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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 / BA 7: Operational Systems Development					R-1 Program Element (Number/Name) PE 0203758A / Digitization							
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	-	34.225	6.183	10.912	-	10.912	15.035	13.517	13.351	13.463	Continuing	Continuing
374: HOR Battlefld Digitizn	-	9.074	6.183	5.996	-	5.996	5.186	3.657	3.484	3.583	Continuing	Continuing
EC8: Emerging Technologies from NIEs	-	25.151	-	4.916	-	4.916	9.849	9.860	9.867	9.880	-	69.523

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

**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 quickly 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 multi-national 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) Support fielding of integrated systems to Active and Reserve Components (USARNG and USAR) in accordance with Army Force Generation (ARFORGEN). 4) 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 Equipment Modernization Strategy, Army Force Generation (ARFORGEN) and consolidates capabilities to gain efficiencies. IAW the National Defense Authorization Act 804 and support of OSD's reports to Congress, the 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.

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Appropriation/Budget Activity		R-1 Program Element (Number/Name)			
2040: Research, Development, Test & Evaluation, Army / BA 7: Operational Systems Development		PE 0203758A / Digitization			
B. Program Change Summary (\$ in Millions)	FY 2013	FY 2014	FY 2015 Base	FY 2015 OCO	FY 2015 Total
Previous President's Budget	35.180	6.186	11.388	-	11.388
Current President's Budget	34.225	6.183	10.912	-	10.912
Total Adjustments	-0.955	-0.003	-0.476	-	-0.476
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-	-			
• Adjustments to Budget Years	-	-	-0.289	-	-0.289
• Other Adjustments 1	-0.955	-0.003	-0.187	-	-0.187

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Exhibit R-2A, RDT&E Project Justification: PB 2015 Army										Date: March 2014		
Appropriation/Budget Activity 2040 / 7					R-1 Program Element (Number/Name) PE 0203758A / Digitization				Project (Number/Name) 374 / HOR Battlefld Digitizn			
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
374: HOR Battlefld Digitizn	-	9.074	6.183	5.996	-	5.996	5.186	3.657	3.484	3.583	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**

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 quickly 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 multi-national 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) Support fielding of integrated systems to Active and Reserve Components (USARNG and USAR) in accordance with Army Force Generation (ARFORGEN). 4) 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 Equipment Modernization Strategy, Army Force Generation (ARFORGEN) and consolidates capabilities to gain efficiencies. IAW the National Defense Authorization Act 804 and support of OSD's report to Congress, the 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.

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

	<b>FY 2013</b>	<b>FY 2014</b>	<b>FY 2015</b>
<b>Title:</b> Interoperability Assessment	2.007	1.091	1.076
<b>Articles:</b>	-	-	-
<b>Description:</b> Funds are to be used for the following efforts			
<b>FY 2013 Accomplishments:</b>			
Conduct technical interoperability assessments, perform interoperability/integration analyses, analyze networked weapon system and Situational Awareness (SA), Command and Control (C2), Command, Control, Communications, Computers, Intelligence,			

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2015 Army			<b>Date:</b> March 2014		
<b>Appropriation/Budget Activity</b> 2040 / 7		<b>R-1 Program Element (Number/Name)</b> PE 0203758A / Digitization		<b>Project (Number/Name)</b> 374 / HOR Battlefld Digitizn	
<b>B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)</b>			<b>FY 2013</b>	<b>FY 2014</b>	<b>FY 2015</b>
Surveillance, and Reconnaissance (C4ISR) systems compatibility, and assess technical and operational test plans, activities, and results.					
<b>FY 2014 Plans:</b> Conduct technical interoperability assessments, perform interoperability/integration analyses, analyze networked weapon system and Situational Awareness (SA), Command and Control (C2) systems compatibility and assess technical and operational test plans, activities, and results.					
<b>FY 2015 Plans:</b> Conduct technical interoperability assessments, perform interoperability/integration analyses, analyze networked weapon system and Situational Awareness (SA), Command and Control (C2) systems compatibility and assess technical and operational test plans, activities, and results.					
<b>Title:</b> SA/C2			2.007	1.091	0.961
<b>Articles:</b>			-	-	-
<b>Description:</b> Funds are to be used for the following efforts					
<b>FY 2013 Accomplishments:</b> Integrate and synchronize interoperability across SA/C2/C4ISR programs in support of acquisition synchronization, testing, training, and fielding System of Systems capabilities to the Army Force. Continue application across current and future force.					
<b>FY 2014 Plans:</b> Integrate and synchronize interoperability across SA/C2 programs in support of acquisition synchronization, testing, training, and fielding System of Systems capabilities to the Army Force. Continue application across current and future force.					
<b>FY 2015 Plans:</b> Integrate and synchronize interoperability across SA/C2 programs in support of acquisition synchronization, testing, training, and fielding System of Systems capabilities to the Army Force. Continue application across current and future force.					
<b>Title:</b> Digitization Technical Integration			1.025	1.071	1.103
<b>Articles:</b>			-	-	-
<b>Description:</b> Support digitization technical integration with Active and Reserve Components both CONUS and OCONUS.					
<b>FY 2013 Accomplishments:</b> Support digitization technical integration with Active and Reserve Components both CONUS and OCONUS.					
<b>FY 2014 Plans:</b>					

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2015 Army			<b>Date:</b> March 2014		
<b>Appropriation/Budget Activity</b> 2040 / 7		<b>R-1 Program Element (Number/Name)</b> PE 0203758A / Digitization		<b>Project (Number/Name)</b> 374 / HOR Battlefld Digitizn	
<b>B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)</b>			<b>FY 2013</b>	<b>FY 2014</b>	<b>FY 2015</b>
Support digitization technical integration with Active and Reserve Components both CONUS and OCONUS.					
<b>FY 2015 Plans:</b> Support digitization technical integration with Active and Reserve Components both CONUS and OCONUS.					
<b>Title:</b> AE2S Software			1.000	0.806	0.938
<b>Articles:</b>			-	-	-
<b>Description:</b> Procures AE2S software integration and enhancements for the single program language, single platform system that incorporates FDIIS, CEaVa, COP and AFM.					
<b>FY 2013 Accomplishments:</b> Procures AE2S software integration and enhancements for the single program language, single platform system that incorporates FDIIS, CEaVa, COP and AFM.					
<b>FY 2014 Plans:</b> AE2S software integration and enhancements for the single program language, single platform system that incorporates FDIIS, COP and AFM.					
<b>FY 2015 Plans:</b> AE2S software integration and enhancements for the single program language, single platform system that incorporates FDIIS, COP and AFM.					
<b>Title:</b> Joint & Coalition Interoperability			1.255	0.944	0.826
<b>Articles:</b>			-	-	-
<b>Description:</b> Support Joint and Coalition interoperability programs to improve integration and interoperability in accordance with Army Software Blocking Policy, Joint Planning Guidance, Coalition Specifications, Joint Capabilities Integration and Development System (JCIDS) requirements.					
<b>FY 2013 Accomplishments:</b> Support Joint and Coalition interoperability programs to improve integration and interoperability in accordance with Army Software Blocking Policy, Joint Planning Guidance, Coalition Specifications, Joint Capabilities Integration and Development System (JCIDS) requirements.					
<b>FY 2014 Plans:</b>					

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Exhibit R-2A, RDT&E Project Justification: PB 2015 Army		Date: March 2014		
Appropriation/Budget Activity 2040 / 7	R-1 Program Element (Number/Name) PE 0203758A / Digitization	Project (Number/Name) 374 / HOR Battlefld Digitizn		
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)		FY 2013	FY 2014	FY 2015
Support Joint and Coalition interoperability programs to improve integration and interoperability in accordance with Army Software Blocking Policy, Joint Planning Guidance, Coalition Specifications, Joint Capabilities Integration and Development System (JCIDS) requirements.  <b>FY 2015 Plans:</b> Support Joint and Coalition interoperability programs to improve integration and interoperability in accordance with Army Software Blocking Policy, Joint Planning Guidance, Coalition Specifications, Joint Capabilities Integration and Development System (JCIDS) requirements.				
<b>Title:</b> Academic Research  <b>Articles:</b>  <b>Description:</b> Apply university academic and research resources to the integration of Army complex modeling, simulation, and training in support of modernized forces.  <b>FY 2013 Accomplishments:</b> Apply university academic and research resources to the integration of Army complex modeling, simulation, and training in support of modernized forces.  <b>FY 2014 Plans:</b> Apply university academic and research resources to the integration of Army complex modeling, simulation, and training in support of modernized forces.  <b>FY 2015 Plans:</b> Apply university academic and research resources to the integration of Army complex modeling, simulation, and training in support of modernized forces.		0.570 -	0.506 -	0.522 -
<b>Title:</b> Cross-platform development  <b>Articles:</b>  <b>Description:</b> Manage cross-platform software and hardware development, testing, training, and fielding to ensure the coordinated interoperability for each Army Force unit rotation.  <b>FY 2013 Accomplishments:</b> Manage cross-platform software and hardware development, testing, training, and fielding to ensure the coordinated interoperability for each Army Force unit rotation.  <b>FY 2014 Plans:</b>		1.210 -	0.674 -	0.570 -

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<b>Appropriation/Budget Activity</b> 2040 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0203758A / <i>Digitization</i>	<b>Project (Number/Name)</b> 374 / <i>HOR Battlefield Digitizn</i>	
<b>B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)</b>		<b>FY 2013</b>	<b>FY 2014</b>
Manage cross-platform software and hardware development, testing, training, and fielding to ensure the coordinated interoperability for each Army Force unit rotation.			
<b>FY 2015 Plans:</b> Manage cross-platform software and hardware development, testing, training, and fielding to ensure the coordinated interoperability for each Army Force unit rotation.			
<b>Accomplishments/Planned Programs Subtotals</b>		9.074	6.183
<b>C. Other Program Funding Summary (\$ in Millions)</b> N/A			
<b>Remarks</b> Not Applicable for this item			
<b>D. Acquisition Strategy</b> 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.			
<b>E. Performance Metrics</b> N/A			

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<b>Exhibit R-3, RDT&amp;E Project Cost Analysis: PB 2015 Army</b>												<b>Date:</b> March 2014		
<b>Appropriation/Budget Activity</b> 2040 / 7						<b>R-1 Program Element (Number/Name)</b> PE 0203758A / Digitization				<b>Project (Number/Name)</b> 374 / HOR Battlefld Digitizn				

  

<b>Product Development (\$ in Millions)</b>				<b>FY 2013</b>		<b>FY 2014</b>		<b>FY 2015 Base</b>		<b>FY 2015 OCO</b>		<b>FY 2015 Total</b>			
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
TBD	Various	TBD : TBD	7.771	9.074		6.183		5.996		-		5.996	Continuing	Continuing	Continuing
<b>Subtotal</b>			7.771	9.074		6.183		5.996		-		5.996	-	-	-

  

	Prior Years	FY 2013	FY 2014	FY 2015 Base	FY 2015 OCO	FY 2015 Total	Cost To Complete	Total Cost	Target Value of Contract
<b>Project Cost Totals</b>	7.771	9.074	6.183	5.996	-	5.996	-	-	-

  

**Remarks**



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Exhibit R-2A, RDT&E Project Justification: PB 2015 Army										Date: March 2014		
Appropriation/Budget Activity 2040 / 7					R-1 Program Element (Number/Name) PE 0203758A / Digitization				Project (Number/Name) EC8 / Emerging Technologies from NIEs			
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
EC8: Emerging Technologies from NIEs	-	25.151	-	4.916	-	4.916	9.849	9.860	9.867	9.880	-	69.523
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		
# The FY 2015 OCO Request will be submitted at a later date.												
A. Mission Description and Budget Item Justification												
As a result of the language that was incorporated into the Senate Report 112-196 that accompanied the Department of Defense Appropriations Bill 2013, House Report 5856, this Project was established specifically for the transition of promising technologies from NIES to the field, particularly those developed by nontraditional vendors. Program control will be exercised by review of individual projects and approval by Army Gatekeepers, much like the Network Integration Evaluation (NIE) Program (PE 0604798A).												
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)										FY 2013	FY 2014	FY 2015
Title: Emerging Technologies from NIEs  Articles:  Description: To mature, test, integrate and evaluate traditional and nontraditional small business and industry's technologies.  FY 2013 Accomplishments: These fund were used to mature, test, and integrate small business and industry technologies that were demonstrated and evaluated during various NIE Events. This includes improvements of technologies from previous NIEs that will be evaluated and baselined future NIEs for fielding in a Capability Set (CS). The technologies that will benefit from these funds for further development are dependent upon the Gatekeeper's approval. These funds supported such technologies as; Common Operating Picture (Ringtail), Network Operations Tools (PacStar Software), Single Consolidated Mobile Mast (Blue Sky Mast), Improved Operational Energy (Batteries), Vehicle Tactical Routers, Voice Interoperable Software Client, and others.  FY 2015 Plans: These funds will be used to mature, test, and integrate small business and industry technologies that are demonstrated and evaluated during various NIE Events. This includes improvements of technologies from previous NIEs that will be then evaluated and baselined at a NIE for fielding in a Capability Set (CS). The technologies that will benefit from these funds for further development are dependent upon the Gatekeeper's approval. These funds will affect technologies from NIE 15.1, (2 QTR FY15), NIE 15.2 (4QTR FY15) and/or NIE 16.1 (2QTR FY16).										25.151	-	4.916
										-	-	-
Accomplishments/Planned Programs Subtotals										25.151	-	4.916

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Exhibit R-2A, RDT&E Project Justification: PB 2015 Army		Date: March 2014
Appropriation/Budget Activity 2040 / 7	R-1 Program Element (Number/Name) PE 0203758A / <i>Digitization</i>	Project (Number/Name) EC8 / <i>Emerging Technologies from NIEs</i>
C. Other Program Funding Summary (\$ in Millions) N/A		
Remarks		
D. Acquisition Strategy Technologies will be selected dependent upon the Gatekeeper's approval.		
E. Performance Metrics N/A		

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<b>Exhibit R-3, RDT&amp;E Project Cost Analysis: PB 2015 Army</b>												<b>Date:</b> March 2014			
<b>Appropriation/Budget Activity</b> 2040 / 7						<b>R-1 Program Element (Number/Name)</b> PE 0203758A / Digitization				<b>Project (Number/Name)</b> EC8 / Emerging Technologies from NIEs					
<b>Product Development (\$ in Millions)</b>				<b>FY 2013</b>		<b>FY 2014</b>		<b>FY 2015 Base</b>		<b>FY 2015 OCO</b>		<b>FY 2015 Total</b>			
<b>Cost Category Item</b>	<b>Contract Method &amp; Type</b>	<b>Performing Activity &amp; Location</b>	<b>Prior Years</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Award Date</b>	<b>Cost</b>	<b>Cost To Complete</b>	<b>Total Cost</b>	<b>Target Value of Contract</b>
Emerging Technologies from NIEs	C/TBD	Various : Locations	0.000	25.151		-		4.916	Jun 2015	-		4.916	-	30.067	-
<b>Subtotal</b>			0.000	25.151		-		4.916		-		4.916	-	30.067	-
			<b>Prior Years</b>	<b>FY 2013</b>		<b>FY 2014</b>		<b>FY 2015 Base</b>		<b>FY 2015 OCO</b>		<b>FY 2015 Total</b>	<b>Cost To Complete</b>	<b>Total Cost</b>	<b>Target Value of Contract</b>
<b>Project Cost Totals</b>			0.000	25.151		-		4.916		-		4.916	-	30.067	-
<b>Remarks</b>															

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<b>Exhibit R-4, RDT&amp;E Schedule Profile:</b> PB 2015 Army	<b>Date:</b> March 2014
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<b>Appropriation/Budget Activity</b> 2040 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0203758A / <i>Digitization</i>	<b>Project (Number/Name)</b> EC8 / <i>Emerging Technologies from NIEs</i>
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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
NIE 15.1 Planning - Execution																												
NIE 15.2 Planning - Execution																												
NIE 16.1 Planning - Execution																												

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<b>Exhibit R-4A, RDT&amp;E Schedule Details:</b> PB 2015 Army			<b>Date:</b> March 2014
<b>Appropriation/Budget Activity</b> 2040 / 7	<b>R-1 Program Element (Number/Name)</b> PE 0203758A / <i>Digitization</i>	<b>Project (Number/Name)</b> EC8 / <i>Emerging Technologies from NIEs</i>	

Schedule Details

Events	Start		End	
	Quarter	Year	Quarter	Year
NIE 15.1 Planning - Execution	3	2013	1	2015
NIE 15.2 Planning - Execution	2	2014	3	2015
NIE 16.1 Planning - Execution	3	2014	1	2016