Exhibit R-2, RDT&E Budget Item Justification: PB 2014 Army DATE: April 2013

APPROPRIATION/BUDGET ACTIVITY **R-1 ITEM NOMENCLATURE**

2040: Research, Development, Test & Evaluation, Army PE 0203758A: Digitization

BA 7: Operational Systems Development

·												
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	-	7.771	35.180	6.186	-	6.186	11.388	10.705	9.375	9.360	Continuing	Continuing
374: HOR BATTLEFLD DIGITIZN	-	7.771	35.180	6.186	-	6.186	11.388	10.705	9.375	9.360	Continuing	Continuing

FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012

Note

Not applicable for this item.

A. Mission Description and Budget Item Justification

Horizontal Battlefield Digitization is a strategy that allows warfighters, from the individual soldier and platform to echelons above corps, to share critical situation awareness (SA) and command and control (C2) information. It conducts analysis and evaluation of new information technologies, concepts, and applications of integrated management activities to meet the dynamic Army acquisition technology requirements. The strategy applies digital information technologies to acquire, exchange, and employ data throughout the operational environment, and provides a clear and accurate common operational picture for leaders at all levels. This timely sharing of information significantly improves the ability of commanders and leaders to guickly make decisions, synchronize forces and fires, and increase the operational tempo. Digitization is a means of realizing a fully integrated C2/SA capability to the platoon level, including interoperability links with joint and multinational ground forces. The major efforts included in the program element are: 1) Integration and synchronization of the Army's interoperability efforts, coordination of interoperability efforts between joint and multi-national forces, and the synchronization of combat material and training efforts to develop Army information technologies; 2) Systems engineering and integration of hardware and software interfaces between and across the warfighting functions and across multiple Program Executive Offices, providing System of Systems (SOS) capabilities that satisfy warfighter requirements and enable the execution of mission operations by providing one Common Operational Picture (COP)/Common Tactical Picture (CTP). 3) Oversee and support synchronization of LandWarNet Battle Command capabilities and ensure interoperability across the current and future force. 4) Support fielding of integrated systems to Active and Reserve Components (USARNG and USAR) in accordance with Army Force Generation (ARFORGEN). 5) Support of the the Army Equipping Enterprise System (AE2S) integration of the Force Development Investment Information System (FDIIS), Army Flow Model (AFM), and the Continuing Early Validation (CEaVa) programs into a single integrated system. This supports the Army's Equipping Strategy Army Force Generation, ARFORGEN, and consolidates capabilities to gain efficiencies. IAW the National Defense Authorization Act 804 and OSD's report to congress, Army is poised to implement the "Agile Business Process" that will result in an iterative and incremental approach to software development and hardware/software capability integration. This process will improve effectiveness in the identification, assessment and acquisition of capability solutions for the Army Network.

PE 0203758A: Digitization

UNCLASSIFIED

R-1 Line #166

^{##} The FY 2014 OCO Request will be submitted at a later date

Exhibit R-2, RDT&E Budget Item Justification: PB 2014 Army

DATE: April 2013

APPROPRIATION/BUDGET ACTIVITY

2040: Research, Development, Test & Evaluation, Army

BA 7: Operational Systems Development

R-1 ITEM NOMENCLATURE
PE 0203758A: Digitization

FY 2012 FY 2013 FY 2014 Base FY 2014 OCO FY 2014 Total **B. Program Change Summary (\$ in Millions)** Previous President's Budget 35.180 9.162 8.016 9.162 Current President's Budget 7.771 35.180 6.186 6.186 **Total Adjustments** -2.976 -2.976 -0.245 0.000 • Congressional General Reductions • Congressional Directed Reductions Congressional Rescissions Congressional Adds Congressional Directed Transfers Reprogrammings • SBIR/STTR Transfer Adjustments to Budget Years -2.976 -2.976 • Other Adjustments 1 -0.245

PE 0203758A: Digitization

Army

Exhibit R-2A, RDT&E Project Justification: PB 2014 Army										DATE: Apr	il 2013	
APPROPRIATION/BUDGET ACTIVITY 2040: Research, Development, Test & Evaluation, Army BA 7: Operational Systems Development								PROJECT 374: HOR BATTLEFLD DIGITIZN				
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
374: HOR BATTLEFLD DIGITIZN	-	7.771	35.180	6.186	-	6.186	11.388	10.705	9.375	9.360	Continuing	Continuing
Quantity of RDT&E Articles												

^{*}FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012

A. Mission Description and Budget Item Justification

Horizontal Battlefield Digitization is a strategy that allows warfighters, from the individual soldier and platform to echelons above corps, to share critical situation awareness (SA) and command and control (C2) information. It conducts analysis and evaluation of new information technologies, concepts, and applications of integrated management activities to meet the dynamic Army acquisition technology requirements. The strategy applies digital information technologies to acquire exchange and employ data throughout the operational environment, and provides a clear and accurate common operational picture for leaders at all levels. This timely sharing of information significantly improves the ability of commanders and leaders to guickly make decisions, synchronize forces and fires, and increase the operational tempo. Digitization is a means of realizing a fully integrated C2/SA capability to the platoon level, including interoperability links with joint and multinational ground forces. The major efforts included in the program element are: 1) Integration and synchronization of the Army's interoperability efforts, coordination of interoperability efforts between joint and multi-national forces, and the synchronization of combat material and training efforts to develop Army information technologies; 2) Systems engineering and integration of hardware and software interfaces between and across the warfighting functions and across multiple Program Executive Offices, providing System of Systems (SOS) integration capabilities that satisfy warfighter requirements and enable the execution of mission operations by providing one Common Operational Picture (COP)/Common Tactical Picture (CTP). 3) Oversee and support synchronization of LandWarNet Battle Command capabilities and ensure interoperability across the current and future force. 4) Support fielding of integrated systems to Active and Reserve Components (USARNG and USAR) in accordance with Army Force Generation (ARFORGEN). 5) Support the Army Equipping Enterprise System (AE2S) integration of the Force Development Investment Information System (FDIIS), Army Flow Model (AFM) and the Continuous Early Validation (CEaVa) programs into a single integrated system. This supports the Army's Equipping Strategy, ARFORGEN, and consolidates capabilities to gain efficiencies. IAW the National Defense Authorization Act 804 and OSD's report to Congress, Army is poised to implement the "Agile Business Process" that will result in an iterative and incremental approach to software development and hardware/software capability integration. This process will improve effectiveness in the identification, assessment and acquisition of capability solutions for the Army Network.

B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)	FY 2012	FY 2013	FY 2014
Title: Interoperability Assessment	2.088	2.560	1.094
Articles:	0	0	
Description: funds are to be used for the following efforts			
FY 2012 Accomplishments:			

PE 0203758A: Digitization

Page 3 of 9 R-1 Line #166

^{##} The FY 2014 OCO Request will be submitted at a later date

Exhibit R-2A, RDT&E Project Justification: PB 2014 Army			DATE: A	April 2013		
APPROPRIATION/BUDGET ACTIVITY 2040: Research, Development, Test & Evaluation, Army BA 7: Operational Systems Development	R-1 ITEM NOMENCLATURE PE 0203758A: Digitization		ROJECT '4: HOR BATTLEFLD DIGITIZN			
B. Accomplishments/Planned Programs (\$ in Millions, Article Qu	uantities in Each <u>)</u>		FY 2012	FY 2013	FY 2014	
Conduct technical interoperability assessments, perform interoperability and Situational Awareness (SA), Command and Control (C2), Communication Surveillance, and Reconnaissance (C4ISR) systems compatibility, arresults.	nand, Control, Communications, Computers, Inte	lligence,				
FY 2013 Plans: Conduct technical interoperability assessments, perform interoperability and Situational Awareness (SA), Command and Control (C2), Communication Surveillance, and Reconnaissance (C4ISR) systems compatibility, arresults.	nand, Control, Communications, Computers, Inte	lligence,				
FY 2014 Plans: Conduct technical interoperability assessments, perform interoperability and Situational Awareness (SA), Command and Control (C2), Communication Surveillance, and Reconnaissance (C4ISR) systems compatibility, arresults.	nand, Control, Communications, Computers, Inte	lligence,				
Title: SA/C2/C4ISR		Articles:	2.085 0	2.560 0	1.091	
Description: funds are to be used for the following efforts						
FY 2012 Accomplishments: Integrate and synchronize interoperability across SA/C2/C4ISR progrataining, and fielding System of Systems capabilities to the Army Force						
FY 2013 Plans: Integrate and synchronize interoperability across SA/C2/C4ISR progrataining, and fielding System of Systems capabilities to the Army Force						
FY 2014 Plans: Integrate and synchronize interoperability across SA/C2/C4ISR progrataining, and fielding System of Systems capabilities to the Army Force						
Title: Ditization Technical Integration		Articles:	0.865	1.025 0	1.071	
Description: Support digitization technical integration with Active and	d Reserve Components both CONUS and OCON					

PE 0203758A: *Digitization* Army

UNCLASSIFIED

Page 4 of 9 R-1 Line #166

Exhibit R-2A, RDT&E Project Justification: PB 2014 Army			DATE:	April 2013		
APPROPRIATION/BUDGET ACTIVITY 2040: Research, Development, Test & Evaluation, Army BA 7: Operational Systems Development	R-1 ITEM NOMENCLATURE PE 0203758A: Digitization		OJECT 1: HOR BATTLEFLD DIGITIZN			
B. Accomplishments/Planned Programs (\$ in Millions, Article (Quantities in Each)		FY 2012	FY 2013	FY 2014	
FY 2012 Accomplishments: Support digitization technical integration with Active and Reserve C	Components both CONUS and OCONUS.					
FY 2013 Plans: Support digitization technical integration with Active and Reserve C	Components both CONUS and OCONUS.					
FY 2014 Plans: Support digitization technical integration with Active and Reserve C	Components both CONUS and OCONUS.					
Title: AE2S Software	Articles:	0.755 0	1.000 0	0.806		
Description: Procures AE2S software integration and enhancement incorporates FDIIS, CEaVa, COP and AFM						
FY 2012 Accomplishments: Procures AE2S software integration and enhancements for the sing FDIIS, CEaVa, COP and AFM	gle program language, single platform system that inco	rporates				
FY 2013 Plans: Procures AE2S software integration and enhancements for the sing FDIIS, CEaVa, COP and AFM	gle program language, single platform system that inco	rporates				
FY 2014 Plans: Procures AE2S software integration and enhancements for the sing FDIIS, CEaVa, COP and AFM	gle program language, single platform system that inco	rporates				
Title: Joint & Coalition Interoperability		Articles:	0.738 0	1.255 0	0.944	
Description: Support Joint and Coalition interoperability programs Army Software Blocking Policy, Joint Planning Guidance, Coalition System (JCIDS) requirements.						
FY 2012 Accomplishments:						

PE 0203758A: Digitization

Army

UNCLASSIFIED

Page 5 of 9 R-1 Line #166

	UNCLASSIFIED						
Exhibit R-2A, RDT&E Project Justification: PB 2014 Army		DATE: April 2013					
APPROPRIATION/BUDGET ACTIVITY 2040: Research, Development, Test & Evaluation, Army BA 7: Operational Systems Development	R-1 ITEM NOMENCLATURE PE 0203758A: Digitization		PROJECT 374: HOR BATTLEFLD DIGITIZN				
B. Accomplishments/Planned Programs (\$ in Millions, Article Qu	uantities in Each)		FY 2012	FY 2013	FY 2014		
Support Joint and Coalition interoperability programs to improve integer Blocking Policy, Joint Planning Guidance, Coalition Specifications, Jo(JCIDS) requirements.							
FY 2013 Plans: Support Joint and Coalition interoperability programs to improve integer Blocking Policy, Joint Planning Guidance, Coalition Specifications, Jo (JCIDS) requirements.							
FY 2014 Plans: Support Joint and Coalition interoperability programs to improve integer Blocking Policy, Joint Planning Guidance, Coalition Specifications, Jo (JCIDS) requirements.							
Title: Academic Research		Articles:	0.500	0.570	0.506		
Description: Apply university academic and research resources to the training in support of modernized forces.	he integration of Army complex modeling, simulation		o l	O			
FY 2012 Accomplishments: Apply university academic and research resources to the integration support of modernized forces.	of Army complex modeling, simulation, and training	g in					
FY 2013 Plans: Apply university academic and research resources to the integration support of modernized forces.	of Army complex modeling, simulation, and training	g in					
FY 2014 Plans: Apply university academic and research resources to the integration support of modernized forces.	of Army complex modeling, simulation, and training	g in					
Title: Cross-platform development		Articles:	0.740	1.210	0.674		
Description: Manage cross-platform software and hardware development interoperability for each Army Force unit rotation.	pment, testing, training, and fielding to ensure the						
FY 2012 Accomplishments:							

PE 0203758A: Digitization

Army

UNCLASSIFIED

Page 6 of 9 R-1 Line #166

Exhibit R-2A, RDT&E Project Justification: PB 2014 Army		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY	R-1 ITEM NOMENCLATURE	PROJECT
2040: Research, Development, Test & Evaluation, Army	PE 0203758A: Digitization	374: HOR BATTLEFLD DIGITIZN
BA 7: Operational Systems Development		

B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)	FY 2012	FY 2013	FY 2014
Manage cross-platform software and hardware development, testing, training, and fielding to ensure the coordinated interoperability for each Army Force unit rotation.			
FY 2013 Plans: Manage cross-platform software and hardware development, testing, training, and fielding to ensure the coordinated interoperability for each Army Force unit rotation.			
FY 2014 Plans: Manage cross-platform software and hardware development, testing, training, and fielding to ensure the coordinated interoperability for each Army Force unit rotation.			
Title: Network Integrated Evaluation (NIE) Articles:	0.000	25.000 0	0.000
Description: Network Integrated Evaluation (NIE)			
FY 2013 Plans: Implement agile business solutions through the Network Integrated Evaluation (NIE) cycle in FY12 that address Army system shortcomings and bring efficiency, effectiveness and affordabilaity to an otherwise burdensome process. This process enables the Army to be more responsive to Soldiers' current needs and avoids long-term production commitments to potentially obsolete technology. Material solutions to fill capability gaps from the FY12 cycle will be ready for procurement in FY13.			
Accomplishments/Planned Programs Subtotals	7.771	35.180	6.186

C. Other Program Funding Summary (\$ in Millions)

N/A

Army

Remarks

Not Applicable for this item

D. Acquisition Strategy

To validate/demonstrate concepts and requirements, near term efforts are focused on developing a seamless battlefield software architecture and digitized hardware systems to include: evaluation of the horizontal battlefield digitization resources for systems, acquisition, integration, and testing of digital capability across multiple command and control, communications, sensors, and weapons platforms. The result will be an integrated, synchronized capability designed to meet the near-term requirements of the Stryker Brigade Combat Teams and the Army Future Force. Also supports the Army's role in joint and multi-national digitization programs, battle command efforts and Joint Battlefield Situational Awareness.

PE 0203758A: Digitization

UNCLASSIFIED

Page 7 of 9 R-1 Line #166

Exhibit R-2A, RDT&E Project Justification: PB 2014 Army		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY	R-1 ITEM NOMENCLATURE	PROJECT
2040: Research, Development, Test & Evaluation, Army	PE 0203758A: Digitization	374: HOR BATTLEFLD DIGITIZN
BA 7: Operational Systems Development		
E. Performance Metrics	·	
Performance metrics used in the preparation of this justification mat	erial may be found in the FY 2010 Army Perform	nance Budget Justification Book, dated May 2010.

PE 0203758A: Digitization Army

UNCLASSIFIED Page 8 of 9

R-1 Line #166

Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Army

DATE: April 2013

APPROPRIATION/BUDGET ACTIVITY

R-1 ITEM NOMENCLATURE

PROJECT

2040: Research, Development, Test & Evaluation, Army BA 7: Operational Systems Development

PE 0203758A: Digitization

374: HOR BATTLEFLD DIGITIZN

Product Developmer	duct Development (\$ in Millions)			FY 2	2012	FY 2	2013	FY 2 Ba		FY 2	2014 CO	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	Total Cost	Target Value of Contract
TBD	Various	TBD:TBD	0.000	7.771		35.180		6.186		-		6.186	Continuing	Continuing	Continuing
		Subtotal	0.000	7.771		35.180		6.186		0.000		6.186			
	-														Target

	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	7.771	35.180	6.186	0.000	6.186			

Remarks

PE 0203758A: Digitization Army

Page 9 of 9

R-1 Line #166