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Exhibit R-2, RDT&E Budget Item Justification: PB 2017 Missile Defense Agency **Date:** February 2016

| | |
|---|---|
| Appropriation/Budget Activity 0400: <i>Research, Development, Test & Evaluation, Defense-Wide / BA 4: Advanced Component Development & Prototypes (ACD&P)</i> | R-1 Program Element (Number/Name) PE 0604873C / <i>Long Range Discrimination Radar (LRDR)</i> |
|---|---|

| COST (\$ in Millions) | Prior Years | FY 2015 | FY 2016 | FY 2017 Base | FY 2017 OCO | FY 2017 Total | FY 2018 | FY 2019 | FY 2020 | FY 2021 | Cost To Complete | Total Cost |
|--|-------------|---------|---------|--------------|-------------|---------------|---------|---------|---------|---------|------------------|------------|
| Total Program Element | - | 49.606 | 137.564 | 162.012 | - | 162.012 | 310.347 | 76.843 | 98.874 | 102.320 | Continuing | Continuing |
| MD96: <i>Long Range Discrim Radar (LRDR)</i> | - | 49.606 | 131.514 | 150.203 | - | 150.203 | 300.338 | 71.133 | 94.843 | 99.080 | Continuing | Continuing |
| MD40: <i>Program Wide Support</i> | - | 0.000 | 6.050 | 11.809 | - | 11.809 | 10.009 | 5.710 | 4.031 | 3.240 | Continuing | Continuing |

Program MDAP/MAIS Code: 362

Note

Beginning in FY 2015, funding was realigned to the Long Range Discrimination Radar (LRDR) Program Element 0604873C, Project MD96, from Ballistic Missile Defense Sensors Program Element 0603884C, Project MD96.

The FY 2017 increase reflects LRDR program transition from the design phase to the production and integration phase and initiation of the purchase of subsystem components and materials.

A. Mission Description and Budget Item Justification

The Ballistic Missile Defense (BMD) Vision Study, conducted by MDA with United States Strategic Command (USSTRATCOM), identified the need to provide a Long Range Discrimination Radar (LRDR) to the BMDS to address the need to provide persistent (24 hours a day, 7 days a week, 365 days a year) precision tracking and discrimination capability. The development, integration and fielding of the LRDR will provide an improved persistent midcourse BMDS discrimination capability in the Pacific sensor architecture, optimize employment of the Ground-Based Midcourse Defense (GMD) interceptor inventory, and address evolving threats. In addition the radar will provide larger hit assessment coverage, potentially improving warfighting capability to manage the Ground Based Interceptor (GBI) inventory and improve the capacity of the BMDS.

MD40 Program-Wide Support (PWS) consists of essential non-headquarters management efforts providing integrated and efficient support to MDA functions and activities across the entire BMDS.

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| Exhibit R-2, RDT&E Budget Item Justification: PB 2017 Missile Defense Agency | Date: February 2016 |
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| Appropriation/Budget Activity 0400: <i>Research, Development, Test & Evaluation, Defense-Wide I BA 4: Advanced Component Development & Prototypes (ACD&P)</i> | R-1 Program Element (Number/Name) PE 0604873C / <i>Long Range Discrimination Radar (LRDR)</i> |
|---|---|

| B. Program Change Summary (\$ in Millions) | FY 2015 | FY 2016 | FY 2017 Base | FY 2017 OCO | FY 2017 Total |
|---|----------------|----------------|---------------------|--------------------|----------------------|
| Previous President's Budget | 50.500 | 137.564 | 154.327 | - | 154.327 |
| Current President's Budget | 49.606 | 137.564 | 162.012 | - | 162.012 |
| Total Adjustments | -0.894 | 0.000 | 7.685 | - | 7.685 |
| • 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 | -0.894 | 0.000 | | | |
| • Other Adjustment | 0.000 | 0.000 | 7.685 | - | 7.685 |

Change Summary Explanation

FY 2017 increase reflects a realignment of funds to the Long Range Discrimination Radar (0604873C) Program Element to address Agency priorities. This PE encompasses LRDR program transition from the design phase to the production and integration phase. During FY 2017, MDA will conduct Critical Design Reviews (CDRs) at the component, subsystem, and system levels. Following a successful system CDR, MDA will order parts based on the approved designs. MDA will begin manufacturing and testing high-volume components and will develop the major software elements. In addition, MDA will prepare site infrastructure for construction and integration activities.

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|--|--------------------|----------------|----------------|---------------------|--|----------------------|----------------|----------------|--|----------------------------|-------------------------|-------------------|
| Exhibit R-2A, RDT&E Project Justification: PB 2017 Missile Defense Agency | | | | | | | | | | Date: February 2016 | | |
| Appropriation/Budget Activity 0400 / 4 | | | | | R-1 Program Element (Number/Name) PE 0604873C / Long Range Discrimination Radar (LRDR) | | | | Project (Number/Name) MD96 / Long Range Discrim Radar (LRDR) | | | |
| COST (\$ in Millions) | Prior Years | FY 2015 | FY 2016 | FY 2017 Base | FY 2017 OCO | FY 2017 Total | FY 2018 | FY 2019 | FY 2020 | FY 2021 | Cost To Complete | Total Cost |
| MD96: Long Range Discrim Radar (LRDR) | - | 49.606 | 131.514 | 150.203 | - | 150.203 | 300.338 | 71.133 | 94.843 | 99.080 | Continuing | Continuing |
| Quantity of RDT&E Articles | - | - | - | - | - | - | - | - | - | - | | |

Note

N/A

A. Mission Description and Budget Item Justification

The BMD Vision Study, conducted by MDA with USSTRATCOM, identified the need to enhance the discrimination capabilities of our sensors and weapon systems. This need was affirmed by the USSTRATCOM's Integrated Air and Missile Defense Prioritized Capabilities List for Program Objective Memorandum FY15. The funds in this project will be utilized by the BMD Sensors Directorate to meet this need through the following activities:

- Development and initial fielding of a Long Range Discrimination Radar (LRDR) by 2020 to provide an improved persistent midcourse Ballistic Missile Defense System (BMDS) discrimination capability in the Pacific sensor architecture and to increase the defensive capacity of the Ground-Based Midcourse Defense (GMD) interceptor inventory and address evolving threats
- System engineering, software development, and testing support for LRDR development and deployment within the Pacific sensor architecture
- Modeling and Simulation (M&S) efforts to include: integration of LRDR digital simulations into the BMDS, M&S architecture, and Verification, Validation, and Accreditation of LRDR models
- In addition, the inherent capabilities of the LRDR will be leveraged to support auxiliary missions, including augmentation of United States Air Force (USAF) Space Surveillance and Space Situational Awareness capabilities

B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)

| | FY 2015 | FY 2016 | FY 2017 |
|---|----------------|----------------|----------------|
| Title: Long Range Discrimination Radar (LRDR) | 49.606 | 131.514 | 150.203 |
| Articles: | - | - | - |
| Description: N/A | | | |
| FY 2015 Accomplishments: | | | |
| - Completed the LRDR competitive source selection process and awarded the LRDR prime contract to Lockheed Martin, Moorestown for \$784M (Fixed Price Incentive Fee) and initiated post award Integrated Product Teams | | | |
| - Obtained approval from the Deputy Secretary of Defense, designating the U.S. Air Force as the Lead Service for the LRDR | | | |
| - Supported by system trade studies, selected the Clear Air Force Station (AFS), Alaska as the future site of the LRDR and received concurrence from the USSTRATCOM, USNORTHCOM and USPACOM Commanders pending a Finding of no Significant Impact (FONSI) from the Environmental Assessment | | | |

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| Exhibit R-2A, RDT&E Project Justification: PB 2017 Missile Defense Agency | | Date: February 2016 |
| Appropriation/Budget Activity 0400 / 4 | R-1 Program Element (Number/Name) PE 0604873C / <i>Long Range Discrimination Radar (LRDR)</i> | Project (Number/Name) MD96 / <i>Long Range Discrim Radar (LRDR)</i> |

| B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each) | FY 2015 | FY 2016 | FY 2017 |
|--|----------------|----------------|----------------|
| <ul style="list-style-type: none"> - Completed the Site Selection Study which provided ranked alternatives to decide the preferred location for LRDR on the Clear AFS - Completed the 35% facilities design review for LRDR <p>FY 2016 Plans:</p> <ul style="list-style-type: none"> -Conduct System Requirements Review (SRR) and perform requirements verification -Conduct radar Contract Integrated Baseline Review (IBR) -Initiate development engineering for radar hardware, software and equipment shelter -Begin preparations for system-level Preliminary Design Review (PDR) -Support completion of Independent Cost Estimate (ICE) -Begin purchase of prototype hardware and long-lead items -Develop requirements and begin modifications to Command, Control, Battle Management, and Communications (C2BMC) systems for LRDR functionality -Develop requirements and initiate purchase of temporary facilities to support site activation -Establish government software Independent Verification and Validation (IV&V) lab -Complete environmental, geotechnical, and other studies for environmental compliance and to inform military construction (MILCON) design effort <p>FY 2017 Plans:</p> <ul style="list-style-type: none"> -Increase reflects LRDR program transition from the design phase to the production and integration phase. Critical Design Reviews (CDRs) will be conducted and parts will be ordered based on the approved designs. Manufacturing and testing of high-volume components will begin, major software elements will be developed and site infrastructure will be prepared for construction and deployment activities -Conduct system-level Preliminary Design Review -Participate in MILCON 65% Facilities Design Review -Conduct system-level CDR at the component, subsystem and system level and begin preparations for system-level Final Design Review -Initiate manufacture and testing of high-volume components and development of major software elements -Conduct the DBR after PDR and completion of the ICE, in accordance with acquisition standards and program schedule that was briefed to OSD, AT&L in Sep 2015 -Procure, assemble, integrate, and test radar and data processing components -Continue modifications to Command, Control, Battle Management, and Communications (C2BMC) systems for LRDR functionality -Integrate software into government software IV&V lab and begin software testing -Continue to develop site activation plans and initiate on-site personnel support services | | | |

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| Exhibit R-2A, RDT&E Project Justification: PB 2017 Missile Defense Agency | | Date: February 2016 |
| Appropriation/Budget Activity 0400 / 4 | R-1 Program Element (Number/Name) PE 0604873C / Long Range Discrimination Radar (LRDR) | Project (Number/Name) MD96 / Long Range Discrim Radar (LRDR) |

| | | | |
|---|----------------|----------------|----------------|
| B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each) | FY 2015 | FY 2016 | FY 2017 |
| -Prepare site infrastructure for construction and integration activities | | | |
| -Establish and implement initial physical and electronic security services | | | |
| Accomplishments/Planned Programs Subtotals | 49.606 | 131.514 | 150.203 |

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

| Line Item | FY 2015 | FY 2016 | FY 2017 Base | FY 2017 OCO | FY 2017 Total | FY 2018 | FY 2019 | FY 2020 | FY 2021 | Cost To Complete | Total Cost |
|---|----------------|----------------|---------------------|--------------------|----------------------|----------------|----------------|----------------|----------------|-------------------------|-------------------|
| • 0603179C: <i>Advanced C4ISR</i> | 13.061 | 9.876 | 3.626 | - | 3.626 | 0.000 | 0.000 | 0.000 | 0.000 | 0 | 26.563 |
| • 0603884C: <i>SENSORS MILCON</i> | 0.000 | 0.000 | 166.670 | - | 166.670 | 0.000 | 150.000 | 0.000 | 0.000 | 0 | 316.670 |
| • 0603896C: <i>Ballistic Missile Defense Command and Control, Battle Management & Communication</i> | 420.516 | 429.853 | 439.617 | - | 439.617 | 413.198 | 432.763 | 454.601 | 462.065 | Continuing | Continuing |
| • 0603904C: <i>Missile Defense Integration and Operations Center (MDIOC)</i> | 53.972 | 47.939 | 54.750 | - | 54.750 | 53.894 | 55.524 | 58.100 | 59.029 | Continuing | Continuing |
| • 0603907C: <i>Sea Based X-Band Radar (SBX)</i> | 64.610 | 71.266 | 68.787 | - | 68.787 | 73.329 | 70.423 | 85.881 | 74.189 | Continuing | Continuing |
| • 31299903: <i>MILCON PLANNING and DESIGN</i> | 58.704 | 15.000 | 0.000 | - | 0.000 | 6.355 | 6.384 | 7.640 | 7.848 | 0 | 101.931 |

Remarks

D. Acquisition Strategy

The Long Range Discrimination Radar (LRDR) acquisition strategy was approved on 7 January 2015 which incorporates robust acquisition practices to ensure delivery of a best value solution that meets mission performance requirements and reduces lifecycle costs. A fixed-price incentive contract was awarded to Lockheed Martin Corporation of Moorestown, New Jersey on October 21, 2015 to manage, develop, build and integrate, test, field and sustain the LRDR prime mission equipment. The prime contract included other fixed-price and cost-reimbursable line items and options in order to properly balance acquisition costs and risks. Performance and cost incentives were included to motivate contractor performance. The radar prime contractor will deliver a full technical data package, which will enable the government to effectively and affordably sustain the system. MDA will synchronize the radar development contract efforts with a simultaneous MILCON effort which will be executed through the US Army Corps of Engineers. The LRDR is expected to complete development and initial fielding in 2020 for BMDS integration and testing.

E. Performance Metrics

N/A

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|---|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|
| Exhibit R-3, RDT&E Project Cost Analysis: PB 2017 Missile Defense Agency | | | | | | | | | | | Date: February 2016 | | | | |
| Appropriation/Budget Activity 0400 / 4 | | | | | | R-1 Program Element (Number/Name) PE 0604873C / Long Range Discrimination Radar (LRDR) | | | | | Project (Number/Name) MD96 / Long Range Discrim Radar (LRDR) | | | | |

| Product Development (\$ in Millions) | | | | FY 2015 | | FY 2016 | | FY 2017 Base | | FY 2017 OCO | | FY 2017 Total | Cost To Complete | Total Cost | Target Value of Contract |
|---|-----------------------------------|---|--------------------|----------------|-------------------|----------------|-------------------|---------------------|-------------------|--------------------|-------------------|----------------------|-------------------------|-------------------|---------------------------------|
| Cost Category Item | Contract Method & Type | Performing Activity & Location | Prior Years | Cost | Award Date | Cost | Award Date | Cost | Award Date | Cost | Award Date | Cost | | | |
| Long Range Discrimination Radar (LRDR) - Communications Integration | C/TBD | TBD : TBD | 0.000 | 0.000 | | 8.800 | | 4.000 | Nov 2016 | - | | 4.000 | Continuing | Continuing | Continuing |
| Long Range Discrimination Radar (LRDR) - IV&V | MIPR | AMRDEC : Huntsville, AL | 0.000 | 0.000 | | 1.780 | | 3.700 | Nov 2016 | - | | 3.700 | Continuing | Continuing | Continuing |
| Long Range Discrimination Radar (LRDR) - Prime Contractor | C/FPIF | Lockheed Martin : Moorestown, NJ | 0.000 | 35.500 | | 101.634 | Dec 2015 | 129.753 | Nov 2016 | - | | 129.753 | Continuing | Continuing | Continuing |
| Long Range Discrimination Radar (LRDR) - Site Activation & Studies | C/TBD | MDA : AL | 0.000 | 14.106 | | 19.300 | Dec 2015 | 12.750 | Nov 2016 | - | | 12.750 | Continuing | Continuing | Continuing |
| Subtotal | | | 0.000 | 49.606 | | 131.514 | | 150.203 | | - | | 150.203 | - | - | - |

Remarks
Contract method and performing activity remain TBD until contract award.

| Project Cost Totals | Prior Years | FY 2015 | FY 2016 | FY 2017 Base | FY 2017 OCO | FY 2017 Total | Cost To Complete | Total Cost | Target Value of Contract |
|----------------------------|--------------------|----------------|----------------|---------------------|--------------------|----------------------|-------------------------|-------------------|---------------------------------|
| | 0.000 | 49.606 | 131.514 | 150.203 | - | 150.203 | - | - | - |

Remarks
N/A

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| Exhibit R-4, RDT&E Schedule Profile: PB 2017 Missile Defense Agency | | Date: February 2016 |
| Appropriation/Budget Activity 0400 / 4 | R-1 Program Element (Number/Name) PE 0604873C / Long Range Discrimination Radar (LRDR) | Project (Number/Name) MD96 / Long Range Discrim Radar (LRDR) |

Significant Event Complete ▲ Milestone Decision Complete ★ Element Test Complete ◆ System Level Test Complete ● Complete Activity +
 Significant Event Planned △ Milestone Decision Planned ☆ Element Test Planned ◇ System Level Test Planned ○ Planned Activity +

| | FY 2015 | | | | FY 2016 | | | | FY 2017 | | | | FY 2018 | | | | FY 2019 | | | | FY 2020 | | | | FY 2021 | | | |
|--|---------|---|---|---|---------|---|---|---|---------|---|---|---|---------|---|---|---|---------|---|---|---|---------|---|---|---|---------|---|---|---|
| | 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 |
| Long Range Discrimination Radar Capability | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |

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| Exhibit R-4A, RDT&E Schedule Details: PB 2017 Missile Defense Agency | | Date: February 2016 |
| Appropriation/Budget Activity 0400 / 4 | R-1 Program Element (Number/Name) PE 0604873C / <i>Long Range Discrimination Radar (LRDR)</i> | Project (Number/Name) MD96 / <i>Long Range Discrim Radar (LRDR)</i> |

Schedule Details

| Events | Start | | End | |
|--|---------|------|---------|------|
| | Quarter | Year | Quarter | Year |
| Long Range Discrimination Radar Capability | 1 | 2015 | 4 | 2021 |

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| Exhibit R-2A, RDT&E Project Justification: PB 2017 Missile Defense Agency | | | | | | | | | | Date: February 2016 | | |
| Appropriation/Budget Activity 0400 / 4 | | | | | R-1 Program Element (Number/Name) PE 0604873C / Long Range Discrimination Radar (LRDR) | | | | Project (Number/Name) MD40 / Program Wide Support | | | |
| COST (\$ in Millions) | Prior Years | FY 2015 | FY 2016 | FY 2017 Base | FY 2017 OCO | FY 2017 Total | FY 2018 | FY 2019 | FY 2020 | FY 2021 | Cost To Complete | Total Cost |
| MD40: Program Wide Support | - | 0.000 | 6.050 | 11.809 | - | 11.809 | 10.009 | 5.710 | 4.031 | 3.240 | Continuing | Continuing |
| Quantity of RDT&E Articles | - | - | - | - | - | - | - | - | - | - | | |

Note

Beginning in FY 2016, Program Wide Support (PWS) was proportionately allocated to Long Range Discrimination Radar (LRDR). In FY 2017, PWS reflects a proportional change as a result of an increase to Long Range Discrimination Radar (LRDR).

A. Mission Description and Budget Item Justification

PWS contains non-headquarters management costs in support of MDA functions and activities across the entire BMDS. It Includes Government Civilians, and Contract Support Services. This provides integrity and oversight of the BMDS as well as supports MDA in the development and evaluation of technologies that will respond to the changing threat. Additionally, PWS includes Global Deployment personnel and support performing deployment site preparation and activation and, provides facility capabilities for MDA Executing Agent locations. Other MDA wide costs includes: physical and technical security; civilian drug testing; audit readiness; the Science, Technology, Engineering, and Mathematics (STEM) program; legal services and settlements; travel and agency training; office, equipment, vehicle, and warehouse leases; utilities and base operations; data and unified communications support; supplies and maintenance; materiel and readiness and central property management of equipment; and similar operating expenses. PWS is allocated on a pro-rata basis and therefore, fluctuates by year based on the adjusted RDT&E profile (which excludes: 0305103C Cyber Security Initiative, 0603274C Special Programs, 0603913C Israeli Cooperative Program and 0901598C Management Headquarters).

B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)

| | FY 2015 | FY 2016 | FY 2017 |
|--|----------------|----------------|----------------|
| Title: Program Wide Support | 0.000 | 6.050 | 11.809 |
| Articles: | - | - | - |
| Description: N/A | | | |
| FY 2015 Accomplishments: - FY 2015 Accomplishments are captured in multiple RDT&E Program Elements under MD40 Budget Project | | | |
| FY 2016 Plans: - Beginning in FY 2016, Program Wide Support was redistributed across RDT&E Program Elements with a proportional allocation to Long Range Discrimination Radar (LRDR) - See paragraph A: Mission Description and Budget Item Justification | | | |
| FY 2017 Plans: - See paragraph A: Mission Description and Budget Item Justification. | | | |
| Accomplishments/Planned Programs Subtotals | 0.000 | 6.050 | 11.809 |

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| Exhibit R-2A, RDT&E Project Justification: PB 2017 Missile Defense Agency | | Date: February 2016 |
| Appropriation/Budget Activity 0400 / 4 | R-1 Program Element (Number/Name) PE 0604873C / <i>Long Range Discrimination Radar (LRDR)</i> | Project (Number/Name) MD40 / <i>Program Wide Support</i> |
| C. Other Program Funding Summary (\$ in Millions) N/A | | |
| Remarks | | |
| D. Acquisition Strategy N/A | | |
| E. Performance Metrics N/A | | |

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2017 Missile Defense Agency **Date:** February 2016

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|--|--|---|
| Appropriation/Budget Activity 0400 / 4 | R-1 Program Element (Number/Name) PE 0604873C / Long Range Discrimination Radar (LRDR) | Project (Number/Name) MD40 / Program Wide Support |
|--|--|---|

| Support (\$ in Millions) | | | | FY 2015 | | FY 2016 | | FY 2017 Base | | FY 2017 OCO | | FY 2017 Total | Cost To Complete | Total Cost | Target Value of Contract |
|---|------------------------|--------------------------------------|-------------|---------|------------|---------|------------|--------------|------------|-------------|------------|---------------|------------------|------------|--------------------------|
| Cost Category Item | Contract Method & Type | Performing Activity & Location | Prior Years | Cost | Award Date | Cost | Award Date | Cost | Award Date | Cost | Award Date | Cost | | | |
| Program Wide Support - Agency Facilities and Maintenance SRM (MIPR) | MIPR | Various : Multi: AL, VA, Aust, Japan | 0.000 | 0.000 | | 6.050 | | 6.050 | Nov 2016 | - | | 6.050 | Continuing | Continuing | Continuing |
| Program Wide Support - Agency Operations Management | Allot | Various : Multi: AL, CA, CO, VA | 0.000 | 0.000 | | 0.000 | | 0.236 | Jul 2017 | - | | 0.236 | Continuing | Continuing | Continuing |
| Program Wide Support - Agency Operations and Support Services | C/CPFF | Various : Multi: AL, VA | 0.000 | 0.000 | | 0.000 | | 5.523 | Jul 2017 | - | | 5.523 | Continuing | Continuing | Continuing |
| Subtotal | | | 0.000 | 0.000 | | 6.050 | | 11.809 | | - | | 11.809 | - | - | - |

Remarks
N/A

| | Prior Years | FY 2015 | FY 2016 | FY 2017 Base | FY 2017 OCO | FY 2017 Total | Cost To Complete | Total Cost | Target Value of Contract |
|----------------------------|-------------|---------|---------|--------------|-------------|---------------|------------------|------------|--------------------------|
| Project Cost Totals | 0.000 | 0.000 | 6.050 | 11.809 | - | 11.809 | - | - | - |

Remarks
N/A

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Exhibit R-4, RDT&E Schedule Profile: PB 2017 Missile Defense Agency **Date:** February 2016

| | | |
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| Appropriation/Budget Activity 0400 / 4 | R-1 Program Element (Number/Name) PE 0604873C / <i>Long Range Discrimination Radar (LRDR)</i> | Project (Number/Name) MD40 / <i>Program Wide Support</i> |
|--|---|--|

Significant Event Complete ▲ Milestone Decision Complete ★ Element Test Complete ◆ System Level Test Complete ● Complete Activity +
 Significant Event Planned △ Milestone Decision Planned ☆ Element Test Planned ◇ System Level Test Planned ○ Planned Activity +

| | FY 2015 | | | | FY 2016 | | | | FY 2017 | | | | FY 2018 | | | | FY 2019 | | | | FY 2020 | | | | FY 2021 | | | |
|---------------------------|---------|---|---|---|---------|---|---|---|---------|---|---|---|---------|---|---|---|---------|---|---|---|---------|---|---|---|---------|---|---|---|
| | 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 |
| MD40 Program-Wide Support | | | | | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | ☆ | | | | |

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| Exhibit R-4A, RDT&E Schedule Details: PB 2017 Missile Defense Agency | | Date: February 2016 |
| Appropriation/Budget Activity 0400 / 4 | R-1 Program Element (Number/Name) PE 0604873C / <i>Long Range Discrimination Radar (LRDR)</i> | Project (Number/Name) MD40 / <i>Program Wide Support</i> |

Schedule Details

| Events | Start | | End | |
|---------------------------|---------|------|---------|------|
| | Quarter | Year | Quarter | Year |
| MD40 Program-Wide Support | 1 | 2016 | 4 | 2020 |

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