Exhibit R-2, RDT&E Budget Item Justification: PB 2012 Army										DATE: February 2011	
APPROPRIATION/BUDGET ACTIVITY 2040: *Research, Development, Test & Evaluation, Army* BA 4: *Advanced Component Development & Prototypes (ACD&P)*					R-1 ITEM NOMENCLATURE PE 0603305A: *Army Missle Defense Systems Integration*						
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	80.079	11.455	36.009	-	36.009	83.557	102.962	107.934	157.793	Continuing	Continuing
TR4: *MISSILE DEFENSE INTEGRATION*	60.378	-	-	-	-	-	-	-	-	Continuing	Continuing
TR5: *MISSILE DEFENSE BATTLELAB*	19.701	7.159	14.883	-	14.883	14.435	13.941	14.935	15.055	Continuing	Continuing
TR7: *Indirect Fire Protection Capability 2 - Intercept*	-	4.296	21.126	-	21.126	69.122	89.021	92.999	142.738	Continuing	Continuing

Note

Change Summary Explanation:
Funding
FY2010: Funds realigned to meet critical program requirements for TR5.
FY2012: Funds realigned ($2.700 million) to higher program priorities.

A. Mission Description and Budget Item Justification

This Program Element funds missile defense systems integration efforts for both the US Army Space and Missile Defense Command/Army Forces Strategic Command (USASMDC/ARSTRAT) and the Program Executive Office for Missiles and Space (PEO-MS).

USASMDC/ARSTRAT: Headquarters, Department of the Army General Order 37, dated 16 October 2006, designated USASMDC/ARSTRAT as the Army proponent for space and ground-based midcourse defense (GMD), the Army integrator for global missile defense, and the Army Service Component Command (ASCC) of the U.S. Strategic Command (USSTRATCOM). Army Regulation (AR) 10-87 Army Commands, Army Service Component Commands, and Direct Reporting Units, dated 4 September 2007 and AR 5-22 The Army Force Modernization Proponent System dated 19 August 2009 designates USASMDC/ARSTRAT as the Army specified proponent for Global Missile Defense and Space/High Altitude capabilities. As the Army proponent for space, high altitude and GMD, USASMDC/ARSTRAT is responsible to develop warfighting concepts, conduct warfighting experiments to validate those concepts, identify capabilities needed to implement the validated concepts, and develop Doctrine, Organizations, Training, Material, Leadership & Education, Personnel and Facilities (DOTMLPF) solutions to realize the GMD capabilities. As the Army integrator for global missile defense, USASMDC/ARSTRAT is responsible to review programs managed by the Army, other Services, Defense agencies and National agencies to ensure that they are correctly synchronized and will ultimately provide the capabilities required by USSTRATCOM to execute its global missile defense responsibilities.

Project TR4 funds the USASMDC/ARSTRAT to execute its proponency role for Ground-Based Missile Defense, and its role as the integrator for global missile defense. In fiscal year 2011, this project will be rolled into program element 0603308A project 990 in recognition of the increasing interrelationship between space operations, exo-atmospheric ballistic missile defense and global missile defense.

Exhibit R-2, RDT&E Budget Item Justification: PB 2012 Army	DATE: February 2011
APPROPRIATION/BUDGET ACTIVITY 2040: *Research, Development, Test & Evaluation, Army* BA 4: *Advanced Component Development & Prototypes (ACD&P)*	**R-1 ITEM NOMENCLATURE** PE 0603305A: *Army Missle Defense Systems Integration*

Project TR5 funds United States Army Space and Missile Command/ Army Strategic Command (USASMDC/ARSTRAT) efforts to develop, analyze and mature warfighting concepts, focus military science and technology research, and conduct warfighting experiments for Space, Missile Defense, and High Altitude. Additionally, this project funds the delivery of innovations to the warfighter through prototyping, operational analysis, and experimentation in support of current and future Forces.

Project TR7 funds the Cruise Missile Defense Systems Project Office/ Program Executive Office Missiles and Space efforts to develop Indirect Fire Protection Capability Increment 2 - Intercept capabilities required to execute the US Army's objective Counter-Rockets, Artillery, and Mortar (C-RAM) mission.

B. Program Change Summary ($ in Millions)	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total
Previous President's Budget	71.788	11.455	38.712	-	38.712
Current President's Budget	80.079	11.455	36.009	-	36.009
Total Adjustments	8.291	-	-2.703	-	-2.703
• Congressional General Reductions		-			
• Congressional Directed Reductions		-			
• Congressional Rescissions	-	-			
• Congressional Adds		-			
• Congressional Directed Transfers		-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-	-			
• Adjustments to Budget Years	8.291	-	-2.703	-	-2.703

Exhibit R-2A, RDT&E Project Justification: PB 2012 Army			DATE: February 2011
APPROPRIATION/BUDGET ACTIVITY 2040: *Research, Development, Test & Evaluation, Army* BA 4: *Advanced Component Development & Prototypes (ACD&P)*	R-1 ITEM NOMENCLATURE PE 0603305A: *Army Missle Defense Systems Integration*	PROJECT TR4: *MISSILE DEFENSE INTEGRATION*	

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
TR4: *MISSILE DEFENSE INTEGRATION*	60.378	-	-	-	-	-	-	-	-	Continuing	Continuing
Quantity of RDT&E Articles											

A. Mission Description and Budget Item Justification

Headquarters, Department of the Army General Order Number 37, dated 16 October 2006, designated USASMDC/ARSTRAT as the Army proponent for space and ground-based midcourse defense (GMD), and the Army integrator for global missile defense. This project funds efforts associated with those roles. As the Army proponent for GMD, USASMDC/ARSTRAT is responsible to develop and validate warfighting concepts, identify capabilities needed to implement the validated concepts, and develop Doctrine, Organization, Training, Materiel, Leadership & Education, Personnel and Facilities (DOTMLPF) solutions to realize GMD capabilities. As the Army integrator for global missile defense, USASMDC/ARSTRAT is responsible to review programs managed by the Army, other Services, Defense agencies and National agencies to ensure that they are correctly synchronized and will ultimately provide the capabilities required by USSTRATCOM to execute its global missile defense responsibilities.

After FY2010, this project is rolled into PE 0603308A, project 990 in recognition of the increasing interrelationship between space operations, exo-atmospheric ballistic missile defense and global missile defense.

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2010	FY 2011	FY 2012
Title: Missile Defense and Combat Development ***Articles:*** ***Description:*** Funding is provided for the following effort ***FY 2010 Accomplishments:*** Continue combat development efforts to define DOTMLPF solutions for capabilities required to execute ground-based midcourse defense operations across the four domains of missile defense (passive defense, active defense, attack operations and battle management). Ensure that the various components of a global missile defense capability remain synchronized with USSTRATCOM's concept of operations.	1.605 0	-	-
Title: Congressional Adds ***Articles:*** ***Description:*** Funding is provided for the following effort ***FY 2010 Accomplishments:***	58.773 0	-	-

Exhibit R-2A, RDT&E Project Justification: PB 2012 Army		DATE: February 2011
APPROPRIATION/BUDGET ACTIVITY 2040: *Research, Development, Test & Evaluation, Army* BA 4: *Advanced Component Development & Prototypes (ACD&P)*	R-1 ITEM NOMENCLATURE PE 0603305A: *Army Missle Defense Systems Integration*	PROJECT TR4: *MISSILE DEFENSE INTEGRATION*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2010	FY 2011	FY 2012
Includes FY09/FY10 Congressional Adds for Adaptive Lightweight Materials for Missile Defense, Adaptive Robotics Technology for Space, Air, and Missiles (ART-SAM), Advanced Cavitation Power Technology, Advanced Electronics Rosebud Integration, Advanced Environmental Control System, Advanced Fuel Cell Research Program, Advanced Hypersonic Weapon Technology Demonstration, Advanced Standoff Technologies for National Security, Advanced Strap Down Seeker, Alternative Power Technology (APT) for Missile Defense, Biological Air Filtering System Technology, Compact Pulsed Power Initiative, Composite Structure Design, Continuous Threat Alert Sensins System (CTASS), Deployable Space and Electronic Warfare Analysis Tools, Detection Algorithms and Software for Force Protection, Detection Mitigation and Neutralization of High Explosive, Dielectrically Enhance Sensor System (DESS), Discriminatory Imaging and Network Advancement for Missiles, Aviation, and Space, Future TOC Hardware/Software Integration, Geospatial Airship Research Platform, Heat Dissipation for Electronic Systems & Enclosures, High Detail Architecture Analysis Tool, High Speed Digital Imaging, High Temp Polymers for Missile System Applications, Micro-Systems Nanotechnology for Advanced Technology Development, On-board Hybrid Power Unit (OBHPU), Orion High Altitude Long Loiter UAV, Processing DNA Data Using Classical Discrimination Techniques, Radiation Hardening Initiative (RHI), Remote Explosive Analysis and Detection System (READS), Standoff Hazardous Agent Detection & Evaluation System, Thermal and Electrical Nanoscale Transport (TENT), and Vertical Integration for Missile Defense Surveillance Data.			
Accomplishments/Planned Programs Subtotals	60.378	-	-

C. Other Program Funding Summary ($ in Millions)

N/A

D. Acquisition Strategy

This project employs a mix of government employees and various contractors for different aspects of the combat development process to ensure a degree of independent thought, and to encourage the use of various analytic approaches.

After FY2010, this project is rolled into PE 0603308A, project 990 in recognition of the increasing interrelationship between space operations, exo-atmospheric ballistic missile defense and global missile defense.

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-2A, RDT&E Project Justification: PB 2012 Army			DATE: February 2011
APPROPRIATION/BUDGET ACTIVITY 2040: *Research, Development, Test & Evaluation, Army* BA 4: *Advanced Component Development & Prototypes (ACD&P)*	R-1 ITEM NOMENCLATURE PE 0603305A: *Army Missle Defense Systems Integration*	PROJECT TR5: *MISSILE DEFENSE BATTLELAB*	

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
TR5: *MISSILE DEFENSE BATTLELAB*	19.701	7.159	14.883	-	14.883	14.435	13.941	14.935	15.055	Continuing	Continuing
Quantity of RDT&E Articles											

A. Mission Description and Budget Item Justification

Project TR5 funds United States Army Space and Missile Command/ Army Strategic Command (USASMDC/ARSTRAT) efforts to develop, analyze and mature warfighting concepts, focus military science and technology research, and conduct warfighting experiments for Space, Missile Defense, and High Altitude. Additionally, this project funds the delivery of innovations to the warfighter through prototyping, operational analysis, and experimentation in support of current and future Forces. The concepts, experiments, analyses, and prototypes apply to all of the mission areas assigned to USASMDC/ARSTRAT in its role as an Army Service Component Command (ASCC) to USSTRATCOM: Missile Defense, Space, Information Operations (IO), Global Strike (GS), Command, Control, Communications, Computers, Intelligence, Surveillance and Reconnaissance (C4ISR). USASMDC/ARSTRAT continues to serve as the interim ASCC to USCYBERCOM for FY11 and FY12.

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2010	FY 2011	FY 2012
Title: Experiments, Wargames and Prototypes	11.752	4.295	8.929
Articles:	0	0	
Description: Funding is provided for the following effort			
FY 2010 Accomplishments: FY10 accomplishments included participation in numerous Integrated Capabilities Development Teams and providing concept development support for the Space Functional Needs Analysis (FNA), the Space Capabilities Integration Map (CIM) and the GMD Concept Capability Plan (CCP). Experimented with advanced prototype components of future operational- and tactical-level command and control (C2) systems to assess their impact on Doctrine, Organization, Training, Material, Leadership and Education, Personnel and Facilities (DOTMLPF) issues. Participated in major Army and Joint Experiments integrating space, missile defense, IO, GS and C4ISR integrating, functional and operational concepts into the Army Campaign Plan (ACP). USASMDC/ARSTRAT participated in several FY10 experiments and wargames. Efforts completed in FY10 to include Unified Quest 10, Schreiver Wargame 2010, Army Space Power Wargame II, Tactical Satellite (TacSat) 3 Joint Military Utility Assessment, High Altitude Assessment Part II, A Day Without Space, Bold Quest, Falcon Virgo, Eagle Resolve, Arctic Edge, Key Resolve, and other space and missile defense related exercises. Each of these experiments and wargames were developed to answer specific technical or operational questions. The questions and the respective answers to these various efforts were documented and reported out to specific sponsors to assist them in making Army investmentdecisions and supporting concept development.			
FY 2011 Plans:			

Exhibit R-2A, RDT&E Project Justification: PB 2012 Army		DATE: February 2011
APPROPRIATION/BUDGET ACTIVITY 2040: *Research, Development, Test & Evaluation, Army* BA 4: *Advanced Component Development & Prototypes (ACD&P)*	R-1 ITEM NOMENCLATURE PE 0603305A: *Army Missle Defense Systems Integration*	PROJECT TR5: *MISSILE DEFENSE BATTLELAB*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2010	FY 2011	FY 2012
Develop the space, missile defense and high altitude portions of Army Capstone Operational Concepts and six Functional Concepts; developed two special topic events on Army operations in a degraded space environment and Army operations in a contested cyber environment for the Unified Quest events and; conduct Army directed Organizational-Based Assessment of Missile Defense and Space Brigades. Develop and execute technical and operational demonstrations for five COCOM led Joint Concept Technology Demonstrations in the areas of space, high altitude and Integrated Air and Missile Defense (IAMD) operational capabilities; demonstrated role of future space and high altitude capabilities in Army Warfighting Experiments to support improved LANDWARNET and persistent Intelligence Surveillance and Reconnaissance. Develop and field a homeland operations Joint, Interagency, Intergovernmental, and Multinational information sharing environment (leveraging battle lab prototypes) for the National Guard Joint Headquarters that significantly improves NORTHCOM's ability to push relevant information to on scene military and civil first responders while providing clear Situational Awareness for senior decision makers; began integration with PM Battle Command, develop concept of operations for Army use of nano-Satellites and operationally responsive space systems to include support for recent launch of an Army satellite (SMDC-ONE) to validate Operationally Responsive Space concepts. Develop an Air and Missile Defense distributed planning server to support operational level homeland Air and Missile Defense planning support of ground-based air defense for Operation Noble Eagle. Support rapid integration and fielding of friendly force tracking capabilities to Afghan National Forces. As interim ARCYBER proponent stood up initial ARCYBER force development organization and transitioned to ARCYBER. Plan for the operational utility assessment of the Long Endurance Multi-Int (LEMV) system. Work with the Army Research Lab to expedite the insertion of advanced technologies into space, missile defense systems, and high altitude systems enhancing performance and reducing cost, this is an ongoing effort. ***FY 2012 Plans:*** Participate in and provide support to all Unified Quest wargames and experiments to analyze and mature warfighting concepts focus military science and technology research for integration into Army space, missile defense, and high altitude systems and operations. Additionally, experimentation support necessary to integrate space missile defense and high altitude capabilities into army systems and operational concepts will be strategically provided. The Space and Missile Defense Command will participate and support to biennial rewrites of Army Capstone, Operational and Functional Concepts. Continue to provide operational manager support to STRATCOM, NORTHCOM and SOCOM J CTDs to ensure Army space, missile defense, and high altitude equities are represented in advanced technology developments by demonstrating military utility when applied to military equipment and techniques. Examples include: supporting multi service experiments and capability development of the national-directed Phased Adaptive Approach (PAA) for BMD as it is applied to each of the regional COCOMs; and experimenting with operationally responsive space and high altitude capabilities to ensure the broader Army enterprises can			

Exhibit R-2A, RDT&E Project Justification: PB 2012 Army		DATE: February 2011
APPROPRIATION/BUDGET ACTIVITY 2040: *Research, Development, Test & Evaluation, Army* BA 4: *Advanced Component Development & Prototypes (ACD&P)*	R-1 ITEM NOMENCLATURE PE 0603305A: *Army Missle Defense Systems Integration*	PROJECT TR5: *MISSILE DEFENSE BATTLELAB*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2010	FY 2011	FY 2012
leverage the advantages of these platforms for communications, Intelligence Surveillance and Reconnaissance (ISR), position navigation, missile warning and command and control. Continue to develop mitigation strategies for Army forces to operate effectively in contested space, missile defense and cyber environments. Developing effective Integrated Missile Defense concepts for Army support to the Phased Adaptive Approach (PAA) being implemented within each regional COCOM.			
Title: Analysis, and Models and Simulations (M&S) ***Articles:*** ***Description:*** Funding is provided for the following effort ***FY 2010 Accomplishments:*** Operational Analysis/Tools, Modeling and Simulation (M&S) - Studies and Analysis accomplishments included oversight and varying degrees of participation of operational assessments of concepts, doctrine, organizations, technologies and tactics. Efforts also included examination of TacSAT III issues for space and missile defense including new doctrine for Space Superiority and Operational Analysis of High Altitude (HA) capabilities at the Tactical Level, Theater Missile Defense concepts, and Space ISR. Tools and M&S accomplishments include M&S for experimentation and operational assessments, and the maintenance of M&S tools including developing an operational representation of HA and space based capabilities into OneSAF and the development of the Joint Embedded Messaging System (JEMS) for translation and transfer of space-based information for M&S and tactical systems. ***FY 2011 Plans:*** Conduct studies and operational assessments of concepts, doctrine, organizations, technologies and tactics that impacted on major decisions at the Army staff level. Studies ensure that Army equities in Joint system development of space, missile defense, and high altitude systems and concepts. Studies that are being completed in FY11 are Terrestrial Communications Study, Space Superiority Program I Cost-benefit Analysis, Countermeasure Implication Study, Joint Capabilities Mix Phase III support. These studies have produced objective results focused on the value to the ground warfighter providing critical timely information to decision makers related to space, missile defense, and high altitude military utility, cost reduction, and concept exploration in support of Army systems and techniques. Additionally the Future Warfare Center supports experiments in various environments (synthetic, prototypes, and proof-of-principal demonstrations in field exercises to evaluate technologies and concepts in realistic operating environments. These ongoing efforts are described in the FY 2012 section shown below. ***FY 2012 Plans:***	7.949 0	2.864 0	5.954

Exhibit R-2A, RDT&E Project Justification: PB 2012 Army		DATE: February 2011
APPROPRIATION/BUDGET ACTIVITY 2040: *Research, Development, Test & Evaluation, Army* BA 4: *Advanced Component Development & Prototypes (ACD&P)*	R-1 ITEM NOMENCLATURE PE 0603305A: *Army Missle Defense Systems Integration*	PROJECT TR5: *MISSILE DEFENSE BATTLELAB*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2010	FY 2011	FY 2012
Supports ongoing efforts that provide general military utility and cost reduction analysis of space, missile defense, and high altitude systems and techniques specifically, in terms of utility to the ground warfighter. The technology demonstrations, exercises used to help expedite technology transition from the laboratory or potential dual use commercial technologies include: Training & Doctrine Command (TRADOC) experiment support; augmenting analysis for TRADOC experiments and technology demonstrations; Nimble Fire Experiment; Global Thunder / Global Lightning Support and Air and Missile Defense Task Force analysis support. Support of technology demonstrations, Analysis and Demonstration Tools/Test Beds for evolving space superiority and operationally responsive space concepts that address emerging needs will continue and be expanded in the out years to ensure that advanced technology development can adequately address space, missile defense and high altitude doctrinal and material investments. Onsite support is provided to meet Army requirements for missile defense evaluations of advanced technology for the Joint Forces Command The FWC will continue to update EADSIM (a space, missile defense, and high altitude decision support tool utilized by over 300 Army and Joint organizations) to provide the required analysis capability to perform military utility analysis, system and cost benefit analysis, and military technique evaluations for applicable advanced technologies.			
Accomplishments/Planned Programs Subtotals	19.701	7.159	14.883

C. Other Program Funding Summary ($ in Millions)

N/A

D. Acquisition Strategy

Not applicable for this item.

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-2A, RDT&E Project Justification: PB 2012 Army			DATE: February 2011
APPROPRIATION/BUDGET ACTIVITY 2040: *Research, Development, Test & Evaluation, Army* BA 4: *Advanced Component Development & Prototypes (ACD&P)*	R-1 ITEM NOMENCLATURE PE 0603305A: *Army Missle Defense Systems Integration*	PROJECT TR7: *Indirect Fire Protection Capability 2 - Intercept*	

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
TR7: *Indirect Fire Protection Capability 2 - Intercept*	-	4.296	21.126	-	21.126	69.122	89.021	92.999	142.738	Continuing	Continuing
Quantity of RDT&E Articles											

Note

This project is a new start.

A. Mission Description and Budget Item Justification

This system is an integral part of the overall Air and Missile Defense (AMD) architecture and provides a robust intercept capability against rocket, artillery, and mortar threats for deployed forces. The Indirect Fire Protection Capability Increment 2 -Intercept (IFPC Inc 2-I) will become part of the Army's Integrated Air and Missile Defense (IAMD) architecture and seamlessly integrate with current Increment 0, Counter-Rockets, Artillery, and Mortar (C-RAM), and Increment 1, Enhanced Sense and Warn Capability. When implemented, IFPC Inc 2-I will provide 360 degree protection against RAM threats simultaneously attacking from multiple azimuths. IFPC Inc 2-I technologies may consist of kinetic and/or directed energy weapons, associated fire control sensors, and a technical fire control capability. The specific system concept will be determined by an Analysis of Alternatives (AoA) to be completed in FY12. Tactical Command and Control is an external interface to the IFPC Inc 2-I program and will be provided by supported forces. Technologies currently being developed under Science and Technology efforts may be used to support the Technology Development Phase of the IFPC Inc 2-I effort.

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2010	FY 2011	FY 2012
Title: Initiate Milestone A Documentation and Analysis of Alternatives (AoA) Development ***Articles:*** ***Description:*** Funding is provided for the following effort ***FY 2011 Plans:*** Initiate Milestone A Documentation Development, define Requirements in support of Contracts Requirement Package for contract award after Milestone A. Support Analysis of Alternatives development.	-	4.296 0	-
Title: Labs/Centers ***Description:*** Funding is provided for the following effort ***FY 2012 Plans:*** Support development of the Requirements baseline. Assist in the development of Milestone A documentation (i.e., Technology Development Strategy, Test and Evaluation Strategy, and Systems Engineering Plan). Support Contract Requirements Package documentation (i.e., Scope of Work, Contract Data Requirements List, and Performance Specification). Support System	-	-	16.070

Exhibit R-2A, RDT&E Project Justification: PB 2012 Army		DATE: February 2011
APPROPRIATION/BUDGET ACTIVITY 2040: *Research, Development, Test & Evaluation, Army* BA 4: *Advanced Component Development & Prototypes (ACD&P)*	R-1 ITEM NOMENCLATURE PE 0603305A: *Army Missle Defense Systems Integration*	PROJECT TR7: *Indirect Fire Protection Capability 2 - Intercept*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2010	FY 2011	FY 2012
Requirements Review preparation. Design of the Technical Fire Control, Command Vehicle, and Launcher. Development of Interface Control Documents.			
Title: Government Product Office Support ***Description:*** Funding is provided for the following effort ***FY 2012 Plans:*** Complete Milestone A documentation (i.e., Technology Development Strategy, Test and Evaluation Strategy, and Systems Engineering Plan). Standing up Government Program Office to include personnel; infrastructure; travel; Milestone A preparation; establish processes and procedures; support Analysis of Alternatives development and Contract Requirements Package (CRP) development for contract award in FY13.	-	-	5.056
Accomplishments/Planned Programs Subtotals	-	4.296	21.126

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
• PE 0604820A, Proj E10: *Sentinel*			2.890		2.890		1.983	1.968	2.937	Continuing	Continuing
• SSN WK5057: *Sentinel Mods*	25.783		41.657		41.657		48.418	46.613	46.463	Continuing	Continuing
• SSN WK5053: *FAAD GBS*		91.467	7.958		7.958					Continuing	Continuing
• PE 0605457A, Proj S40: *Army Integrated Air and Missile Defense (AIAMD)*			270.607		270.607		346.341	298.869	275.651	Continuing	Continuing
• PE 0654742: *Counter-Rockets Artillery & Mortar (C-RAM)*	13.559		54.355		54.355		3.967			0.000	125.586
• PE 0603004A: *High Energy Laser Technology*	22.414		18.408		18.408		23.214	24.103	24.641	Continuing	Continuing
• PE0603313A: *Missile and Rocket Advanced Technology*	83.649		90.602		90.602		72.921	54.201	59.679	Continuing	Continuing
• Proj 206: *Missile Simulation*	3.384		3.554		3.554		3.677	3.644	3.524	Continuing	Continuing
• Proj 263: *Future Msl Tech Integr(FMTI)*	40.861		60.716		60.716		62.528	38.110	34.829	Continuing	Continuing
• Proj 550: *Counter Active Protection*	7.831		7.522		7.522		0.009	0.009	4.100	Continuing	Continuing

Exhibit R-2A, RDT&E Project Justification: PB 2012 Army		DATE: February 2011
APPROPRIATION/BUDGET ACTIVITY 2040: *Research, Development, Test & Evaluation, Army* BA 4: *Advanced Component Development & Prototypes (ACD&P)*	R-1 ITEM NOMENCLATURE PE 0603305A: *Army Missle Defense Systems Integration*	PROJECT TR7: *Indirect Fire Protection Capability 2 - Intercept*

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
• Proj 704: *Advanced Missile Demo*	7.509		8.810		8.810		6.707	12.438	17.226	Continuing	Continuing
• Proj G03: *Area Defense Advanced Technology*	1.920		10.000		10.000					0.000	19.920
• Proj NA6: *Missile and Rocket Initiatives*	22.144									0.000	22.144

D. Acquisition Strategy

Conduct a Materiel Development Decision (MDD) for the Indirect Fire Protection Capability Increment 2 - Interceptor (IFPC Inc 2-I) by third quarter FY11; Complete Analysis of Alternatives (AoA) to determine material solution approach; establish requirement baseline; initiate development of Technical Fire Control (TFC) component which is independent of material solution determined by the AoA; begin design development of Command Vehicle; complete development and approval of Contract Requirements Package (CRP); and execute Milestone A decision to authorize proceeding into the Technology Development (TD) Phase and prepare for a contract award in second quarter FY13. Design work on the TFC and Command Vehicle will begin once AoA results are known in second quarter FY12.

Anticipated system will consist of a kinetic and/or directed energy Interceptor, Fire Control Sensor, Technical Fire Control, Command Vehicle and control interfaces between major components.

Award multiple full and open competitive contracts at the beginning of the TD Phase for competing teams to develop interceptor/fire control sensor designs and key component/system prototypes which will be demonstrated in their tactical configurations for Government evaluation prior to a Preliminary Design Review and Milestone B. Final down select and Milestone B planned for FY2016. Award of Engineering and Manufacturing Development (EMD) effort to down selected contractor team will be through the execution of an option included in the TD contract.

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 2012 Army		DATE: February 2011
APPROPRIATION/BUDGET ACTIVITY 2040: *Research, Development, Test & Evaluation, Army* BA 4: *Advanced Component Development & Prototypes (ACD&P)*	R-1 ITEM NOMENCLATURE PE 0603305A: *Army Missle Defense Systems Integration*	PROJECT TR7: *Indirect Fire Protection Capability 2 - Intercept*

Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	FY 2011 Cost	FY 2011 Award Date	FY 2012 Base Cost	FY 2012 Base Award Date	FY 2012 OCO Cost	FY 2012 OCO Award Date	FY 2012 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
FY11 Pre MDD efforts	TBD	Cruise Missile Defense Systems Project Office:TBD	-	4.296		1.056		-		1.056	Continuing	Continuing	Continuing
		Subtotal	-	4.296		1.056		-		1.056			

Remarks

Management Services in FY11 are to initiate Milestone A Documentation Development; define Requirements in support of Contract Requirements Package for contract award after Milestone A. Support Analysis of Alternatives development.

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	FY 2011 Cost	FY 2011 Award Date	FY 2012 Base Cost	FY 2012 Base Award Date	FY 2012 OCO Cost	FY 2012 OCO Award Date	FY 2012 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Government Product Office	TBD	Cruise Missile Defense Systems Project Office:Huntsville, AL	-	-		4.000		-		4.000	Continuing	Continuing	Continuing
Labs/Centers	TBD	Aviation and Missile Research, Development, Engineering Center:Huntsville, AL	-	-		16.070		-		16.070	Continuing	Continuing	Continuing
		Subtotal	-	-		20.070		-		20.070			

Remarks

Product Development costs in FY12 cover the completion of System Engineering documentation (Technology Development Strategy; Test and Evaluation Strategy; System Engineering Plan); completion of Contract Requirements Package development in preparation for Milestone A in 4QFY12 and for a prime contract award in early FY13.

	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	-	4.296		21.126		-		21.126			

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2012 Army		DATE: February 2011
APPROPRIATION/BUDGET ACTIVITY 2040: *Research, Development, Test & Evaluation, Army* BA 4: *Advanced Component Development & Prototypes (ACD&P)*	**R-1 ITEM NOMENCLATURE** PE 0603305A: *Army Missle Defense Systems Integration*	**PROJECT** TR7: *Indirect Fire Protection Capability 2 - Intercept*

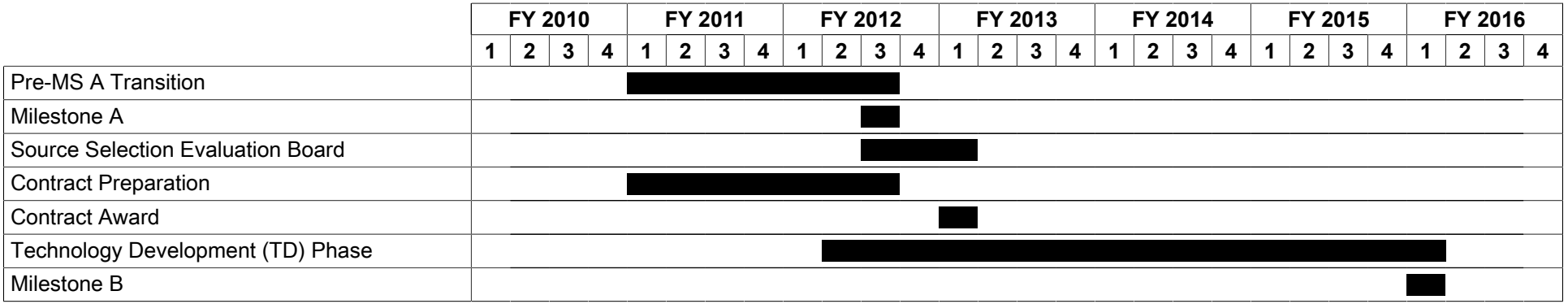

Exhibit R-4A, RDT&E Schedule Details: PB 2012 Army		DATE: February 2011
APPROPRIATION/BUDGET ACTIVITY 2040: *Research, Development, Test & Evaluation, Army* BA 4: *Advanced Component Development & Prototypes (ACD&P)*	**R-1 ITEM NOMENCLATURE** PE 0603305A: *Army Missle Defense Systems Integration*	**PROJECT** TR7: *Indirect Fire Protection Capability 2 - Intercept*

Schedule Details

	Start		End	
Events	**Quarter**	**Year**	**Quarter**	**Year**
Pre-MS A Transition	1	2011	3	2012
Milestone A	3	2012	3	2012
Source Selection Evaluation Board	3	2012	1	2013
Contract Preparation	1	2011	3	2012
Contract Award	1	2013	1	2013
Technology Development (TD) Phase	2	2012	1	2016
Milestone B	1	2016	1	2016