Exhibit R-2, RDT&E Budget Item Justification: PB 2011 Army

APPROPRIATION/BUDGET ACTIVITY

R-1 ITEM NOMENCLATURE

2040: Research, Development, Test & Evaluation, Army

PE 0604869A: Patriot/MEADS Combined Aggregate Program (CAP)

DATE: February 2010

BA 5: Development & Demonstration (SDD)

| _ | | | | | | | | | | | |
|--|-------------------|---------------------|-----------------------------|----------------------------|------------------------------|---------------------|---------------------|---------------------|---------------------|---------------------|------------|
| COST (\$ in Millions) | FY 2009 Actual | FY 2010 Estimate | FY 2011 Base Estimate | FY 2011 OCO Estimate | FY 2011 Total Estimate | FY 2012 Estimate | FY 2013 Estimate | FY 2014 Estimate | FY 2015 Estimate | Cost To Complete | Total Cost |
| Total Program Element | 454.665 | 566.215 | 467.139 | 0.000 | 467.139 | 408.012 | 325.184 | 240.018 | 75.585 | Continuing | Continuing |
| M06: PATRIOT/MEADS COMBINED AGGREGATE PROGRAM (CAP) | 454.665 | 566.215 | 467.139 | 0.000 | 467.139 | 408.012 | 325.184 | 240.018 | 75.585 | Continuing | Continuing |

A. Mission Description and Budget Item Justification

Medium Extended Air Defense System (MEADS) is a tri-national co-development program among the United States, Germany, and Italy to replace the U.S. PATRIOT air defense systems, PATRIOT and HAWK systems in Germany, and NIKE Hercules systems in Italy. Participating countries will sign a Memorandum Of Understanding (MOU) for each successive program phase. The NATO MEADS Management Agency (NAMEADSMA) is the North Atlantic Treaty Organization (NATO) contracting authority providing management of the MEADS program on behalf of the participating nations and is responsible for managing the system acquisition. The U.S. and Italy signed the Design and Development (D&D) MOU on September 24, 2004, and September 27, 2004, respectively. The NAMEADSMA awarded the MEADS D&D letter contract to MEADS International Inc. on September 28, 2004, initiating the MEADS D&D phase. The MOU was amended in March 2005 by the U.S. and Italy to allow the German Parliament additional time for their signature decision and on April 22, 2005 Germany signed the MOU. NAMEADSMA awarded a \$3.4 billion D&D definitized contract to MEADS International Inc. on May 31, 2005. Within the PATRIOT/MEADS Combined Aggregate Program (CAP) there are two synergistic efforts: an international MEADS development effort managed by NAMEADSMA, and a U.S. effort to inject U.S.-specific capability requirements into the MEADS Major End Items (MEIs). MEADS will provide joint and coalition forces, critical asset and defended area protection against multiple and simultaneous attacks by short to medium range ballistic missiles, cruise missiles, unmanned aerial vehicles and tactical air-to-surface missiles. MEADS will have a netted and distributed architecture with modular components to increase survivability and flexibility of employment in a number of operational configurations. The objective MEADS Fire Unit, which will be scalable and tailorable to operational requirements, will consist of: two Battle Management Command, Control, Communication, Computers and Intelligence (BMC4I) tactical operations center (TOC), enabling distributed system operations and Beyond-Line-of-Site (BLOS) engagements for maximum protection of supported forces by engaging at longer ranges; six near-vertical launchers capable of transporting and launching up to eight missiles; three launcher reloaders; the PAC-3 Missile Segment Enhancement (MSE); an ultra-high frequency (UHF) Surveillance Radar (SR) that provides 360-degree coverage and near-range to long-range detection of low radar crosssection targets; and two X-band Multifunction Fire Control Radars (MFCR) that provide 360-degree coverage and are designed for high-precision handover to the in-flight missile, discrimination capabilities, and short-range target detection and horizon search. In addition, MEADS will provide significant improvements in strategic deployability, transportability, mobility and maneuverability. Its substantially reduced lift requirements enable MEADS to be deployed rapidly with essential combat loads via inter/intra-theater land, sea, and airlift anywhere in the world. MEADS will provide Combatant Commanders with an Air Missile Defense (AMD) system that is fully transportable by C-130 aircraft, thus increasing strategic and tactical mobility. Further, its decreased size/weight and ability to conduct rapid march order and system emplacement will enhance maneuverability, thereby providing better AMD protection to maneuvering forces. The PAC-3 system is continuously being improved via hardware and software changes. The latest missile improvement is the MSE and has been accepted as the baseline missile for MEADS. It is being developed by the U.S. for PATRIOT to meet U.S. operational requirements. The MSE will provide a more agile and lethal

Exhibit R-2, RDT&E Budget Item Justification: PB 2011 Army

DATE: February 2010

APPROPRIATION/BUDGET ACTIVITY

R-1 ITEM NOMENCLATURE

2040: Research, Development, Test & Evaluation, Army

PE 0604869A: Patriot/MEADS Combined Aggregate Program (CAP)

BA 5: Development & Demonstration (SDD)

interceptor that increases the engagement envelope/defended area of PATRIOT and the MEADS systems. The MSE improves upon the current PAC-3 missile capability with a higher performance solid rocket motor, modified lethality enhancer, more responsive control surfaces, upgraded guidance software, and insensitive munitions improvements.

B. Program Change Summary (\$ in Millions)

| | <u>FY 2009</u> | <u>FY 2010</u> | <u>FY 2011 Base</u> | FY 2011 OCO | <u>FY 2011 Total</u> |
|---|----------------|----------------|---------------------|--------------------|----------------------|
| Previous President's Budget | 429.846 | 569.182 | 522.789 | 0.000 | 522.789 |
| Current President's Budget | 454.665 | 566.215 | 467.139 | 0.000 | 467.139 |
| Total Adjustments | 24.819 | -2.967 | -55.650 | 0.000 | -55.650 |
| Congressional General Reductions | | -2.967 | | | |
| Congressional Directed Reductions | | 0.000 | | | |
| Congressional Rescissions | 0.000 | 0.000 | | | |
| Congressional Adds | | 0.000 | | | |
| Congressional Directed Transfers | | 0.000 | | | |
| Reprogrammings | 36.857 | 0.000 | | | |
| SBIR/STTR Transfer | -12.038 | 0.000 | | | |
| Adjustments to Budget Years | 0.000 | 0.000 | -55.650 | 0.000 | -55.650 |

| Exhibit R-2A, RDT&E Project Justif | ication: PB 2 | 011 Army | | | | | | | DATE: February 2010 | | | |
|---|-------------------|---|-----------------------------|----------------------------|------------------------------|---------------------|---------------------|---------------------|----------------------------|------------|------------|--|
| APPROPRIATION/BUDGET ACTI 2040: Research, Development, Test & E BA 5: Development & Demonstration (| Evaluation, Ar | eluation, Army PE 0604869A: Patriot/MEADS Combined Aggregate Program (CAP) M06: PATRIOT/MEADS COMBINED AGGREGATE PROGRAM (CAP) | | | | | | | | | | |
| COST (\$ in Millions) | FY 2009 Actual | FY 2010 Estimate | FY 2011 Base Estimate | FY 2011 OCO Estimate | FY 2011 Total Estimate | FY 2012 Estimate | FY 2013 Estimate | FY 2014 Estimate | | | | |
| M06: PATRIOT/MEADS COMBINED AGGREGATE PROGRAM (CAP) | 454.665 | 566.215 | 467.139 | 0.000 | 467.139 | 408.012 | 325.184 | 240.018 | 75.585 | Continuing | Continuing | |
| Quantity of RDT&E Articles | | | | | | | | | | | | |

A. Mission Description and Budget Item Justification

Medium Extended Air Defense System (MEADS) is a tri-national co-development program among the United States, Germany, and Italy to replace the U.S. PATRIOT air defense systems, PATRIOT and HAWK systems in Germany, and NIKE Hercules systems in Italy. Participating countries will sign a Memorandum Of Understanding (MOU) for each successive program phase. The NATO MEADS Management Agency (NAMEADSMA) is the North Atlantic Treaty Organization (NATO) contracting authority providing management of the MEADS program on behalf of the participating nations and is responsible for managing the system acquisition. The U.S. and Italy signed the Design and Development (D&D) MOU on September 24, 2004, and September 27, 2004, respectively. The NAMEADSMA awarded the MEADS D&D letter contract to MEADS International Inc. on September 28, 2004, initiating the MEADS D&D phase. The MOU was amended in March 2005 by the U.S. and Italy to allow the German Parliament additional time for their signature decision and on April 22, 2005 Germany signed the MOU. NAMEADSMA awarded a \$3.4 billion D&D definitized contract to MEADS International Inc. on May 31, 2005. Within the MEADS program there are two synergistic efforts: an international MEADS development effort managed by NAMEADSMA, and a U.S. effort to inject U.S.-specific capability into the MEADS Major End Items (MEIs). MEADS will provide joint and coalition forces, critical asset and defended area protection against multiple and simultaneous attacks by short to medium range ballistic missiles, cruise missiles, unmanned aerial vehicles and tactical air-to-surface missiles. MEADS will have a netted and distributed architecture with modular components to increase survivability and flexibility of employment in a number of operational configurations. The objective MEADS Fire Unit, which will be scalable and tailorable to operational requirements, will consist of: two Battle Management Command, Control, Communication, Computers and Intelligence (BMC4I) tactical operations center (TOC), enabling distributed system operations and Beyond-Line-of-Site (BLOS) engagements for maximum protection of supported forces by engaging at longer ranges; six near-vertical launchers capable of transporting and launching up to eight missiles; three launcher reloaders; the PAC-3 Missile Segment Enhancement (MSE); an ultra-high frequency (UHF) Surveillance Radar (SR) that provides 360-degree coverage and near-range to long-range detection of low radar cross-section targets; and two X-band Multifunction Fire Control Radars (MFCR) that provide 360-degree coverage and are designed for high-precision handover to the in-flight missile, discrimination capabilities, and short-range target detection and horizon search. In addition, MEADS will provide significant improvements in strategic deployability, transportability, mobility and maneuverability. Its substantially reduced lift requirements enable MEADS to be deployed rapidly with essential combat loads via inter/intra-theater land, sea, and airlift anywhere in the world. MEADS will provide Combatant Commanders with an Air Missile Defense (AMD) system that is fully transportable by C-130 aircraft, thus increasing strategic and tactical mobility. Further, its decreased size/weight and ability to conduct rapid march order and system emplacement will enhance maneuverability, thereby providing better AMD protection to maneuvering forces. The PAC-3 system is continuously being improved via hardware and software changes. The latest missile improvement is the Missile Segment Enhancement (MSE) and has been accepted as the baseline missile for MEADS. It is being developed by the U.S. for PATRIOT to meet U.S. operational requirements. The MSE will provide a more agile and lethal interceptor that increases the engagement envelope/defended area of PATRIOT and the MEADS systems. The MSE improves upon the current PAC-3 missile capability with a higher performance solid rocket

| Exhibit R-2A, RDT&E Project Justification: PB 2011 Army | DATE: February 2010 | |
|---|-------------------------------------|-----------------------------|
| APPROPRIATION/BUDGET ACTIVITY | R-1 ITEM NOMENCLATURE | PROJECT |
| 2040: Research, Development, Test & Evaluation, Army | PE 0604869A: Patriot/MEADS Combined | M06: PATRIOT/MEADS COMBINED |
| BA 5: Development & Demonstration (SDD) | Aggregate Program (CAP) | AGGREGATE PROGRAM (CAP) |
| | | |

motor, modified lethality enhancer, more responsive control surfaces, upgraded software, and insensitive munitions improvements. In 2011 PAC-3 will be reported under Program Element 0605456A.

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

| | FY 2009 | FY 2010 | FY 2011 Base | FY 2011 OCO | FY 2011 Total |
|---|---------|---------|-----------------|----------------|------------------|
| Program #1 | 380.121 | 421.828 | 393.542 | 0.000 | 393.542 |
| Continue the U.S. contribution to the North Atlantic Treaty Organization (NATO) MEADS Management Agency (NAMEADSMA) International Program Office operational (prime contract) and administrative (support contracts/personnel/travel)budgets to manage the Design and Development (D&D) Phase contract to design, build, test and evaluate the production representative MEADS hardware. | | | | | |
| FY 2009 Accomplishments: FY 2009 | | | | | |
| FY 2010 Plans: FY 2010 | | | | | |
| FY 2011 Base Plans: FY 2011 Base | | | | | |
| FY 2011 OCO Plans: FY 2011 OCO | | | | | |
| Program #2 | 19.178 | 52.576 | 47.509 | 0.000 | 47.509 |
| Implement program integration efforts to support transition from PATRIOT to development and fielding of US MEADS capability. This includes assessment of performance against US Threat and to identify gaps / shortfalls; development and management of US MEADS programs to address unique US requirements; MEADS-IBCS compatibility; development of a US MEADS testbed, US MEADS sensor performance upgrades; PAC-3 CRI Compatibility; and US MEADS Production and Fielding efforts (required materiel release certifications, planning for US MEADS IOT&E, and required US logistics facilitization and training efforts). | | | | | |

| Exhibit R-2A, RDT&E Project Justification: PB 2011 Army | | | | DATE: Febr | uary 2010 | |
|--|---|---------|---------|-------------------------|----------------|------------------|
| APPROPRIATION/BUDGET ACTIVITY 2040: Research, Development, Test & Evaluation, Army BA 5: Development & Demonstration (SDD) | R-1 ITEM NOMENCLATURE PE 0604869A: Patriot/MEADS Combin Aggregate Program (CAP) | ned | | OT/MEADS (E PROGRAM | | |
| B. Accomplishments/Planned Program (\$ in Millions) | | | | | | |
| | | FY 2009 | FY 2010 | FY 2011 Base | FY 2011 OCO | FY 2011 Total |
| FY 2009 Accomplishments: FY 2009 | | | | | | |
| FY 2010 Plans: FY 2010 | | | | | | |
| FY 2011 Base Plans: FY 2011 Base | | | | | | |
| FY 2011 OCO Plans: FY 2011 OCO | | | | | | |
| Program #3 | | 3.611 | 8.236 | 8.588 | 0.000 | 8.588 |
| Continue management, support and salaries for the national and | international program offices. | | | | | |
| FY 2009 Accomplishments: FY 2009 | | | | | | |
| FY 2010 Plans: FY 2010 | | | | | | |
| FY 2011 Base Plans: FY 2011 Base | | | | | | |
| FY 2011 OCO Plans: FY 2011 OCO | | | | | | |
| Program #4 | | 51.755 | 67.721 | 17.500 | 0.000 | 17.500 |

| Exhibit R-2A, RDT&E Project Justification: PB 2011 Army | | | | DATE: Febr | uary 2010 | | | |
|--|--|---|---------|-----------------|----------------|------------------|--|--|
| APPROPRIATION/BUDGET ACTIVITY 2040: Research, Development, Test & Evaluation, Army BA 5: Development & Demonstration (SDD) | R-1 ITEM NOMENCLATURE PE 0604869A: Patriot/MEADS Combine Aggregate Program (CAP) | ned PROJECT M06: PATRIOT/MEADS COMBINED AGGREGATE PROGRAM (CAP) | | | | | | |
| B. Accomplishments/Planned Program (\$ in Millions) | | | | | | | | |
| | | FY 2009 | FY 2010 | FY 2011 Base | FY 2011 OCO | FY 2011 Total | | |
| Includes US only efforts to support Exciter & Exportable Missile Model | | | | | | | | |
| FY 2009 Accomplishments: FY 2009 | | | | | | | | |
| FY 2010 Plans: FY 2010 | | | | | | | | |
| FY 2011 Base Plans: FY 2011 Base | | | | | | | | |
| FY 2011 OCO Plans: FY 2011 OCO | | | | | | | | |
| Program #5 | | 0.000 | 15.854 | 0.000 | 0.000 | 0.000 | | |
| Small Business Innovative Research/Small Business Technology Transfe | er Programs | | | | | | | |
| FY 2009 Accomplishments: FY 2009 | | | | | | | | |
| FY 2010 Plans: FY 2010 | | | | | | | | |
| FY 2011 Base Plans: FY 2011 Base | | | | | | | | |
| FY 2011 OCO Plans: FY 2011 OCO | | | | | | | | |

| Exhibit R-2A, RDT&E Project Justific | cation: PB 20 | | | | DATE: Febr | ruary 2010 | | | | | | |
|---|------------------|---------------------------|---|----------------|--------------|----------------|---------|---------|-----------------|-----------------|------------------|--|
| APPROPRIATION/BUDGET ACTIV 2040: Research, Development, Test & E BA 5: Development & Demonstration (S | valuation, Arn | FURE ADS Combin | project med M06: PATRIOT/MEADS COMBINED AGGREGATE PROGRAM (CAP) | | | | | | | | | |
| B. Accomplishments/Planned Program | n (\$ in Millior | <u>is)</u> | | | | | | | | | | |
| | | | | | | | FY 2009 | FY 2010 | FY 2011 Base | FY 2011 OCO | FY 2011 Total | |
| | | | Accom | plishments/Pla | nned Progran | ns Subtotals | 454.665 | 566.215 | 467.139 | 0.000 | 467.139 | |
| C. Other Program Funding Summary (\$ in Millions) | | | | | | | | | | | | |
| FY 2011 FY 2011 FY 2011 Co Line Item FY 2009 FY 2010 Rase OCO Total FY 2012 FY 2013 FY 2014 FY 2015 Com | | | | | | | | | | | | |
| <u>Line Item</u> | FY 2009 | FY 2010 | Base | <u>oco</u> | <u>Total</u> | FY 2012 | FY 2013 | | FY 2015 | Complete | Total Cost | |
| • Ord. #1: SSN C53101, MSE Missile | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 607.796 | 534.022 | 516.479 | 503.786 | Continuing | - | |
| • Ord. #2: SSN C53201, PATRIOT/ | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 126.589 | 217.639 | 528.435 | Continuing | Continuing | |
| MEADS GSE | | | | | | | | | | | | |
| • Ord. #3: <i>PE 0102419A</i> , <i>Proj E55</i> , | 344.850 | 328.356 | 372.493 | 0.000 | 372.493 | 176.198 | 118.448 | 0.000 | 0.000 | Continuing | Continuing | |
| JLENS | | | | | | | | | | | | |
| • Ord. #4: SSN BZ0525, JLENS | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 470.661 | 419.801 | 427.731 | 394.325 | Continuing | Continuing | |
| Production | | | | | | | | | | | | |
| • Ord. #5: PE 0604802A, Proj S23, | 31.306 | 56.441 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | Continuing | Continuing | |
| SLAMRAAM | | | | | | | | | | | | |
| • Ord. #6: <i>PE 0605450A</i> , <i>Proj S35</i> | 0.000 | 0.000 | 23.700 | 0.000 | 23.700 | 17.800 | 53.500 | 7.500 | 7.600 | Continuing | Continuing | |
| SLAMRAAM | | | | | | | | | | | | |
| • Ord. #7: SSN C81002, SLAMRAAM | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 39.542 | 39.426 | 15.416 | Continuing | Continuing | |
| Missile | | | | | | | | | | | | |
| • Ord. #8: SSN C81004, SLAMRAAM | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 39.542 | 39.426 | 15.416 | Continuing | Continuing | |
| Missile | | | | | | | | | | | | |
| • Ord. #9: PE 0603305A, Proj TR7, | 0.000 | 0.000 | 4.296 | 0.000 | 4.296 | 21.303 | 74.197 | 93.679 | 94.006 | Continuing | Continuing | |
| Protection Capability II - Intercept | | | | | | | | | | | | |
| • Ord. #10: SSN WK5053,FAAD GBS | 0.000 | 0.000 | 91.467 | 0.000 | 91.467 | 7.948 | 7.935 | 0.000 | 0.000 | Continuing | | |
| • Ord. #11: PE 0603327A, Proj S34, | 111.496 | 166.061 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | Continuing | Continuing | |
| AMD System of System Engineering | | | | | | | | | | | | |
| and Integration | 6.000 | 0.005 | 0.7.1.5. | 0.005 | 251 151 | 051 715 | | 000 -0- | 40001- | a | a | |
| | 0.000 | 0.000 | 251.124 | 0.000 | 251.124 | 271.543 | 251.646 | 228.639 | 129.043 | Continuing | Continuing | |
| | | | | | | | | | | | | |
| | | | | | | | | | | | | |

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| Exhibit R-2A, RDT&E Project Justific | cation: PB 20 | 11 Army | | | | | | DATE: February 2010 | | | | |
|--|-----------------|-----------|---------|---|---------------|-------------|---------|---|---------|-----------------|------------|--|
| APPROPRIATION/BUDGET ACTIV 2040: Research, Development, Test & Ev BA 5: Development & Demonstration (S | valuation, Arm | ıy | | R-1 ITEM NO PE 0604869A Aggregate Pro | : Patriot/MEA | ADS Combine | | PROJECT M06: PATRIOT/MEADS COMBINED AGGREGATE PROGRAM (CAP) | | | | |
| C. Other Program Funding Summary | (\$ in Millions | <u>s)</u> | FY 2011 | FY 2011 | FY 2011 | | I | | | Cost To | | |
| Line Item • Ord. #12: PE 0605457A, Proj S40, Army Imtegrated Air and Missile Defense (AIAMD) | FY 2009 | FY 2010 | Base | <u>OCO</u> | <u>Total</u> | FY 2012 | FY 2013 | FY 2014 | FY 2015 | <u>Complete</u> | Total Cost | |
| • Ord. #13: SSN BZ5075, Army IAMD Battle Command System (IBCS) | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 24.045 | 99.102 | Continuing | Continuing | |
| • Ord. #14: PE 0208053, Proj 635, JOINT TACT GRD STATION-P31 (MIP) | 1.949 | 36.005 | 12.403 | 0.000 | 12.403 | 12.630 | 13.038 | 7.982 | 7.947 | Continuing | Continuing | |
| • Ord. #15: SSN BZ8401, Joint Tactical Ground Station (JTAGS) | 0.000 | 6.682 | 9.279 | 0.000 | 9.279 | 0.000 | 0.000 | 9.415 | 4.658 | Continuing | Continuing | |

D. Acquisition Strategy

On 1 July 2004, the Defense Acquisition Board approved the Acquisition Strategy (AS) for the PATRIOT/MEADS CAP Milestone B. On 6 April 2006, the Lower Tier Project Manager submitted a Program Deviation Report (PDR) to notify the Under Secretary of Defense for Acquisition, Technology, and Logistics, of changes affecting the 6 August 2004, approved PATRIOT/MEADS CAP Acquisition Program Baseline (APB). On 9 February 2006, the Army System Acquisition Review Council (ASARC) approved establishment of the Integrated Air and Missile Defense (IAMD) Project Office (PO) to lead development efforts for the Army IAMD. On 8 May 2006, the Army established the IAMD PO which will manage the U.S. Army's initiatives to implement the user's operational concept from a System-Centric focus to a Network-Centric, Component-Based (Plug and Fight) architecture. The PATRIOT/MEADS CAP Acquisition Program Baseline and Acquisition Strategy will be modified to reflect these changes.

E. Performance Metrics

Performance metrics used in the preparation of this justification material may be found in the FY 2010 Army Performance Budget Justification Book, dated May 2010.

Exhibit R-3, RDT&E Project Cost Analysis: PB 2011 Army

DATE: February 2010

APPROPRIATION/BUDGET ACTIVITY

2040: Research, Development, Test & Evaluation, Army

BA 5: Development & Demonstration (SDD)

R-1 ITEM NOMENCLATURE

PE 0604869A: Patriot/MEADS Combined

Aggregate Program (CAP)

PROJECT

M06: PATRIOT/MEADS COMBINED AGGREGATE PROGRAM (CAP)

Product Development (\$ in Millions)

| | | | | FY | 2010 | | 2011 ase | FY : | | FY 2011 Total | | | |
|--|------------------------------|---|---------------------------|---------|---------------|--------|-------------|-------|------------|------------------|---------------------|------------|--------------------------------|
| Cost Category Item | Contract Method & Type | Performing Activity & Location | Total Prior Years Cost | Cost | Award Date Co | ost | Award Date | Cost | Award Date | Cost | Cost To Complete | Total Cost | Target Value of Contract |
| Design and Development | C/CPIF | NAMEADSMA Huntsville, AL | 365.600 | 413.800 | 33 | 88.700 | | 0.000 | | 388.700 | Continuing | Continuing | 0 |
| Missile Segment Enhancement - Lockheed Martin Missiles and Fire Control (LMMFC) | SS/CPIF | LMMFC Dallas, TX | 73.000 | 26.500 | | 0.000 | | 0.000 | | 0.000 | Continuing | Continuing | 0 |
| Missile Segment Enhancement (MSE) / PAC-3- Raytheon | SS/FP | Raytheon Boston, MA | 31.800 | 11.211 | | 0.000 | | 0.000 | | 0.000 | Continuing | Continuing | 0 |
| Program Integration | С | Various Huntsville, AL | 94.921 | 28.302 | | 19.914 | | 0.000 | | 19.914 | Continuing | Continuing | 0 |
| U.S. Only Security / Exciter | С | Lockheed Martin Syracuse, NY; Dallas, TX & Orlando, FL | 35.900 | 16.410 | | 17.500 | | 0.000 | | 17.500 | Continuing | Continuing | 0 |
| U. S. Other Government Agencies (OGA's) | С | Various Huntsville, AL | 23.914 | 13.874 | | 6.187 | | 0.000 | | 6.187 | Continuing | Continuing | 0 |
| In-House | С | PO Huntsville, AL | 29.940 | 12.071 | | 8.318 | | 0.000 | | 8.318 | Continuing | Continuing | 0 |
| International Program Office | С | NAMEADSMA Huntsville, AL | 8.256 | 5.723 | | 4.842 | | 0.000 | | 4.842 | Continuing | Continuing | 0 |
| Systems Engineering | С | MRDEC Huntsville, AL | 20.641 | 4.000 | | 4.100 | | 0.000 | | 4.100 | Continuing | Continuing | 0 |
| U.S. Contracts | C/CPIF | Various Huntsville, AL | 36.380 | 9.831 | | 8.990 | | 0.000 | | 8.990 | Continuing | Continuing | 0 |
| | С | Various | 67.150 | 0.000 | | 0.000 | | 0.000 | | 0.000 | Continuing | Continuing | 0 |

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2011 Army

DATE: February 2010

APPROPRIATION/BUDGET ACTIVITY

2040: Research, Development, Test & Evaluation, Army

BA 5: Development & Demonstration (SDD)

R-1 ITEM NOMENCLATURE

PE 0604869A: Patriot/MEADS Combined

Aggregate Program (CAP)

PROJECT

M06: PATRIOT/MEADS COMBINED AGGREGATE PROGRAM (CAP)

Product Development (\$ in Millions)

| | | | | FY | 2010 | | 2011 ase | FY 2 | 2011 CO | FY 2011 Total | | | |
|--|------------------------------|--------------------------------------|---------------------------|---------|------------|---------|-------------|-------|------------|------------------|---------------------|------------|--------------------------------|
| Cost Category Item | Contract Method & Type | Performing Activity & Location | Total Prior Years Cost | Cost | Award Date | Cost | Award Date | Cost | Award Date | Cost | Cost To Complete | Total Cost | Target Value of Contract |
| U.S. Only Combined Aggregate Program (CAP) | | Huntsville, AL & Dallas, TX | | | | | | | | | | | |
| Design and Development Government Furnished Equipment (GFE) Procurement Efforts | С | TACOM Warren, MI | 14.087 | 2.305 | | 0.000 | | 0.000 | | 0.000 | Continuing | Continuing | 0 |
| | | Subtotal | 801.589 | 544.027 | | 458.551 | | 0.000 | | 458.551 | | | 0.000 |

Remarks

Test and Evaluation (\$ in Millions)

| | | | | FY 2010 | | | 2011 ase | FY 2 | - | FY 2011 Total | | | |
|---------------------------------|------------------------------|---|---------------------------|---------|------------|-------|-------------|-------|------------|------------------|---------------------|------------|--------------------------------|
| Cost Category Item | Contract Method & Type | Performing Activity & Location | Total Prior Years Cost | Cost | Award Date | Cost | Award Date | Cost | Award Date | Cost | Cost To Complete | Total Cost | Target Value of Contract |
| Range Support/Facilities | С | WSMR White Sands, NM/ Ft Wingate, White Sands NM | 8.400 | 3.000 | | 0.000 | | 0.000 | | 0.000 | Continuing | Continuing | 0 |
| Targets/Threat Simulators | С | Various Location could not be determined. | 35.400 | 6.500 | | 0.000 | | 0.000 | | 0.000 | Continuing | Continuing | 0 |
| Contractor Test & Evaluation | С | Various Location could not be determined. | 0.000 | 2.600 | | 0.000 | | 0.000 | | 0.000 | Continuing | Continuing | 0 |

Exhibit R-3, RDT&E Project Cost Analysis: PB 2011 Army

DATE: February 2010

APPROPRIATION/BUDGET ACTIVITY

2040: Research, Development, Test & Evaluation, Army

BA 5: Development & Demonstration (SDD)

R-1 ITEM NOMENCLATURE

PE 0604869A: Patriot/MEADS Combined

Aggregate Program (CAP)

PROJECT

M06: PATRIOT/MEADS COMBINED AGGREGATE PROGRAM (CAP)

Test and Evaluation (\$ in Millions)

| | | | | FY | 2010 | FY Ba | 2011 ase | FY 2 | 2011 CO | FY 2011 Total | | | |
|-------------------------|------------------------------|--------------------------------------|---------------------------|--------|------------|-------|-------------|-------|------------|------------------|---------------------|------------|--------------------------------|
| Cost Category Item | Contract Method & Type | Performing Activity & Location | Total Prior Years Cost | Cost | Award Date | Cost | Award Date | Cost | Award Date | Cost | Cost To Complete | Total Cost | Target Value of Contract |
| OGA Test and Evaluation | С | AMRDEC Huntsville, AL | 8.000 | 1.500 | | 0.000 | | 0.000 | | 0.000 | Continuing | Continuing | 0 |
| | | Subtotal | 51.800 | 13.600 | | 0.000 | | 0.000 | | 0.000 | | | 0.000 |

Remarks

Management Services (\$ in Millions)

| | | | | FY | FY 2010 | | FY 2011 Base | | FY 2011 OCO | | | | |
|--------------------|------------------------------|--------------------------------------|---------------------------|-------|------------|-------|-----------------|-------|----------------|-------|---------------------|------------|--------------------------------|
| Cost Category Item | Contract Method & Type | Performing Activity & Location | Total Prior Years Cost | Cost | Award Date | Cost | Award Date | Cost | Award Date | Cost | Cost To Complete | Total Cost | Target Value of Contract |
| Internal Operating | С | NAMEADSMA Huntsville, AL | 18.204 | 8.588 | | 8.588 | | 0.000 | | 8.588 | Continuing | Continuing | 0 |
| | | Subtotal | 18.204 | 8.588 | | 8.588 | | 0.000 | | 8.588 | | | 0.000 |

Remarks

| | Total Prior Years Cost | FY 2 | 2010 | FY 2011 Base | FY 2 | TY 2011 Total | Cost To Complete | Total Cost | Target Value of Contract |
|---------------------|---------------------------|---------|------|-----------------|-------|------------------|---------------------|------------|--------------------------------|
| Project Cost Totals | 871.593 | 566.215 | | 467.139 | 0.000 | 467.139 | | | 0.000 |

Remarks

| Exhibit R-4, RDT&E Schedule Profile: PB 2011 Army | DATE: February 2010 | | |
|--|-------------------------------------|------------|-------------------|
| APPROPRIATION/BUDGET ACTIVITY | R-1 ITEM NOMENCLATURE | PROJECT | |
| 2040: Research, Development, Test & Evaluation, Army | PE 0604869A: Patriot/MEADS Combined | M06: PATRI | OT/MEADS COMBINED |
| BA 5: Development & Demonstration (SDD) | Aggregate Program (CAP) | AGGREGAT | TE PROGRAM (CAP) |

| | FY 2009 | | |] | FY | Y 2010 FY 2011 | | | FY 2012 | | | FY 2013 | | | 3 | FY 2014 | | | 4 | FY 2015 | | | 5 | | | | | |
|--|---------|---|---|---|----|----------------|---|---|---------|---|---|---------|---|---|---|---------|---|---|---|---------|---|---|---|---|---|---|---|---|
| | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 |
| PDB 6.5 Fielding | | | | | | # | | | | | | | | | | | | | | | | | | | | | | |
| MEADS System CDR: Critical Design Review | | | | | | | # | | | | | | | | | | | | | | | | | | | | | |

| Exhibit R-4A, RDT&E Schedule Details: PB 2011 Army | DATE: February 2010 | | |
|--|-------------------------------------|------------|--------------------|
| APPROPRIATION/BUDGET ACTIVITY | R-1 ITEM NOMENCLATURE | PROJECT | |
| 2040: Research, Development, Test & Evaluation, Army | PE 0604869A: Patriot/MEADS Combined | M06: PATRI | IOT/MEADS COMBINED |
| BA 5: Development & Demonstration (SDD) | Aggregate Program (CAP) | AGGREGAT | TE PROGRAM (CAP) |

Schedule Details

| | Sta | art | End | | | |
|--|---------|------|---------|------|--|--|
| Event | Quarter | Year | Quarter | Year | | |
| PDB 6.5 Fielding | 2 | 2010 | 2 | 2010 | | |
| MEADS System CDR: Critical Design Review | 3 | 2010 | 3 | 2010 | | |

| Exhibit R-5, RDT&E Termination Li | ability: PB 2 | 011 Army | | | | | | DATE: February 2010 | | | | |
|--|---------------|------------|---------|----------------------------|------------------------------|---------|---|----------------------------|--|--|--|--|
| APPROPRIATION/BUDGET ACTIV | | R-1 ITEM N | | _ | | PROJECT | | | | | | |
| 2040: Research, Development, Test & E BA 5: Development & Demonstration (| | ту | | PE 0604869. Aggregate P | A: Patriot/ME rogram (CAP | | M06: PATRIOT/MEADS COMBINED AGGREGATE PROGRAM (CAP) | | | | | |
| Cost (\$ in Millions) | FY 2009 | FY 2010 | FY 2011 | FY 2012 | FY 2013 | FY 2014 | FY 2015 | | | | | |
| Program Termination Liability | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | | | | | |

Notes

The Patriot/Meads CAP Prime Contract incorporates the "Limitation Of Funds" Clause (DFARS 52.232-22) to limit the Government's liability. For the Patriot Meads CAP Program, the "Limitation Of Funds" clause limits the Government's financial liability per the contract to those funds placed on contract plus costs associated with the orderly termination of contractual actions.