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Exhibit R-2, RDT&E Budget Item Justification: PB 2013 Army	DATE: February 2012
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APPROPRIATION/BUDGET ACTIVITY				R-1 ITEM NOMENCLATURE							
2040: <i>Research, Development, Test & Evaluation, Army</i> BA 4: <i>Advanced Component Development & Prototypes (ACD&P)</i>				PE 0604115A: <i>TECHNOLOGY MATURATION INITIATIVES</i>							
COST (\$ in Millions)	FY 2011	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total	FY 2014	FY 2015	FY 2016	FY 2017	Cost To Complete	Total Cost
Total Program Element	3.000	10.165	24.868	-	24.868	74.756	116.187	99.861	125.791	Continuing	Continuing
DS3: <i>TECHNOLOGY MATURATION INITIATIVES</i>	3.000	10.165	24.868	-	24.868	74.756	116.187	99.861	125.791	Continuing	Continuing

Note

FY11 funding increase for radar research via Prior Approval Reprogramming.

FY13 funding increase for Analysis of Alternatives (AoA) transfer, a pilot program to centrally fund the analysis of alternatives for new programs that have a material development decision but have not been assigned to a program manager for material development.

A. Mission Description and Budget Item Justification

This Program Element (PE) develops and demonstrates selected technology enabled capabilities to support advanced ground and aviation systems, precision weapons, and soldier equipment. Funding facilitates demonstration of relatively mature technologies and systems in relevant environments and tactical / operational scenarios, taking technologies through and beyond Technology Readiness Level (TRL) 6. Efforts include competitive prototyping earlier in development to facilitate transition of new capabilities into acquisition programs of record. Efforts funded will be selected by an Army Senior Executive Steering Committee to ensure that demonstrations have high potential for filling capability gaps and transition. This PE provides the Army an improved mechanism for fulfilling the goals of the Weapon Systems Acquisition Reform Act (WSARA) of 2009 by enabling greater competition in the latter stages of technology maturation and establishes a closer alignment between Science and Technology (S&T) programs and acquisition programs. This PE also provides analytical support for Analysis of Alternatives (AoA), a pilot program to centrally fund the analysis of alternatives for new programs that have a material development decision but have not been assigned to a program manager for material development. Funding for this effort was previously contained in 0605803A, project 733 in FY12.

The cited work is consistent with the Assistant Secretary of Defense, Research and Engineering science and technology priority focus areas and the Army Modernization Strategy.

Work in this PE is performed by the Research, Development and Engineering Command (RDECOM), Engineering Research Development Center (ERDC), and/or Space and Missile Defense Command (SMDC).

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APPROPRIATION/BUDGET ACTIVITY		R-1 ITEM NOMENCLATURE			
2040: Research, Development, Test & Evaluation, Army		PE 0604115A: TECHNOLOGY MATURATION INITIATIVES			
BA 4: Advanced Component Development & Prototypes (ACD&P)					
B. Program Change Summary (\$ in Millions)	FY 2011	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total
Previous President's Budget	-	10.181	19.771	-	19.771
Current President's Budget	3.000	10.165	24.868	-	24.868
Total Adjustments	3.000	-0.016	5.097	-	5.097
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	3.000	-			
• SBIR/STTR Transfer	-	-			
• Adjustments to Budget Years	-	-0.016	5.097	-	5.097

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Exhibit R-2A, RDT&E Project Justification: PB 2013 Army									DATE: February 2012		
APPROPRIATION/BUDGET ACTIVITY 2040: Research, Development, Test & Evaluation, Army BA 4: Advanced Component Development & Prototypes (ACD&P)				R-1 ITEM NOMENCLATURE PE 0604115A: TECHNOLOGY MATURATION INITIATIVES				PROJECT DS3: TECHNOLOGY MATURATION INITIATIVES			
COST (\$ in Millions)	FY 2011	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total	FY 2014	FY 2015	FY 2016	FY 2017	Cost To Complete	Total Cost
DS3: TECHNOLOGY MATURATION INITIATIVES	3.000	10.165	24.868	-	24.868	74.756	116.187	99.861	125.791	Continuing	Continuing
Quantity of RDT&E Articles											

Note

Not applicable for this item.

A. Mission Description and Budget Item Justification

This Project develops and demonstrates selected technology enabled capabilities to support advanced ground and aviation systems, precision weapons, and soldier equipment. Funding facilitates demonstration of relatively mature technologies and systems in relevant environments and tactical/operations scenarios, taking technologies through and beyond Technology Readiness Level (TRL) 6. Efforts include competitive prototyping earlier in development to facilitate transition of new capabilities into acquisition programs of record. Efforts funded will be selected by an Army Senior Executive Steering Group (ESG) to ensure that demonstrations have high potential for filling capability gaps and transition. This PE provides the Army an improved mechanism for fulfilling the goals of the Weapon Systems Acquisition Reform Act (WSARA) of 2009 by enabling greater competition in the latter stages of technology maturation and establishes a closer alignment between Science and Technology (S&T) programs and acquisition programs. This PE also provides analytical support for Analysis of Alternatives (AoA), a pilot program to centrally fund the analysis of alternatives for new programs that have a material development decision but have not been assigned to a program manager for material development. Funding for this effort was previously contained in in 0605803A, project 733 in FY12.

The cited work is consistent with the Assistant Secretary of Defense, Research and Engineering science and technology priority focus areas and the Army Modernization Strategy.

Work in the PE is performed by the Research, Development and Engineering Command (RDECOM), Engineering Research Development Center (ERDC), and/or the Space and Missile Defense Command (SMDC).

B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)

	FY 2011	FY 2012	FY 2013
Title: Design, Fabricate, Evaluate, and Demonstrate	-	10.165	13.997
Articles:		0	
Description: This effort will establish the Senior ESC, including governance, and select technologies in advanced ground systems, aviation systems, precision weapons, and/or soldier equipment that show high promise for achieving full potential to execute the necessary continuation of design, fabrication, evaluation, and demonstration within a high fidelity and realistic operating environment to transition into formal programs of record.			
FY 2012 Plans:			

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APPROPRIATION/BUDGET ACTIVITY 2040: Research, Development, Test & Evaluation, Army BA 4: Advanced Component Development & Prototypes (ACD&P)	R-1 ITEM NOMENCLATURE PE 0604115A: TECHNOLOGY MATURATION INITIATIVES	PROJECT DS3: TECHNOLOGY MATURATION INITIATIVES		
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)		FY 2011	FY 2012	FY 2013
Initiate five technology maturation and/or prototyping efforts: Integrated Soldier Power and Data Systems (\$1.5 million); Azimuth and Vertical Angle Module (AVAM) for the Joint Effects Targeting System (\$2 million); Next Generation Wireless Communications for Logistics (\$2 million); Tier 1 Soldier Battery Charger (\$1.17 million); and Advanced Weapon Sight Technology for Family of Weapon Sights (\$2 million). FY 2013 Plans: Will mature one or more technology-enabled capability prototyping efforts initiated with FY12 funds; develop test parameters and assessment criteria for these efforts. Will select one or more technology-enabled capability prototyping efforts and initiate with FY13 funds.				
Title: Analytical Support for Analysis of Alternatives Description: This effort provides analytical support for Analysis of Alternatives (AoA). In FY12, this effort was funded in Program Element 0605803A, project 733. FY 2013 Plans: Will support a pilot program to centrally fund the analysis of alternatives for new programs that have a material development decision but have not been assigned to a program manager for material development.		-	-	10.871
Title: Groundhog Articles: Description: Groundhog is a Ground Penetrating Radar (GPR) system that uniquely improves route clearance detection capabilities. This program is executed by the U.S. Army Engineer Research and Development Center. FY 2011 Accomplishments: The Fiscal Year 2011 Omnibus Reprogramming redirected funds of \$3 million to support the Fiscal Year 2012 effort of field assessments (including in theater assessments) and technology maturation/ improvements based on end-user feedback of the Groundhog system.		3.000 0	-	-
Accomplishments/Planned Programs Subtotals		3.000	10.165	24.868
C. Other Program Funding Summary (\$ in Millions) N/A				
D. Acquisition Strategy Multiple competitive contracts will be awarded based on selection of efforts from the Senior ESC. The various developmental programs in this project will continue to exercise competitively awarded contracts using best value source selection procedures.				

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APPROPRIATION/BUDGET ACTIVITY 2040: <i>Research, Development, Test & Evaluation, Army</i> BA 4: <i>Advanced Component Development & Prototypes (ACD&P)</i>	R-1 ITEM NOMENCLATURE PE 0604115A: <i>TECHNOLOGY MATURATION INITIATIVES</i>	PROJECT DS3: <i>TECHNOLOGY MATURATION INITIATIVES</i>

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 2013 Army											DATE: February 2012		
APPROPRIATION/BUDGET ACTIVITY					R-1 ITEM NOMENCLATURE				PROJECT				
2040: Research, Development, Test & Evaluation, Army BA 4: Advanced Component Development & Prototypes (ACD&P)					PE 0604115A: TECHNOLOGY MATURATION INITIATIVES				DS3: TECHNOLOGY MATURATION INITIATIVES				
Product Development (\$ in Millions)				FY 2012		FY 2013 Base		FY 2013 OCO		FY 2013 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
Integrated Soldier Power and Data System	C/FFP	TBD:TBD	-	1.500		0.500		-		0.500	0.000	2.000	0.000
Azimuth and Vertical Angle Module (AVAM) for the Joint Effects Targeting System (JETS)	C/CPFF	TBD:TBD	-	1.996		1.000		-		1.000	0.000	2.996	0.000
Next Generation Wireless communications (NGWC) for Logistics	SS/IDIQ	ARINC:Annapolis, MD	-	1.996		2.000		-		2.000	0.000	3.996	0.000
Tier 1 Soldier Battery Charger	C/FFP	TBD:TBD	-	1.168		0.830		-		0.830	0.000	1.998	0.000
Advanced Weapon Sight Technology for Family of Weapon Sights (FWS)	C/FFP	TBD:TBD	-	1.996		0.960		-		0.960	0.000	2.956	0.000
Groundhog	MIPR	MIT Lincoln Labs:Lexington, MA	0.095	-		-		-		-	0.000	0.095	0.000
Groundhog	RO	Stolar, Inc:Raton, NM	1.675	-		-		-		-	0.000	1.675	0.000
Groundhog	Allot	Engineer Research, Development and Engineering Center:Hanover, NH	1.230	-		-		-		-	0.000	1.230	0.000
S&T Technology Maturation and Prototyping	C/TBD	TBD:TBD	-	1.509		8.707		-		8.707	0.000	10.216	0.000
Subtotal			3.000	10.165		13.997		-		13.997	0.000	27.162	0.000
Support (\$ in Millions)				FY 2012		FY 2013 Base		FY 2013 OCO		FY 2013 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
Analytical Support for Analysis of Alternatives	C/TBD	TBD:TBD	-	-		10.871		-		10.871	0.000	10.871	0.000
Subtotal			-	-		10.871		-		10.871	0.000	10.871	0.000

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APPROPRIATION/BUDGET ACTIVITY 2040: Research, Development, Test & Evaluation, Army BA 4: Advanced Component Development & Prototypes (ACD&P)				R-1 ITEM NOMENCLATURE PE 0604115A: TECHNOLOGY MATURATION INITIATIVES				PROJECT DS3: TECHNOLOGY MATURATION INITIATIVES			
	Total Prior Years Cost	FY 2012		FY 2013 Base		FY 2013 OCO		FY 2013 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	3.000	10.165		24.868		-		24.868	0.000	38.033	0.000

Remarks

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Exhibit R-4, RDT&E Schedule Profile: PB 2013 Army																DATE: February 2012			
APPROPRIATION/BUDGET ACTIVITY 2040: <i>Research, Development, Test & Evaluation, Army</i> BA 4: <i>Advanced Component Development & Prototypes (ACD&P)</i>								R-1 ITEM NOMENCLATURE PE 0604115A: <i>TECHNOLOGY MATURATION INITIATIVES</i>								PROJECT DS3: <i>TECHNOLOGY MATURATION INITIATIVES</i>			

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Exhibit R-4A, RDT&E Schedule Details: PB 2013 Army			DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 2040: <i>Research, Development, Test & Evaluation, Army</i> BA 4: <i>Advanced Component Development & Prototypes (ACD&P)</i>	R-1 ITEM NOMENCLATURE PE 0604115A: <i>TECHNOLOGY MATURATION INITIATIVES</i>	PROJECT DS3: <i>TECHNOLOGY MATURATION INITIATIVES</i>	

Schedule Details

Events	Start		End	
	Quarter	Year	Quarter	Year
FY12 Technology(s) Selection Process	1	2012	1	2012
Integrated Soldier Power & Data System (ISPDS)	2	2012	2	2013
Azimuth & Vertical Angle Module for Joint Effects Targeting System (JETS)	2	2012	3	2013