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Exhibit R-2, RDT&E Budget Item Justification: PB 2015 Army										Date: March 2014		
Appropriation/Budget Activity 2040: Research, Development, Test & Evaluation, Army I BA 4: Advanced Component Development & Prototypes (ACD&P)					R-1 Program Element (Number/Name) PE 0603305A I Army Missile Defense Systems Integration							
COST (\$ in Millions)	Prior Years	FY 2013	FY 2014	FY 2015 Base	FY 2015 OCO #	FY 2015 Total	FY 2016	FY 2017	FY 2018	FY 2019	Cost To Complete	Total Cost
Total Program Element	-	22.340	23.289	12.797	-	12.797	12.203	11.590	11.802	12.350	Continuing	Continuing
TR5: Missile Defense Battlelab	-	22.340	23.289	12.797	-	12.797	12.203	11.590	11.802	12.350	Continuing	Continuing

The FY 2015 OCO Request will be submitted at a later date.

Note

FY13 Other Adjustments 1: Funds were added to design, fabricate and test component to develop a test-bed for enhanced thermal management technologies supporting missiles/Tactical Operation Centers (TOCs)/shelters and other systems utilizing mobile thermal management in realistic operating environments.

FY14 Other Adjustments 1: Funds were added to continue fabrication and test oc omponents to develop a test-bed for enhanced thermal management technologies supporting missiles?TOCs/shelters and other systems utilizing mobile thermal management in realistic operating environments.

FY15 Adjustments to Budget Years: Efforts described above should be complete this FY.

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 for developing 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 for reviewing 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 TR5 funds United States Army Space and Missile Defense Command/ Army Strategic Command (USASMDC/ARSTRAT) efforts to develop the associated operational prototyping, experimentation, operational analysis, and modeling and simulation in support of current and future Forces.

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B. Program Change Summary (\$ in Millions)	FY 2013	FY 2014	FY 2015 Base	FY 2015 OCO	FY 2015 Total
Previous President's Budget	14.505	15.301	15.604	-	15.604
Current President's Budget	22.340	23.289	12.797	-	12.797
Total Adjustments	7.835	7.988	-2.807	-	-2.807
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	0.150	-			
• Adjustments to Budget Years	-	-	-2.807	-	-2.807
• Other Adjustments 1	7.685	7.988	-	-	-

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Appropriation/Budget Activity 2040 / 4					R-1 Program Element (Number/Name) PE 0603305A / Army Missile Defense Systems Integration				Project (Number/Name) TR5 / Missile Defense Battlelab			
COST (\$ in Millions)	Prior Years	FY 2013	FY 2014	FY 2015 Base	FY 2015 OCO #	FY 2015 Total	FY 2016	FY 2017	FY 2018	FY 2019	Cost To Complete	Total Cost
TR5: Missile Defense Battlelab	-	22.340	23.289	12.797	-	12.797	12.203	11.590	11.802	12.350	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		
# The FY 2015 OCO Request will be submitted at a later date.												
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 for developing 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 for reviewing 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 TR5 funds United States Army Space and Missile Defense Command/ Army Strategic Command (USASMDC/ARSTRAT) efforts to develop the associated operational prototyping, experimentation, operational analysis, and modeling and simulation in support of current and future Forces.												
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)									FY 2013	FY 2014	FY 2015	
Title: Prototypes									16.496	17.094	7.628	
									Articles: -	-	-	
Description: Funding is provided for the following efforts												
FY 2013 Accomplishments:												
Took the lessons learned from the FY12 efforts to continue to evaluate new technologies in realistic operating environments. This was accomplished by participating in and providing support to Unified Quest wargames and experiments to analyze and integrate technology to identify the feasibility integration into Army space, missile defense, and high altitude systems. The Space and Missile Defense Command participated and supported biennial rewrites of Army Capstone, Operational and Functional												

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B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)			FY 2013	FY 2014	FY 2015
Concepts. Continued to provide operational manager support to STRATCOM, NORTHCOM and SOCOM Joint Technical Capability Demonstrations to ensure Army space, missile defense, and high altitude equities were 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 Ballistic Missile Defense (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 leverage the advantages of these platforms for communications, Intelligence Surveillance and Reconnaissance (ISR), position navigation, missile warning and command and control. Continued to develop mitigation strategies for Army forces to operate effectively in contested space, missile defense and cyber environments. Developed effective Integrated Missile Defense (IMD) concepts for Army support to the Phased Adaptive Approach (PAA) being implemented within each regional COCOM. Based on a successful evaluation of Air/Event Information Sharing Services into NORTHCOM J6 decision support systems supported the transition of the application to a Joint Capabilities Technical Demonstration (JCTD). Supported TRADOC proponents with their responsibilities relative to doctrine, organization, training, material, leader development and education, personnel, and facilities plus related matters to continue leveraging space, missile defense, and high altitude proponent input to Joint Capabilities Integration and Development System, Science and Technology, Concept Development, Capability Development for Rapid Transition, and Capability Gap Analysis Army. Designed, fabricated and tested component to develop a test-bed for enhanced thermal management technologies supporting missiles/Tactical Operation Centers (TOCs)/shelters and other systems utilizing mobile thermal management in realistic operating environments. Based on successful component selection and evaluation, significant improvements in projected efficiencies have been demonstrated with these enhanced thermal management technologies. FY 2014 Plans: Take the lessons learned from the FY13 efforts to continue to evaluate new technologies in realistic operating environments. This is accomplished by participating in and providing support to Unified Quest wargames and experiments to analyze and integrate technology to identify the feasibility integration into Army space, missile defense, and high altitude systems. The Space and Missile Defense Command will participate and support biennial rewrites of Army Capstone, Operational and Functional Concepts. Continue to provide operational manager support to STRATCOM, NORTHCOM and SOCOM Joint Technical Capability Demonstrations 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 Ballistic Missile Defense (BMD) as it is applied to each of the regional COCOMs; and experimenting with operationally responsive space, space control, and high altitude capabilities to ensure the broader Army enterprises can 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					

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B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)			FY 2013	FY 2014	FY 2015
Adaptive Approach (PAA) being implemented within each regional COCOM. Based on the successful evaluation of Air/Event Information Sharing Services into NORTHCOM J6 decision support systems, we will support the transition of the application to a Joint Capabilities Technical Demonstration (JCTD). Will support TRADOC proponents with their responsibilities relative to doctrine, organization, training, material, leader development and education, personnel, and facilities plus related matters to continue leveraging space, missile defense, and high altitude proponent input to Joint Capabilities Integration and Development System, Science and Technology, Concept Development, Capability Development for Rapid Transition, and Capability Gap Analysis Army We will sustain our core prototyping platforms, as outlined above. BC3 will be upgraded to more realistically address information flows related to Close Air Support. Continue fabrication and test of components to develop a test-bed for enhanced thermal management technologies supporting missiles/TOCS/shelters and other systems utilizing mobile thermal management in realistic operating environments. Selected components will be integrated with battlefield applications to support demonstrations of projected efficiencies with identified enhanced thermal management technologies. FY 2015 Plans: Take the lessons learned from the FY14 efforts to continue to evaluate new technologies in realistic operating environments. This is accomplished by participating in and providing support to Unified Quest wargames and experiments to analyze and integrate technology to identify the feasibility integration into Army space, missile defense, and high altitude systems. The Space and Missile Defense Command will participate and support biennial rewrites of Army Capstone, Operational and Functional Concepts. Continue to provide operational manager support to STRATCOM, NORTHCOM and SOCOM Joint Technical Capability Demonstrations 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 Ballistic Missile Defense (BMD) as it is applied to each of the regional COCOMs; and experimenting with operationally responsive space, space control, and high altitude capabilities to ensure the broader Army enterprises can 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. Will support TRADOC proponents with their responsibilities relative to doctrine, organization, training, material, leader development and education, personnel, and facilities plus related matters to continue leveraging space, missile defense, and high altitude proponent input to Joint Capabilities Integration and Development System, Science and Technology, Concept Development, Capability Development for Rapid Transition, and Capability Gap Analysis Army We will sustain our core prototyping platforms, as outlined above. Battlespace Command and Control Center (BC3) will be upgraded to more realistically address information flows related to Close Air Support.					

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B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)		FY 2013	FY 2014
Support MDA to Army BMDS element transition and transfer efforts including BMDS sensor deployments. Develop/defend Army requirements development / documentation to MDA spiral/block development.			
Title: Analysis, and Models and Simulations (M&S)		5.844	6.195
Articles:		-	-
Description: Funding is provided for the following efforts			
FY 2013 Accomplishments: Took the lessons learned from the FY12 efforts to continue to evaluate new technologies in realistic operating environments. This was accomplished by supporting ongoing efforts that provided the most realistic operating environment available to perform technology gap and cost reduction analysis of space, missile defense, and high altitude systems. Realistic operating environments were available to determine the ability of the specific technologies to fill capability gaps in terms of utility to the warfighter. Support of technology demonstrations, Analysis and Demonstration Tools/Test Beds for evolving space superiority and operationally responsive space concepts addressed emerging needs and continued to be expanded to ensure that advanced technology development adequately enhanced address space, missile defense and high altitude systems. The Future Warfare Center (FWC) continued to provide program management for maintenance, sustainment, and development for Extended Air Defense Simulation (EADSIM), to provide the required fidelity for a synthetic operating environment and the capability to perform system and cost benefit analysis.			
FY 2014 Plans: Take the lessons learned from the FY13 efforts to continue to evaluate new technologies in realistic operating environments. This will be accomplished by supporting ongoing efforts that provide the most realistic operating environment available to perform technology gap and cost reduction analysis of space, missile defense, and high altitude systems. Realistic operating environments will be available to determine the ability of the specific technologies to fill capability gaps in terms of utility to the warfighter. Support of technology demonstrations, Analysis and Demonstration Tools/Test Beds for evolving space superiority and operationally responsive space concepts will address emerging needs and continue to be expanded to ensure that advanced technology development can adequately enhance space, missile defense and high altitude systems. The FWC will continue to provide program management for maintenance, sustainment, and development for Extended Air Defense Simulation (EADSIM), to provide the required fidelity for a synthetic operating environment to provide the capability to perform system and cost benefit analysis, operational planning, and exercise/experimentation support.			
FY 2015 Plans: : Take the lessons learned from the FY14 efforts to continue to evaluate new technologies in realistic operating environments. This will be accomplished by supporting ongoing efforts that provide the most realistic operating environment available to perform technology gap and cost reduction analysis of space, missile defense, and high altitude systems. Realistic operating			

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B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each) environments will be available to determine the ability of the specific technologies to fill capability gaps in terms of utility to the warfighter. Support of technology demonstrations, Analysis and Demonstration Tools/Test Beds for evolving space superiority and operationally responsive space concepts will address emerging needs and continue to be expanded to ensure that advanced technology development can adequately enhance space, missile defense and high altitude systems. The FWC will continue to provide program management for maintenance, sustainment, and development for EADSIM delivering the required high fidelity synthetic operating environment to provide the capability to perform system and cost benefit analysis, operational planning, and exercise/ experimentation support		FY 2013	FY 2014	FY 2015
Accomplishments/Planned Programs Subtotals		22.340	23.289	12.797
C. Other Program Funding Summary (\$ in Millions) N/A Remarks D. Acquisition Strategy Not applicable for this item. E. Performance Metrics N/A				

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2015 Army												Date: March 2014			
Appropriation/Budget Activity 2040 / 4						R-1 Program Element (Number/Name) PE 0603305A / Army Missile Defense Systems Integration						Project (Number/Name) TR5 / Missile Defense Battlelab			
Support (\$ in Millions)				FY 2013		FY 2014		FY 2015 Base		FY 2015 OCO		FY 2015 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Experiments & technology enhancements of prototypes/tools and analysis.	Various	Various Colorado Springs CO and Huntsville AL : Alabama, Colorado Springs	52.902	14.675		13.314		3.772		-		3.772	Continuing	Continuing	Continuing
Govt Support and Support Contracts	Various	Various Colorado Springs CO and Huntsville AL : Alabama, Colorado Springs	85.112	7.665		9.975		9.025		-		9.025	Continuing	Continuing	Continuing
Small Business Innovation Research/Small Business Technology Transfer Program	Various	Various : Various	0.155	-		-		-		-		-	Continuing	Continuing	-
Subtotal			138.169	22.340		23.289		12.797		-		12.797	-	-	-
			Prior Years	FY 2013		FY 2014		FY 2015 Base		FY 2015 OCO		FY 2015 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals			138.169	22.340		23.289		12.797		-		12.797	-	-	-
Remarks															

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Exhibit R-4, RDT&E Schedule Profile: PB 2015 Army			Date: March 2014		
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	FY 2013				FY 2014				FY 2015				FY 2016				FY 2017				FY 2018				FY 2019			
	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
Experiments & technology enhancements of prototypes/tools and analysis.																												
Release of Extended Air Defense Simulation Updates																												
Integrated Air and Missile Defense Analysis.																												
Offensive/Defensive Integration																												
Integrated Air and Missile Defense Battle Command System Study																												
Defense Design Shortfalls and Vulnerability																												
Operational Analysis in Support of Joint Functional Component Command for IMD																												
Electric Fires Analysis																												
ENBAD Analysis																												
An/TPY-2 FBM Capability Production Document																												
AN/TPY-2 FBM Transition and Transfer																												
AN/TPY-2 FBM DOTMLPF Integrated Change Recommendation																												
AN/TPY-2 FBM Transition from MDA to Army																												

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Exhibit R-4A, RDT&E Schedule Details: PB 2015 Army			Date: March 2014
Appropriation/Budget Activity 2040 / 4	R-1 Program Element (Number/Name) PE 0603305A / <i>Army Missile Defense Systems Integration</i>	Project (Number/Name) TR5 / <i>Missile Defense Battlelab</i>	

Schedule Details

Events	Start		End	
	Quarter	Year	Quarter	Year
Experiments & technology enhancements of prototypes/tools and analysis.	1	2012	4	2019
Release of Extended Air Defense Simulation Updates	4	2014	4	2014
Integrated Air and Missile Defense Analysis.	1	2013	4	2013
Offensive/Defensive Integration	3	2013	4	2014
Integrated Air and Missile Defense Battle Command System Study	1	2014	2	2014
Defense Design Shortfalls and Vulnerability	1	2014	4	2014
Operational Analysis in Support of Joint Functional Component Command for IMD	1	2014	4	2019
Electric Fires Analysis	1	2014	4	2014
ENBAD Analysis	3	2013	1	2015
An/TPY-2 FBM Capability Production Document	4	2013	4	2013
AN/TPY-2 FBM Transition and Transfer	3	2014	3	2014
AN/TPY-2 FBM DOTMLPF Integrated Change Recommendation	3	2017	3	2017
AN/TPY-2 FBM Transition from MDA to Army	1	2015	4	2017