Exhibit R-2, RDT&E Budget Item Justification: PB 2013 Missile Defense Agency

R-1 ITEM NOMENCLATURE

0400: Research, Development, Test & Evaluation, Defense-Wide

APPROPRIATION/BUDGET ACTIVITY

PE 0603888C: Ballistic Missile Defense Test & Targets

**DATE:** February 2012

BA 4: Advanced Component Development & Prototypes (ACD&P)

| ,                          | ,       | <i>31</i> ( | ,               |                |                  |         |         |         |         |                  |            |
|----------------------------|---------|-------------|-----------------|----------------|------------------|---------|---------|---------|---------|------------------|------------|
| COST (\$ in Millions)      | FY 2011 | FY 2012     | FY 2013<br>Base | FY 2013<br>OCO | FY 2013<br>Total | FY 2014 | FY 2015 | FY 2016 | FY 2017 | Cost To Complete | Total Cost |
| Total Program Element      | 999.068 | 85.569      | -               | -              | -                | -       | -       | -       | _       | 0.000            | 1,084.637  |
| MD04: Test Program         | 419.722 | -           | -               | -              | -                | -       | -       | -       | -       | 0.000            | 419.722    |
| MD05: Targets Program      | 545.209 | 85.569      | -               | -              | -                | -       | -       | -       | _       | 0.000            | 630.778    |
| MD40: Program-Wide Support | 34.137  | -           | -               | -              | -                | -       | -       | -       | -       | 0.000            | 34.137     |

#### Note

Starting in FY 2012, as directed by the Consolidated Appropriation Act of FY 2012 (Public Law 112-74), BMD Test and Targets content transfers to the following Program Elements: BMD Test and Evaluation PE 0603914C (Budget Project MT04 and MX04), BMD Targets PE 0603915C (Budget Project MT05), BMD Command and Control, Battle Management, and Communications (C2BMC) 0603896C (Budget Project MX01) and Program Wide Support content transfers to BMD Enabling PE 0603890C (Budget Project MD40).

Starting in FY 2013, MD40 Program Wide Support content transfers to the following Program Elements: BMD Test and Evaluation PE 0603914C (Budget Project MD40) and BMD Targets PE 0603915C (Budget Project MD40).

### A. Mission Description and Budget Item Justification

As part of the total Ballistic Missile Defense System (BMDS), the Test Program Element (PE) brings the BMDS element capabilities together for an integrated systemlevel test approach. Based on the Systems Engineering assessments of realistic threat scenarios, test events demonstrate capability of the evolving integrated layered missile defense system in a simultaneous test and operations environment. The Missile Defense Agency (MDA) employs a systematic review of BMDS testing that establishes a convention for setting test objectives that go beyond simply exercising newly delivered elements of the system. The BMDS Test Program establishes and documents in the Integrated Master Test Plan (IMTP) the test requirements for the BMDS with specific focus on collecting the data needed for the verification, validation and accreditation (VV&A) of the BMDS models and simulations (M&S). The BMDS performance evaluation strategy is to develop M&S of the BMDS and compare predictions to empirical data collected through comprehensive flight and ground testing to validate accuracy. Critical Engagement Conditions (CECs) and Empirical Measurement Events (EMEs) are the conditions and events which define or describe the data to be obtained from flight and ground tests in order to anchor M&S. CECs and EMEs are utilized to design a test to further advance the understanding and confidence of the M&S tool set that will be used to evaluate all possible engagements. MDA testing is based on an integrated developmental and operational test program. The MDA Test Program is based on a commitment to deploy technology that is proven, cost-effective, and adaptable to an evolving security environment. MDA, in full collaboration with its IMTP stakeholders: Combatant Commands; Service Operational Test Agencies (OTAs); Director, Operational Test & Evaluation; and Director, Developmental Test and Evaluation, develops and approves the IMTP which aligns the BMDS Test Program to the PAA phases for proven capability delivery. This PE provides consolidated MDA-wide capabilities and resources for the planning, design, execution, provision of infrastructure, and management of BMDS testing. This PE also provides funding to the Operational Test Agencies (OTA), which are active in all phases of test planning, execution and post-test analysis, to include the development of the IMTP. Also including in this PE is funding to the Targets and Countermeasures (TC) program office for the development and procurements of ballistic missile targets and countermeasures for the BMDS in support of the MDA

PE 0603888C: Ballistic Missile Defense Test & Targets Missile Defense Agency

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Exhibit R-2, RDT&E Budget Item Justification: PB 2013 Missile Defense Agency

R-1 ITEM NOMENCLATURE

0400: Research, Development, Test & Evaluation, Defense-Wide

PE 0603888C: Ballistic Missile Defense Test & Targets

**DATE:** February 2012

BA 4: Advanced Component Development & Prototypes (ACD&P)

flight test program. Targets are representative of feasible future threats and flight test requirements are derived from the CECs and EMEs and are documented in the Agency's IMTP.

The Test and Targets PE is grouped into two major areas: Test and Evaluation; Targets and Countermeasures. This PE also includes the test related program content: Concurrent, Test, Training, and Operations (CTTO); Engineering Test Analysis; Facilities, Siting, and Environmental Management; and Fielding and Integration.

### BMDS Test Program Functions:

APPROPRIATION/BUDGET ACTIVITY

- -Directs the testing required to verify, validate, and accredit (VV&A) MDA's models and simulation (M&S).
- -Plans tests according to BMDS and Element objectives.
- -Develops MDA test policy.
- -Executes BMDS ground and flight tests.
- -Ensures appropriate data is collected at the necessary fidelity.
- -Collects data for BMDS analysis and manages MDA data centers.
- -Provides BMDS and Element performance results for IMTP stakeholders.
- -Provides final target system integration, target mission logistics and launch execution for BMDS test target systems.
- -Provides test resources to support flight and ground tests.

## Major Test Program Goals:

- -Direct planning, execution, analyses, and reporting of BMD system test events to support system verification.
- -Improve test execution and discipline for on-time, successful testing.
- -Integrate Element test processes into BMDS processes.
- -Develop Element Lessons Learned and Best Practices to support BMDS test design.
- -Provide required infrastructure and environmental compliance for robust BMDS testing.
- -Ensure test readiness, realism, and accuracy and improve test execution quality.

Targets and Countermeasures element level testing is funded as part of a developmental program and reflected in this Program Element (PE) submission. This PE also provides Targets and Countermeasures participation in the consolidated MDA-wide System Test Program and the resources for the planning, design, execution, and management of Targets and Countermeasures in BMD System testing in accordance with the BMDS Test Policy. This applies to all Flight, Integrated, Ground, and Distributed Ground Tests and Post-Test Analysis and reconstructions listed in the IMTP.

## BMDS Targets and Countermeasures Functions:

The Targets and Countermeasures (TC) program office is responsible for executing the development and procurement of targets to support testing of the BMDS. The multiple targets (3 types) provided by TC are across four target classes: Short Range Ballistic Missiles (SRBM), Medium Range Ballistic Missiles (MRBM), Intermediate

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Exhibit R-2, RDT&E Budget Item Justification: PB 2013 Missile Defense Agency

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**DATE:** February 2012

BA 4: Advanced Component Development & Prototypes (ACD&P)

Range Ballistic Missiles (IRBM), and Intercontinental Ballistic Missiles (ICBM). It provides targets representative of feasible future threats for use in BMDS testing to verify models and simulations, as well as to verify BMDS performance across a broad range of operational conditions. TC has realized past and future savings by centralized competition and management of targets and countermeasures using efficient procurement and lot buys resulting in economies of scale and cost savings.

Targets and Countermeasures Contribution to the BMDS:

-Type-1 Targets are simple, baseline configurations

APPROPRIATION/BUDGET ACTIVITY

- -Type-2 Targets have increased capability or complexity
- -Type-3 Targets have a unique configuration and are procured in low unit quantities
- -Provides the BMDS risk reduction through measurements of flight testing to include technology demonstration algorithms, model validation, and threat and countermeasures characterization.
- -Collects and provides test data in order to support effectiveness, suitability, and interoperability assessments.

Major Targets and Countermeasures Goals:

-Provide cost effective, reliable targets representative of feasible future threats; target performance planning; and BMDS modeling and simulation to the MDA test and engineering community.

MD40 Program-Wide Support (PWS) consists of essential non-headquarters management costs in support of the MDA functions and activities across the entire Ballistic Missile Defense System (BMDS).

| B. Program Change Summary (\$ in Millions)            | FY 2011   | FY 2012   | FY 2013 Base | FY 2013 OCO | FY 2013 Total |
|---|-----------|-----------|--------------|-------------|---------------|
| Previous President's Budget                           | 1,113.425 | 1,071.039 | 898.680      | -           | 898.680       |
| Current President's Budget                            | 999.068   | 85.569    | -            | -           | -             |
| Total Adjustments                                     | -114.357  | -985.470  | -898.680     | -           | -898.680      |
| <ul> <li>Congressional General Reductions</li> </ul>  | -6.860    | -0.121    |              |             |               |
| <ul> <li>Congressional Directed Reductions</li> </ul> | -10.000   | -         |              |             |               |
| <ul> <li>Congressional Rescissions</li> </ul>         | -         | -         |              |             |               |
| <ul> <li>Congressional Adds</li> </ul>                | -         | -         |              |             |               |
| <ul> <li>Congressional Directed Transfers</li> </ul>  | -94.900   | -985.349  |              |             |               |
| Reprogrammings  | -3.056    | -         |              |             |               |
| SBIR/STTR Transfer                                    | -0.125    | -         |              |             |               |
| Other Adjustment                                      | 0.584     | -         | -898.680     | -           | -898.680      |

## **Change Summary Explanation**

Change Summary Explanation:

Missile Defense Agency

The FY 2011 decreases reflect realignment of DoD priorities.

PE 0603888C: Ballistic Missile Defense Test & Targets

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| Exhibit R-2, RDT&E Budget Item Justification: PB 2013 Missile De   | efense Agency   | DATE: February 2012                             |
| APPROPRIATION/BUDGET ACTIVITY 0400: Research, Development, Test & Evaluation, Defense-Wide BA 4: Advanced Component Development & Prototypes (ACD&P) | R-1 ITEM NOMENCLATURE PE 0603888C: Ballistic Missile Defense Te | st & Targets                                    |
| The FY 2012 decrease reflects congressionally directed trans (Public Law 112-74).  | efers to 0603914C, 0603915C, and 0603890C in                    | n the Consolidated Appropriation Act of FY 2012 |
| The FY 2013 decrease reflects realignment to other PEs as p  | rovided in the Consolidated Appropriation Act o                 | f FY 2012 (Public Law 112-74).                  |
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PE 0603888C: *Ballistic Missile Defense Test & Targets* Missile Defense Agency

| Exhibit R-2A, RDT&E Project Just   | ification: PE | 3 2013 Missi | le Defense /    | Agency         |  |         |         |                               | DATE: February 2012 |       |         |  |
|--|---------------|--------------|-----------------|----------------|--|---------|---------|-------------------------------|---------------------|-------|---------|--|
| APPROPRIATION/BUDGET ACTIVITY 0400: Research, Development, Test & Evaluation, Defense-Wide |               |              |                 |                | R-1 ITEM NOMENCLATURE PE 0603888C: Ballistic Missile Defense Test & MD04: Test Program |         |         |                               |                     |       |         |  |
| BA 4: Advanced Component Development & Prototypes (ACD&P)                                  |               |              |                 | Targets        |  |         |         |                               |                     |       |         |  |
| COST (\$ in Millions)  | FY 2011       | FY 2012      | FY 2013<br>Base | FY 2013<br>OCO | FY 2013<br>Total   | FY 2014 | FY 2015 | 5 FY 2016 FY 2017 Complete To |                     |       |         |  |
| MD04: Test Program   | 419.722       | -            | -               | -              | -  | -       | -       | -                             | -                   | 0.000 | 419.722 |  |

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#### Note

Quantity of RDT&E Articles

Starting in FY 2012, BMD Test and Targets content moves to the following Program Element: BMD Test and Evaluation PE 0603914C (Budget Project MT04).

### A. Mission Description and Budget Item Justification

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The Test Program provides consolidated Missile Defense Agency (MDA) capabilities and resources to support the management and execution of Ballistic Missile Defense System (BMDS) and Element-level testing. With the evolution of the BMDS, testing needs have expanded beyond those of the individual Elements to include testing of BMDS Critical Engagement Conditions (CEC) and Empirical Measurement Events (EME) to anchor models and simulations.

The Directorate for Test (DT) is responsible for all BMDS testing which relies on BMDS Systems Engineering to provide the system test objectives to define the test architecture. DT plans and executes BMD system test events and develops the necessary test policy, test plans, and test infrastructure to conduct an effective test program.

Test activities are grouped into four major areas: 1) Support to Operations, which provides for the Test Functional Management Office, flight and ground testing support, target launch operations, and Operational Test Agency assessments; 2) Infrastructure Support to Flight Test and Ground Test Programs, which sustains, and modernizes the core infrastructure assets required to support the BMDS System and Element-level flight and ground testing; 3) Flight Test and Ground Test Infrastructure Development, which provides for Integrated Master Test Plan infrastructure development, auxiliary sensors development, and component ground test lab development; and 4) Common Test Support, which provides for test planning and design, test data management, ground test lab support, test readiness and training, and the Pacific Range Support Team (PRST).

The goals of this budgetary project are to support and improve a robust testing program and to enhance modeling and simulation efforts to provide, in conjunction with flight and ground testing, confidence to the Combatant Commanders that the missile defense system works.

The MDA test program, along with the Army, Navy, Air Force, and Operational Test Agencies (OTA), conducts a rigorous review of BMDS models and simulations (M&S) to determine the data needed to verify, validate, and accredit the M&S efforts. Working with the Services, OTA, and with the support of the Director of Operational Test and Evaluation (DOT&E), the test program was restructured to improve confidence in the missile defense capabilities under development and ensure the capabilities transferred to the Warfighter are operationally effective, suitable, and survivable.

Test Engineering supports the analysis process by providing event leadership, tools, and processes to conduct pre- and post-mission system level analysis for all BMDS flight and ground test events. Analysis is performed and reported using the Joint Analysis Team (JAT) process. Pre-mission analysis provides essential risk reduction analysis used to optimize conditions for successful accomplishment of the primary mission objectives. Post-mission analysis is performed to assess the

PE 0603888C: Ballistic Missile Defense Test & Targets Missile Defense Agency

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| Exhibit R-2A, RDT&E Project Justification: PB 2013 Missile Defense   | Agency  |                 | DATE: Fel  | oruary 2012    |         |
|--|---|-----------------|------------|----------------|---------|
| APPROPRIATION/BUDGET ACTIVITY  | R-1 ITEM NOMENCLATURE                             | PROJEC          | Т          |                |         |
| 0400: Research, Development, Test & Evaluation, Defense-Wide   |   | MD04: <i>Te</i> | st Program |                |         |
| BA 4: Advanced Component Development & Prototypes (ACD&P)  | Targets   |                 |            |                |         |
| primary and secondary test objectives and to identify mission-specific   |   |                 |            |                |         |
| strategy is to develop M&S and compare their predictions to empirical  | <u> </u>  | •               | •          | ed to validate | M&S     |
| accuracy, rather than physically testing all possible combinations of BN   | MDS configurations, engagement conditions, and    | target phei     | nomena.    |                |         |
| B. Accomplishments/Planned Programs (\$ in Millions, Article Quan  | tities in Each)                                   |                 | FY 2011    | FY 2012        | FY 2013 |
| Title: 1.0 Support to Operations and Testing   |   |                 | 138.948    | -              | -       |
|  |   | Articles:       | 0          | 0              | C       |
| <b>Description:</b> See Description Below  |   |                 |            |                |         |
| •  |   |                 |            |                |         |
| FY 2011 Accomplishments:   |   |                 |            |                |         |
| -Completed detailed test planning, mission management, and integration   |   |                 |            |                |         |
| level and other test events, including the successful execution of FTM-1   | 5, FTM-16E1, JFTM, FTX-17, FTX-16 E1, FTP-04      | I, Arrow        |            |                |         |
| Intercept, and three Ground Tests.   | ed and signed by Director Operational Test 9 Fire | l ati a a       |            |                |         |
| -Developed Integrated Master Test Plans (IMTP) which were coordinate (DOT&E), Developmental Test and Reaction (DT&E), Operational Test   |   |                 |            |                |         |
| (JFCC) Integrated Missile Defense (IMD).   | Agencies (OTA), John Function Component Comi      | IIaiiu          |            |                |         |
| -Developed and implemented test policy, standards, directives, and produced the standards of the standards o | cedures for creating unified RMD test processes   |                 |            |                |         |
| -Coordinated budget planning and execution activities, as well as Test F   |   |                 |            |                |         |
| -Communicated and interacted with the BMDS development community   |   |                 |            |                |         |
| -Supported BMDS Elements in planning and integration of their program  |   |                 |            |                |         |
| -Supported planning and execution of BMDS Contingency Operations.  |   |                 |            |                |         |
| -Prepared and conducted all phase test readiness reviews and schedule  | ed all executive test reviews.                    |                 |            |                |         |
| -Performed BMDS test configuration control and asset management.   |   |                 |            |                |         |
| -Completed BMDS daily test status reports and integrated flight and gro  | und test scheduling and deconfliction.            |                 |            |                |         |
| -Supported end-to-end test cost oversight.   | d toot ovente                                     |                 |            |                |         |
| -Integrated and supported all associated operations on flight and ground<br>-Integrated, developed, and executed all test event viewing plans and co   |   |                 |            |                |         |
| -Supported BMDS System Engineering and Warfighter requirements an  |   | sunnort         |            |                |         |
| teams into BMDS system flight and ground test events.  | a integration of mataple Elements, 6174, and test | Support         |            |                |         |
| -Refined scenario designs for BMDS flight tests to support Critical Enga   | gement Conditions (CECs) and Empirical Measur     | ement           |            |                |         |
| Events (EMEs) identified in BMDS IMTP.   | , , ,   |                 |            |                |         |
| -Initiated planning for FY 2012 BMDS level and other test events.  |   |                 |            |                |         |
| FY 2012 Plans:   |   |                 |            |                |         |
|  |   | ı               | ı          | ı              |         |

PE 0603888C: *Ballistic Missile Defense Test & Targets* Missile Defense Agency

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|--|---|--------------------|------------------|-------------|---------|
| Exhibit R-2A, RDT&E Project Justification: PB 2013 Missile Defense   | se Agency   |                    | DATE: Fe         | bruary 2012 |         |
| APPROPRIATION/BUDGET ACTIVITY 0400: Research, Development, Test & Evaluation, Defense-Wide BA 4: Advanced Component Development & Prototypes (ACD&P) | R-1 ITEM NOMENCLATURE PE 0603888C: Ballistic Missile Defense Test & Targets | PROJEC<br>MD04: Te | T<br>est Program |             |         |
| B. Accomplishments/Planned Programs (\$ in Millions, Article Qu  | antities in Each)   |                    | FY 2011          | FY 2012     | FY 2013 |
| Refer to MT04 in 0603914C for FY 2012 Plans  |   |                    |                  |             |         |
| FY 2013 Plans:   |   |                    |                  |             |         |
| Refer to MT04 in 0603914C for FY 2013 Plans  |   |                    |                  |             |         |
| Title: 2.0 Infrastructure Support to Flight Test and Ground Test   |   |                    | 105.978          | -           | -       |
|  |   | Articles:          | 0                | 0           | C       |
| Description: See Description Below   |   |                    |                  |             |         |
| FY 2011 Accomplishments:   |   |                    |                  |             |         |
| -Developed, maintained, and upgraded as needed MDA unique range  |   |                    |                  |             |         |
| accordance with the DoD Financial Management Regulation (FMR) a  |   |                    |                  |             |         |
| Sands Missile Range (WSMR), Naval Air Warfare Center (NAWC), Ka  |   | e Range            |                  |             |         |
| Facility (PMRF), Reagan Test Site (RTS), Vandenberg Air Force Base   |   | <b>.</b>           |                  |             |         |
| -Operated, maintained, and upgraded as needed the Kwajalein Mobil support BMDS flight testing.   | e Range Salety System (MRSS) and PMRF MRSS                                  | io                 |                  |             |         |
| -Operated High Altitude Observatory -I (HALO-I) and HALO-II to supp  | ort ontical data collection requirements on Ballistic                       | Missile            |                  |             |         |
| Defense (BMD) flight tests. Operated HALO-III to serve as an airborne  |   |                    |                  |             |         |
| technology program. Operated the Wide-body Airborne Sensor Platfo  |   |                    |                  |             |         |
| and provide captive carry capability for MDA sensor programs.  |   |                    |                  |             |         |
| -Maintained and upgraded MDA unique ground test facilities to suppo  |   |                    |                  |             |         |
| testing. These facilities provided hardware-in-the-loop (HWIL) capabil   | ity, threat signature measurement capability, and se                        | ensor              |                  |             |         |
| calibration standardsMaintained and upgraded MDA unique ground test facilities to suppo  | rt RMDS system level ground tests, including basis                          | around             |                  |             |         |
| test control as well as some Element representations.  | The Divides system-level ground tests, including basic                      | ground             |                  |             |         |
| -Continued coordination with the Targets Program to develop and qua  | alify common Flight Termination and Range Tracking                          | a                  |                  |             |         |
| Systems that will simplify target integration at the ranges.   |   |                    |                  |             |         |
| -Sustained the Pacific Collector telemetry instrumentation ship to sup   | port off-range BMDS testing and increasingly compl                          | ex test            |                  |             |         |
| scenarios.   |   |                    |                  |             |         |
| -Operated and maintained three Transportable Telemetry System (TT  | S) that provide long range missile telemetry acquisi                        | ition,             |                  |             |         |
| processing, and archiving capabilitySupported the Test and Evaluation Data Analysis Capability (TEDAC  | *) Enterprise to provide test communications among                          | the MDA            |                  |             |         |
| ranges and test situational awareness to MDA.  | , Enterprise to provide test communications among                           | ule MDA            |                  |             |         |
| Tanges and tool oldational arrangings to MD/ t.  |   |                    | I                | I           |         |
|  |   |                    |                  |             |         |

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| se Agency   |  | DATE: Fel  | bruary 2012   |   |  |  |  |  |  |  |  |  |
|---|--|--|---|---|--|--|--|--|--|--|--|--|
| APPROPRIATION/BUDGET ACTIVITY 0400: Research, Development, Test & Evaluation, Defense-Wide BA 4: Advanced Component Development & Prototypes (ACD&P)  B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)  -Continued development of a range safety capability for the Pacific Collector.  FY 2012 Plans: Refer to MT04 in 0603914C for FY 2012 Plans  FY 2013 Plans: Refer to MT04 in 0603914C for FY 2013 Plans  Title: 3.0 Flight Test and Ground Test Infrastructure Development  Articles:  -Continued development of a second suite of hardware-in-the-loop (HWIL) equipment including the acquisition of additional hardware and digital element representations to support concurrent ground testing of current Ballistic Missile Defense System  (BMDS) capability and that under development.  -Identified and executed focused investments in the BMDS test infrastructure to support the Integrated Master Test Plan (IMTP). |  |  |   |   |  |  |  |  |  |  |  |  |
| •   |  | FY 2011  | FY 2012   | FY 2013   |  |  |  |  |  |  |  |  |
| ollector.   |  |  |   |   |  |  |  |  |  |  |  |  |
|   |  |  |   |   |  |  |  |  |  |  |  |  |
|   |  |  |   |   |  |  |  |  |  |  |  |  |
|   | Articles:  | 117.794<br>0   | - 0   | _<br>0  |  |  |  |  |  |  |  |  |
|   |  |  |   |   |  |  |  |  |  |  |  |  |
| tructure to support the Integrated Master Test Plan ansion of the existing HWIL capability as the BMDS numentation ship to support off-range BMDS testing to Ground based Midcourse Defense (GMD) salvo to and Communications (C2BMC) regional test bed and   | stem (IMTP). evolves. and esting and   |  |   |   |  |  |  |  |  |  |  |  |
|   |  |  |   |   |  |  |  |  |  |  |  |  |
|   |  |  |   |   |  |  |  |  |  |  |  |  |
|   | Articles:  | 48.723<br>0  | -<br>0  | - 0   |  |  |  |  |  |  |  |  |
|   |  |  |   |   |  |  |  |  |  |  |  |  |
|   |  |  |   |   |  |  |  |  |  |  |  |  |
|   | R-1 ITEM NOMENCLATURE PE 0603888C: Ballistic Missile Defense Test & Targets  antities in Each)  Dilector.  WIL) equipment including the acquisition of addition round testing of current Ballistic Missile Defense Systructure to support the Integrated Master Test Planinsion of the existing HWIL capability as the BMDS tumentation ship to support off-range BMDS testing at Ground based Midcourse Defense (GMD) salvo tend Communications (C2BMC) regional test bed and | R-1 ITEM NOMENCLATURE PE 0603888C: Ballistic Missile Defense Test & Targets  antities in Each)  Dilector.  WIL) equipment including the acquisition of additional round testing of current Ballistic Missile Defense System tructure to support the Integrated Master Test Plan (IMTP). Insion of the existing HWIL capability as the BMDS evolves. In umentation ship to support off-range BMDS testing and the Ground based Midcourse Defense (GMD) salvo testing and and Communications (C2BMC) regional test bed and to support next generation scene development efforts. | R-1 ITEM NOMENCLATURE PE 0603888C: Ballistic Missile Defense Test & MD04: Test Program  antities in Each)  WIL) equipment including the acquisition of additional round testing of current Ballistic Missile Defense System  tructure to support the Integrated Master Test Plan (IMTP). nsion of the existing HWIL capability as the BMDS evolves. umentation ship to support off-range BMDS testing and the Ground based Midcourse Defense (GMD) salvo testing and and Communications (C2BMC) regional test bed and to support next generation scene development efforts.  48.723 | R-1 ITEM NOMENCLATURE PE 0603888C: Ballistic Missile Defense Test & Targets    PROJECT   MD04: Test Program |  |  |  |  |  |  |  |  |

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| Exhibit R-2A, RDT&E Project Justification: PB 2013 Missile Defens  | e Agency  |  | DATE: Fe         | bruary 2012 |         |
|--|---|--|------------------|-------------|---------|
| APPROPRIATION/BUDGET ACTIVITY 0400: Research, Development, Test & Evaluation, Defense-Wide BA 4: Advanced Component Development & Prototypes (ACD&P)   | R-1 ITEM NOMENCLATURE PE 0603888C: Ballistic Missile Defense Test & Targets   | PROJEC<br>MD04: Te   | T<br>est Program |             |         |
| B. Accomplishments/Planned Programs (\$ in Millions, Article Qua   | antities in Each <u>)</u>   |  | FY 2011          | FY 2012     | FY 2013 |
| Planned and managed the Ballistic Missile Defense system (BMDS) by incorporating Warfighter and Operational Test Agencies (OTA) criticates the IMTP, requirements for long-range test architecture, and operation -Conducted flight safety, trajectory, threat, collision avoidance, and motests.  Provided ground test planning support for BMDS tests. Developed an initial test architectures and configurations.  -Managed the MDA Data Center Program (DCP). Developed, modern infrastructure providing centralized data management, archival, and d Missile Defense System (BMDS) development and fielding.  -Developed and maintained Information Assurance (IA) documentation networks and infrastructure and interfaced with MDA Information Man maintain test data management network operations capabilities.  -Developed Truth Data Requirements Documents (TDRD) and deliver Estimate Trajectory (BETs), environmental data, optical data, radar or -Provided truth-quick-look product development support for each flight modeling and simulation validation and accreditation.  -Developed and published the Integrated Data Management Plans (ID satisfy Element and System level analysis data collection requirement -Supported Phase-I (Engineering) activities associated with determinic Conditions (CECs) and Empirical Measurement Events (EMEs) requiremodeling and simulations (M&S).  -Provided System Mission Managers (SMM) to lead integrated event the across all five test event phases for System and Element flight and gradient of the strongram risk management standardization and program. Established test lessons learned process to enable organization-poveloped and codifed test training materials to support test operation management (data managers, element data managers, and data requiperovided lab development, integration and event execution support to the strongram security of the strongram and event execution support to the strongram security of the strongram and event execution support to the strongram security of the strongram and event execution suppor | cal operational issues. Provided test scenario designal comparison analysis for MDA. obile asset analysis, as well as sensor planning for and designed ground test scenarios and feasibility. Desized, and sustained the library, operations, and istribution services to reduce the risks and costs of an performed as IA manager for test data management agement & Technology Operations team to coordinated multiple Truth Data Packages (TDP) that include the cost section (RCS) data, and analysis documentation and ground test event supporting analysis requirer (MPs) and Data Handling Plans (DHPs) that capture is an geritical factors, data points, and Critical Engagement for verification, validation, and accreditation (VV) est team mission management and readiness activitional learning.  Insectional learning.  Insections (trainers, evaluators, and operators/crews) and design areas. | gns for all flight eveloped Ballistic ent ate and ed Best n. ments for e and hent &A) of ities |                  |             |         |

PE 0603888C: *Ballistic Missile Defense Test & Targets* Missile Defense Agency

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|  |                        |                         |                            | UNCLAS                                       |                             |                        |                        |   |            |                             |            |
|--|------------------------|-------------------------|----------------------------|--|-----------------------------|------------------------|------------------------|---|------------|-----------------------------|------------|
| Exhibit R-2A, RDT&E Project Justi  | fication: PB           | 2013 Missile            | e Defense A                | gency  |                             |                        |                        |   | DATE: Fel  | bruary 2012                 |            |
| APPROPRIATION/BUDGET ACTIVI<br>0400: Research, Development, Test<br>BA 4: Advanced Component Develop   | & Evaluation,          |                         | /ide I                     | <b>R-1 ITEM NO</b><br>PE 06038880<br>Targets |                             | _                      |                        | PROJEC <sup>*</sup><br>MD04: <i>T</i> e | st Program |                             |            |
| B. Accomplishments/Planned Prog  | grams (\$ in N         | /lillions, Art          | ticle Quantit              | ties in Each                                 | )                           |                        |                        |   | FY 2011    | FY 2012                     | FY 2013    |
| Refer to MT04 in 0603914C for FY 2   | 013 Plans              |                         |                            |  |                             |                        |                        |   |            |                             |            |
| Title: Fielding and Integration  Description: See Description Below  |                        |                         |                            |  |                             |                        | A                      | Articles:                               | 8.279<br>0 | - 0                         | -<br>C     |
| FY 2011 Accomplishments: -Continued Ballistic Missile Defense -Managed BMDS Schedule Baseline -Updated BMDS Technical Baseline -Continued to execute the BMDS Ch | documentatio           | on.                     |                            | and capabili                                 | ty delivery e               | xecution.              |                        |   |            |                             |            |
| FY 2012 Plans:<br>Refer to MT04 in 0603914C for FY 2   | 012 Plans              | ·                       |                            |  |                             |                        |                        |   |            |                             |            |
| FY 2013 Plans:<br>Refer to Budget Project MD40 Progra  | am-Wide Sup            | port (PWS)              |                            |  |                             |                        |                        |   |            |                             |            |
| Title: Facilities Siting, and Environme  | ental                  |                         |                            |  |                             |                        | A                      | Articles:                               | - 0        | - 0                         | -<br>C     |
| <b>Description:</b> See Description Below  |                        |                         |                            |  |                             |                        |                        |   |            |                             |            |
| FY 2011 Accomplishments: Refer to 0603890C, Budget Project N   | MD24                   |                         |                            |  |                             |                        |                        |   |            |                             |            |
| FY 2012 Plans: Refer to 0603890C, Budget Project N   | MD24                   |                         |                            |  |                             |                        |                        |   |            |                             |            |
| FY 2013 Plans:<br>Refer to 0603888C Budget Project M   | 1D40 Progran           | n-Wide Sup <sub>l</sub> | port (PWS)                 |  |                             |                        |                        |   |            |                             |            |
|  |                        |                         |                            | Accon  | nplishments                 | s/Planned P            | rograms Sເ             | ubtotals                                | 419.722    |                             |            |
| C. Other Program Funding Summa   | ry (\$ in Milli        | ons)                    |                            |  |                             |                        |                        |   |            |                             |            |
| <u>Line Item</u> • 0603890C: <i>BMD Enabling Programs</i>  | <b>FY 2011</b> 401.113 | <b>FY 2012</b> 415.048  | FY 2013<br>Base<br>362.711 | FY 2013<br>OCO                               | FY 2013<br>Total<br>362.711 | <b>FY 2014</b> 339.197 | <b>FY 2015</b> 373.346 | <b>FY 201</b> 395.35                    |            | Cost To Complete Continuing | Total Cost |

PE 0603888C: *Ballistic Missile Defense Test & Targets* Missile Defense Agency

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Exhibit R-2A, RDT&E Project Justification: PB 2013 Missile Defense Agency

**R-1 ITEM NOMENCLATURE** 

**PROJECT** 

APPROPRIATION/BUDGET ACTIVITY

**Targets** 

0400: Research, Development, Test & Evaluation. Defense-Wide BA 4: Advanced Component Development & Prototypes (ACD&P) PE 0603888C: Ballistic Missile Defense Test &

MD04: Test Program

**DATE:** February 2012

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

FY 2013 FY 2013 FY 2013 Cost To FY 2012 OCO FY 2017 Complete Total Cost Line Item FY 2011 Base Total FY 2014 FY 2015 FY 2016 • 0603914C: Ballistic Missile 487.699 454.400 420.357 446.542 373.395 421.632 Continuing Continuing 0.000 454.400

Defense Test

#### D. Acquisition Strategy

The Directorate for Test acquisition strategy is consistent with the Missile Defense Agency (MDA) capabilities based acquisition strategy that emphasizes testing, evolutionary acquisition, and knowledge based funding. The Directorate for Test directs a team of various internal staff (government and scientific, engineering and technical assistance support), executing agents, including DoD agencies, Service Organizations, Laboratories and Program Offices, a Federally Funded Research and Development Center (FFRDC), and other MDA programs to execute the various diverse efforts within the Ballistic Missile Defense System (BMDS) test program through competition. When a specific effort/activity being conducted, acquired, or maintained, requires the use of an executing agent, the acquisition strategy that conforms to their respective headquarters regulations are used. This combination of organizations forms an integrated team to accomplish the necessary testing for BMDS.

#### **E. Performance Metrics**

N/A

PE 0603888C: Ballistic Missile Defense Test & Targets Missile Defense Agency

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2013 Missile Defense Agency

APPROPRIATION/BUDGET ACTIVITY

R-1 ITEM NOMENCLATURE

PROJECT

0400: Research, Development, Test & Evaluation, Defense-Wide

PE 0603888C: Ballistic Missile Defense Test &

MD04: Test Program

**DATE:** February 2012

BA 4: Advanced Component Development & Prototypes (ACD&P)

Targets

| Product De | evelopment  | (\$ in Millior               | ıs)                               |                              | FY:  | 2012          | _    | 2013<br>ise   |      | 2013<br>CO    | FY 2013<br>Total |         |            |                                |
|------------|-------------|------------------------------|-----------------------------------|------------------------------|------|---------------|------|---------------|------|---------------|------------------|---------|------------|--------------------------------|
| Cost Cat   | tegory Item | Contract<br>Method<br>& Type | Performing<br>Activity & Location | Total Prior<br>Years<br>Cost | Cost | Award<br>Date | Cost | Award<br>Date | Cost | Award<br>Date | Cost             | Cost To | Total Cost | Target<br>Value of<br>Contract |
| 3031 041   | .090.7      | □ .ypc                       | Subtotal                          |                              | -    | Date          | -    | 2410          | -    | Zuto          | -                | 0.000   | 0.000      | 0.000                          |

#### Remarks

N/A

| Support (\$ in Millions)                      | Support (\$ in Millions)     |   |                              | FY 2 | 2012          |      | 2013<br>ise   |      | 2013<br>CO    | FY 2013<br>Total |                     |            |                                |
|---|------------------------------|---|------------------------------|------|---------------|------|---------------|------|---------------|------------------|---------------------|------------|--------------------------------|
| Cost Category Item                            | Contract<br>Method<br>& Type | Performing<br>Activity & Location           | Total Prior<br>Years<br>Cost | Cost | Award<br>Date | Cost | Award<br>Date | Cost | Award<br>Date | Cost             | Cost To<br>Complete | Total Cost | Target<br>Value of<br>Contract |
| Fielding and Integration<br>Support Contracts | C/CPAF                       | Computer Sciences<br>Corp.:Falls Church, VA | 15.934                       | -    |               | -    |               | -    |               | -                | 0.000               | 15.934     | 0.000                          |
|   | •                            | Subtotal                                    | 15.934                       | -    |               | -    |               | -    |               | -                | 0.000               | 15.934     | 0.000                          |

#### Remarks

N/A

| Test and Evaluation (\$ i   | n Millions                   | s)                                |                              | FY 2012 |               | FY 2013<br>Base |               | FY 2013<br>OCO |               | FY 2013<br>Total |                     |            |                                |
|---|------------------------------|-----------------------------------|------------------------------|---------|---------------|-----------------|---------------|----------------|---------------|------------------|---------------------|------------|--------------------------------|
| Cost Category Item  | Contract<br>Method<br>& Type | Performing<br>Activity & Location | Total Prior<br>Years<br>Cost | Cost    | Award<br>Date | Cost            | Award<br>Date | Cost           | Award<br>Date | Cost             | Cost To<br>Complete | Total Cost | Target<br>Value of<br>Contract |
| 1.0 Support to Operations and Testing Support to Operations and Testing   | Various                      | Various:Various                   | 237.959                      | -       |               | -               |               | -              |               | -                | 0.000               | 237.959    | 0.000                          |
| 2.0 Infrastructure Support to Flight Test and Ground Test Infrastructure Support to Flight Test and Ground Test   | Various                      | Various:Various                   | 225.325                      | -       |               | -               |               | -              |               | -                | 0.000               | 225.325    | 0.000                          |
| 3.0 Flight Test and Ground Test Infrastructure Development Flight Test and Ground Test Infrastructure Development | Various                      | Various:Various                   | 117.794                      | -       |               | -               |               | -              |               | -                | 0.000               | 117.794    | 0.000                          |

PE 0603888C: Ballistic Missile Defense Test & Targets Missile Defense Agency

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2013 Missile Defense Agency

APPROPRIATION/BUDGET ACTIVITY

R-1 ITEM NOMENCLATURE

**DATE:** February 2012

0400: Research, Development, Test & Evaluation, Defense-Wide

PE 0603888C: Ballistic Missile Defense Test &

**PROJECT** 

BA 4: Advanced Component Development & Prototypes (ACD&P)

Targets

MD04: Test Program

| Test and Evaluation (\$ i                      | in Millions                  | s)                                |                              | FY 2 | 2012          | 1    | 2013<br>ise   | FY 2 | 2013<br>CO    | FY 2013<br>Total |                     |            |                                |
|--|------------------------------|-----------------------------------|------------------------------|------|---------------|------|---------------|------|---------------|------------------|---------------------|------------|--------------------------------|
| Cost Category Item                             | Contract<br>Method<br>& Type | Performing<br>Activity & Location | Total Prior<br>Years<br>Cost | Cost | Award<br>Date | Cost | Award<br>Date | Cost | Award<br>Date | Cost             | Cost To<br>Complete | Total Cost | Target<br>Value of<br>Contract |
| 4.0 Common Test Support<br>Common Test Support | Various                      | Various:Various                   | 85.589                       | -    |               | -    |               | -    |               | -                | 0.000               | 85.589     | 0.000                          |
|  |                              | Subtotal                          | 666.667                      | -    |               | -    |               | -    |               | -                | 0.000               | 666.667    | 0.000                          |

#### Remarks

FY 2012 Support to Operations and Testing includes target launch operations which was previously funded in MD05.

| Management Services ( | \$ in Millio                 | ns)                               |                              | FY:  | 2012          |      | 2013<br>ise   |      | 2013<br>CO    | FY 2013<br>Total |                     |            |                                |
|-----------------------|------------------------------|-----------------------------------|------------------------------|------|---------------|------|---------------|------|---------------|------------------|---------------------|------------|--------------------------------|
| Cost Category Item    | Contract<br>Method<br>& Type | Performing<br>Activity & Location | Total Prior<br>Years<br>Cost | Cost | Award<br>Date | Cost | Award<br>Date | Cost | Award<br>Date | Cost             | Cost To<br>Complete | Total Cost | Target<br>Value of<br>Contract |
|                       |                              | Subtotal                          | -                            | -    |               | -    |               | -    |               | -                | 0.000               | 0.000      | 0.000                          |

#### Remarks

N/A

|                     | Total Prior<br>Years<br>Cost | FY 2 | 2012 | FY 2<br>Ba | 2013<br>ise |   | 2013<br>CO | FY 2013<br>Total | Cost To<br>Complete | Total Cost | Target<br>Value of<br>Contract |
|---------------------|------------------------------|------|------|------------|-------------|---|------------|------------------|---------------------|------------|--------------------------------|
| Project Cost Totals | 682.601                      | -    |      | -          |             | - |            | -                | 0.000               | 682.601    | 0.000                          |

#### Remarks

NA

PE 0603888C: Ballistic Missile Defense Test & Targets Missile Defense Agency

| Exhibit R-4, RDT&E Schedule Profile: PB 2013 Missile Defense Age   | ency  | DATE: February 2012        |
|--|---|----------------------------|
| APPROPRIATION/BUDGET ACTIVITY 0400: Research, Development, Test & Evaluation, Defense-Wide BA 4: Advanced Component Development & Prototypes (ACD&P) | R-1 ITEM NOMENCLATURE PE 0603888C: Ballistic Missile Defense Test & Targets | PROJECT MD04: Test Program |
|  |   |                            |
|  |   |                            |
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|  |   |                            |

PE 0603888C: *Ballistic Missile Defense Test & Targets* Missile Defense Agency

Exhibit R-4A, RDT&E Schedule Details: PB 2013 Missile Defense Agency

R-1 ITEM NOMENCLATURE

**PROJECT** 

0400: Research, Development, Test & Evaluation, Defense-Wide

APPROPRIATION/BUDGET ACTIVITY

PE 0603888C: Ballistic Missile Defense Test & MD04: Test Program

**DATE:** February 2012

BA 4: Advanced Component Development & Prototypes (ACD&P)

Targets

### Schedule Details

|  | St      | art  | En      | d    |
|--|---------|------|---------|------|
| Events   | Quarter | Year | Quarter | Year |
| Arrow Intercept Flight Test - FY11                         | 1       | 2011 | 2       | 2011 |
| FTG-06a (GM Intercept Flight Test)                         | 1       | 2011 | 1       | 2011 |
| JFTM-04 E1, E2, E3 (Aegis Simulated Intercept Flight Test) | 1       | 2011 | 1       | 2011 |
| GTD-04b (BMDS Distributed Ground Test)                     | 2       | 2011 | 2       | 2011 |
| FTX-16 E1 (Sensors Flight Test)                            | 2       | 2011 | 2       | 2011 |
| FTM-16 (Aegis Flight Test) E1 (Simulated Intercept)        | 2       | 2011 | 2       | 2011 |
| FTP-04 (7-3) (Patriot Intercept Flight Test)               | 2       | 2011 | 2       | 2011 |
| FTM-15 (Aegis Intercept Flight Test)                       | 3       | 2011 | 3       | 2011 |
| FTX-17 (Air Launched Target Return to Flight) Flight Test  | 3       | 2011 | 3       | 2011 |
| GTD-04d Part 1 (BMDS Distributed Ground Test)              | 3       | 2011 | 4       | 2011 |
| GTI-04d (BMDS Integrated HWIL Ground Test)                 | 3       | 2011 | 3       | 2011 |
| WFTP-04x (Ground Test) (Warfighter Trial Period)           | 4       | 2011 | 4       | 2011 |
| FTX-11 (FY11 Glory Trips) (GT-203, GT-205)                 | 4       | 2011 | 4       | 2011 |
| FTM-16 (Aegis Flight Test) E2 (Intercept)                  | 4       | 2011 | 4       | 2011 |
| FTT-12 (THAAD Intercept Flight Test) (MSE)                 | 4       | 2011 | 4       | 2011 |
| GTI-04 (ISR) (BMDS Integrated HWIL Ground Test)            | 4       | 2011 | 1       | 2012 |
| GDEx-04d (Ground Test) (Warfighter Exercise)               | 4       | 2011 | 4       | 2011 |

| Exhibit R-2A, RDT&E Project Just  | ification: Pl | 3 2013 Missi | le Detense i | Agency     |               |              |            |            | DATE: Feb   | ruary 2012 |            |
|-----------------------------------|---------------|--------------|--------------|------------|---------------|--------------|------------|------------|-------------|------------|------------|
| APPROPRIATION/BUDGET ACTIV        | /ITY          |              |              | R-1 ITEM N | OMENCLA       | ΓURE         |            | PROJECT    |             |            |            |
| 0400: Research, Development, Test |               | *            |              | PE 060388  | 8C: Ballistic | Missile Defe | nse Test & | MD05: Targ | ets Program | 1          |            |
| BA 4: Advanced Component Develo   | pment & Pro   | ototypes (AC | D&P)         | Targets    |               |              |            |            |             |            |            |
| COST (\$ in Millions)             |               |              | FY 2013      | FY 2013    | FY 2013       |              |            |            |             | Cost To    |            |
| COST (\$ in Millions)             | FY 2011       | FY 2012      | Base         | осо        | Total         | FY 2014      | FY 2015    | FY 2016    | FY 2017     | Complete   | Total Cost |
| MD05: Targets Program             | 545.209       | 85.569       | -            | -          | -             | -            | -          | -          | -           | 0.000      | 630.778    |
| Quantity of RDT&E Articles        | 0             | 0            | 0            |            | 0             | 0            | 0          | 0          | 0           |            |            |

#### Note

Quantity of RDT&E Articles

Starting in FY 2012, BMD Test and Targets content moves to the following Program Elements: BMD Test and Evaluation PE 0603914C (Budget Project MT04), BMD Targets PE 0603915C (Budget Project MT05), and BMD C2BMC 0603896C (Budget Project MX01).

### A. Mission Description and Budget Item Justification

The goal of the Missile Defense Agency (MDA) Targets and Countermeasures (TC) program is to provide a cost effective and reliable inventory of targets that are representative of feasible future threats and support demonstration of the evolving layered missile defense system capability in a simultaneous test and operating environment. Based on the Systems Engineering assessments of realistic threat scenarios, the targets and countermeasures program designs, develops, builds, and supports the launch of Short Range Ballistic Missile (SRBM) targets, Medium Range Ballistic Missile (MRBM) targets, Intermediate Range Ballistic Missile (IRBM) targets, Intercontinental Ballistic Missile (ICBM) targets, and the associated common payloads and components to test, verify, and validate the performance of the Ballistic Missile Defense System (BMDS). This project provides funding to the Targets and Countermeasures program office for the development and procurement of ballistic targets and countermeasures for the BMDS in support of the MDA flight test program. Target requirements are derived from the Critical Engagement Conditions (CECs) and Empirical Measurement Events (EMEs) and are documented in the Agency's Integrated Master Test Plan. Targets and countermeasures are developed and built at multiple locations including: Courtland, AL; Orlando, FL; Chandler, AZ; and Albuquerque, NM. Storage and maintenance facilities are also located throughout the country including: Huntsville, AL; White Sands, NM; Ogden, UT; Camp Navajo, AZ; Hawthorne, NV; and Kodiak, AK.

Funding for the TC program supports the continuation of activities which include the requirements definition and design of BMDS targets, associated payloads, and flight missions. It also supports the maintenance, aging surveillance, refurbishment, and routine testing of existing government furnished equipment boosters and target components, as well as the purchase of long lead material assets and asset management items for short, medium, intermediate, and long-range target components.

TC is responsible for executing the development and procurement of targets to support testing of the BMDS and its components. The multiple targets (3 types) provided by TC are across four target classes: Short Range Ballistic Missiles (SRBM), Medium Range Ballistic Missiles (MRBM), Intermediate Range Ballistic Missiles (IRBM), and Intercontinental Ballistic Missiles (ICBM). It provides targets representative of feasible future threats for use in BMDS testing to verify models and simulations, as well as to verify BMDS performance across a broad range of operational conditions.

### **Target Types:**

Type-1 Targets are simple, baseline configurations

Type-2 Targets have increased capability or complexity

Type-3 Targets have a unique configuration and are procured in low unit quantities

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|--|--|---|-------------------|-------------|---------|
| Exhibit R-2A, RDT&E Project Justification: PB 2013 Missile Defens  | se Agency  |   | DATE: Fe          | bruary 2012 |         |
| APPROPRIATION/BUDGET ACTIVITY 0400: Research, Development, Test & Evaluation, Defense-Wide BA 4: Advanced Component Development & Prototypes (ACD&P)   | R-1 ITEM NOMENCLATURE PE 0603888C: Ballistic Missile Defense Test & Targets  | PROJECT<br>MD05: Ta                             | 「<br>rgets Progra | m           |         |
| The TC program consists of three major areas: Program Operations   | , Target Support, and Target Hardware.   |   |                   |             |         |
| B. Accomplishments/Planned Programs (\$ in Millions, Article Qua   | antities in Each)  |   | FY 2011           | FY 2012     | FY 2013 |
| Title: Program Operations  |  | Articles:                                       | 65.713<br>0       | 0.956<br>0  | - 0     |
| <b>Description:</b> See Description Below  |  |   |                   |             |         |
| Program Operations consisted of the government, contractor and Fed workforce that managed the overall Targets and Countermeasures (Tomanagement, business management, acquisition, contract administrative program to develop, build, and evaluate targets that responded to Integrated Master Test Plan. These personnel included the following:  -MDA Civilians in the following functional areas: Acquisition Managem Administrative Services; Engineering; Readiness; Safety, Quality and -Other Government Agency (OGA) Civilians to provide support in the Management; Engineering; Logistics; Safety, Quality, and Mission Assi-Travel for Government Civilians -Contractor Support Services pending Missile Defense Agency Engine-MiDAESS contractor support in the following functional areas: Acquist Contracts; Administrative Services; Engineering; Readiness; Safety, G-FFRDCs, Intergovernmental Personnel Act (IPAs), University Affiliate support the TC program office in Engineering -Operations support to include Change of Station requirements and Stationard Program of Stationard | C) program, to include engineering, logistics, progration, and quality assurance. The personnel for TC expension to the changing threat and meet the requirements in the changing threat and Financial Management; Business and Financial Management; Business and Financial Management; Business and Financial Management; and Mission Assurance; Security; and Test and Research Center (UARC) staff, Detailees, and Lieutense and Financial Management; Business and Financial Management; Busines | am<br>enabled<br>the<br>ts;<br>awards<br>ement; |                   |             |         |
| FY 2012 Plans: Program Operations consisted of the government, contractor and Fed workforce that managed the overall Targets and Countermeasures (Tomanagement, business management, acquisition, contract administrative program to develop, build, and evaluate targets that respond to the Master Test Plan. These personnel included the following:  | C) program, to include engineering, logistics, progration, and quality assurance. The personnel for TC e   | am<br>enable                                    |                   |             |         |
| -Other Government Agency (OGA) Civilians to provide support in the Safety, Quality, and Mission Assurance  | following functional areas: Engineering; Logistics; a  | ind   |                   |             |         |

PE 0603888C: *Ballistic Missile Defense Test & Targets* Missile Defense Agency

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|--|--|---------------------------------------|--------------------|-------------|---------|
| Exhibit R-2A, RDT&E Project Justification: PB 2013 Missile Defense   | se Agency  |                                       | DATE: Fe           | bruary 2012 |         |
| APPROPRIATION/BUDGET ACTIVITY 0400: Research, Development, Test & Evaluation, Defense-Wide BA 4: Advanced Component Development & Prototypes (ACD&P)   | R-1 ITEM NOMENCLATURE PE 0603888C: Ballistic Missile Defense Test & Targets  | PROJEC<br>MD05: <i>Ta</i>             | T<br>argets Progra | m           |         |
| B. Accomplishments/Planned Programs (\$ in Millions, Article Qu  | antities in Each)  |                                       | FY 2011            | FY 2012     | FY 2013 |
| -Contractor support services in the following functional areas: Engine Assurance; Security -FFRDCs, Intergovernmental Personnel Act (IPAs), University Affiliate support the TC program office in Engineering  | ed Research Center (UARC) staff, Detailees, and Li   | aisons to                             |                    |             |         |
| Refer to Project MT05 in Program Element 0603915C for the balance  | e of FY 2012 Plans.  |                                       |                    |             |         |
| FY 2013 Plans:  Refer to Project MT05 in Program Element 0603915C for FY 2013 Plans  | ans.   |                                       |                    |             |         |
| Title: Target Support  |  | Articles:                             | 72.993<br>0        | 17.897<br>0 | - 0     |
| <b>Description:</b> See Description Below  |  |                                       |                    |             |         |
| FY 2011 Accomplishments: Target Support consists of three sub-elements. These are Systems E Equipment.   | ingineering/Program Management, Logistics, and Su  | upport                                |                    |             |         |
| System engineering/program management effort includes activities by as well as non-prime systems engineering efforts. This effort provides requirements while balancing cost, schedule, performance, and risk. I lines, defines product line specifications/interfaces, and follows guide to verify system performance, defines target program baselines, controllight analysis. It identifies treaty and environmental issues and develor contracts in support of the TC program include Single Stimulation Fracompatible Modeling and Simulation (M&S) execution and improvement signature analyses and characterization; studies to assess alternative mission assurance; and design approval of government furnished equals. | is target program technical direction to meet program It conducts functional requirements allocation to prolines for design reviews. It performs target system a rols flight test configurations, and conducts pre and tops plans for issue resolution. Efforts not on the print imework (SSF)/Objective Stimulation Framework (Objects to evolve TC M&S capability; trajectory analyses target and platform solutions; assessments of risk is | duct<br>nalysis<br>post-<br>ne<br>SF) |                    |             |         |
| TC Logistics efforts provide the Missile Defense Agency with target st<br>in support of BMDS testing. These efforts are essential in providing a<br>to build more operational realistic targets to emulate known threats or<br>support for all TC material including facilities, inventory maintenance,<br>for government furnished equipment target rocket motor propellants a  | dependable and reliable target system that enables potential threats. This effort includes integrated log spare parts, aging surveillance, disposal, and speci   | MDA<br>istics<br>al testing           |                    |             |         |

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| Exhibit R-2A, RDT&E Project Justification: PB 2013 Missile Defen  | se Agency   |                     | DATE: Fe          | bruary 2012 |         |
| APPROPRIATION/BUDGET ACTIVITY 0400: Research, Development, Test & Evaluation, Defense-Wide BA 4: Advanced Component Development & Prototypes (ACD&P)  | R-1 ITEM NOMENCLATURE PE 0603888C: Ballistic Missile Defense Test & Targets                                   | PROJEC<br>MD05: Ta  | T<br>rgets Progra | m           |         |
| B. Accomplishments/Planned Programs (\$ in Millions, Article Qu   | antities in Each)   |                     | FY 2011           | FY 2012     | FY 2013 |
| all required facilities and monitoring for explosive storage and Foreign oversees accountability of all government furnished equipment and c  |   | ges and             |                   |             |         |
| Support equipment effort provides for the development and build of c vehicles, associated objects, and all up integrated target rounds. It also f support equipment to various test sites.  |   |                     |                   |             |         |
| FY 2011 Accomplishments: System Engineering and Program Management: Performed program specialty and production engineering; acquisition, production, logistic   |   | cluding:            |                   |             |         |
| -Continued Program Management and Business Operations for target management of the Targets program -Continued Information Technology support for Other Government Age to support Target requirements -Continued Special Studies and associated analyses of future target  | gencies (OGAs) so that subject matter experts could   |                     |                   |             |         |
| ensure targets representative of future feasible threats technology is -Continued Quality/Mission Assurance to include Pedigree Reviews t -Continued information technology and classified network support to   | being incorporated into the Targets program o ensure high probability of mission success                      |                     |                   |             |         |
| -Continued Software Independent Verification and Validation (IV&V) Missile (eMRBM) and Launch Vehicle-2 (LV-2), and Medium Range I of flight missions   | for targets, including the Extended Medium Range B<br>Ballistic Missile Type 3 (MRBM T3) to provide risk re   | allistic<br>duction |                   |             |         |
| -Continued Missile Defense Agency Engineering Directorate targets a accurately represent the threat   | and countermeasures requirements support to ensu  | e targets           |                   |             |         |
| Logistics and Sustainment: Provided maintenance, transportation, utiliand material handling for targets, target components, re-entry rebuild and Countermeasures (TC) utilized storage to acquire and preserve a DoD inventory to build future targets with existing, flight qualified commanufacturing costs to include: | ls, associated objects, and support equipment. Targe<br>existing booster motors; and other target hardware fi | ets<br>rom          |                   |             |         |
| -C4 Motors - Storage, disposal, transportation, aging surveillance, an  | d static fire support   |                     |                   |             |         |

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| Exhibit R-2A, RDT&E Project Justification: PB 2013 Missile Defens   | se Agency   | DATE:  | February 2012 |         |
|---|---|--|---------------|---------|
| APPROPRIATION/BUDGET ACTIVITY 0400: Research, Development, Test & Evaluation, Defense-Wide BA 4: Advanced Component Development & Prototypes (ACD&P)  | R-1 ITEM NOMENCLATURE PE 0603888C: Ballistic Missile Defense Test & Targets   | PROJECT MD05: Targets Pro                                    | gram          |         |
| 0400: Research, Development, Test & Evaluation, Defense-Wide  | PE 0603888C: Ballistic Missile Defense Test & Targets  antities in Each)  a sustainment support port support support anning, small ordnance, x-ray, refurbishment, transpologistics support support annagement and systems engineering functions inclusts management; modeling and simulation; and tests. components to provide a framework for overall managencies (OGAs) so that subject matter experts can be annot Vehicles, Re-Entry Vehicles, and launch platform corporated into the Targets program ensure high probability of mission success as a sure sensitive target information is not compromise trangets including the Extended Medium Range Ballister Range Ballistic Missile, and Medium Range Ballistering functions including: specialty and production | FY 201  FY 201  fortation,  ding:  agement  used to  orms to |               | FY 2013 |
| Logistics and Sustainment: Provides maintenance, transportation, util and material handling for targets, target components, re-entry rebuilds Countermeasures utilizes storage to acquire and preserve existing bo to build future targets with existing, flight qualified components, which include: | s, associated objects, and support equipment. Targe<br>poster motors and other target hardware from DOD i   | ets and<br>nventory  |               |         |

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| Exhibit R-2A, RDT&E Project Justification: PB 2013 Missile Defens  | e Agency  |                 | <b>DATE</b> : Fe | bruary 2012 |         |
|--|---|-----------------|------------------|-------------|---------|
| APPROPRIATION/BUDGET ACTIVITY  | R-1 ITEM NOMENCLATURE                               | PROJEC          | Т                |             |         |
| 0400: Research, Development, Test & Evaluation, Defense-Wide   | PE 0603888C: Ballistic Missile Defense Test &       | MD05: <i>Ta</i> | rgets Progra     | m           |         |
| BA 4: Advanced Component Development & Prototypes (ACD&P)  | Targets   |                 |                  |             |         |
| B. Accomplishments/Planned Programs (\$ in Millions, Article Qua   | ·   |                 | FY 2011          | FY 2012     | FY 2013 |
| -C4 Motors - Storage, disposal, transportation, aging surveillance, and  | static fire support                                 |                 |                  |             |         |
| -Castor IVA - Transportation costs   |   |                 |                  |             |         |
| -Castor IVB - Storage costs<br>-GEM-40 - Desiccant baffles and forward dome inspection costs   |   |                 |                  |             |         |
| -Lance -Transferred for de-militarization and disposal   |   |                 |                  |             |         |
| -Orbus 1A - Missile sustainment  |   |                 |                  |             |         |
| -Multi-Class Inventory storage, aging surveillance, and transportation   | costs   |                 |                  |             |         |
| -Multi-Class Other - Vehicle support, ordnance inventory reduction pla   |   | ortation,       |                  |             |         |
| and modification costs   |   |                 |                  |             |         |
| -Single Integration Capability Facility Storage, target integration and lo   | ogistics support                                    |                 |                  |             |         |
| Refer to Project MT05 in Program Element 0603915C for the balance  | of FY 2012 Plans.                                   |                 |                  |             |         |
| FY 2013 Plans:   |   |                 |                  |             |         |
| Refer to Project MT05 in Program Element 0603915C for FY 2013 Pla  | ans   |                 |                  |             |         |
| Title: Target Hardware   |   |                 | 406.503          | 66.716      | -       |
|  |   | Articles:       | 0                | 0           | 0       |
| Description: See Description Below   |   |                 |                  |             |         |
| FY 2011 Accomplishments:   |   |                 |                  |             |         |
| Target Hardware includes the design and build of Short Range Ballisti  | c Missile (SRBM) targets, Medium Range Ballistic I  | Missile         |                  |             |         |
| (MRBM) targets, Intermediate Range Ballistic Missile (IRBM) targets, a   |   |                 |                  |             |         |
| support of specific flight tests in the areas of pre-mission and post-mis  |   |                 |                  |             |         |
| is responsible for all target launch operations to include range coordinates to the range, and launch execution                                  | ation and use, transportation of equipment and targ | jet             |                  |             |         |
| hardware to the range, and launch execution.   |   |                 |                  |             |         |
| Specifically, target development effort provides for the non-recurring e   | ngineering (NRE) development of Short Range Bal     | listic          |                  |             |         |
| Missile (SRBM), Medium Range Ballistic Missile (MRBM), Intermediate  |   | nd              |                  |             |         |
| associated object systems to support Ballistic Missile Defense System  | , , ,   |                 |                  |             |         |
| intermediate and long range target systems with air, sea, and ground   |   |                 |                  |             |         |
| target systems for cost effective target solutions. Efforts include requir   |   |                 |                  |             |         |
| characterization. It includes ensuring boosters, inter-stages, avionics s and associated objects adhere to interface specifications and meet rel |   |                 |                  |             |         |
| target producibility, manufacturing maturity, and affordability. Supporting  |   |                 |                  |             |         |

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| Exhibit R-2A, RDT&E Project Justification: PB 2013 Missile Defense  | se Agency   |                      | DATE: Fe | bruary 2012 |         |
| APPROPRIATION/BUDGET ACTIVITY 0400: Research, Development, Test & Evaluation, Defense-Wide BA 4: Advanced Component Development & Prototypes (ACD&P)  | R-1 ITEM NOMENCLATURE PE 0603888C: Ballistic Missile Defense Test & Targets                             | PROJECT<br>MD05: Tar |          | nm          |         |
| B. Accomplishments/Planned Programs (\$ in Millions, Article Qu   | antities in Each)   |                      | FY 2011  | FY 2012     | FY 2013 |
| efforts, analyses, configuration management, technical interchange m<br>BMDS requirements.  | neetings, and design reviews resulting in designs tha   | at meet              |          |             |         |
| The manufacturing of target hardware includes the development of fu and IRBM assets. It includes integrated or component ballistic missile associated objects, and kits); target characterization; quality and miss services; and transportation and logistics support.   | e flight test hardware (launch vehicles, reentry vehicle  | es,                  |          |             |         |
| Target requirements are delineated in the MDA Integrated Master Test target types and quantities noted in the Planned Accomplishments.  | st Plan (IMTP). Future revisions to the IMTP will like  | ly affect            |          |             |         |
| FY 2011 accomplishments included developing, building, and support testing and validation of the BMDS weapon system performance:  | ting the launch of the following target types to enable   | e BMDS               |          |             |         |
| Multi-Class Components: Developed, built, and supported common p and associated objects to support the manufacturing of targets for SR used for non-recurring engineering (NRE) and recurring engineering to  | RBM, MRBM, and IRBM assets. Specifically, the fund  |                      |          |             |         |
| -Continued Modified Ballistic Re-Entry Vehicle-7 (MBRV-7) developm -Initiated development of MBRV-8 -Family 1C delivery and second successful deployment of associated -Continued Family 1F development -Continued Family 1G development -Other Counter Measure/Associate Object Non-Recurring Engineering -Continued production of SR-19 Flexseals -Provided funding for Special Targets | objects in FTG-06A  |                      |          |             |         |
| Intermediate Range Ballistic Missile (IRBM): Specifically, target devel (NRE) and recurring development of IRBM launch vehicles to support decomposition, design, qualification testing, characterization, and buil objective to demonstrate the intermediate range ballistic missile threa   | t BMDS flight testing. Efforts included requirements Id. This supported the Missile Defense Agency (MDA |                      |          |             |         |

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| Exhibit R-2A, RDT&E Project Justification: PB 2013 Missile Defense  | se Agency  |                       | DATE: Fe | bruary 2012 |         |  |
|---|--|-----------------------|----------|-------------|---------|--|
| APPROPRIATION/BUDGET ACTIVITY 0400: Research, Development, Test & Evaluation, Defense-Wide BA 4: Advanced Component Development & Prototypes (ACD&P)  | PROJECT<br>MD05: Tal   | CT<br>Fargets Program |          |             |         |  |
| B. Accomplishments/Planned Programs (\$ in Millions, Article Qu   | antities in Each)  |                       | FY 2011  | FY 2012     | FY 2013 |  |
| -Launch Vehicle 2 (LV-2) - Initiated/continued development of Ship So-Successful delivery and launch of Ship Sets 2 and 3 in support of BN-IRBM Type 1/Type 2(T1/T2) - Initiated/continued development of Shi Medium Range Ballistic Missile (MRBM): Specifically, target development recurring development of MRBM launch vehicles to support BMD design, qualification testing, characterization, and build. This supported ballistic missile threat and capabilities.                            | MDS flight tests p Sets 1 thru 8 nent efforts provided for the non-recurring engineeri S flight testing. Efforts included requirements decor     | nposition,            |          |             |         |  |
| -Extended Medium Range Ballistic Missile (eMRBM) - Initiated/contin<br>-Extended Long Range Air Launch Target (ELRALT) - Initiated/contin<br>-Medium Range Ballistic Missile Type 3 (MRBM T3) - Initiated develo  | ued development of Ship Sets 1 and 2   |                       |          |             |         |  |
| Short Range Ballistic Missiles (SRBM): Specifically, target development and recurring development of SRBM launch vehicles to support BMD design, qualification testing, characterization, and build. This supported missile threat and capabilities.  | S flight testing. Efforts included requirements decon  | nposition,            |          |             |         |  |
| -Short Range Air Launched Target (SRALT) - Initiated/continued build -Successful delivery and launch of Ship Set 3 in support of Flight Tes -Aegis Readiness Assessment Vehicle-C (ARAV-C) - Initiated/continu-Aegis Readiness Assessment Vehicle-B (ARAV-B) - Initiated/continu-Foreign Materiel Acquisition-2 (FMA-2) - Initiated/continued build of S-Foreign Materiel Acquisition-1 (FMA-1) - Initiated/continued build of S-Medium Range Target (MRT) - Initiated/continued build of Ship Sets | t Tracking Exercise-17 (FTX-17)<br>ued build of Ship Sets 1, 4, 5, and 6<br>ued build of Ship Sets 9 thru 15<br>Ship Sets 3 and 4<br>Ship Set 10 |                       |          |             |         |  |
| FY 2012 Plans: Target requirements are delineated in the MDA Integrated Master Testarget types and quantities noted in the Planned Accomplishments.   | st Plan (IMTP). Future revisions to the IMTP will like   | ly affect             |          |             |         |  |
| FY 2012 Base Plans are to develop, build, and support the launch of validation of the BMDS weapon system performance:   | the following target types to enable BMDS testing a  | nd                    |          |             |         |  |

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| Exhibit R-2A, RDT&E Project Justification: PB 2013 Missile Defens   | se Agency   |           | DATE: Fe            | bruary 2012 |         |  |  |
|---|---|-----------|---------------------|-------------|---------|--|--|
| APPROPRIATION/BUDGET ACTIVITY   | R-1 ITEM NOMENCLATURE                                 | PROJEC1   |                     |             |         |  |  |
| 0400: Research, Development, Test & Evaluation, Defense-Wide<br>BA 4: Advanced Component Development & Prototypes (ACD&P)   | PE 0603888C: Ballistic Missile Defense Test & Targets | MD05: Tai | 05: Targets Program |             |         |  |  |
| B. Accomplishments/Planned Programs (\$ in Millions, Article Qua  | •   |           | FY 2011             | FY 2012     | FY 2013 |  |  |
| Multi-Class Components: Develop, build, and support common payloa associated objects to support the manufacturing of targets for SRBM, used for non-recurring engineering (NRE) and recurring engineering to  | MRBM, IRBM, and ICBM assets. Specifically, the fu     |           |                     |             |         |  |  |
| -Initiate/continue development and delivery of Modified Ballistic Re-En-Initiate/continue development and delivery of MBRV-7 -Initiate/continue development and delivery of Attitude Control Module -Initiate/ continue development of all other Re-entry Vehicles, Associa Master Test Plan. | e (ACM)   | tegrated  |                     |             |         |  |  |
| Intermediate Range Ballistic Missile (IRBM): Specifically, target development of IRBM launch vehicles to support decomposition, design, qualification testing, characterization, and build intermediate range ballistic missile threat and capabilities.                                      | BMDS flight testing. Efforts include requirements     |           |                     |             |         |  |  |
| -Launch Vehicle 2 (LV-2) - Deliver Ship Set 4, continue development of -IRBM T1/T2 - Initiate/continue development of Ship Sets 1 thru 8 -Initiate/continue development of all other IRBMs in support of the current.   | ·   |           |                     |             |         |  |  |
| Medium Range Ballistic Missile (MRBM): Specifically, target development of MRBM launch vehicles to support BMD design, qualification testing, characterization, and build. This supports ballistic missile threat and capabilities.   | S flight testing. Efforts include requirements decomp | position, |                     |             |         |  |  |
| -Extended Medium Range Ballistic Missile (eMRBM) - Initiate/continue<br>-Extended Long Range Air Launch Target (ELRALT) - Initiate/continue<br>-MRBM Type 3 (MRBM T3) - Initiate/continue development of Ship Se<br>-Initiate/continue development of all other MRBMs in support of the cu    | e development of Ship Sets 1 and 2<br>ets 1 thru 4    |           |                     |             |         |  |  |
| Short Range Ballistic Missiles (SRBM): Specifically, target developme and recurring development of SRBM launch vehicles to support BMDS design, qualification testing, characterization, and build. This supports missile threat and capabilities.  | S flight testing. Efforts include requirements decomp | osition,  |                     |             |         |  |  |

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| Exhibit R-2A, RDT&E Project Justification: PB 2013 Missile Defense | DATE: February 2012                           |            |              |
|--|---|------------|--------------|
| APPROPRIATION/BUDGET ACTIVITY                                      | R-1 ITEM NOMENCLATURE                         | PROJECT    |              |
| 0400: Research, Development, Test & Evaluation, Defense-Wide       | PE 0603888C: Ballistic Missile Defense Test & | MD05: Targ | gets Program |
| BA 4: Advanced Component Development & Prototypes (ACD&P)          | Targets                                       |            |              |

| B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)                           | FY 2011 | FY 2012 | FY 2013 |
|--|---------|---------|---------|
| -Short Range Air Launched Target (SRALT) - Initiate/continue development of Ship Set 2                     |         |         |         |
| -Aegis Readiness Assessment Vehicle-C (ARAV-C) - Initiate/continue development of Ship Sets 1, 4, 5, and 6 |         |         |         |
| -Aegis Readiness Assessment Vehicle-B (ARAV-B) - Initiate/continue development of Ship Sets 9-15           |         |         |         |
| -Aegis Readiness Assessment Vehicle-A (ARAV-A) - Initiate/continue development of Ship Sets 8-12           |         |         |         |
| -Initiate/continue development of all other SRBMs in support of the current IMTP                           |         |         |         |
| Refer to Project MT05 in Program Element 0603915C for the balance of FY 2012 Plans.                        |         |         |         |
| FY 2013 Plans:   |         |         |         |
| Refer to Project MT05 in Program Element 0603915C for FY 2013 Plans.                                       |         |         |         |
| Accomplishments/Planned Programs Subtotals   | 545.209 | 85.569  | -       |

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

|                             |         |         | FY 2013 | FY 2013 | FY 2013      |         |         |         |         | Cost To  |                   |
|-----------------------------|---------|---------|---------|---------|--------------|---------|---------|---------|---------|----------|-------------------|
| Line Item                   | FY 2011 | FY 2012 | Base    | OCO     | <u>Total</u> | FY 2014 | FY 2015 | FY 2016 | FY 2017 | Complete | <b>Total Cost</b> |
| 0603915C: Ballistic Missile | 0.000   | 454.357 | 435.747 |         | 435.747      | 475.175 | 505.591 | 406.931 | 485.950 | 0.000    | 2,763.751         |
| Defense Targets             |         |         |         |         |              |         |         |         |         |          |                   |

### D. Acquisition Strategy

The Missile Defense Agency's (MDA) Targets and Countermeasures Program Office (TC) provides for the development and procurement of ballistic missile targets and countermeasures for the Ballistic Missile Defense System in support of the MDA's flight test program. Target requirements are derived from the Agency's Integrated Master Test Plan (IMTP).

Based on the Acquisition Plan for TC's Prime Contract (9 July 2003), MDA competed and awarded a prime contract to Lockheed Martin Space Systems Company (LMSSC) on 9 December, 2003 for the development of the Flexible Target Family (FTF). Targets in the short, medium, and intermediate range as well as reentry vehicles are procured using this contract.

Based on the TC's Medium Range Targets Acquisition Plan (6 June 2008), TC awarded a sole source firm fixed price contract to the Orbital Sciences Corporation ground launched MRT/RV targets in June 2008. This award was based upon the requirement for target consistency resulting in a unique target/RV configuration to support testing of the Aegis Weapon System. A total of three targets have been procured on this contract with one asset remaining in inventory.

Based on TC's Acquisition Plan (3 November 2009), TC competitively awarded a prime contract to Orbital Sciences Corporation on 7 March 2011 for the design and development (cost plus) and delivery (fixed-price incentive fee) of eight air-launched Intermediate Range Ballistic Missile (IRBM) targets. This award includes two follow-on options; one for eight IRBM targets and one for one to six IRBM targets.

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| Exhibit R-2A, RDT&E Project Justification: PB 2013 Missile Defense Agency  DATE: February 201 |   |            |              |  |  |  |  |  |  |
|---|---|------------|--------------|--|--|--|--|--|--|
| APPROPRIATION/BUDGET ACTIVITY   | PROJECT                                       |            |              |  |  |  |  |  |  |
| 0400: Research, Development, Test & Evaluation, Defense-Wide                                  | PE 0603888C: Ballistic Missile Defense Test & | MD05: Targ | gets Program |  |  |  |  |  |  |
| BA 4: Advanced Component Development & Prototypes (ACD&P)                                     | Targets                                       |            |              |  |  |  |  |  |  |

The Sounding Rocket Program 3 (SRP-3) contract is managed by the US Air Force Space and Missile Systems Center, Space Development and Test Directorate at Kirtland AFB, NM to provide air launched target systems. The SRP-3 contract has 4 prequalified vendors (Orbital Sciences Corporation, Alliant Tech Systems, L-3 Communications - Coleman Aerospace (Coleman), and Space Vector Corp) that are able to compete for new task orders to develop targets on this contract. To date, Coleman is the only vendor that has been awarded task orders on this contract.

The Solid Rocket Motor Technical Services Contract was awarded to Alliant Tech Systems in May 2005 and provides aging and surveillance, refurbishment, transportation, testing, and sensitivity studies for MDA TC solid rocket motors to include A3, C4, Orbus 1/1A, GEM, and Castor IV variants. A follow-on, sole source contract was awarded 30 September 2011.

The Aegis Readiness Assessment Vehicle (ARAV) target effort is managed by TC and the Naval Surface Warfare Center Port Hueneme Division White Sands (NSWC PHD WS). NSWC PHD WS has unique sounding rocket expertise and access to existing contracts managed by White Sands Missile Range that makes this a beneficial relationship for both parties. TC provides targets funding via Military Interdepartmental Purchase Orders that NSWC PHD WS expends on its hardware development and engineering contracts. In addition, TC provides funding to Sandia National Labs in support of the Attitude Control Module (ACM) development effort for the ARAV Group C target. NSWC PHD WS manages the integration of the ACM onto the launch vehicle. The MDA Test Directorate (DT) is responsible for funding all launch services of these targets in support of the IMTP.

Targets and Countermeasures (TC) is currently in various stages of planning or execution for procurement of ballistic missile targets by range class: Short Range (SRBM), Medium Range (MRBM), Intermediate Range (IRBM), and Intercontinental Range (ICBM). These targets will be procured using a Target Performance Specification to support flight test requirements as identified in the Integrated Master Test Plan (IMTP). Each target class will be solicited, evaluated, and awarded independently in IMTP ``need date`` priority order.

Within each target class, capabilities are further segregated and designated as a class type. Type 1, Type 2, and Type 3 capabilities are defined as follows:

Type 1: A Type 1 target is the baseline (simple) configuration for the class. A Type 1 target satisfies the minimum target requirements to provide the baseline capability for each target class. The baseline configuration represents the complete vehicle stack-up and includes: 1-n boosters, attitude control system, test object, flight termination system, housekeeping and environmental instrumentation, and telemetry. For example, the basic configuration of an LV-2 target is representative of a Type 1 configuration in the intermediate range class.

Type 2: A Type 2 target requires more advanced or complex performance capabilities. Type 2 capabilities may be included in the baseline Type 1 configuration or provided as configuration kits that can be added to the baseline configuration. Type 2 kits may include the following: countermeasures and associated deployment capability, enhanced targeting and aimpoint accuracies, selectable booster and test object dynamics, tailored separation debris, temperature sensors, hit location and miss distance instrumentation, onboard sensors, deployable fly along sensors, and/or lethality payloads. For example, the LV-2 target with countermeasures or additional payloads is representative of a Type 2 configuration in the intermediate range class.

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| Exhibit R-2A, RDT&E Project Justification: PB 2013 Missile Defense | DATE: February 2012                           |            |             |
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| APPROPRIATION/BUDGET ACTIVITY                                      | R-1 ITEM NOMENCLATURE                         | PROJECT    |             |
| 0400: Research, Development, Test & Evaluation, Defense-Wide       | PE 0603888C: Ballistic Missile Defense Test & | MD05: Targ | ets Program |
| BA 4: Advanced Component Development & Prototypes (ACD&P)          | Targets                                       |            |             |

Type 3: A Type 3 target is a unique configuration procured in low unit quantities. Type 3 targets encompass unique threat characteristics or test conditions (i.e. Ground Based Midcourse Defense high velocity engagement scenario) not achievable with a Type 1 or Type 2 configuration. For example, a mobile launched ICBM Type 1 or Type 2 target is representative of a Type 3 configuration in the intercontinental range class.

TC is in the process of transitioning from a 'just-in-time' approach to delivering unique targets to meet specific flight test requirements to more of a production based strategy geared towards building an inventory of product lines able to meet multiple test requirements. Work under existing contracts/orders will run to completion rather than being transitioned to a new contractor(s).

Future targets may be procured under the new acquisition competitive Request for Proposals unless the new acquisitions would result in higher cost, delivery delays, or less capable targets. TC will procure pre and post mission planning, data products, support to modeling and simulation and ground test, inventory sustainment and management, and flight test execution.

#### E. Performance Metrics

N/A

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2013 Missile Defense Agency

APPROPRIATION/BUDGET ACTIVITY

0400: Research, Development, Test & Evaluation, Defense-Wide

BA 4: Advanced Component Development & Prototypes (ACD&P)

R-1 ITEM NOMENCLATURE

PE 0603888C: Ballistic Missile Defense Test &

Targets

**PROJECT** 

MD05: Targets Program

**DATE:** February 2012

| Product Development                          | Product Development (\$ in Millions) |  |                              | FY 2012 |               |      | 2013<br>se    |      | 2013<br>CO    | FY 2013<br>Total |                     |            |                                |
|--|--------------------------------------|--|------------------------------|---------|---------------|------|---------------|------|---------------|------------------|---------------------|------------|--------------------------------|
| Cost Category Item                           | Contract<br>Method<br>& Type         | Performing<br>Activity & Location  | Total Prior<br>Years<br>Cost | Cost    | Award<br>Date | Cost | Award<br>Date | Cost | Award<br>Date | Cost             | Cost To<br>Complete | Total Cost | Target<br>Value of<br>Contract |
| Program Operations<br>Personnel Support - 1  | C/FFP                                | Teledyne Solutions, Inc.:Huntsville, AL                                      | 45.481                       | 0.249   | Nov 2011      | -    |               | -    |               | -                | 0.000               | 45.730     | 0.000                          |
| Program Operations<br>Government Support - 1 | MIPR                                 | Aviation & Missile<br>Research, Dev & Eng<br>Center:Huntsville, AL           | 2.226                        | 0.059   | Nov 2011      | -    |               | -    |               | -                | 0.000               | 2.285      | 0.000                          |
| Program Operations<br>Personnel Support - 6  | FFRDC                                | Johns Hopkins<br>University Applied<br>Physics Lab:Laurel, MD                | 3.055                        | 0.031   | Nov 2011      | -    |               | -    |               | -                | 0.000               | 3.086      | 0.000                          |
| Program Operations<br>Personnel Support - 7  | MIPR                                 | US Air Force Space<br>and Missile Systems<br>Center (SMC:Kirtland<br>AFB, NM | 1.781                        | 0.378   | Nov 2011      | -    |               | -    |               | -                | 0.000               | 2.159      | 0.000                          |
| Program Operations<br>Personnel Support - 8  | MIPR                                 | US Army Aviation<br>and Missile<br>Command:Huntsville,<br>AL                 | 3.482                        | 0.169   | Nov 2011      | -    |               | -    |               | -                | 0.000               | 3.651      | 0.000                          |
| Program Operations<br>Personnel Support - 15 | C/FFP                                | Colsa<br>Corporation:Huntsville,<br>AL                                       | 0.523                        | 0.070   | Nov 2011      | -    |               | -    |               | -                | 0.000               | 0.593      | 0.000                          |
| Target Support Sys Eng - 1                   | C/CPAF                               | Lockheed Martin Space<br>Systems:Courtland, AL                               | 116.735                      | 0.705   | Nov 2011      | -    |               | -    |               | -                | 0.000               | 117.440    | 0.000                          |
| Target Support Sys Eng - 2                   | C/FFP                                | The Analytic<br>Sciences Corporation<br>(TASC):Albuquerque,<br>NM            | 6.103                        | 1.671   | Nov 2011      | -    |               | -    |               | -                | 0.000               | 7.774      | 0.000                          |
| Target Support Sys Eng - 3                   | C/FFP                                | Teledyne Solutions,<br>Inc.:Huntsville, AL                                   | 8.092                        | 0.018   | Nov 2011      | -    |               | -    |               | -                | 0.000               | 8.110      | 0.000                          |
| Target Support Sys Eng - 4                   | C/FFP                                | Wyle<br>Laboratories:Huntsville,<br>AL                                       | 1.915                        | 0.285   | Nov 2011      | -    |               | -    |               | -                | 0.000               | 2.200      | 0.000                          |
| Target Support Sys Eng - 5                   | FFRDC                                | Johns Hopkins<br>University Applied<br>Physics Lab:Baltimore,<br>MD          | 5.942                        | 0.500   | Nov 2011      | -    |               | -    |               | -                | 0.000               | 6.442      | 0.000                          |

PE 0603888C: Ballistic Missile Defense Test & Targets Missile Defense Agency

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2013 Missile Defense Agency

APPROPRIATION/BUDGET ACTIVITY

0400: Research, Development, Test & Evaluation, Defense-Wide

BA 4: Advanced Component Development & Prototypes (ACD&P)

R-1 ITEM NOMENCLATURE

PE 0603888C: Ballistic Missile Defense Test &

Targets

**PROJECT** 

**DATE:** February 2012

MD05: Targets Program

| Product Development (\$ in Millions) |                              |   | FY 2012                      |       | FY 2013<br>Base |      | FY 2013<br>OCO |      | FY 2013<br>Total |      |                     |            |                                |
|--------------------------------------|------------------------------|---|------------------------------|-------|-----------------|------|----------------|------|------------------|------|---------------------|------------|--------------------------------|
| Cost Category Item                   | Contract<br>Method<br>& Type | Performing<br>Activity & Location   | Total Prior<br>Years<br>Cost | Cost  | Award<br>Date   | Cost | Award<br>Date  | Cost | Award<br>Date    | Cost | Cost To<br>Complete | Total Cost | Target<br>Value of<br>Contract |
| Target Support Sys Eng - 6           | FFRDC                        | Aerospace<br>Corporation:El<br>Segundo, CA                                  | 3.191                        | 0.679 | Nov 2011        | -    |                | -    |                  | -    | 0.000               | 3.870      | 0.00                           |
| Target Support Sys Eng - 7           | MIPR                         | Aviation & Missile<br>Research, Dev & Eng<br>Center:Huntsville, AL          | 7.726                        | 0.650 | Nov 2011        | -    |                | -    |                  | -    | 0.000               | 8.376      | 0.00                           |
| Target Support Sys Eng - 9           | MIPR                         | US Air Force Space &<br>Missile Systems Center<br>(SMC):Kirtland AFB,<br>NM | 1.479                        | 0.233 | Nov 2011        | -    |                | -    |                  | -    | 0.000               | 1.712      | 0.00                           |
| Target Support Log - 1               | C/CPAF                       | Lockheed Martin Space<br>Systems:Courtland, AL                              | 29.926                       | 1.057 | Nov 2011        | -    |                | -    |                  | -    | 0.000               | 30.983     | 0.00                           |
| Target Support Log - 2               | C/CPFF                       | Alliant<br>Techsystems:Magna,<br>UT   | 2.674                        | 0.791 | Nov 2011        | -    |                | -    |                  | -    | 0.000               | 3.465      | 0.00                           |
| Target Support Log - 3               | C/FFP                        | Aerojet<br>Corporation:Albuquerque<br>NM                                    | , 2.356                      | 0.100 | Nov 2011        | -    |                | -    |                  | -    | 0.000               | 2.456      | 0.00                           |
| Target Support Log - 4               | C/FFP                        | Alliant Techsystems,<br>Inc. (ATK):Magna, UT                                | 18.392                       | 0.941 | Nov 2011        | -    |                | -    |                  | -    | 0.000               | 19.333     | 0.00                           |
| Target Support Log - 9               | MIPR                         | Hill Air Force<br>Base:Ogden, UT  | 3.583                        | 0.400 | Nov 2011        | -    |                | -    |                  | -    | 0.000               | 3.983      | 0.00                           |
| Target Support Log - 12              | MIPR                         | New Mexico State Univ.<br>Physical Sciences<br>Lab:Las Cruces, NM           | 2.349                        | 0.300 | Nov 2011        | -    |                | -    |                  | -    | 0.000               | 2.649      | 0.00                           |
| Target Support Log - 13              | MIPR                         | Naval Surface Warfare<br>Center:Crane, IN                                   | 14.108                       | 3.884 | Nov 2011        | -    |                | -    |                  | -    | 0.000               | 17.992     | 0.000                          |
| Target Support Log - 18              | MIPR                         | United States Property<br>& Fiscal Office for<br>Arizona:Phoenix, AZ        | 7.996                        | 0.935 | Nov 2011        | -    |                | -    |                  | -    | 0.000               | 8.931      | 0.00                           |
| Target Support Sys Eng - 13          | MIPR                         | Missile Defense<br>Agency:Arlington, VA                                     | 6.016                        | 4.748 | Nov 2011        | -    |                | -    |                  | -    | 0.000               | 10.764     | 0.000                          |

PE 0603888C: Ballistic Missile Defense Test & Targets Missile Defense Agency

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2013 Missile Defense Agency

APPROPRIATION/BUDGET ACTIVITY

0400: Research, Development, Test & Evaluation, Defense-Wide

BA 4: Advanced Component Development & Prototypes (ACD&P)

R-1 ITEM NOMENCLATURE

PE 0603888C: Ballistic Missile Defense Test &

Targets

**PROJECT** 

MD05: Targets Program

**DATE:** February 2012

| Product Development (              | pment (\$ in Millions)       |  |                              | FY 2012 |               |      | 2013<br>ise   |      | 2013<br>CO    | FY 2013<br>Total |                     |            |                                |
|------------------------------------|------------------------------|--|------------------------------|---------|---------------|------|---------------|------|---------------|------------------|---------------------|------------|--------------------------------|
| Cost Category Item                 | Contract<br>Method<br>& Type | Performing<br>Activity & Location                                    | Total Prior<br>Years<br>Cost | Cost    | Award<br>Date | Cost | Award<br>Date | Cost | Award<br>Date | Cost             | Cost To<br>Complete | Total Cost | Target<br>Value of<br>Contract |
| Target Hardware MRBM - 1           | C/CPAF                       | Lockheed Martin Space<br>Systems:Courtland, AL                       | 77.328                       | 19.977  | Nov 2011      | -    |               | -    |               | -                | 0.000               | 97.305     | 0.000                          |
| Target Hardware MRBM - 3           | C/CPIF                       | L3 Communications/<br>Coleman<br>Aerospace:Orlando, FL               | 115.462                      | 2.970   | Nov 2011      | -    |               | -    |               | -                | 0.000               | 118.432    | 0.000                          |
| Target Hardware Multi-Class<br>- 5 | C/CPAF                       | Lockheed Martin Space<br>Systems:Courtland, AL                       | 9.755                        | 19.931  | Nov 2011      | -    |               | -    |               | -                | 0.000               | 29.686     | 0.000                          |
| Target Hardware SRBM - 1           | C/CPIF                       | L3 Communications/<br>Coleman<br>Aerospace:Orlando, FL               | -                            | 8.710   | Nov 2011      | -    |               | -    |               | -                | 0.000               | 8.710      | 0.000                          |
| Target Hardware SRBM-2             | MIPR                         | Naval Surface<br>Warfare Center,<br>Port Hueneme:Port<br>Hueneme, CA | -                            | 14.188  | Nov 2011      | -    |               | -    |               | -                | 0.000               | 14.188     | 0.000                          |
| Target Hardware IRBM-1             | C/CPAF                       | Lockheed Martin Space<br>Systems:Courtland, AL                       | -                            | 0.174   | Nov 2011      | -    |               | -    |               | -                | 0.000               | 0.174      | 0.000                          |
| Target Hardware IRBM-2             | C/CPAF                       | Orbital Sciences<br>Corporation:Chandler,<br>AZ                      | -                            | 0.766   | Nov 2011      | -    |               | -    |               | -                | 0.000               | 0.766      | 0.000                          |
|                                    |                              | Subtotal   | 497.676                      | 85.569  |               | -    |               | -    |               | -                | 0.000               | 583.245    | 0.000                          |

#### Remarks

All Budget Project MD05 funds support BMDS-Level Testing.

| Support (\$ in Millions) |                              |                                   | FY                           | 2012 |               | 2013<br>ise | FY 2          |      | FY 2013<br>Total |      |                     |            |                                |
|--------------------------|------------------------------|-----------------------------------|------------------------------|------|---------------|-------------|---------------|------|------------------|------|---------------------|------------|--------------------------------|
| Cost Category Item       | Contract<br>Method<br>& Type | Performing<br>Activity & Location | Total Prior<br>Years<br>Cost | Cost | Award<br>Date | Cost        | Award<br>Date | Cost | Award<br>Date    | Cost | Cost To<br>Complete | Total Cost | Target<br>Value of<br>Contract |
|                          |                              | Subtotal                          | -                            | -    |               | -           |               | -    |                  | -    | 0.000               | 0.000      | 0.000                          |

Remarks

N/A

PE 0603888C: Ballistic Missile Defense Test & Targets Missile Defense Agency

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2013 Missile Defense Agency

APPROPRIATION/BUDGET ACTIVITY

R-1 ITEM NOMENCLATURE

**DATE:** February 2012 **PROJECT** 

0400: Research, Development, Test & Evaluation, Defense-Wide

PE 0603888C: Ballistic Missile Defense Test &

MD05: Targets Program

BA 4: Advanced Component Development & Prototypes (ACD&P)

Targets

| Test and Evaluation (\$ in Millions) |                              |                                   |                              | FY 2012 |               | FY 2013<br>Base |               | FY 2013<br>OCO |               | FY 2013<br>Total |         |            |                                |
|--------------------------------------|------------------------------|-----------------------------------|------------------------------|---------|---------------|-----------------|---------------|----------------|---------------|------------------|---------|------------|--------------------------------|
| Cost Category Item                   | Contract<br>Method<br>& Type | Performing<br>Activity & Location | Total Prior<br>Years<br>Cost | Cost    | Award<br>Date | Cost            | Award<br>Date | Cost           | Award<br>Date | Cost             | Cost To | Total Cost | Target<br>Value of<br>Contract |
|                                      |                              | Subtotal                          | -                            | -       |               | -               |               | -              |               | -                | 0.000   | 0.000      | 0.000                          |

#### Remarks

N/A

| Management Services (\$ in Millions) |                              | FY 2                              | 2012                         |      | 2013<br>ise   | FY 2 | 2013<br>CO    | FY 2013<br>Total |               |      |                     |            |                                |
|--------------------------------------|------------------------------|-----------------------------------|------------------------------|------|---------------|------|---------------|------------------|---------------|------|---------------------|------------|--------------------------------|
| Cost Category Item                   | Contract<br>Method<br>& Type | Performing<br>Activity & Location | Total Prior<br>Years<br>Cost | Cost | Award<br>Date | Cost | Award<br>Date | Cost             | Award<br>Date | Cost | Cost To<br>Complete | Total Cost | Target<br>Value of<br>Contract |
|                                      |                              | Subtotal                          | -                            | -    |               | -    |               | -                |               | -    | 0.000               | 0.000      | 0.000                          |

#### Remarks

N/A

|                     | Total Prior<br>Years<br>Cost | FY 2012 | FY 2013<br>Base |   | 2013<br>CO | FY 2013<br>Total | Cost To<br>Complete | Total Cost | Target<br>Value of<br>Contract |
|---------------------|------------------------------|---------|-----------------|---|------------|------------------|---------------------|------------|--------------------------------|
| Project Cost Totals | 497.676                      | 85.569  | -               | - |            | -                | 0.000               | 583.245    | 0.000                          |

#### Remarks

NA

PE 0603888C: Ballistic Missile Defense Test & Targets Missile Defense Agency

| Exhibit R-4, RDT&E Schedule Profile: PB 2013 Missile Defense Age   | DATE: February 2012   |                               |
|--|---|-------------------------------|
| APPROPRIATION/BUDGET ACTIVITY 0400: Research, Development, Test & Evaluation, Defense-Wide BA 4: Advanced Component Development & Prototypes (ACD&P) | R-1 ITEM NOMENCLATURE PE 0603888C: Ballistic Missile Defense Test & Targets | PROJECT MD05: Targets Program |
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PE 0603888C: *Ballistic Missile Defense Test & Targets* Missile Defense Agency

| Exhibit R-4, RDT&E Schedule Profile: PB 2013 Missile Defense Age   | DATE: February 2012   |                               |
|--|---|-------------------------------|
| APPROPRIATION/BUDGET ACTIVITY 0400: Research, Development, Test & Evaluation, Defense-Wide BA 4: Advanced Component Development & Prototypes (ACD&P) | R-1 ITEM NOMENCLATURE PE 0603888C: Ballistic Missile Defense Test & Targets | PROJECT MD05: Targets Program |
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PE 0603888C: *Ballistic Missile Defense Test & Targets* Missile Defense Agency

Exhibit R-4A, RDT&E Schedule Details: PB 2013 Missile Defense Agency

APPROPRIATION/BUDGET ACTIVITY

0400: Research, Development, Test & Evaluation, Defense-Wide

BA 4: Advanced Component Development & Prototypes (ACD&P)

R-1 ITEM NOMENCLATURE

PE 0603888C: Ballistic Missile Defense Test &

Targets

PROJECT

MD05: Targets Program

**DATE:** February 2012

## Schedule Details

|   | Sta     | End  |         |      |
|---|---------|------|---------|------|
| Events  | Quarter | Year | Quarter | Year |
| FMA-1 (SRBM) Pre-Ship Readiness Review (Ship Set 10)  | 3       | 2012 | 3       | 2012 |
| FMA-2 (SRBM)Pre-Ship Readiness Review (Ship Set 4)    | 1       | 2011 | 1       | 2011 |
| FMA-2 (SRBM)Pre-Ship Readiness Review (Ship Set 3)    | 4       | 2011 | 4       | 2011 |
| MRT (SRBM) Pre-Ship Readiness Review (Ship Set 7)     | 4       | 2011 | 4       | 2011 |
| MRT (SRBM) Pre-Ship Readiness Review (Ship Set 10)    | 3       | 2012 | 3       | 2012 |
| STRYPI (SRBM) Pre-Ship Readiness Review (Ship Set 1)  | 1       | 2011 | 1       | 2011 |
| ARAV-A (SRBM) Pre-Ship Readiness Review (Ship Set 8)  | 3       | 2012 | 3       | 2012 |
| ARAV-A (SRBM) Pre-Ship Readiness Review (Ship Set 9)  | 3       | 2012 | 3       | 2012 |
| ARAV-B (SRBM) Pre-Ship Readiness Review (Ship Set 8)  | 3       | 2011 | 3       | 2011 |
| ARAV-B (SRBM) Pre-Ship Readiness Review (Ship Set 10) | 3       | 2012 | 3       | 2012 |
| ARAV-C (SRBM) Pre-Ship Readiness Review (Ship Set 3)  | 2       | 2011 | 2       | 2011 |
| ARAV-C (SRBM) Pre-Ship Readiness Review (Ship Set 1)  | 3       | 2012 | 3       | 2012 |
| SRALT (SRBM) Pre-Ship Readiness Review (Ship Set 2)   | 4       | 2012 | 4       | 2012 |
| E-LRALT Pre-Ship Readiness Review (Ship Set 1)        | 4       | 2012 | 4       | 2012 |
| e MRBM Preliminary Design Review                      | 3       | 2011 | 3       | 2011 |
| e MRBM Critical Design Review                         | 1       | 2012 | 1       | 2012 |
| MRBM Type 3 Contract Award (NRE)                      | 4       | 2011 | 4       | 2011 |
| MRBM Type 3 Preliminary Design Review                 | 4       | 2012 | 4       | 2012 |
| LV-2 Pre-Ship Readiness Review (Ship Set 3)           | 2       | 2011 | 2       | 2011 |
| LV-2 Pre-Ship Readiness Review (Ship Set 4)           | 3       | 2012 | 3       | 2012 |
| RBM Type 1/Type 2 Contract Award (NRE)                | 2       | 2011 | 2       | 2011 |
| IRBM Type 1/Type 2 Critical Design Review             | 4       | 2012 | 4       | 2012 |

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Exhibit R-4A, RDT&E Schedule Details: PB 2013 Missile Defense Agency

**DATE:** February 2012

2012

APPROPRIATION/BUDGET ACTIVITY

R-1 ITEM NOMENCLATURE

**PROJECT** 

0400: Research, Development, Test & Evaluation, Defense-Wide

IRBM Type 1/Type 2 Preliminary Design Review

PE 0603888C: Ballistic Missile Defense Test & MD05: Targets Program

2

BA 4: Advanced Component Development & Prototypes (ACD&P) Targets

**Events** 

| - | Sta     | art  | Eı      | nd   |
|---|---------|------|---------|------|
|   | Quarter | Year | Quarter | Year |

2012

PE 0603888C: Ballistic Missile Defense Test & Targets Missile Defense Agency

| EXHIBIT R-2A, RDT&E Project Justification: PB 2013 Missile Defense Agency |         |         |         |         |         |         |         |                                    | DATE. Febr | uary 2012 | l          |
|---|---------|---------|---------|---------|---------|---------|---------|------------------------------------|------------|-----------|------------|
| 0400: Research, Development, Test & Evaluation, Defense-Wide              |         |         |         | 1       |         |         |         | PROJECT MD40: Program-Wide Support |            |           |            |
| BA 4: Advanced Component Development & Prototypes (ACD&P)                 |         |         | Targets |         |         |         |         |                                    |            |           |            |
| COST (\$ in Millions)   |         |         | FY 2013 | FY 2013 | FY 2013 |         |         |                                    |            | Cost To   |            |
|   | FY 2011 | FY 2012 | Base    | oco     | Total   | FY 2014 | FY 2015 | FY 2016                            | FY 2017    | Complete  | Total Cost |
| MD40: Program-Wide Support  | 34.137  | -       | _       | _       | _       | -       | _       | _                                  | -          | 0.000     | 34.137     |
| Quantity of RDT&E Articles  | 0       | 0       | 0       |         | 0       | 0       | 0       | 0                                  | 0          |           |            |

#### Note

In FY 2012, Program Wide Support content transfers to BMD Enabling PE 0603890C (Budget Project MD40) as directed by the Consolidated Appropriation Act of FY 2012 (Public Law 112-74)

Starting in FY 2013, Program Wide Support content transfers to the following Program Elements: BMD Test and Evaluation PE 0603914C (Budget Project MD40) and BMD Targets PE 0603915C (Budget Project MD40).

### A. Mission Description and Budget Item Justification

Exhibit P 24 PDT9 E Project Justification: DR 2013 Missile Defense Agency

Program-Wide Support (PWS) consists of essential non-headquarters management costs in support of MDA functions and activities across the entire Ballistic Missile Defense System (BMDS). Includes Government Civilians, Advisory and Assistance Services, and Federally Funded Research and Development contracts (FFRDC) providing integrity and oversight of the BMDS as well as, supporting MDA in enabling the development and evaluation of technologies that will respond to the changing threat. In addition, includes Global Deployment personnel and support performing deployment site preparation and activation. Other costs included provide facility capabilities for MDA Executing Agent locations (with the exception of Federal Office Building 2 after FY 2011), such as physical and technical security, legal services, travel and agency training, office and equipment leases, rents and utilities, data and unified communications support, supplies and maintenance, logistics and central property management of equipment, and similar operating expenses. Also includes legal settlements, and foreign currency fluctuations on a limited number of foreign contracts.

In keeping with congressional intent, PWS is allocated on a pro-rata basis and therefore, fluctuates by year based on the total MDA budget.

| B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)  | FY 2011 | FY 2012 | FY 2013 |
|---|---------|---------|---------|
| Title: Civilian Salaries and Support  | 34.137  | -       | -       |
| Articles:   | 0       | 0       | 0       |
| Description: See Description Below  |         |         |         |
| FY 2011 Accomplishments: See paragraph A, Mission Description and Budget Item Justification   |         |         |         |
| FY 2012 Plans: In FY 2012, Program Wide Support content transfers to BMD Enabling PE 0603890C (Budget Project MD40) as directed by the Consolidated Appropriation Act of FY 2012 (Public Law 112-74). |         |         |         |
| FY 2013 Plans:  |         |         |         |

PE 0603888C: Ballistic Missile Defense Test & Targets Missile Defense Agency

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R-1 Line #83

DATE: February 2012

| Exhibit R-2A, RDT&E Project Justification: PB 2013 Missile Defense | DATE: February 2012                           |            |                   |
|--|---|------------|-------------------|
| APPROPRIATION/BUDGET ACTIVITY                                      | R-1 ITEM NOMENCLATURE                         | PROJECT    |                   |
| 0400: Research, Development, Test & Evaluation, Defense-Wide       | PE 0603888C: Ballistic Missile Defense Test & | MD40: Prog | gram-Wide Support |
| BA 4: Advanced Component Development & Prototypes (ACD&P)          | Targets                                       |            |                   |

| B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)  | FY 2011 | FY 2012 | FY 2013 |
|---|---------|---------|---------|
| Starting in FY 2013, Program Wide Support content transfers to the following Program Elements: BMD Test and Evaluation PE 0603914C (Budget Project MD40) and BMD Targets PE 0603915C (Budget Project MD40). |         |         |         |
| Accomplishments/Planned Programs Subtotals  | 34.137  | _       | -       |

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

N/A

# D. Acquisition Strategy

N/A

## **E. Performance Metrics**

N/A

PE 0603888C: *Ballistic Missile Defense Test & Targets* Missile Defense Agency

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