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Exhibit R-2, RDT&E Budget Item Justification: PB 2012 Army **DATE:** February 2011

| APPROPRIATION/BUDGET ACTIVITY | | | | R-1 ITEM NOMENCLATURE | | | | | | | |
|---|----------------|----------------|---------------------|--|----------------------|----------------|----------------|----------------|----------------|-------------------------|-------------------|
| 2040: <i>Research, Development, Test & Evaluation, Army</i> BA 5: <i>Development & Demonstration (SDD)</i> | | | | PE 0304270A: <i>Electronic Warfare Development</i> | | | | | | | |
| COST (\$ in Millions) | FY 2010 | FY 2011 | FY 2012 Base | FY 2012 OCO | FY 2012 Total | FY 2013 | FY 2014 | FY 2015 | FY 2016 | Cost To Complete | Total Cost |
| Total Program Element | - | 21.571 | 13.819 | - | 13.819 | 13.918 | 19.068 | 20.712 | 20.238 | Continuing | Continuing |
| EW5: <i>ELECTRONIC WARFARE DEVELOPMENT - MIP</i> | - | 18.426 | 10.431 | - | 10.431 | 10.455 | 15.061 | 15.491 | 14.933 | Continuing | Continuing |
| EW6: <i>ARAT-TSS - MIP</i> | - | 3.145 | 3.388 | - | 3.388 | 3.463 | 4.007 | 5.221 | 5.305 | Continuing | Continuing |

Note

Change Summary Explanation: Funding - FY 2011: Program transferred from 0604270A beginning in FY 11 to comply with fully captured Military Intelligence Program (MIP) elements.

A. Mission Description and Budget Item Justification

FY 2011 budget request funds Electronic Warfare Development. This program element (PE) encompasses engineering and manufacturing development for tactical electronic warfare (EW). EW encompasses the development of tactical EW equipment and systems mounted in both ground and air vehicles. The systems under this program provides the Army with the capability to degrade or deny hostile forces the effective use of their communications, countermortar/counterbattery radars, surveillance radars, infrared/optical battlefield surveillance systems and electronically fused munitions. Existing Army EW systems must be replaced or upgraded to maintain their capability in the face of threats. The Army Reprogramming Analysis Team (ARAT) Project will develop, test and equip an Army-wide infrastructure capable of rapidly reprogramming electronic combat software embedded in offensive and defensive weapon systems.

| B. Program Change Summary (\$ in Millions) | FY 2010 | FY 2011 | FY 2012 Base | FY 2012 OCO | FY 2012 Total |
|---|----------------|----------------|---------------------|--------------------|----------------------|
| Previous President's Budget | - | 21.571 | 13.854 | - | 13.854 |
| Current President's Budget | - | 21.571 | 13.819 | - | 13.819 |
| Total Adjustments | - | - | -0.035 | - | -0.035 |
| • Congressional General Reductions | | - | | | |
| • Congressional Directed Reductions | | - | | | |
| • Congressional Rescissions | - | - | | | |
| • Congressional Adds | | - | | | |
| • Congressional Directed Transfers | | - | | | |
| • Reprogrammings | - | - | | | |
| • SBIR/STTR Transfer | - | - | | | |
| • Other Adjustments 1 | - | - | -0.035 | - | -0.035 |

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| Exhibit R-2A, RDT&E Project Justification: PB 2012 Army | | | | | | | | DATE: February 2011 | | | |
| APPROPRIATION/BUDGET ACTIVITY 2040: Research, Development, Test & Evaluation, Army BA 5: Development & Demonstration (SDD) | | | | R-1 ITEM NOMENCLATURE PE 0304270A: Electronic Warfare Development | | | | PROJECT EW5: ELECTRONIC WARFARE DEVELOPMENT - MIP | | | |
| COST (\$ in Millions) | FY 2010 | FY 2011 | FY 2012 Base | FY 2012 OCO | FY 2012 Total | FY 2013 | FY 2014 | FY 2015 | FY 2016 | Cost To Complete | Total Cost |
| EW5: ELECTRONIC WARFARE DEVELOPMENT - MIP | - | 18.426 | 10.431 | - | 10.431 | 10.455 | 15.061 | 15.491 | 14.933 | Continuing | Continuing |
| Quantity of RDT&E Articles | | | | | | | | | | | |
| Note | | | | | | | | | | | |
| Note: This is not a new start. Program transferred from 0604270A beginning in FY 11 to comply with fully captured Military Intelligence Program (MIP) elements. | | | | | | | | | | | |
| A. Mission Description and Budget Item Justification | | | | | | | | | | | |
| Prophet is the tactical commander's sole organic ground-based Signals Intelligence (SIGINT)/Electronic Warfare system for the Brigade Combat Team (BCT), Stryker Brigade Combat Team (SBCT), and Battlefield Surveillance Brigade (BfSB). Its primary mission is to provide 24-hour Situation Development and Information Superiority to the supported maneuver brigade to enable the most effective engagement of enemy forces. Prophet is an integral part of the Army Modernization providing Near Real Time (NRT) information to the Brigade Commander within his combat decision cycle. This NRT information, when processed, provides a key component of the fused intelligence Common Operating Picture (COP). Prophet Enhanced (PE) provides a modular, scalable, open architecture-based system solution optimized for ease of use and rapid integration of Technical Insertions/Pre-Planned Product Improvements to ensure operational relevance. PE is a non-vehicle specific system, allowing maximum flexibility to accommodate a myriad of platforms. PE also provides a simultaneous mission capability in stationary, mobile, and man-pack configuration/modes further increasing/enhancing the SIGINT capabilities for the unit commander. PE is being fielded to deploying units in accordance with ARFORGEN requirements. Prophet provides reach-back capability and interfaces directly with the National SIGINT Enterprise via Wideband Beyond Line of Sight (WB BLOS) Satellite Communications either at Prophet Control (PC) or the Prophet Sensor. | | | | | | | | | | | |
| FY2012 Base dollars support the following activities: develops product upgrades for Next Generation Signals to increase the capabilities of the PE and maintain operational relevance; initiates establishment of the Prophet System Integration Lab; and initiates integration and testing of a software defined radio/receiver solution (e.g. PENNANTRACE) into the PE Sensor. | | | | | | | | | | | |
| B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each) | | | | | | | | FY 2010 | FY 2011 | FY 2012 | |
| Title: Integrate Electronic Warfare Systems | | | | | | | | - | 4.900 | - | |
| Articles: | | | | | | | | | 0 | | |
| Description: Integrate Electronic Warfare Systems | | | | | | | | | | | |
| FY 2011 Plans: Integrate Electronic Warfare Systems | | | | | | | | | | | |
| Title: PE/SP1 ES Software Upgrade | | | | | | | | - | 6.428 | - | |
| Articles: | | | | | | | | | 0 | | |

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| Exhibit R-2A, RDT&E Project Justification: PB 2012 Army | | | DATE: February 2011 | | |
| APPROPRIATION/BUDGET ACTIVITY 2040: Research, Development, Test & Evaluation, Army BA 5: Development & Demonstration (SDD) | R-1 ITEM NOMENCLATURE PE 0304270A: Electronic Warfare Development | PROJECT EW5: ELECTRONIC WARFARE DEVELOPMENT - MIP | | | |
| B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each) | | | FY 2010 | FY 2011 | FY 2012 |
| Description: P3I upgrade for Prophet Enhanced and ES Spiral 1 software FY 2011 Plans: Software upgrade for Prophet Enhanced and ES Spiral 1 | | | | | |
| Title: PE Hardware Upgrade Description: P3I hardware upgrade for Prophet Enhanced systems. FY 2011 Plans: Hardware Upgrade for Prophet Enhanced systems | | | Articles: - | 4.598 0 | - |
| Title: Next Generation Signals (TOS) Description: Develop next generation signals (TOS) FY 2012 Plans: Develop next generation signals (TOS) | | | - | - | 2.500 |
| Title: Precision Geo-Location Description: Develop Geo-location capability for the Prophet Enhanced system under P3I requirements. FY 2012 Plans: Develop Geo-location capability for the Prophet Enhanced system under P3I requirements. | | | - | - | 1.872 |
| Title: System Integration Lab Description: Stand Up System Integration Lab FY 2011 Plans: Stand up Systems Integration Lab FY 2012 Plans: Stand Up System Integration Lab | | | Articles: - | 2.500 0 | 2.172 |
| Title: Prophet Control H/W and S/W Upgrade | | | - | - | 2.115 |

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| APPROPRIATION/BUDGET ACTIVITY 2040: Research, Development, Test & Evaluation, Army BA 5: Development & Demonstration (SDD) | | | | R-1 ITEM NOMENCLATURE PE 0304270A: Electronic Warfare Development | | | | PROJECT EW5: ELECTRONIC WARFARE DEVELOPMENT - MIP | | | | |
| B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each) | | | | | | | | | | FY 2010 | FY 2011 | FY 2012 |
| Description: Upgrade hardware and software for Prophet Control systems. | | | | | | | | | | | | |
| FY 2012 Plans: Upgrade hardware and software for Prophet Control systems. | | | | | | | | | | | | |
| Title: Radio/Receiver Integration | | | | | | | | | | - | - | 1.772 |
| Description: Integrate Radio/Receiver integration into the Prophet Enhanced system under P3I requirements. | | | | | | | | | | | | |
| FY 2012 Plans: Integrate Radio/Receiver integration into the Prophet Enhanced system under P3I requirements. | | | | | | | | | | | | |
| Accomplishments/Planned Programs Subtotals | | | | | | | | | | - | 18.426 | 10.431 |
| C. Other Program Funding Summary (\$ in Millions) | | | | | | | | | | | | |
| Line Item | FY 2010 | FY 2011 | FY 2012 Base | FY 2012 OCO | FY 2012 Total | FY 2013 | FY 2014 | FY 2015 | FY 2016 | Cost To Complete | Total Cost | |
| • Signals Warfare Development | 5.172 | | | | | | | | | 0.000 | 5.172 | |
| - L12: Electronic Warfare Development L12 (RDT&E) | | | | | | | | | | | | |
| • Prophet Ground: Prophet Ground (OPA) | 58.299 | 90.417 | 72.041 | | 72.041 | | 41.090 | 40.239 | 35.926 | Continuing | Continuing | |
| • Special Purpose Systems (MIP): Special Purpose Systems (MIP) (OPA) | 6.999 | 7.646 | 9.163 | | 9.163 | | 13.149 | 13.948 | 14.396 | Continuing | Continuing | |
| • Defense Cryptological Program: NSA MIP for Prophet (RDT&E) | 0.319 | 2.136 | 5.989 | | 5.989 | | 4.724 | 4.814 | 4.896 | Continuing | Continuing | |
| D. Acquisition Strategy | | | | | | | | | | | | |
| The Prophet R&D Acquisition Strategy is structured to optimize system capability while reducing risk and streamlining business and engineering processes. PE entered production in 2QFY09 via Full and Open competition. The PE contract is Firm-Fixed-Price, Indefinite-Delivery Indefinite-Quantity with provisions to support R&D and other developmental work as Cost-Plus efforts. The PE contract will be used to maintain the operational relevancy of PE systems in a dynamic threat environment. | | | | | | | | | | | | |
| 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. | | | | | | | | | | | | |

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| Exhibit R-3, RDT&E Project Cost Analysis: PB 2012 Army | | | | | | | | | | | DATE: February 2011 | | |
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| APPROPRIATION/BUDGET ACTIVITY | | | | R-1 ITEM NOMENCLATURE | | | | PROJECT | | | | | |
| 2040: Research, Development, Test & Evaluation, Army | | | | PE 0304270A: Electronic Warfare Development | | | | EW5: ELECTRONIC WARFARE | | | | | |
| BA 5: Development & Demonstration (SDD) | | | | | | | | DEVELOPMENT - MIP | | | | | |
| Management Services (\$ in Millions) | | | | FY 2011 | | FY 2012 Base | | FY 2012 OCO | | FY 2012 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 |
| Program Management | Various | PM Electronic Warfare:APG, MD | - | 0.380 | | 0.181 | | - | | 0.181 | Continuing | Continuing | Continuing |
| Subtotal | | | - | 0.380 | | 0.181 | | - | | 0.181 | | | |
| Product Development (\$ in Millions) | | | | FY 2011 | | FY 2012 Base | | FY 2012 OCO | | FY 2012 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 |
| Prophet Enhanced H/W Upgrade | C/FP | GD C4 Systems:Scottsdale, AZ | - | 3.000 | | - | | - | | - | Continuing | Continuing | Continuing |
| Prophet Enhanced/SP1 ES S/W Upgrade | C/FP | GD C4 Systems:Scottsdale, AZ | - | 4.200 | | - | | - | | - | Continuing | Continuing | Continuing |
| Integrate Electronic Warfare Systems | C/FP | TBD:TBD | - | 4.900 | | - | | - | | - | Continuing | Continuing | Continuing |
| Next Generation Signals (TOS) | C/FP | GD C4 Systems:Scottsdale, AZ | - | - | | 2.500 | | - | | 2.500 | Continuing | Continuing | Continuing |
| Prophet Control HW/SW Upgrade | C/FP | GD C4 Systems:Scottsdale, AZ | - | - | | 1.643 | | - | | 1.643 | Continuing | Continuing | Continuing |
| Precision Geo-Location | C/FP | GD C4 Systems:Scottsdale, AZ | - | - | | 1.400 | | - | | 1.400 | Continuing | Continuing | Continuing |
| Radio/Receiver Integration | C/FP | GD C4 Systems:Scottsdale, AZ | - | - | | 1.300 | | - | | 1.300 | Continuing | Continuing | Continuing |
| Subtotal | | | - | 12.100 | | 6.843 | | - | | 6.843 | | | |
| Support (\$ in Millions) | | | | FY 2011 | | FY 2012 Base | | FY 2012 OCO | | FY 2012 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 |
| Matrix Support | Various | CECOM:APG, MD | - | 0.473 | | 0.207 | | - | | 0.207 | Continuing | Continuing | Continuing |
| Contract Engineering Support | Various | MITRE:Eatontown, NJ | - | 0.600 | | - | | - | | - | Continuing | Continuing | Continuing |
| System Integration Lab | Various | I2WD:APG, MD | - | 2.500 | | 1.700 | | - | | 1.700 | Continuing | Continuing | Continuing |

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| Exhibit R-4, RDT&E Schedule Profile: PB 2012 Army | | | DATE: February 2011 | | |
| APPROPRIATION/BUDGET ACTIVITY 2040: <i>Research, Development, Test & Evaluation, Army</i> BA 5: <i>Development & Demonstration (SDD)</i> | | R-1 ITEM NOMENCLATURE PE 0304270A: <i>Electronic Warfare Development</i> | | PROJECT EW5: <i>ELECTRONIC WARFARE DEVELOPMENT - MIP</i> | |

| | FY 2010 | | | | FY 2011 | | | | FY 2012 | | | | FY 2013 | | | | FY 2014 | | | | FY 2015 | | | | FY 2016 | | | |
|---|---------|---|---|---|---------|---|---|---|---------|---|---|---|---------|---|---|---|---------|---|---|---|---------|---|---|---|---------|---|---|---|
| | 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 |
| Prophet Control (PC) - Sole Source Contract Award | ■ | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| PC Production - Sole Source Contract | | | ■ | ■ | | | | | | | | | | | | | | | | | | | | | | | | |
| Prophet Control (PC) - Competitive Contract Award | | | | | | | ■ | | | | | | | | | | | | | | | | | | | | | |
| PC Production - Competitive Contract | | | | | | | | | | | ■ | ■ | ■ | ■ | ■ | ■ | | | | | | | | | | | | |
| Delta Testing - P3I (2013) | | | | | | | | | | | | | | ■ | ■ | | | | | | | | | | | | | |
| Delta Testing - P3I (2014) | | | | | | | | | | | | | | | | ■ | ■ | | | | | | | | | | | |
| Delta Testing - P3I (2015) | | | | | | | | | | | | | | | | | | | | ■ | ■ | | | | | | | |
| Delta Testing (2016) | | | | | | | | | | | | | | | | | | | | | | | | | ■ | ■ | | |

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| Exhibit R-4A, RDT&E Schedule Details: PB 2012 Army | | | DATE: February 2011 |
| APPROPRIATION/BUDGET ACTIVITY 2040: <i>Research, Development, Test & Evaluation, Army</i> BA 5: <i>Development & Demonstration (SDD)</i> | R-1 ITEM NOMENCLATURE PE 0304270A: <i>Electronic Warfare Development</i> | PROJECT EW5: <i>ELECTRONIC WARFARE DEVELOPMENT - MIP</i> | |

Schedule Details

| Events | Start | | End | |
|---|---------|------|---------|------|
| | Quarter | Year | Quarter | Year |
| Prophet Control (PC) - Sole Source Contract Award | 1 | 2010 | 1 | 2010 |
| PC Production - Sole Source Contract | 3 | 2010 | 4 | 2010 |
| Prophet Control (PC) - Competitive Contract Award | 2 | 2011 | 2 | 2011 |
| PC Production - Competitive Contract | 2 | 2012 | 1 | 2013 |
| Delta Testing - P3I (2013) | 1 | 2013 | 1 | 2013 |
| Delta Testing - P3I (2014) | 1 | 2014 | 1 | 2014 |
| Delta Testing - P3I (2015) | 1 | 2015 | 1 | 2015 |
| Delta Testing (2016) | 1 | 2016 | 1 | 2016 |

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| Exhibit R-2A, RDT&E Project Justification: PB 2012 Army | | | | | | | | DATE: February 2011 | | | |
| APPROPRIATION/BUDGET ACTIVITY 2040: Research, Development, Test & Evaluation, Army BA 5: Development & Demonstration (SDD) | | | | R-1 ITEM NOMENCLATURE PE 0304270A: Electronic Warfare Development | | | | PROJECT EW6: ARAT-TSS - MIP | | | |
| COST (\$ in Millions) | FY 2010 | FY 2011 | FY 2012 Base | FY 2012 OCO | FY 2012 Total | FY 2013 | FY 2014 | FY 2015 | FY 2016 | Cost To Complete | Total Cost |
| EW6: ARAT-TSS - MIP | - | 3.145 | 3.388 | - | 3.388 | 3.463 | 4.007 | 5.221 | 5.305 | Continuing | Continuing |
| Quantity of RDT&E Articles | | | | | | | | | | | |
| Note This is not a new start. Program transferred from 0604270A beginning in FY 11 to comply with fully captured Military Intelligence Program (MIP) elements. | | | | | | | | | | | |
| A. Mission Description and Budget Item Justification The Army Reprogramming Analysis Team (ARAT) is a Department of the Army established program to develop techniques, methods, tools and architecture to reprogram mission software embedded in Army Force Protection Systems (FPS) and Targeting Sensing Systems (TSS) in response to changes in threat signatures. The regulatory guidance directing this mission is contained in AR 525-25, AR 525-22, and AR 95-1. Current military operations are conducted in a rapidly changing threat environment, where Improvised Explosive Devices (IEDs), IR man-portable air defense systems (MANPADS) seekers, radar guided surface-to-air-missiles (SAM), laser guided weapons, anti-helicopter mines, and targeting sensors are proliferating and evolving. Integrated solutions are required to counter increasingly sophisticated EW threats, and the ARAT reprogramming infrastructure supports the tactical Commander by providing timely rapid-reprogramming, and software/information dissemination for Army supported, Joint, allied service, Electronic Warfare (EW) Integrated Reprogramming (EWIR) target acquisition, target engagement, vehicle survivability, and aircraft survivability equipment (ASE). ARAT efforts support Electronic Attack (EA), Electronic Protect (EP) and Electronic Support (ES). The ARAT rapid-reprogramming infrastructure supports tactical requirements for deployed aircraft and ground-based (e.g. CREW) survivability systems including those deployed in the CENTCOM area of responsibility (AOR). ARAT identifies and analyzes threat signature changes which affect FPS & TSS; determines the impact of observed signature changes on FPS & TSS; creates new mission data software to adapt the system to the changes; disseminates the software changes; and provides methods to upload the new software into the affected FPS or TSS. Each element within the ARAT infrastructure plays a specific role within the program's rapid reprogramming process, providing the Warfighter with the capability to install mission and target identification software at the lowest possible level - maximizing flexibility for tactical commanders. ARAT participates in the operational and developmental test design of Army FPS, and supports Service and JCS Reprogramming Exercises in all theaters. ARAT R&D enables continuing development of 1) automated threat analysis tools to rapidly detect (flag) threat changes within the intelligence system, 2) tools to minimize the time to develop Mission Data Sets (MDS), 3) tools and technology to minimize the time required to test and validate MDSs, 4) improved communications conduits to transmit mission software changes to field users, and 5) enhanced mission-software uploading tools. These efforts allow for rapid threat analysis, simulation, software development, distribution and uploading of software changes directly to the supported Warfighter. | | | | | | | | | | | |
| B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each) | | | | | | | | FY 2010 | FY 2011 | FY 2012 | |
| Title: Keeping Pace with the Enemy & Technology | | | | | | | | - | 1.813 | 2.013 | |
| Articles: | | | | | | | | | 0 | | |
| Description: Funding is provided for the following effort | | | | | | | | | | | |

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| Exhibit R-2A, RDT&E Project Justification: PB 2012 Army | | DATE: February 2011 | |
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| B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each) | | FY 2010 | FY 2011 |
| <p>FY 2011 Plans: Keeping Pace with the Enemy & Technology - Analysis & Studies for EO/IR/UV Multi-Spectral FPS/TSS Support: In order to keep pace with changing threat and technology ARAT requires assets to better understand the impact of the physical battlefield environment on deployed high-technology sensors and their sustainment. This effort will 1) study the intelligence data requirements to support MDS development for Electro-optical/Ultra-violet/Infra-red (EO/UV/IR) and other multi-spectral sensors for aviation & non-aviation force protection systems (FPS) and target sensing systems and to include active protection systems (APS), 2) Develop government organic knowledge and application-base enabling reprogramming of future systems and 3) Perform requirements analysis and concept development for the reprogramming of multi-spectral TSS.</p> <p>FY 2012 Plans: Keeping Pace with the Enemy & Technology - Analysis & Studies for EO/IR/UV Multi-Spectral FPS/TSS Support: In order to keep pace with changing threat and technology ARAT requires assets to better understand the impact of the physical battlefield environment on deployed high-technology sensors and their sustainment. This effort will 1) study the intelligence data requirements to support MDS development for Electro-optical/Ultra-violet/Infra-red (EO/UV/IR) and other multi-spectral sensors for aviation & non-aviation force protection systems (FPS) and target sensing systems and to include active protection systems (APS), 2) Develop government organic knowledge and application-base enabling reprogramming of future systems and 3) Perform requirements analysis and concept development for the reprogramming of multi-spectral TSS.</p> | | | |
| <p>Title: Infrastructure Improvements Multispectral</p> <p align="right">Articles:</p> <p>Description: Funding is provided for the following effort</p> <p>FY 2011 Plans: Infrastructure improvements ? Operational Flight Program (OFP) sustainment environment - Develop and deploy operational flight program (OFP) development environment for missile warning systems (MWS). Determine data and analysis requirements for MANPADS characterization and establish a government-organic analysis and sustainment process to support OFP?s and subsequently adapt MWS?s to new threats. Currently, no government organic capability exists, increasing the risk that systems can not be readily adapted to changing threats.</p> <p>FY 2012 Plans: Infrastructure improvements ? Operational Flight Program (OFP) sustainment environment - Develop and deploy operational flight program (OFP) development environment for missile warning systems (MWS). Determine data and analysis requirements for MANPADS characterization and establish a government-organic analysis and sustainment process to support OFP?s and</p> | | - | 0.667 0 |
| | | | 0.605 |

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| B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each) | | FY 2010 | FY 2011 | FY 2012 |
| subsequently adapt MWS?s to new threats. Currently, no government organic capability exists, increasing the risk that systems can not be readily adapted to changing threats. | | | | |
| Title: Infrastructure Improvement Radio Frequency General Articles: Description: Funding is provided for the following effort FY 2011 Plans: Infrastructure improvements (general) - Enhance the ARAT communications architecture to facilitate the transmission of mission software changes to FPS & TSS users, with emphasis on remote user and highly mobile Warfighter connectivity. Develop/ implement integrated ASE test environment to ensure MDS and aircraft counter-measure (CM) Integration flight test support. FY 2012 Plans: Infrastructure improvements (general) - Enhance the ARAT communications architecture to facilitate the transmission of mission software changes to FPS & TSS users, with emphasis on remote user and highly mobile Warfighter connectivity. Develop/ implement integrated ASE test environment to ensure MDS and aircraft counter-measure (CM) Integration flight test support. | | - | 0.450 0 | 0.540 |
| Title: Threat Flagging & Mission Data Set Reprogramming Tool Development Articles: Description: Funding is provided for the following effort FY 2011 Plans: Threat Flagging & MDS Reprogramming Tool Development - Develop applications for ARAT internal system-specific threat flagging, threat analysis, MDS generation, and MDS testing. Enhance threat flagging (threat performance change detection) and intelligence analytical tools, based on supported systems performance criteria, to rapidly identify and counter emerging & changing threats that adversely affect the performance of FPS & TSS. Create MDS development, testing and validation tools to decrease time from threat-change detection to the distribution of MDS products in order to increase the accuracy and fidelity of threat identification, and reduce the engineering involvement/workload associated with the manually intensive analysis and MDS development processes. Define requirements and develop tools to migrate to a data support infrastructure that employs Next Generation EWIR System (NGES) when the NGES is deployed and the current EWIR system is decommissioned. FY 2012 Plans: Threat Flagging & MDS Reprogramming Tool Development - Develop applications for ARAT internal system-specific threat flagging, threat analysis, MDS generation, and MDS testing. Enhance threat flagging (threat performance change detection) and intelligence analytical tools, based on supported systems performance criteria, to rapidly identify and counter emerging & | | - | 0.215 0 | 0.230 |

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| B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each) | | FY 2010 | FY 2011 |
| changing threats that adversely affect the performance of FPS & TSS. Create MDS development, testing and validation tools to decrease time from threat-change detection to the distribution of MDS products in order to increase the accuracy and fidelity of threat identification, and reduce the engineering involvement/workload associated with the manually intensive analysis and MDS development processes. Define requirements and develop tools to migrate to a data support infrastructure that employs Next Generation EWIR System (NGES) when the NGES is deployed and the current EWIR system is decommissioned. | | | |
| Accomplishments/Planned Programs Subtotals | | - | 3.145 |
| C. Other Program Funding Summary (\$ in Millions) N/A | | | |
| D. Acquisition Strategy The efforts to be funded in this project will require a combination of systems specific and high-tech knowledge. The contractual services portion for the project will be obtained from both the CECOM Software Engineering Center (SEC) competitive omnibus and the RDEC High Tech contracts. | | | |
| 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. | | | |

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|--|------------------------------|---|------------------------------|--|---------------|-----------------|---------------|--------------------------------|---------------|---------------------|---------------------|------------|--------------------------------|
| Exhibit R-3, RDT&E Project Cost Analysis: PB 2012 Army | | | | | | | | | | DATE: February 2011 | | | |
| APPROPRIATION/BUDGET ACTIVITY 2040: Research, Development, Test & Evaluation, Army BA 5: Development & Demonstration (SDD) | | | | R-1 ITEM NOMENCLATURE PE 0304270A: Electronic Warfare Development | | | | PROJECT EW6: ARAT-TSS - MIP | | | | | |
| Product Development (\$ in Millions) | | | | FY 2011 | | FY 2012 Base | | FY 2012 OCO | | FY 2012 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 |
| Travel | Various | Various locations:various | - | 0.110 | | 0.147 | | - | | 0.147 | Continuing | Continuing | Continuing |
| USG Labor | Various | ARAT-PO R&D element Various locations:APG, MD | - | 0.550 | | 0.750 | | - | | 0.750 | Continuing | Continuing | Continuing |
| Subtotal | | | - | 0.660 | | 0.897 | | - | | 0.897 | | | |
| Support (\$ in Millions) | | | | FY 2011 | | FY 2012 Base | | FY 2012 OCO | | FY 2012 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 |
| Development Support (CECOM RDEC T&E CECOM SEC Omnibus) | Various | Various:various | - | 2.485 | | 2.491 | | - | | 2.491 | Continuing | Continuing | Continuing |
| Subtotal | | | - | 2.485 | | 2.491 | | - | | 2.491 | | | |
| | | | Total Prior Years Cost | FY 2011 | | FY 2012 Base | | FY 2012 OCO | | FY 2012 Total | Cost To Complete | Total Cost | Target Value of Contract |
| Project Cost Totals | | | - | 3.145 | | 3.388 | | - | | 3.388 | | | |
| Remarks | | | | | | | | | | | | | |