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Exhibit R-2, RDT&E Budget Item Justification: PB 2014 Army										DATE: April 2013		
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							
COST (\$ in Millions)	All Prior Years	FY 2012	FY 2013 [#]	FY 2014 Base	FY 2014 OCO ^{##}	FY 2014 Total	FY 2015	FY 2016	FY 2017	FY 2018	Cost To Complete	Total Cost
Total Program Element	-	11.839	24.868	55.605	-	55.605	64.088	62.779	60.745	60.920	Continuing	Continuing
DS3: TECHNOLOGY MATURATION INITIATIVES	-	8.339	24.868	46.116	-	46.116	53.164	52.250	50.420	50.420	Continuing	Continuing
DX1: Analysis of Alternatives	-	3.500	0.000	9.489	-	9.489	10.924	10.529	10.325	10.500	Continuing	Continuing
[#] FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012												
^{##} The FY 2014 OCO Request will be submitted at a later date												
Note												
FY14 funding decrease to support higher priority efforts.												
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 Group 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). It is used to centrally funds AoAs for new program starts that require an material development decision and do not yet have a Program Manager assigned for material development.												
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), U.S. Army TRADOC Analysis Center (TRAC), U.S. Army Material Systems Analysis Activity (AMSAA), 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 2012	FY 2013	FY 2014 Base	FY 2014 OCO	FY 2014 Total
Previous President's Budget	10.165	24.868	74.756	-	74.756
Current President's Budget	11.839	24.868	55.605	-	55.605
Total Adjustments	1.674	0.000	-19.151	-	-19.151
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	2.000	-			
• SBIR/STTR Transfer	-0.326	-			
• Adjustments to Budget Years	-	-	-19.151	-	-19.151

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Exhibit R-2A, RDT&E Project Justification: PB 2014 Army									DATE: April 2013			
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)	All Prior Years	FY 2012	FY 2013 [#]	FY 2014 Base	FY 2014 OCO ^{##}	FY 2014 Total	FY 2015	FY 2016	FY 2017	FY 2018	Cost To Complete	Total Cost
DS3: TECHNOLOGY MATURATION INITIATIVES	-	8.339	24.868	46.116	-	46.116	53.164	52.250	50.420	50.420	Continuing	Continuing
Quantity of RDT&E Articles												
# FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012												
## The FY 2014 OCO Request will be submitted at a later date												
Note N/A												
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 transitioning. 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 establishing a closer alignment between Science and Technology (S&T) programs and acquisition programs. This project also provides analytical support for AoAs in FY 13. To qualify for funding, a material development decision will be required. 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), the Space and Missile Defense Command (SMDC), U.S Army TRADOC Analysis Center (TRAC) and U.S. Army Materiel Systems Analysis Activity (AMSAA).												
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)									FY 2012	FY 2013	FY 2014	
Title: Design, Fabricate, Evaluate, and Demonstrate									8.339	13.997	46.116	
									0	0		
Description: This effort selects 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 Accomplishments:												

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Exhibit R-2A, RDT&E Project Justification: PB 2014 Army		DATE: April 2013	
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>
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)		FY 2012	FY 2013
Initiated five technology maturation and/or prototyping efforts: Integrated Soldier Power and Data Systems (\$1.4 million); Azimuth and Vertical Angle Module (AVAM) for the Joint Effects Targeting System (\$1.9 million); Next Generation Wireless Communications for Logistics (\$1.9 million); Tier 1 Soldier Battery Charger (\$1.1 million); and Advanced Weapon Sight Technology for Family of Weapon Sights (\$1.9 million).			
FY 2013 Plans: Matures five technology-enabled capability prototyping efforts initiated with FY12 funds; develops test parameters and assessment criteria and transitions these efforts to Programs of Record. Initiates five technology maturation and/or prototyping efforts: Small Aperture X-Band Antenna (SAXBA)-Broadband; Common Fire Extinguishing System; Efficient Power Takeoff; High Performance Lightweight Track; Load-Distributing Expandable Armor System (LEXAS).			
FY 2014 Plans: Will mature one or more technology-enabled capability maturation/prototyping efforts initiated with FY13 funds; will develop test parameters and assessment criteria and transition these efforts to Programs of Record. Will select one or more technology maturation/prototyping efforts and initiate with FY14 funds			
Title: Analytical Support for Analysis of Alternatives (AoA) Articles:		0.000	10.871 0
Description: This effort provides FY 13 analytical support for Analysis of Alternatives (AoA). FY 2013 Plans: Centrally fund the analysis of alternatives for new programs that have a material development decision.			0.000
Accomplishments/Planned Programs Subtotals		8.339	24.868
C. Other Program Funding Summary (\$ in Millions) N/A			
Remarks			
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.			
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 2014 Army												DATE: April 2013			
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>			
Product Development (\$ in Millions)				FY 2012		FY 2013		FY 2014 Base		FY 2014 OCO		FY 2014 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	Cost	Award Date	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/CPFF	Ultra Electronics AMI:Ann Arbor, MI	0.000	1.443		0.500		-		-		-	0.000	1.943	0.000
Azimuth and Vertical Angle Module (AVAM) for the Joint Effects Targeting System (JETS)	C/CPFF	Crossbow; Toyon Research/Sensor In Motion; Irvine Sensors:Milpitas, CA; Goleta, CA; Irvine, CA	0.000	1.925	Feb 2012	1.000		-		-		-	0.000	2.925	0.000
Next Generation Wireless communications (NGWC) for Logistics	SS/IDIQ	ARINC/Booz Allen Hamilton:Annapolis, MD	0.000	1.925	Dec 2012	2.000		-		-		-	0.000	3.925	0.000
Tier 1 Soldier Battery Charger	C/FFP	DSCP; Thales Communications:Clarksburg, MD	0.000	1.121	Feb 2012	0.830		-		-		-	0.000	1.951	0.000
Advanced Weapon Sight Technology for Family of Weapon Sights (FWS)	C/CPFF	Alion; N2:Alexandria, VA; Irvine, CA	0.000	1.925	Mar 2012	0.960		-		-		-	0.000	2.885	0.000
Small Aperture X-Band Antenna (SAXBA) -- Broadband	C/TBD	TBD:TBD	0.000	-		1.967		1.430		-		1.430	0.000	3.397	0.000
Common Fire Extinguishing System	C/TBD	TBD:TBD	0.000	-		1.491		1.200		-		1.200	0.000	2.691	0.000
Efficient Power Takeoff	C/TBD	TBD:TBD	0.000	-		1.869		-		-		-	0.000	1.869	0.000
High Performance Lightweight Track	C/TBD	TBD:TBD	0.000	-		1.197		-		-		-	0.000	1.197	0.000
Load-Distributing Expandable Armor System (LEXAS)	C/TBD	TBD:TBD	0.000	-		2.183		2.500		-		2.500	0.000	4.683	0.000
S&T Technology Maturation and Prototyping	C/FFP	TBD:TBD	0.000	-		-		40.986		-		40.986	0.000	40.986	0.000
Subtotal			0.000	8.339		13.997		46.116		0.000		46.116	0.000	68.452	0.000

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Army												DATE: April 2013			
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>			

Support (\$ in Millions)				FY 2012		FY 2013		FY 2014 Base		FY 2014 OCO		FY 2014 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	Cost	Award Date	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	GMLRS Inc 4:TRAC and AMSAA	0.000	-		10.871		-		-		-	0.000	10.871	0.000
Subtotal			0.000	0.000		10.871		0.000		0.000		0.000	0.000	10.871	0.000

	All Prior Years	FY 2012	FY 2013	FY 2014 Base	FY 2014 OCO	FY 2014 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	0.000	8.339	24.868	46.116	0.000	46.116	0.000	79.323	0.000

Remarks

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Exhibit R-4, RDT&E Schedule Profile: PB 2014 Army **DATE:** April 2013

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</i> <i>MATURATION INITIATIVES</i>	PROJECT DS3: <i>TECHNOLOGY MATURATION</i> <i>INITIATIVES</i>
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	FY 2012				FY 2013				FY 2014				FY 2015				FY 2016				FY 2017				FY 2018			
	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
Integrated Soldier Power & Data System (ISPDS)																												
Azimuth & Vertical Angle Module for Joint Effects Targeting System (JETS)																												
Next Generation Wireless Communications																												
Tier 1 Soldier Battery Charger																												
Alternative Weapons Sight Technology for Family of Weapons Systems (FWS)																												
FY13 Technology(s) Selection Process																												
Small Aperture X-Band Antenna (SAXBA) -- Broadband																												
Common Fire Extinguishing System																												
Efficient Power Takeoff																												
High Performance Lightweight Track																												
Load-Distributing Expandable Armor System																												
FY 13 GMLRS Inc 4 AoA																												
FY14 Technology(s) Selection Process																												

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Exhibit R-4A, RDT&E Schedule Details: PB 2014 Army	DATE: April 2013
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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>
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Schedule Details

Events	Start		End	
	Quarter	Year	Quarter	Year
Integrated Soldier Power & Data System (ISPDS)	2	2012	2	2013
Azimuth & Vertical Angle Module for Joint Effects Targeting System (JETS)	2	2012	3	2013
Next Generation Wireless Communications	2	2012	4	2013
Tier 1 Soldier Battery Charger	2	2012	2	2013
Alternative Weapons Sight Technology for Family of Weapons Systems (FWS)	2	2012	4	2013
FY13 Technology(s) Selection Process	3	2012	3	2012
Small Aperture X-Band Antenna (SAXBA) -- Broadband	1	2013	3	2014
Common Fire Extinguishing System	1	2013	4	2014
Efficient Power Takeoff	1	2013	4	2013
High Performance Lightweight Track	2	2013	4	2013
Load-Distributing Expandable Armor System	1	2013	4	2014
FY 13 GMLRS Inc 4 AoA	2	2013	4	2013
FY14 Technology(s) Selection Process	3	2013	3	2013

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Exhibit R-2A, RDT&E Project Justification: PB 2014 Army										DATE: April 2013		
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</i> <i>MATURATION INITIATIVES</i>				PROJECT DX1: <i>Analysis of Alternatives</i>			
COST (\$ in Millions)	All Prior Years	FY 2012	FY 2013[#]	FY 2014 Base	FY 2014 OCO ^{##}	FY 2014 Total	FY 2015	FY 2016	FY 2017	FY 2018	Cost To Complete	Total Cost
DX1: <i>Analysis of Alternatives</i>	-	3.500	0.000	9.489	-	9.489	10.924	10.529	10.325	10.500	Continuing	Continuing
Quantity of RDT&E Articles												
[#] FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012 ^{##} The FY 2014 OCO Request will be submitted at a later date												
A. Mission Description and Budget Item Justification This effort provides analytical support for Analysis of Alternatives (AoA). To qualify for funding a material development decision will be required and none of the funds can be obligated or expended to initiate an AoA without 30-day prior notification to the Congressional Defense Committees identifying the purpose of the AoA and certifying its full funding. Work in the PE is performed by U.S. Army TRADOC Analysis Center (TRAC) and the U.S. Army Materiel Systems Analysis Activity (AMSAA).												
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)										FY 2012	FY 2013	FY 2014
Title: Analytical Support for Analysis of Alternatives <div style="text-align: right;">Articles:</div> Description: This effort provides analytical support for Analysis of Alternatives (AoA). In FY13, this effort was funded in Program Element 0604115, project DS3. FY 2012 Accomplishments: This PE centrally funds the analysis of alternatives for new programs that have a material development decision. FY 2014 Plans: Centrally funds the analysis of alternatives for new programs that have a material development decision.										3.500 0	0.000	9.489
Accomplishments/Planned Programs Subtotals										3.500	0.000	9.489
C. Other Program Funding Summary (\$ in Millions) N/A Remarks D. Acquisition Strategy N/A												

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Exhibit R-2A, RDT&E Project Justification: PB 2014 Army		DATE: April 2013
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</i> <i>MATURATION INITIATIVES</i>	PROJECT DX1: <i>Analysis of Alternatives</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 2014 Army													DATE: April 2013		
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</i> <i>MATURATION INITIATIVES</i>					PROJECT DX1: <i>Analysis of Alternatives</i>			

Support (\$ in Millions)				FY 2012		FY 2013		FY 2014 Base		FY 2014 OCO		FY 2014 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	Cost	Award Date	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	TBD	TBD:TBD	0.000	3.500		-		9.489	Dec 2013	-		9.489	0.000	12.989	0.000
Subtotal			0.000	3.500		0.000		9.489		0.000		9.489	0.000	12.989	0.000

	All Prior Years	FY 2012		FY 2013		FY 2014 Base		FY 2014 OCO		FY 2014 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	0.000	3.500		0.000		9.489		0.000		9.489	0.000	12.989	0.000

Remarks

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Exhibit R-4, RDT&E Schedule Profile: PB 2014 Army																								DATE: April 2013															
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 DX1: <i>Analysis of Alternatives</i>															
												FY 2012				FY 2013				FY 2014				FY 2015				FY 2016				FY 2017				FY 2018			
												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
Identify Candidates for AoA funding																																							

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Exhibit R-4A, RDT&E Schedule Details: PB 2014 Army		DATE: April 2013
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</i> <i>MATURATION INITIATIVES</i>	PROJECT DX1: <i>Analysis of Alternatives</i>

Schedule Details

Events	Start		End	
	Quarter	Year	Quarter	Year
Identify Candidates for AoA funding	1	2014	4	2014