued Operational Flight Program (OFP) update and qualification efforts for the BRU-61 carriage. Continued Advanced Joint Effectiveness Model (AJEM) lethality modeling and testing. Continued collaboration with National Security Agency (NSA) on weapon data link key management software. Continued collaboration with Joint Interoperability Test Command (JITC) on interoperability testing. Continued integration of SDB II with Command and Control Infrastructure, including Air and Space Operations Center (AOC) and integration with Joint Terminal Attack Controller (JTAC) kits. Continued mission planning support during DT. Completed studies and initial risk reduction efforts to upgrade SDB II hardware and software to meet emerging threats, to maintain compatibility with external systems, ensured exportability and program protection, and addressed obsolescence issues and affordability opportunities. FY 2017 Plans: Complete GTV, LFT&E, CFT, and continue CCRT DT programs. Conduct the OTRR and gain approval to begin MOT&E which consists of 45 GTV and 10 LFT&E test shots on the F-15E platform. Continue OFP update and qualification efforts for the BRU-61. Continue AJEM lethality modeling and testing. Continue collaboration with NSA on weapon data link key management software. Continue collaboration with JITC on interoperability testing. Continue integration of SDB II with Command and Control Infrastructure, including AOC and integration with JTAC kits. Continue mission planning support during DT and Operational Test (OT). Continue upgrade of SDB Il hardware and software to meet emerging threats to maintain compatibility with external systems (i.e., M-Code, Cryptographic Modernization, advanced guidance, navigation and control, ensure exportability and program protection, and address obsolescence issues and affordability opportunities). FY 2018 Base Plans: Begin MOT&E on the F-15E platform. Continue OFP update and qualification efforts for the BRU-61. Continue AJEM lethality modeling and testing. Continue collaboration with NSA on weapon data link key management software. Continue collaboration with JITC on interoperability testing. Continue integration of SDB II with Command and Control Infrastructure, including AOC and integration with JTAC kits. Continue mission planning support during OT. Continue design, development and integration to upgrade SDB II hardware and software to meet emerging threats and to maintain compatibility with external systems (i.e., M-Code, Cryptographic Modernization, advanced guidance, navigation and control, ensure exportability, cyber security, and program protection, and address obsolescence issues and affordability opportunities). FY 2018 OCO Plans:

PE 0604329F: Small Diameter Bomb (SDB) - EMD

Air Force

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

Appropriation/Budget Activity
3600: Research, Development, Test & Evaluation, Air Force I BA 5: System
Development & Demonstration (SDD)

R-1 Program Element (Number/Name)
PE 0604329F I Small Diameter Bomb (SDB) - EMD

| C. Accomplishments/Planned Programs (\$ in Millions) | FY 2016 | FY 2017 | FY 2018 Base | FY 2018 OCO | FY 2018 Total |
|--|---------|---------|-----------------|----------------|------------------|
| N/A | | | | | |
| Title: SDB II Integration and Qualification Testing | 16.433 | 6.959 | 2.169 | 0.000 | 2.169 |
| Description: F-15E Aircraft Integration incorporates tests and targets, Modeling and Simulation (M&S), target lethality, data link and mission planning. Develop F-15E OFP upgrades to provide the capability to program the weapon with mission planned targets, weapon data link control, and exclusion zone information prior to launch of the weapon. It also allows the aircrew to make in-flight edits of target and weapon data link programming if/when required based on employment scenarios. | | | | | |
| FY 2016 Accomplishments: Continued to conduct ground and flight testing and target procurement to support testing. Continued OFP update and qualification efforts. Continued GTV, LFT&E, CFT, and CCRT Developmental Testing for NA, CA, and LIA modes. Continued to update F-15E OFP for NA, CA, and LIA modes. Began GCT program. Began updates to F-15E training devices. Continued mission planning support during DT. | | | | | |
| Continued AJEM lethality modeling and testing. Continued collaboration with NSA on weapon data link key management software. Continued collaboration with JITC on interoperability testing. Continued integration of SDB II with Command and Control Infrastructure, including AOC and integration with ground controller kits. Continued mission planning support during DT. Continued development activities to upgrade SDB II hardware and software to meet emerging threats, maintain compatibility with external systems, ensured exportability and program protection, and addressed obsolescence issues and affordability opportunities. | | | | | |
| FY 2017 Plans: Complete GTV, LFT&E, CFT, and CCRT for NA, CA, and LIA modes. Conduct the OTRR and gain approval to begin MOT&E which consists of 45 GTV and 10 LFT&E test shots on the F-15E platform. Continue update to F-15E training devices. Continue qualification efforts for the BRU-61. Continue AJEM lethality modeling and testing. Continue collaboration with NSA on weapon data link key management software. Continue collaboration with JITC on interoperability testing. Continue integration of SDB II with Command and Control Infrastructure, including AOC and integration with ground controller kits. Continue mission planning support during DT/OT. Continue development activities to upgrade SDB II hardware and software to meet emerging threats, maintain compatibility with external systems (i.e., M-Code, Cryptographic Modernization, advanced guidance, navigation | | | | | |

PE 0604329F: Small Diameter Bomb (SDB) - EMD Air Force

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Date: May 2017 Exhibit R-2, RDT&E Budget Item Justification: FY 2018 Air Force Appropriation/Budget Activity R-1 Program Element (Number/Name) 3600: Research, Development, Test & Evaluation, Air Force I BA 5: System PE 0604329F I Small Diameter Bomb (SDB) - EMD Development & Demonstration (SDD) FY 2018 C. Accomplishments/Planned Programs (\$ in Millions) FY 2018 FY 2018 FY 2016 FY 2017 **Base** OCO Total and control, ensure exportability and program protection, and address obsolescence issues and affordability opportunities). FY 2018 Base Plans: Begin MOT&E on the F-15E platform. Continue OFP update and qualification efforts for the BRU-61. Continue AJEM lethality modeling and testing. Continue collaboration with NSA on weapon data link key management software. Continue collaboration with JITC on interoperability testing. Continue integration of SDB II with Command and Control Infrastructure, including AOC and integration with JTAC kits. Continue mission planning support during OT. Continue design, development and integration to upgrade SDB II hardware and software to meet emerging threats and to maintain compatibility with external systems (i.e., M-Code, Cryptographic Modernization, advanced guidance, navigation and control, ensure exportability, cyber security, and program protection, and address obsolescence issues and affordability opportunities). FY 2018 OCO Plans: N/A 23.751 Title: SDB II M-Code 0.000 16.800 0.000 16.800 **Description:** M-code provides an enhanced anti-jam capability and secures access to military GPS signals. M-code will provide the ability to operate in increasing adversarial A2/AD jamming environment with increased accuracy, better signal acquisition, and advanced security. FY 2016 Accomplishments: (External Funding) Completed trade studies to evaluate SDB II performance against emerging threats.

space for SDB II operational scenarios. Assessed multiple solutions to provide optimum performance at an affordable cost to complete the SDB II mission while satisfying the Congressional mandate at earliest

opportunity.

Air Force

FY 2017 Plans:
Complete Systems Requirements Review (SRR) and preliminary design activities for Raytheon Family of Systems M-Code/enhanced anti-jam receiver. Complete SRR and early design activities for engineering changes required for the SDB II system to integrate the receiver and enhanced anti-jam capabilities. Continue to upgrade modeling and simulation capability to evaluate M-Code and enhanced anti-jam performance for

Upgraded modeling and simulation capability to evaluate M-Code and enhanced anti-jam performance trade

PE 0604329F: Small Diameter Bomb (SDB) - EMD

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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 5: System

Development & Demonstration (SDD)

R-1 Program Element (Number/Name)

PE 0604329F I Small Diameter Bomb (SDB) - EMD

| C. Accomplishments/Planned Programs (\$ in Millions) | 5 1/ 0040 | EV 004E | FY 2018 | FY 2018 | FY 2018 |
|--|------------------|---------|---------|---------|---------|
| | FY 2016 | FY 2017 | Base | oco | Total |
| SDB II operational scenarios. Update mission planning and threshold aircraft OFPs to ensure aircraft to weapon integration and transmission of the appropriate M-Code initialization data and crypto keys. | | | | | |
| FY 2018 Base Plans: Continue activities to provide SDB II with M-Code capabilities for improved anti-jam and secure access to military GPS signals. M-Code activities include, but are not limited to, trade studies; development and implementation of an acquisition strategy; and design, development, integration and testing of M-Code and | | | | | |
| enhanced anti-jam components. Complete Critical Design and prototype development for M-Code and enhanced anti-jam receiver. Continue design, test and qualification of engineering changes to the SDB II system to integrate the new M-Code receiver. Update mission planning and threshold aircraft OFPs to ensure aircraft to weapon integration and transmission of the appropriate M-Code initialization data and crypto keys. | | | | | |
| FY 2018 OCO Plans: N/A | | | | | |
| Accomplishments/Planned Programs Subtotals | 27.950 | 54.838 | 38.979 | 0.000 | 38.979 |

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

| - | | - | FY 2018 | FY 2018 | FY 2018 | | | | | Cost To | |
|---|---------|---------|-------------|---------|--------------|---------|---------|---------|---------|-----------------|-------------------|
| <u>Line Item</u> | FY 2016 | FY 2017 | Base | OCO | <u>Total</u> | FY 2019 | FY 2020 | FY 2021 | FY 2022 | Complete | Total Cost |
| MPAF: BA05: Line Item # | 135.117 | 260.161 | 266.030 | 90.920 | 356.950 | 72.506 | 143.935 | 336.512 | 310.853 | 893.676 | 3,367.613 |
| SDB000: Small Diameter Bomb | | | | | | | | | | | |
| • RDT&E: BA05: PE 0604329N: | 28.403 | 37.605 | 57.637 | 0.000 | 57.637 | 72.866 | 71.020 | 56.442 | 42.572 | 3.432 | 458.484 |
| Small Diameter Bomb | | | | | | | | | | | |
| WPN: BA05: Line Item # | 0.000 | 0.000 | 20.968 | 0.000 | 20.968 | 92.148 | 121.619 | 117.743 | 120.101 | 301.856 | 774.435 |
| 223800: Small Diameter Bomb | | | | | | | | | | | |

Remarks

Navy RDT&E funds include F-35B and F-35C Integration and Support Cost

FY16 MPAF BA05 Line Item #SDB000 includes \$2.52M Overseas Contingency Operations (OCO) for SDB I.

FY17 MPAF BA05 Line Item #SDB000 includes \$167.8M Overseas Contingency Operation (OCO) for SDB I.

FY18 MPAF BA05 Line Item #SDB000 includes \$90.920M Overseas Contingency Operation (OCO) for SDB I.

PE 0604329F: Small Diameter Bomb (SDB) - EMD Air Force

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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 5: System | PE 0604329F / Small Diameter Bomb (SDB) - EMD | |
| Development & Demonstration (SDD) | | |

E. Acquisition Strategy

The SDB II Engineering and Manufacturing Development (EMD) contract was awarded using competitive procedures. At the completion of the 42-month Risk Reduction phase in October 2009, one contractor was selected in April 2010 and awarded the EMD contract in August 2010. The EMD contract is a Fixed-Price Incentive Firm (FPIF) contract with priced production options for the first five production lots. SDB II production Lots 1-3 are FPIF. Production Lots 4-5 are fixed price not-to-exceed pricing with an economic price adjustment clause for labor and materials. The Government is buying the SDB II based on the contractor System Performance Specification (SPS) which has been approved by the Government. The contractor is accountable for system performance as defined in the SPS and a system warranty as defined in the EMD contract and follow-on production contracts. Accordingly, the contractor is accountable to the Government for the design of the weapon system, as well as the planning and execution of the Development Test & Evaluation (DT&E) program to verify system performance. The Government formally arranges and funds the use of Government flight test support for DT&E.

F. 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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PE 0604329F: Small Diameter Bomb (SDB) - EMD Air Force

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Exhibit R-3, RDT&E Project Cost Analysis: FY 2018 Air Force

Appropriation/Budget Activity

3600 / 5

R-1 Program Element (Number/Name)

Project (Number/Name)

Date: May 2017

PE 0604329F I Small Diameter Bomb (SDB) 655191 I SDB Increment II

- EMD

| Product Developmen | nt (\$ in M | illions) | | FY 2 | 2016 | FY 2 | 2017 | | 2018 ase | FY 2 | | 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 | Total Cost | Target Value of Contract |
| Risk Reduction Contract 1 | C/CPFF | Boeing : St. Louis, MO | 151.922 | 0.000 | | 0.000 | | 0.000 | | 0.000 | | 0.000 | 0.000 | 151.922 | 151.922 |
| Risk Reduction Contract 2 | C/CPFF | Raytheon : Tucson, AZ | 150.800 | 0.000 | | 0.000 | | 0.000 | | 0.000 | | 0.000 | 0.000 | 150.800 | 150.800 |
| EMD Contract | C/FPIF | Raytheon : Tucson, AZ | 459.843 | 0.326 | May 2016 | 0.000 | | 0.000 | | 0.000 | | 0.000 | 0.000 | 460.169 | 460.169 |
| Technical Support Contract | SS/ Various | Raytheon : Tucson, AZ | 54.988 | 13.361 | Mar 2016 | 23.471 | Dec 2016 | 10.235 | Dec 2017 | 0.000 | | 10.235 | 12.665 | 114.720 | 114.719 |
| M Code Development | C/Various | Not specified. : TBD | 0.000 | 0.000 | | 23.701 | Jun 2017 | 16.800 | Jan 2018 | 0.000 | | 16.800 | 84.636 | 125.137 | 125.137 |
| MPACT High Pressure Air Compressor System | SS/FFP | Boeing : St. Charles, MO | 3.175 | 0.000 | | 0.000 | | 0.000 | | 0.000 | | 0.000 | 0.000 | 3.175 | 3.175 |
| F-15E Integration and Test Support | SS/ Various | Boeing : St. Louis, MO | 43.328 | 2.628 | Apr 2016 | 0.829 | Jan 2017 | 1.113 | Jun 2018 | 0.000 | | 1.113 | 1.760 | 49.658 | 49.658 |
| BRU-61/A Integration and Test Support | SS/ Various | Boeing : St. Charles, MO | 8.529 | 0.000 | Jan 1901 | 0.484 | Apr 2017 | 0.000 | | 0.000 | | 0.000 | 0.000 | 9.013 | 9.013 |
| Mission Planning | Various | Various : Various | 5.173 | 0.458 | Jul 2016 | 0.222 | Jan 2017 | 0.000 | | 0.000 | | 0.000 | 0.000 | 5.853 | 5.853 |
| Data Link Integration & Support | Various | Various : Various | 2.934 | 0.070 | Apr 2016 | 0.000 | Dec 2016 | 0.000 | Mar 2018 | 0.000 | | 0.000 | 0.000 | 3.004 | 3.004 |
| System Performance & Lethality | Various | Various : Various | 37.220 | 1.168 | Jul 2016 | 0.577 | Nov 2016 | 0.334 | Nov 2017 | 0.000 | | 0.334 | 0.311 | 39.610 | 39.610 |
| Other Product Development | Various | Various : Various | 10.959 | 0.626 | Jul 2016 | 0.171 | Nov 2016 | 6.326 | Mar 2018 | 0.000 | | 6.326 | 46.827 | 64.909 | 64.909 |
| | | Subtotal | 928.871 | 18.637 | | 49.455 | | 34.808 | | 0.000 | | 34.808 | 146.199 | 1,177.970 | 1,177.969 |

Remarks

EMD contract is budgeted to the contract ceiling price \$509.9M.

The EMD Target Value is AF funding only. This represents the total liability for the AF (target cost plus ceiling). The contract's target value including Navy funding is \$450.827M. The target price is \$509.9M. This includes AF and Navy ceiling.

PE 0604329F: Small Diameter Bomb (SDB) - EMD Air Force

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Exhibit R-3, RDT&E Project Cost Analysis: FY 2018 Air Force

R-1 Program Element (Number/Name)

Date: May 2017 Project (Number/Name)

Appropriation/Budget Activity 3600 / 5

PE 0604329F I Small Diameter Bomb (SDB) 655191 I SDB Increment II

- EMD

| Support (\$ in Million | s) | | | FY 2 | 2016 | FY 2 | 2017 | 017 FY 20 | | 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 |
| Other Government Costs | Various | Various : Various | 4.536 | 0.478 | Oct 2016 | 0.484 | Apr 2017 | 1.104 | Apr 2018 | 0.000 | | 1.104 | 1.572 | 8.174 | 8.181 |
| | | Subtotal | 4.536 | 0.478 | | 0.484 | | 1.104 | | 0.000 | | 1.104 | 1.572 | 8.174 | 8.181 |

Remarks

None.

| Test and Evaluation | (\$ in Milli | ons) | | FY 2016 | | FY 2017 | | | 2018 ise | 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 |
| DT&E: 96th Test Wing | РО | 96th Test Wing : Eglin AFB, FL | 25.386 | 4.157 | Nov 2015 | 1.652 | Apr 2017 | 0.000 | | 0.000 | | 0.000 | 1.412 | 32.607 | 32.608 |
| DT&E: UTTR, WSMR | Various | Various : Various | 8.405 | 2.634 | Nov 2015 | 1.296 | Feb 2017 | 0.000 | | 0.000 | | 0.000 | 0.000 | 12.335 | 12.335 |
| Targets | PO | Various : Various | 25.048 | 0.200 | Jan 2016 | 0.165 | Feb 2017 | 0.907 | Jan 2018 | 0.000 | | 0.907 | 0.031 | 26.351 | 26.351 |
| Other Test Support | Various | Various : Various | 9.122 | 0.142 | Dec 2015 | 0.772 | Dec 2016 | 1.294 | Dec 2017 | 0.000 | | 1.294 | 0.638 | 11.968 | 11.967 |
| | | Subtotal | 67.961 | 7.133 | | 3.885 | | 2.201 | | 0.000 | | 2.201 | 2.081 | 83.261 | 83.261 |

Remarks

UTTR: Utah Test and Training Range WSMR: White Sands Missile Range

| Management Servic | 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 | Total Cost | Target Value of Contract |
| EPASS | Various | Various : Eglin AFB, FL | 20.544 | 1.434 | Jun 2016 | 0.900 | Jun 2017 | 0.750 | Jun 2018 | 0.000 | | 0.750 | 0.000 | 23.628 | 23.628 |
| Program Management Administration (PMA) | Various | Various : Eglin AFB, FL | 10.560 | 0.268 | Oct 2015 | 0.114 | Oct 2016 | 0.116 | Oct 2017 | 0.000 | | 0.116 | 0.402 | 11.460 | 11.460 |
| | | Subtotal | 31.104 | 1.702 | | 1.014 | | 0.866 | | 0.000 | | 0.866 | 0.402 | 35.088 | 35.088 |

PE 0604329F: Small Diameter Bomb (SDB) - EMD

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| Exhibit R-3, RDT&E | Project C | ost Analysis: FY 2 | 2018 Air F | orce | | | | | | | | Date: | May 201 | 7 | |
|----------------------------------|------------------------------|-----------------------------------|----------------|--------|---------------|--------|---------------|--------|-----------------------------|-------|---------------|--------------------|-----------------------|---------------|--------------------------------|
| Appropriation/Budg 3600 / 5 | et Activity | 1 | | | | | • | • | lumber/N meter Bo | • | | (Numbe I SDB In | r/Name) crement li | 1 | |
| Management Servic | es (\$ in M | illions) | | FY 2 | 2016 | FY 2 | 2017 | | 2018 ase | | 2018 CO | 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 | Total Cost | Target Value of Contract |
| Remarks EPASS: Engineering, Prof | fessional & A | dministrative Support S | Services | | | | | | | | | _ | | | |
| | | | Prior Years | FY 2 | 2016 | FY 2 | 2017 | | 2018 ase | | 2018 CO | FY 2018 Total | Cost To | Total Cost | Target Value of Contract |
| | | Project Cost Totals | 1,032.472 | 27.950 | | 54.838 | | 38.979 | | 0.000 | | 38.979 | 150.254 | 1,304.493 | - |

Remarks

PE 0604329F: Small Diameter Bomb (SDB) - EMD

Air Force

| Exhibit R-4, RDT&E Schedule Profile: FY 2018 | Air Fo | orce | | | | | | | | | | | | | | | | | | | | Dat | e: M | ay | 201 | 7 | | |
|--|--------|------|------|---|---|----|------|--|---|------|------|---|---|----|-----|---|---|----|----------------------------------|---|---|-----|------|----|-----|----|-----|---|
| Appropriation/Budget Activity 3600 / 5 | | | | | | | | R-1 Program Element (Number/Name) PE 0604329F / Small Diameter Bomb (SDB) 655191 / Small Diameter Bomb (SDB) | | | | | | | | | | | Number/Name) SDB Increment II | | | | | | | | | |
| | | FY | 2016 | | | FY | 2017 | 7 | | FY 2 | 2018 | 3 | | FY | 201 | 9 | | FY | 2020 |) | | FY | 2021 | 1 | | FY | 202 | 2 |
| | 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 |
| F-15 Integration Developmental/Operational Testing | | | | | | | | | | | | | | ' | | , | | | | | | | | | | ' | | |
| SDB II M-Code | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Government Confidence Testing | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Operational Testing | | | | | | | | | | | | | | | | | | | | | | | | | | | | _ |
| F-15E Required Assets Available | | | | | | | | | | | | | | | | | | | | | | | | | | | | _ |
| SDB II Integration on Threshold F-35B/C | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

| Exhibit R-4A, RDT&E Schedule Details: FY 2018 Air Force | | Date: May 2017 | |
|---|---|----------------|---------------------------------|
| 3600 / 5 | PE 0604329F I Small Diameter Bomb (SDB) | • (| umber/Name) SDB Increment II |
| | - EMD | | |

Schedule Details

| | St | art | E | nd |
|--|---------|------|---------|------|
| Events | Quarter | Year | Quarter | Year |
| F-15 Integration Developmental/Operational Testing | 1 | 2016 | 4 | 2018 |
| SDB II M-Code | 3 | 2017 | 4 | 2020 |
| Government Confidence Testing | 1 | 2017 | 4 | 2017 |
| Operational Testing | 1 | 2018 | 4 | 2018 |
| F-15E Required Assets Available | 1 | 2019 | 1 | 2019 |
| SDB II Integration on Threshold F-35B/C | 3 | 2018 | 2 | 2022 |

PE 0604329F: Small Diameter Bomb (SDB) - EMD

Air Force