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Exhibit R-2, RDT&E Budget Item Justification: PB 2015 Army										Date: March 2014		
Appropriation/Budget Activity					R-1 Program Element (Number/Name)							
2040: Research, Development, Test & Evaluation, Army / BA 5: System Development & Demonstration (SDD)					PE 0604818A / Army Tactical Command & Control Hardware & Software							
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	-	50.279	22.945	29.683	-	29.683	41.596	51.991	52.844	64.953	Continuing	Continuing
323: Common Hardware Systems	-	7.121	5.810	4.506	-	4.506	5.910	5.719	5.821	5.936	Continuing	Continuing
334: Common Software	-	3.127	1.452	8.323	-	8.323	21.409	32.563	34.295	46.213	Continuing	Continuing
C29: Centralized Technical Support Facility (CTSF)	-	19.930	4.653	7.876	-	7.876	-	-	-	-	Continuing	Continuing
C34: Army Tac C2 Sys Eng	-	20.101	11.030	8.978	-	8.978	14.277	13.709	12.728	12.804	Continuing	Continuing

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

A. Mission Description and Budget Item Justification

The umbrella program to exploit automation technology for the conduct of combat operations is the Army Tactical Command and Control System (ATCCS) program which is a component of the Army Battle Command System (ABCS). The ATCCS program provides automation in the five battlefield functional areas (BFAs) with the following specific systems: (1) Maneuver Control System (MCS); (2) Effects and Fires Command and Control Systems (EFCCS); (3) All Source Analysis System (ASAS) for Intelligence/Electronic Warfare; (4) Forward Area Air Defense Command, Control and Intelligence System (FAADC2I); and (5) Battle Command Sustainment Support System (BCS3). To provide an overall technically sound, cost effective, and operationally responsive approach, the design and development of ATCCS must be accomplished on a total systems basis.

The Common Hardware Systems (CHS) program provides tactical, state-of-the-art, fully qualified, interoperable, compatible, deployable, and survivable hardware and computer networking equipment for command, control, and communications for the United States Army and other Department of Defense (DoD) services. CHS provides technical support, common standardized testing and system design / configuration management across Army tactical programs to ensure interoperability and integration of hardware throughout the development of capabilities, to facilitate and simplify the selection of common hardware solutions across the operational battlefield and to create efficiencies through streamlined common hardware configurations across the Common Operating Environments (COE)s. CHS also provides worldwide repair, maintenance, logistics, and technical support services through strategically located contractor-operated Regional Support Centers (RSC) for tactical military units and management of a comprehensive 5-year warranty and 72-hour turnaround for repairs.

Common Software(CS) is the program through which the Army develops, integrates and tests common software products and/or components used for communication between ABCS, Joint and coalition Command and Control (C2) applications. The CS project provides state-of-the-art software technologies and functionality that is used by numerous Army Battle Command Systems (ABCS) and joint systems to eliminate the need for service independent development and duplication of effort. The CS project also manages and performs technology demonstrations of emerging technologies for future use by Army C2 systems. The CS program is a cornerstone in the Army's COE modernization efforts. Funding supports on-going development of common software solutions and the technical evaluation of previously developed software capabilities for integration into the computing environments of the Army COE architecture to include appropriate Mounted and Mobile Computing environments. Efforts will include assessment of software maturity and readiness, development/modification of software necessary to integrate, integration with common computing environments, and validation.

UNCLASSIFIED

Exhibit R-2, RDT&E Budget Item Justification: PB 2015 Army	Date: March 2014
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Appropriation/Budget Activity 2040: Research, Development, Test & Evaluation, Army / BA 5: System Development & Demonstration (SDD)	R-1 Program Element (Number/Name) PE 0604818A / Army Tactical Command & Control Hardware & Software
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This program element also includes the Central Technical Support Facility (CTSF) which is the Army's single strategic facility responsible for executing SoS Interoperability checkout, testing, physical system integration and configuration management of the Army's LandWarNet Baseline. The Technical Management Division (TMD) effectively manages the engineering, Enterprise and Integration efforts within the Program Executive Office Command, Control, Communication and Tactical (PEO C3T) portfolio of technology and across the capability enhancement packages to deliver efficient and effective cross-domain technical solutions. TMD efforts will focus on System-of-Systems (SOS) engineering and integration for evolution of the network (Warfighter Information Network-Tactical, Joint Tactical Radio System) and associated services (Mission Command, Joint Battle Command-Platform, Net-Enabled Command Capability, Network Service Center) with increased emphasis on immediate Warfighter needs as well as leveraging emerging technologies. TMD efforts support working Army Network Modernization strategy and implementation to include: network integration; emerging technologies; coordination of network services; current and force integrated Command, Control, Communications, Computers, Combat Systems, Intelligence, Surveillance, and Reconnaissance (C5ISR) network/transport architectures; integrated developmental, technical, and operational test schedules/documentation; and the tactical assessment and execution of the enterprise implementation and framework. TMD synchronizes the integration of many Headquarters, Department Of The Army (HQDA) initiatives and also oversees the technical analysis supporting the Army Common Operating Environment (COE) Assessment and implementation.

B. Program Change Summary (\$ in Millions)	FY 2013	FY 2014	FY 2015 Base	FY 2015 OCO	FY 2015 Total
Previous President's Budget	77.223	22.958	42.754	-	42.754
Current President's Budget	50.279	22.945	29.683	-	29.683
Total Adjustments	-26.944	-0.013	-13.071	-	-13.071
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-28.200	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-	-			
• Adjustments to Budget Years	1.256	-0.013	-13.071	-	-13.071

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Exhibit R-2A, RDT&E Project Justification: PB 2015 Army										Date: March 2014		
Appropriation/Budget Activity 2040 / 5					R-1 Program Element (Number/Name) PE 0604818A / Army Tactical Command & Control Hardware & Software				Project (Number/Name) 323 / Common Hardware Systems			
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
323: Common Hardware Systems	-	7.121	5.810	4.506	-	4.506	5.910	5.719	5.821	5.936	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												
The Common Hardware Systems (CHS) program provides tactical, state-of-the-art, fully qualified, interoperable, compatible, deployable, and survivable hardware and computer networking equipment for command, control, and communications for the United States Army and other Department of Defense (DoD) services. CHS provides technical support, common standardized testing and system design / configuration management across Army tactical programs to ensure interoperability and integration of hardware throughout the development of capabilities, to facilitate and simplify the selection of common hardware solutions across the operational battlefield and to create efficiencies through streamlined common hardware configurations across the Common Operating Environments (COE)s. CHS also provides worldwide repair, maintenance, logistics, and technical support services through strategically located contractor-operated Regional Support Centers (RSC) for tactical military units and management of a comprehensive 5-year warranty and 72-hour turnaround for repairs.												
FY 2015 funds support CHS to continue to manage the acquisition and delivery of CHS equipment and technology insertion in support of customer requirements. CHS will continue CHS-5 contract pre-award activities.												
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)									FY 2013	FY 2014	FY 2015	
Title: Acquisition Management, System/ Configuration Management, and technical evaluation and testing of CHS equipment and services in support of program requirements									6.321	5.310	4.006	
									-	-	-	
Articles:												
Description: Funding is provided for the following effort												
FY 2013 Accomplishments:												
Continued the management of the acquisition/delivery, System/ Configuration Management, and technical evaluation and testing of CHS equipment in support of customer requirements												
FY 2014 Plans:												
Will continue the management of the acquisition/delivery, System/ Configuration Management, and technical evaluation and testing of CHS equipment in support of customer requirements												
FY 2015 Plans:												

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Exhibit R-2A, RDT&E Project Justification: PB 2015 Army		Date: March 2014	
Appropriation/Budget Activity 2040 / 5	R-1 Program Element (Number/Name) PE 0604818A / Army Tactical Command & Control Hardware & Software	Project (Number/Name) 323 / Common Hardware Systems	
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)		FY 2013	FY 2014
Will continue the management of the acquisition/delivery, System/ Configuration Management, and technical evaluation and testing of CHS equipment in support of customer requirements			
Title: CHS equipment testing efforts	Articles:	0.300 -	- -
Description: Funding is provided for the following effort			
FY 2013 Accomplishments: Continued to support CHS customer testing efforts			
Title: CHS Technology Insertion in support of program capability requirements	Articles:	0.500 -	0.500 -
Description: Funding is provided for the following effort			
FY 2013 Accomplishments: Continued CHS Technology Insertion in support of program capability requirements			
FY 2014 Plans: Continue CHS Technology Insertion in support of program capability requirements			
FY 2015 Plans: Continue CHS Technology Insertion in support of program capability requirements			
Accomplishments/Planned Programs Subtotals		7.121	5.810
C. Other Program Funding Summary (\$ in Millions)			
N/A			
Remarks			
Not applicable for this item.			
D. Acquisition Strategy			
The overall goal is to improve interoperability and compatibility and lower life cycle costs by standardizing battlefield command and control automation and other warfighting systems (net centric, etc) through centralized buys of modified/ruggedized non-developmental items. This project provides a coherent migration strategy for acquisition of warfighting systems through the use of technology insertion.			

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Exhibit R-2A, RDT&E Project Justification: PB 2015 Army		Date: March 2014
Appropriation/Budget Activity 2040 / 5	R-1 Program Element (Number/Name) PE 0604818A / <i>Army Tactical Command & Control Hardware & Software</i>	Project (Number/Name) 323 / <i>Common Hardware Systems</i>
<p>CHS also conducts common environmental and developmental testing of hardware items thereby reducing the testing requirements for individual Project Managers. An Indefinite Delivery/Indefinite Quantity firm fixed priced, full and open competition contract was awarded to General Dynamics in May 2003, for ruggedization and production.</p> <p>In August 2011, CHS awarded, on a best value basis, the follow-on CHS-4 contract via full and open competition. CHS-5 is to be awarded in FY16 to provide flexibility for Tactical Programs of Record (PoR)s to meet hardware and associated services requirements through full and open competition and to provide an agile solution to support COE, network integration activities, capability set development, and transport needs.</p> <p><u>E. Performance Metrics</u> N/A</p>		

UNCLASSIFIED

Exhibit R-3, RDT&E Project Cost Analysis: PB 2015 Army												Date: March 2014					
Appropriation/Budget Activity 2040 / 5						R-1 Program Element (Number/Name) PE 0604818A / Army Tactical Command & Control Hardware & Software						Project (Number/Name) 323 / Common Hardware Systems					
Product Development (\$ 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		
Support Costs	C/FP	Various : Various	71.883	3.285		2.575		2.232		-		2.232	Continuing	Continuing	Continuing		
Product Development	C/FP	Various : Various	81.115	3.036		2.735		1.774		-		1.774	Continuing	Continuing	Continuing		
CHS-3 Non Recurring Engineering	C/FFP	General Dynamics : Taunton, MA	17.500	-		-		-		-		-	-	17.500	-		
CHS-4 Non-Recurring Engineering	C/FP	Various : Various	14.150	-		-		-		-		-	Continuing	Continuing	Continuing		
Technology Insertion	C/FP	Various : Various	14.777	0.500		0.500		0.500		-		0.500	Continuing	Continuing	Continuing		
Subtotal			199.425	6.821		5.810		4.506		-		4.506	-	-	-		
Test and Evaluation (\$ 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		
CHS Test Activities	Various	Other Government Activities : various	2.654	0.300		-		-		-		-	Continuing	Continuing	Continuing		
Subtotal			2.654	0.300		-		-		-		-	-	-	-		
			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			202.079	7.121		5.810		4.506		-		4.506	-	-	-		
Remarks																	

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Exhibit R-4, RDT&E Schedule Profile: PB 2015 Army			Date: March 2014		
Appropriation/Budget Activity 2040 / 5		R-1 Program Element (Number/Name) PE 0604818A / Army Tactical Command & Control Hardware & Software			Project (Number/Name) 323 / Common Hardware Systems

	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
Technology Insertion (Adding New Hardware to Contract)																												
CHS-3 Hardware Deliveries																												
TSR-3 Ongoing Contract Management																												
Common Standard First Article Testing																												
OEF Support																												
RESET and Deep Cleaning/Out of Warranty Repair																												
HW Implementation, Integration and Evaluation																												
CHS-4 Hardware Deliveries																												
CHS-5 Contract Award																												
CHS-5 Hardware Deliveries																												

UNCLASSIFIED

Exhibit R-4A, RDT&E Schedule Details: PB 2015 Army			Date: March 2014
Appropriation/Budget Activity 2040 / 5	R-1 Program Element (Number/Name) PE 0604818A / Army Tactical Command & Control Hardware & Software	Project (Number/Name) 323 / Common Hardware Systems	

Schedule Details

Events	Start		End	
	Quarter	Year	Quarter	Year
Technology Insertion (Adding New Hardware to Contract)	1	2007	4	2020
CHS-3 Hardware Deliveries	2	2004	2	2014
TSR-3 Ongoing Contract Management	1	2006	4	2013
Common Standard First Article Testing	1	2006	4	2020
OEF Support	1	2006	1	2015
RESET and Deep Cleaning/Out of Warranty Repair	1	2006	4	2020
HW Implementation, Integration and Evaluation	1	2006	4	2020
CHS-4 Hardware Deliveries	1	2012	2	2017
CHS-5 Contract Award	1	2016	2	2016
CHS-5 Hardware Deliveries	3	2016	4	2020

UNCLASSIFIED

Exhibit R-2A, RDT&E Project Justification: PB 2015 Army									Date: March 2014			
Appropriation/Budget Activity 2040 / 5					R-1 Program Element (Number/Name) PE 0604818A / Army Tactical Command & Control Hardware & Software				Project (Number/Name) 334 / Common Software			
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
334: Common Software	-	3.127	1.452	8.323	-	8.323	21.409	32.563	34.295	46.213	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		
# The FY 2015 OCO Request will be submitted at a later date.												
Note Not applicable for this item.												
A. Mission Description and Budget Item Justification Project 334 Common Software (CS): CS is the program through which the Army develops, integrates and tests common software products and/or components used for communication between Army Mission Command Systems and Joint and coalition Command and Control (C2) applications. The CS project provides state-of-the-art software technologies and functionality that is used by numerous Mission Command (MC) and joint systems to eliminate the need for service independent development and duplication of effort. The CS project also manages and performs technology demonstrations of emerging technologies for future use by Army C2 systems. The CS program is a cornerstone in the Army's COE modernization efforts. FY15 funding supports on-going development of common software solutions and the technical evaluation of previously developed software capabilities for integration into the computing environments of the Army Common Operating Environment (COE) architecture to include appropriate Mounted and Mobile Computing environments. Efforts will include assessment of software maturity and readiness, development/modification of software as necessary to integrate, integration with common computing environments, and validation.												
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)									FY 2013	FY 2014	FY 2015	
Title: Mission Command (MC) systems provide single common software enterprise infrastructure development in support of Army and Joint Services requirements. Description: Funding is provided for the following effort. FY 2015 Plans: MC systems provid single common software enterprise infrastructure development in support of Army and Joint Services requirements. Funding is provided for the following effort:									-	-	2.718	
Title: Joint and Coalition interoperability efforts. Description: Will continue to provide software for interoperability of Joint and Coalistion efforts. FY 2013 Accomplishments:									0.127	-	1.446	
									Articles: -	-	-	

UNCLASSIFIED

Exhibit R-2A, RDT&E Project Justification: PB 2015 Army		Date: March 2014	
Appropriation/Budget Activity 2040 / 5	R-1 Program Element (Number/Name) PE 0604818A / Army Tactical Command & Control Hardware & Software	Project (Number/Name) 334 / Common Software	
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)		FY 2013	FY 2014
Will continue to provide software for interoperability of Joint and Coalition efforts.			
FY 2015 Plans: Will continue to provide software for interoperability of Joint and Coalition efforts.			
Title: Integration of previously developed and currently required mission command software services and common software solutions into the Army COE and Command Post Computing Environment. Articles:		- -	1.452 -
Description: Funding is provided for the following effort. FY 2014 Plans: Integration of previously developed and currently required mission command software services and common software solutions into the Army COE and Command Post Computing Environment. FY 2015 Plans: Technical evaluation of previously developed software capabilities for integration with the computing environments of the Army Common Operating Environment (COE) architecture to include appropriate Mounted and Mobile Computing environments. Efforts will include assessment of software applicability to the core infrastructure, development/modification of software necessary to integrate, integration with common computing environments, and validation.			
Title: Software Development Articles:		3.000 -	- -
Description: Develop capabilities, product applications, platform interoperability and system services for Project Manager Joint Battle Command-Platform (PM JBC-P). Support efforts for Mounted Computing Environment (MCE) in compliance with Common Operating Environment (COE). FY 2013 Accomplishments: Continue engineering, design and coding for MCE Build 1.0 and initiate engineering, design and coding efforts for MCE Build 2.0. Develop software and integration capabilities within MCE in support of the COE Directive.			
Accomplishments/Planned Programs Subtotals		3.127	1.452
C. Other Program Funding Summary (\$ in Millions)			
N/A			
Remarks			
Not applicable.			

UNCLASSIFIED

Exhibit R-2A, RDT&E Project Justification: PB 2015 Army		Date: March 2014
Appropriation/Budget Activity 2040 / 5	R-1 Program Element (Number/Name) PE 0604818A / <i>Army Tactical Command & Control Hardware & Software</i>	Project (Number/Name) 334 / <i>Common Software</i>
<p><u>D. Acquisition Strategy</u></p> <p>In accordance with the approved Net-enabled Mission Command Initial Capabilities Document (NeMC ICD), software capability will be developed in 2-year increments as capability sets designed to facilitate messaging, mediation and addressing for Army, Joint and Coalition Partners in synchronization with the maturity of the Common Operating Environment (COE) and Command Post Computing Environment (CP CE) architecture baselines. The product development funded under this R-Form is an integral part of the Mission Command systems, and a core communication component of the virtualized infrastructure and will be accomplished primarily under a Project Manager, Mission Command (PM MC) system of systems contract approach which consists of multiple prime contracts awarded from a single solicitation that will require each specific development task be competed among primes whenever possible. This strategy is designed to optimize opportunities for improved interoperability among the systems, to capture the benefits of competition, and to ensure the rapid integration of new capabilities into warfighter systems. This strategy is also designed to reduce the physical footprint, the logistics support requirements, and to increase operational efficiency by integration of additional system interoperability services which reduce duplication of effort and cost; and allows for development of communication standards across the DoD community.</p> <p>The overall acquisition goal of the CS program is the improvement of life cycle cost efficiencies by providing common products that are used horizontally across programs, thereby avoiding duplications of effort by Army and Joint programs.</p> <p><u>E. Performance Metrics</u></p> <p>N/A</p>		

UNCLASSIFIED

Exhibit R-3, RDT&E Project Cost Analysis: PB 2015 Army												Date: March 2014			
Appropriation/Budget Activity 2040 / 5						R-1 Program Element (Number/Name) PE 0604818A / Army Tactical Command & Control Hardware & Software				Project (Number/Name) 334 / Common Software					
Management Services (\$ 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
Program Office Management	Allot	PM Mission Command : Aberdeen, MD	9.161	0.127		0.320		0.645		-		0.645	Continuing	Continuing	-
Subtotal			9.161	0.127		0.320		0.645		-		0.645	-	-	-
Product Development (\$ 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
Common Software Product Engineering/Software Development	C/CPFF	Future Skies : Wall Township, NJ	122.856	-		-		-		-		-	Continuing	Continuing	-
Common Software Product Engineering/Software Development	C/CPFF	Various Contractors : Various Locations	0.000	-		-		2.073	Jan 2015	-		2.073	Continuing	Continuing	-
Mission Command/Army System Engineering & Integration	C/CPFF	Future Skies : Wall Township, NJ	5.547	-		1.132	Jan 2014	-		-		-	Continuing	Continuing	-
Mission Command/Army System Engineering & Integration	C/CPFF	Various Contractors : Various Locations	0.000	-		-		1.446	Jan 2015	-		1.446	Continuing	Continuing	-
Mission Command System of Systems Architecture Development	C/CPFF	Future Skies : Wall Township, NJ	14.386	-		-		-		-		-	Continuing	Continuing	-
Evaluation, modification, validation and integration of developed SW	C/CPFF	Future Skies : Wall Township, NJ	30.913	-		-		-		-		-	Continuing	Continuing	-
Evaluation, modification, validation & integration of developed SW	C/CPFF	Various Contractors : Various Locations	0.000	-		-		4.159	Jan 2015	-		4.159	Continuing	Continuing	-
JBC-P Software Development	C/CPFF	SED : Redston Arsenal Huntsville, AL	0.000	3.000	Sep 2013	-		-		-		-	-	3.000	-

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2015 Army													Date: March 2014		
Appropriation/Budget Activity 2040 / 5					R-1 Program Element (Number/Name) PE 0604818A / Army Tactical Command & Control Hardware & Software					Project (Number/Name) 334 / Common Software					
Product Development (\$ 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
Subtotal			173.702	3.000		1.132		7.678		-		7.678	-	-	-
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
Program Support	Various	Various Contractors : Various Locations	7.506	-		-		-		-		-	Continuing	Continuing	-
Technical Support	Various	Various Contractors : Various Locations	2.139	-		-		-		-		-	Continuing	Continuing	-
Subtotal			9.645	-		-		-		-		-	-	-	-
Test and Evaluation (\$ 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
Developmental Test	Various	Various Contractors : Various Locations	7.145	-		-		-		-		-	Continuing	Continuing	-
Subtotal			7.145	-		-		-		-		-	-	-	-
			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			199.653	3.127		1.452		8.323		-		8.323	-	-	-
Remarks															

UNCLASSIFIED

Exhibit R-4, RDT&E Schedule Profile: PB 2015 Army			Date: March 2014		
Appropriation/Budget Activity 2040 / 5		R-1 Program Element (Number/Name) PE 0604818A / Army Tactical Command & Control Hardware & Software			Project (Number/Name) 334 / Common Software

	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
Common Software infrastructure development																												
Joint and Coalition interoperability efforts																												
Mission Command (MC) system CS service architecture																												
Integration of required services for the COE CP CE																												

UNCLASSIFIED

Exhibit R-4A, RDT&E Schedule Details: PB 2015 Army			Date: March 2014
Appropriation/Budget Activity 2040 / 5	R-1 Program Element (Number/Name) PE 0604818A / <i>Army Tactical Command & Control Hardware & Software</i>	Project (Number/Name) 334 / <i>Common Software</i>	

Schedule Details

Events	Start		End	
	Quarter	Year	Quarter	Year
Common Software infrastructure development	1	2011	4	2019
Joint and Coalition interoperability efforts	1	2011	4	2019
Mission Command (MC) system CS service architecture	1	2011	4	2019
Integration of required services for the COE CP CE	1	2011	4	2019

UNCLASSIFIED

Exhibit R-2A, RDT&E Project Justification: PB 2015 Army										Date: March 2014		
Appropriation/Budget Activity 2040 / 5					R-1 Program Element (Number/Name) PE 0604818A / Army Tactical Command & Control Hardware & Software				Project (Number/Name) C29 / Centralized Technical Support Facility (CTSF)			
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
C29: Centralized Technical Support Facility (CTSF)	-	19.930	4.653	7.876	-	7.876	-	-	-	-	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

Project C29 - Centralized Technical Support Facility: The Central Technical Support Facility (CTSF) is the Army's premier test and certification facility for System of Systems interoperability. It is the Army's strategic facility responsible for conducting engineering support associated with test integration of Army Mission Command architectures into the Army Interoperability Certification (AIC) system of systems environment, performing AIC testing and conducting configuration management for all operational and tactical level applications (individual systems, System of Systems, and Families of Systems) prior to fielding. The CTSF provides validated test data to the Department of the Army and Joint agencies to accredit interoperability certifications. The current expansion of the distributed test environment of the CTSF will be accomplished through the Federation of Net-centric Sites (FaNS) construct. This FaNS construct addresses distributed integration development and testing using the core infrastructure of the CTSF to harness AMC, Army, and Joint expertise/resources. Through these federated resources, the CTSF will execute interoperability development and certification testing of the Warfighter and Business mission areas, to include Brigade Combat Team Modernization spin-outs, as they digitize and become part of the Army's LandWarNet.

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

	FY 2013	FY 2014	FY 2015
Title: Army Interoperability Certification (AIC) Testing	10.290	2.638	6.196
Articles:	-	-	-
Description: Description: Conduct Army Interoperability Certification testing/planning/data collection/ data analysis/reporting, interoperability baseline testing, simulation/stimulation verification/validation and distributed testing. Manage the set-up, configuration, integration, and operations and maintenance of the LandWarNet systems within the test floor environment, as the CIO/G-6's Test Agent for Program Managers of LandWarNet systems that need to deliver software updates for fielding to the Warfighter. Report the results of Army Interoperability Certification Tests to the CIO/G-6, PM, and TRADOC communities to support updates to the G-3/5/7 managed baseline.			
FY 2013 Accomplishments: Began COE 1.0 (formerly SWB 13-14) test planning, test case development, test floor architecture design and set-up to include supporting ASA(ALT) with integration and interoperability event (I2E) with operators, test officers, ORSAs, data management, instrumentation; upgraded/refreshed test floor hardware (routers, switches, servers, computers and power supplies) to build out network infrastructure required for Army's next baseline (COE 1.0), new servers and associated equipment to support virtualization; establish operationally relevant infrastructure to prove-out required AIC testing. ASA(ALT) will leverage unique			

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Exhibit R-2A, RDT&E Project Justification: PB 2015 Army		Date: March 2014		
Appropriation/Budget Activity 2040 / 5	R-1 Program Element (Number/Name) PE 0604818A / Army Tactical Command & Control Hardware & Software	Project (Number/Name) C29 / Centralized Technical Support Facility (CTSF)		
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)		FY 2013	FY 2014	FY 2015
infrastructure prior to AIC testing to complete System of System integration. Prepared to execute COE 1.0 AIC; conducted information assurance software/compliance scans, test tool verification, and validated COE 1.0 test threads needed for AIC. Continued to coordinate with PEO C3T Crypto Network Initialization and to incorporate the go-to-war Data Products into AIC tests. FY 2014 Plans: Execute COE 1.0 testing/evaluation and certification. Continue COE 1.0 bi-annual test planning, test case development, to include information assurance software/compliance scans, and test tool verification. Upon establishment of the COE 1.0 baseline, plan for AIC testing and data collection on a Bi-Annual basis, that will allow for the completion of SW AIC certification that may be leveraged for use during the NIE events at Ft Bliss, TX/WSMR. Begin COE 2.0 test planning, test case development; coordinate with PMs for systems undergoing COE 2.0 testing to determine test floor architecture; determine COE 2.0 test floor architecture; update infrastructure to achieve required commonality with COE 2.0 architecture. Continue to coordinate with PEO C3T Crypto Network Initialization for baseline Data Products and to incorporate the go-to-war Data Products into AIC tests. FY 2015 Plans: Continue planning for AIC testing and data collection on a Bi-Annual basis, that will allow for the completion of SW AIC certification that may be leveraged for use during NIE events at Ft Bliss, TX/WSMR. Continue COE 2.0 test planning, test case development, test floor architecture set-up to include information assurance software/compliance scans, test tool validation/verification, and conduct COE 2.0 testing/evaluation and certification; begin COE 3.0 test planning, test case development. Continue to coordinate with PEO C3T Crypto Network Initialization for baseline Data Products and to incorporate the go-to-war Data Products into AIC tests. Plan and conduct AIC testing and data collection in the Network Integration Evaluation (NIE)/ Capability Integration Evaluation (CIE) to leverage the operational environment and NIE/CIE resources.				
Title: Engineering Services Articles: Description: Provide network engineering support to establish and maintain tactical architectures on the CTSF test floors and to deploying units at training centers around the world (NIE, JRTC, NTC, JMRC). System engineering support provides hardware virtualization, advanced host based security system (HBSS) support, system validation and integration support to numerous PMs on the integration and risk reduction labs, and assists Army programs with interoperability assessments and AIC rehearsal. FY 2013 Accomplishments: Supported AIC Integration and Testing. Conducted Network Integration checkout before each AIC to ensure systems and Network are ready for test. Supported PMs for COE V1.0 integration. Supported backward compatibility testing between SWB2 and CS11-12. Identified the challenges of having three fielded baselines and the interoperability limitations. Identified and incorporated software tools to monitor performance and assist in issue resolution. Integrated and implemented HBSS policies and assist PMs in HBSS implementation. Assisted integration and test architectures to include Program of Record (POR) and		6.160 -	0.742 -	0.481 -

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Exhibit R-2A, RDT&E Project Justification: PB 2015 Army			Date: March 2014		
Appropriation/Budget Activity 2040 / 5		R-1 Program Element (Number/Name) PE 0604818A / Army Tactical Command & Control Hardware & Software		Project (Number/Name) C29 / Centralized Technical Support Facility (CTSF)	
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)			FY 2013	FY 2014	FY 2015
<p>non-POR radio communications devices to provide PMs and Material Developers testing in realistic environments. Provided CTSF network and systems engineering support to ASA(ALT) System of Systems Integration (SoSI) and Systems for sensor and platform level for validation of end-to-end communications and interoperability, platform through Army Corps to Joint/Coalition; supported NIE. Provided software patch validation; network support for integration and test floors; network support to fielded units upon request; and systems engineering and analysis support to system of systems integration activities. Provided PMs with a Virtualization Suite, assist in virtualizing SW and assist PMs that are new to virtualization.</p> <p>FY 2014 Plans: Contine AIC Integration and Testing support. Conduct Network Integration checkout before each AIC to ensure systems and Network are ready for test. Support to PMs for COE V1.0 integration. Support to backward compatibility testing between SWBL2, CS11-12 and COE V1.0. Identify and incorporate software tools to monitor performance and assist in issue resolution. Decrease scope and size of engineering staff to implement the HQDA directed guidance to provide systems engineering support services only directed at test/certification research, tools and instrumentation to speed the testing of LWNMC systems. Provide PMs with a Virtualization Suite and assist in virtualizing SW.</p> <p>FY 2015 Plans: Continue to support AIC Integration and Testing. Conduct Network Integration checkout before each AIC to ensure systems and Network are ready for test. Support to PMs for COE V2.0 integration. Support to backward compatibility testing between CS11-12, COE V1.0 and COE V2.0. Identify and incorporate software tools to monitor performance and assist in issue resolution. Provide PMs with a Virtualization Suite, assist in virtualizing SW.</p>					
<p>Title: Configuration Management</p> <p align="right">Articles:</p> <p>Description: Establish and maintain the configuration baseline of the Army LandWarNet Mission Command Baseline (ALWNMCB) for Lifecycle Software Management (LCSM). CM facilitates orderly management of product configuration information and product baseline changes to enable capability revisions, improve reliability and maintainability, extend life, reduce cost, and provide support to MATDEV, PM and SO for a visual and informational retrievable authoritative database to assist with determining how to reduce risk and liability, and/or correct defects. Conduct Physical Configuration Audits (PCAs) at the start-of-exercise (StartEx) and end-of-exercise (EndEx) of testing; probe a representative hard drive of each type for each WFA and a representative sample of the windows systems before and after testing. Provide memorandum of record that authenticates the integrity of the software based on a comparison of before and after probes.</p> <p>FY 2013 Accomplishments: Verified configuration of PM software drops for SWB2, SWB11-12 and COE v1.0 prior to tri-annual or baseline AIC test; controlled software configuration during test; performed Change Management (ChM) for the Fielded Baselines for HQ/DA CIO/</p>			0.877 -	0.173 -	0.176 -

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Exhibit R-2A, RDT&E Project Justification: PB 2015 Army			Date: March 2014		
Appropriation/Budget Activity 2040 / 5		R-1 Program Element (Number/Name) PE 0604818A / Army Tactical Command & Control Hardware & Software	Project (Number/Name) C29 / Centralized Technical Support Facility (CTSF)		
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)			FY 2013	FY 2014	FY 2015
G6 and G3/5/7; and disseminated software to deployed/deploying units. Continued development/refinement of Configuration Management Tracking Tool Version 3 (CMTSv3) modules. FY 2014 Plans: Verify SWB11-12 for Tri-Annuals and COE v1.0 software configuration prior to bi-annual test events, control and manage configuration and architecture during test to ensure validity with certification event, and maintain baselines as Title 40 manager for HQ/DA CIO/G6 and G3/5/7; disseminate software to deployed/deploying units. Sustain Configuration Management Tracking Tool Version 3 (CMTSv3) to incorporate CMTSv3 Director Report and Incident Reporting of CTSF Certification of Systems Under test. Establish support to AGILE Process with access to CMTSv3 performing audits in support of activities performed at the NIE events. FY 2015 Plans: Verify software configuration prior to test, control configuration during test, and maintain baselines for HQ/DA CIO/G6 and G3/5/7; disseminate software to deployed/deploying units. Sustain Configuration Management Tracking Tool Version 3 (CMTSv3) to incorporate CTSF Baseline Tracking for Army Interoperability Certification of Systems Under Test. Sustain support to AGILE Process with access to CMTSv3 performing audits in support of activities performed at the NIE and events.					
Title: Management Operations/Program Office Articles: Description: Provide management operations consisting of programming and executing funds, personnel, contracts, and identifying reimbursable tests and collecting/allocating appropriate funds. FY 2013 Accomplishments: Program and execute funds/manpower/contracting requirements; track testing schedule, prepare/coordinate/track reimbursements for tests (e.g. Tri-Annual CS 11-12, Tri-Annual SWB2, AIC testing, Joint, Coalition, and future systems test events. Coordinate, plan and program field support for unit training and exercises. Maintain facility and test infrastructure. FY 2014 Plans: Program and execute funds/manpower/contracting requirements; track testing schedule, prepare/coordinate/track reimbursements for tests (COE V1.0 and v2.0 baseline and bi-annual testing, CS 11-12 Tri-Annual testing; Joint, and future systems test events. Provide field support coordination for unit training and exercises. Maintain facility and test infrastructure. FY 2015 Plans: Program and execute funds/manpower/contracting requirements; track testing schedule, prepare/coordinate/track reimbursements for tests (e.g. COE V1.0 and v2.0 baseline and bi-annual tests, CS 11-12 Tri-Annual testing, Joint, and future systems test events. Provide field support coordination for unit training and exercises. Maintain facility and test infrastructure.			2.603 -	1.100 -	1.023 -
Accomplishments/Planned Programs Subtotals			19.930	4.653	7.876

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Exhibit R-2A, RDT&E Project Justification: PB 2015 Army		Date: March 2014
Appropriation/Budget Activity 2040 / 5	R-1 Program Element (Number/Name) PE 0604818A / <i>Army Tactical Command & Control Hardware & Software</i>	Project (Number/Name) C29 / <i>Centralized Technical Support Facility (CTSF)</i>
<u>C. Other Program Funding Summary (\$ in Millions)</u> N/A		
<u>Remarks</u>		
<u>D. Acquisition Strategy</u> Execute system of systems interoperability testing and certification through the use of Government and Systems Engineering and Technical Analysis (SETA) contract personnel experienced in product development and interoperability testing. Testing and certification occurs in a cyclical fashion, with an expectation of an annual Software Block/Capability Set test followed with cyclical test events (Bi-Annual Tests) to ensure integrity of software baselines to the Warfighter. Engineering Services provides strategic integration of software into a system of systems/family of systems environment to support interoperability testing. Establish and maintain Configuration Management and version control of the Army's Interoperable Battle Command LandWarNet Baseline. Further expand distributed testing capability using local assets and leveraging other federated test facilities to create synergy and realize efficiencies, to include system of system test efforts, where possible at 2/1 AD/WSMR (NIE).		
<u>E. Performance Metrics</u> N/A		

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2015 Army												Date: March 2014			
Appropriation/Budget Activity 2040 / 5						R-1 Program Element (Number/Name) PE 0604818A / Army Tactical Command & Control Hardware & Software				Project (Number/Name) C29 / Centralized Technical Support Facility (CTSF)					
Product Development (\$ 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
MITRE Corp	FFRDC	Engineering Services : Fort Hood, TX	15.028	1.276	Oct 2012	0.569	Oct 2013	0.305	Oct 2014	-		0.305	Continuing	Continuing	Continuing
CECOM R2 3G	C/CPFF	Enterprise Integration & Validation Infrastructure : Fort Hood, TX	0.736	3.877	Sep 2012	-		-		-		-	-	4.613	-
In-House	Allot	Engineering Services : Fort Hood, TX	1.192	1.007	Oct 2012	0.173	Oct 2013	0.176	Oct 2014	-		0.176	Continuing	Continuing	Continuing
Subtotal			16.956	6.160		0.742		0.481		-		0.481	-	-	-
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
CECOM Matrix	MIPR	Program and Budget Analysis Support : Fort Hood, TX/ Aberdeen Proving Grounds, MD	3.173	0.311	Oct 2012	0.070	Oct 2013	0.180	Oct 2014	-		0.180	Continuing	Continuing	Continuing
In-House Support	Allot	Management Operations, Logistics Support : Fort Hood, TX	6.269	1.397	Oct 2012	0.905	Oct 2013	0.814	Oct 2014	-		0.814	Continuing	Continuing	Continuing
Supplies	C/UCA	Management Operations, Logistics Support : Fort Hood, TX	0.237	0.895	Oct 2012	0.125	Oct 2013	0.029	Oct 2014	-		0.029	Continuing	Continuing	Continuing
Subtotal			9.679	2.603		1.100		1.023		-		1.023	-	-	-

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2015 Army												Date: March 2014			
Appropriation/Budget Activity 2040 / 5						R-1 Program Element (Number/Name) PE 0604818A / Army Tactical Command & Control Hardware & Software				Project (Number/Name) C29 / Centralized Technical Support Facility (CTSF)					
Test and Evaluation (\$ 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
CECOM R2 3G	C/CPFF	Test, Configuration Management : Fort Hood, TX	1.471	4.358	Sep 2012	0.715	Sep 2013	2.703	Sep 2014	-		2.703	Continuing	Continuing	Continuing
CECOM S3	C/CPFF	Facilities, Maintenance, Security : Fort Hood, TX	1.965	3.474	Sep 2012	0.234	Sep 2013	1.200	Sep 2014	-		1.200	-	6.873	-
Instrumentation	C/UCA	Test Equipment Infrastructure : Fort Hood, TX	0.801	0.782	Oct 2012	0.004	Oct 2013	0.301	Oct 2014	-		0.301	Continuing	Continuing	Continuing
EPG Matrix	MIPR	Test : Fort Hood, TX	2.417	1.258	Oct 2012	1.178	Oct 2013	1.175	Oct 2014	-		1.175	Continuing	Continuing	Continuing
ISSA	MIPR	Test : Fort Hood, TX	3.728	0.716	Oct 2012	0.010	Oct 2013	0.311	Oct 2014	-		0.311	-	4.765	-
In-House Support	Allot	Test : Fort Hood,TX	0.818	0.579	Oct 2012	0.670	Oct 2013	0.682	Oct 2014	-		0.682	Continuing	Continuing	Continuing
Subtotal			11.200	11.167		2.811		6.372		-		6.372	-	-	-
Remarks															
CECOM R2 contract will provide Test and Configuration Management functions. CECOM S3 contract will provide Site Support/Facilities, Maintenance, and Security functions. Data based on revised FY13 cost analysis.															
			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			37.835	19.930		4.653		7.876		-		7.876	-	-	-
Remarks															

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Exhibit R-4, RDT&E Schedule Profile: PB 2015 Army

Date: March 2014

Appropriation/Budget Activity

2040 / 5

R-1 Program Element (Number/Name)

PE 0604818A / Army Tactical Command &
Control Hardware & Software

Project (Number/Name)

C29 / Centralized Technical Support Facility
(CTSF)

	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
SWB II Tri-Annual 2-13																												
2-14																												
2-15																												
2-16																												
2-17																												
SWB II Bi-Annual 2-1																												
2-2																												
2-3																												
SWB 11-12 Tri-Annual 11-6																												
Tri-Annual 11-7																												
11-8																												
11-9																												
11-10																												
11-11																												
SWB 11-12 Bi-Annual 11-1																												
11-2																												
11-3																												
11-4																												
11-5																												
11-6																												
11-7																												
COE 1.0 AIC																												
AIC 1.0 Follow-on																												
Bi-Annual 1.1																												

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Exhibit R-4, RDT&E Schedule Profile: PB 2015 Army																							Date: March 2014					
Appropriation/Budget Activity 2040 / 5												R-1 Program Element (Number/Name) PE 0604818A / Army Tactical Command & Control Hardware & Software								Project (Number/Name) C29 / Centralized Technical Support Facility (CTSF)								
	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
1.2																												
1.3																												
1.4																												
1.5																												
1.6																												
1.7																												
1.8																												
COE 2.0 AIC																												
AIC 2.2																												
Bi-Annual 2.1																												
2.2																												
2.3																												
2.4																												
2.5																												
2.6																												
CM																												
ES																												

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Exhibit R-4A, RDT&E Schedule Details: PB 2015 Army			Date: March 2014
Appropriation/Budget Activity 2040 / 5	R-1 Program Element (Number/Name) PE 0604818A / Army Tactical Command & Control Hardware & Software	Project (Number/Name) C29 / Centralized Technical Support Facility (CTSF)	

Schedule Details

Events	Start		End	
	Quarter	Year	Quarter	Year
SWB II Tri-Annual 2-13	2	2013	2	2013
2-14	3	2013	3	2013
2-15	4	2013	4	2013
2-16	2	2014	2	2014
2-17	1	2015	1	2015
SWB II Bi-Annual 2-1	3	2015	3	2015
2-2	1	2016	1	2016
2-3	3	2016	3	2016
SWB 11-12 Tri-Annual 11-6	1	2013	1	2013
Tri-Annual 11-7	2	2013	3	2013
11-8	3	2013	4	2013
11-9	1	2014	1	2014
11-10	2	2014	3	2014
11-11	4	2014	4	2014
SWB 11-12 Bi-Annual 11-1	1	2015	2	2015
11-2	4	2015	4	2015
11-3	1	2016	2	2016
11-4	4	2016	4	2016
11-5	1	2017	2	2017
11-6	4	2017	4	2017
11-7	1	2018	2	2018
COE 1.0 AIC	2	2014	3	2014

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Exhibit R-4A, RDT&E Schedule Details: PB 2015 Army			Date: March 2014	
Appropriation/Budget Activity 2040 / 5	R-1 Program Element (Number/Name) PE 0604818A / Army Tactical Command & Control Hardware & Software		Project (Number/Name) C29 / Centralized Technical Support Facility (CTSF)	

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Exhibit R-2A, RDT&E Project Justification: PB 2015 Army										Date: March 2014		
Appropriation/Budget Activity 2040 / 5					R-1 Program Element (Number/Name) PE 0604818A / Army Tactical Command & Control Hardware & Software				Project (Number/Name) C34 / Army Tac C2 Sys Eng			
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
C34: Army Tac C2 Sys Eng	-	20.101	11.030	8.978	-	8.978	14.277	13.709	12.728	12.804	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		
# The FY 2015 OCO Request will be submitted at a later date.												
Note												
Not applicable for this item.												
A. Mission Description and Budget Item Justification												
Project C34, Army Tactical Command and Control Systems Engineering: This project funds the PEO Command, Control, Communications-Tactical (PEO C3T) Technical Management Division (TMD) systems engineering and integration, experimentation, acquisition management, testing, fielding and sustainment support to ensure interoperability and affordability among the PEO C3T suite for Army Capability Sets (CS). The TMD focuses on System-of-Systems (SoS) Engineering and Integration for the C3T network with increased emphasis on immediate Warfighter needs as well as leveraging emerging technologies, through the G3 LandWarNet Capability Set Development and Integration. Fiscal Year 2015 will focus on the continued development, implementation and integration of the Command, Control, Communications, Computers, Combat Systems, Intelligence, Surveillance, and Reconnaissance (C5ISR) network architectures. This will include development of a technology enhancement roadmap for SoS capability evolution across the PEO C3T portfolio; network integration support and design products for CS validation at Network Integration Evaluations (NIE); integration of tactical Networked capabilities for all CS, initiative fieldings, and integration events; integration of tactical information assurance solutions and security measures for consistent cyber protection; leading integration of Army strategic and tactical NetOps capability; and execution of SoS developmental testing across the PEO portfolio in support of capability set fieldings.												
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)									FY 2013	FY 2014	FY 2015	
Title: Continue Army Tactical Battle Command and Network Synchronization and Integration Support									1.874	0.169	0.138	
									Articles: -	-	-	
Description: .												
FY 2013 Accomplishments:												
Continue the support of current force and the development of future force C5ISR across the tactical network to ensure all C3T programs are synchronized and redundancies and overlapping capabilities are reduced across the network and in synchronization with Common Operating Environment.												
FY 2014 Plans:												

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Exhibit R-2A, RDT&E Project Justification: PB 2015 Army		Date: March 2014		
Appropriation/Budget Activity 2040 / 5	R-1 Program Element (Number/Name) PE 0604818A / Army Tactical Command & Control Hardware & Software	Project (Number/Name) C34 / Army Tac C2 Sys Eng		
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)		FY 2013	FY 2014	FY 2015
Continue the support of current force and the development of future force C5ISR across the tactical network to ensure all Assistant Secretary of the Army (Acquisition, Logistics & Technology) (ASA(ALT)) programs are synchronized and redundancies and overlapping capabilities are reduced across the network and in synchronization with Common Operating Environment. FY 2015 Plans: Continue the support of current force and the development of future force C5ISR across the tactical network to ensure all Assistant Secretary of the Army (Acquisition, Logistics & Technology) (ASA(ALT)) programs are synchronized and redundancies and overlapping capabilities are reduced across the network and in synchronization with Common Operating Environment.				
Title: Continue Developmental Testing & Integration Testing between Programs of Record (PORs) and platforms / Command Posts (CPs) to execute System-of-Systems (SoS) and Interoperability Articles: Description: . FY 2013 Accomplishments: Continue to conduct integration testing and systems engineering for C3T non-program of record and program of record systems, products, technical insertions, and systems under evaluation to ensure integration of capabilities across the network. Provide collaborative developmental approach and training venue for new hire engineers. FY 2014 Plans: Continue to conduct integration testing and systems engineering for C3T non-program of record and program of record systems, products, technical insertions, and systems under evaluation to ensure integration of capabilities across the network. Provide training and continued development of current engineers. FY 2015 Plans: Continue to conduct integration testing and systems engineering for C3T non-program of record and program of record systems, products, technical insertions, and systems under evaluation to ensure integration of capabilities across the network. Provide training and continued development of current engineers.		2.193 -	1.651 -	1.344 -
Title: Continue Tactical Network Engineering Articles: Description: . FY 2013 Accomplishments:		1.482 -	0.946 -	0.770 -

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Exhibit R-2A, RDT&E Project Justification: PB 2015 Army		Date: March 2014	
Appropriation/Budget Activity 2040 / 5	R-1 Program Element (Number/Name) PE 0604818A / Army Tactical Command & Control Hardware & Software	Project (Number/Name) C34 / Army Tac C2 Sys Eng	
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)		FY 2013	FY 2014
Develop effective engineering strategies to integrate tactical applications for use across the C3T enterprise network. Continue to perform network planning and integration activities across all cross-domain system-of-systems future capabilities and technologies. FY 2014 Plans: Develop effective engineering strategies to integrate tactical applications for use across the C3T enterprise network. Continue to perform network planning and integration activities across all cross-domain system-of-systems future capabilities and technologies FY 2015 Plans: Develop effective engineering strategies to integrate tactical applications for use across the C3T enterprise network. Continue to perform network planning and integration activities across all cross-domain system-of-systems future capabilities and technologies.			
Title: Conduct and Support System Interoperability Engineering and Development of System-of-Systems (SoS) Architectural Products Articles: Description: . FY 2013 Accomplishments: Within the PEO C3T portfolio, continue to assess Emerging Technologies, identify critical integrated test points, conduct developmental testing at integration points, develop architectural data process/tool kits, and facilitate the transition of Network capabilities to the warfighter. FY 2014 Plans: Within the PEO C3T portfolio, continue to assess Emerging Technologies, identify critical integrated test points, conduct developmental testing at integration points, develop architectural data process/tool kits, and facilitate the transition of Network capabilities to the warfighter FY 2015 Plans: Within the PEO C3T portfolio, continue to assess Emerging Technologies, identify critical integrated test points, conduct developmental testing at integration points, develop architectural data process/tool kits, and facilitate the transition of Network capabilities to the warfighter.		3.013 -	2.126 -
Title: Continue Development and Implementation of Tactical Information Assurance (IA) Articles: Description: .		0.666 -	0.321 -
		1.730 -	

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Exhibit R-2A, RDT&E Project Justification: PB 2015 Army		Date: March 2014		
Appropriation/Budget Activity 2040 / 5	R-1 Program Element (Number/Name) PE 0604818A / Army Tactical Command & Control Hardware & Software	Project (Number/Name) C34 / Army Tac C2 Sys Eng		
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)		FY 2013	FY 2014	FY 2015
FY 2013 Accomplishments: Continue to support CIO/G6 and CYBERCOM guidance for execution of Information Assurance (IA) policies and procedures at the tactical level. Continue to plan and design security measures and IA requirements across the tactical network for future capabilities.				
FY 2014 Plans: Continue to support CIO/G6 and CYBERCOM guidance for execution of Information Assurance policies and procedures at the tactical level. Continue to plan and design security measures and IA requirements across the tactical network for future capabilities.				
FY 2015 Plans: Implement CIO/G6 and CYBERCOM guidance for execution of Information Assurance policies and procedures at the tactical level. Continue to document the current tactical IA network architecture with the goal of developing recommendations to eliminate inconsistencies/duplications, increasing the security posture, decreasing complexity of operations, and decreasing costs. Continue to plan and design security measures and IA requirements across the tactical network for future capabilities.				
Title: Continue System of Systems Development Articles:		5.556 -	3.784 -	3.080 -
Description: .				
FY 2013 Accomplishments: Continue to effectively manage overall System-of-Systems Engineering, Enterprise, and Integration efforts for the PEO C3T portfolio of technology and capability enhancement programs.				
FY 2014 Plans: Continue to effectively manage overall System-of-Systems Engineering, Enterprise, and Integration efforts for the PEO C3T portfolio of technology and capability enhancement programs.				
FY 2015 Plans: Continue to effectively manage overall System-of-Systems Engineering, Enterprise, and Integration efforts for the PEO C3T portfolio of technology and capability enhancement programs.				
Title: System of Systems (SoS) Engineering and Integration Evolution of the Network Articles:		2.882 -	2.033 -	1.655 -
Description: .				

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Exhibit R-2A, RDT&E Project Justification: PB 2015 Army			Date: March 2014		
Appropriation/Budget Activity 2040 / 5		R-1 Program Element (Number/Name) PE 0604818A / Army Tactical Command & Control Hardware & Software		Project (Number/Name) C34 / Army Tac C2 Sys Eng	
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)			FY 2013	FY 2014	FY 2015
<i>FY 2013 Accomplishments:</i> Continue to develop streamlined processes to support ASA(ALT) System-of-Systems Engineering & Integration (SoSE&I) and implement VE and Lean Six Sigma initiatives across all PEO C3T capabilities to include the Joint Coalition partners. Also continue to implement cross PEO System of Systems Engineering and Integration processes to ensure successful development Engineering and Testing.					
<i>FY 2014 Plans:</i> Continue to develop streamlined processes to support ASA(ALT) SoSE&I and implement VE and Lean Six Sigma initiatives across all PEO C3T capabilities to include the Joint Coalition partners. Also continue to implement cross PEO System of Systems Engineering and Integration processes to ensure successful development Engineering and Testing.					
<i>FY 2015 Plans:</i> Continue to develop streamlined processes to support ASA(ALT) SoSE&I and implement Value Engineering (VE) and Lean Six Sigma initiatives across all PEO C3T capabilities to include the Joint Coalition partners. Also continue to implement cross PEO System of Systems Engineering and Integration processes to ensure successful development Engineering and Testing.					
<i>Title:</i> Supports Network Initialization and enabling digital communication engineering support. <i>Description:</i> .			2.435	-	-
			<i>Articles:</i> -	-	-
<i>FY 2013 Accomplishments:</i> In support of the dynamic initialization development, providing warfighters with a transparent means of network initialization and enabling digital communication. The value added of this capability will provide the combatant commander with the long-awaited, operational flexibility of modifying his/her organization, while maintaining constant command and control, in order to adapt to the dynamic changes dictated by Mission, Enemy, Terrain, Troops & Time Available (METT_T). Additionally, this capability will benefit the taxpayer by significantly reducing the number of Field Service Representatives needed to support a static initialization capability, as well as, reducing the data product production staff needed to produce a static initialization product for every specific unit. This capability will shift the Project Directorate's focus from initialization data and data propagation to initialization standardization.					
Accomplishments/Planned Programs Subtotals			20.101	11.030	8.978
C. Other Program Funding Summary (\$ in Millions)					
N/A					

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Exhibit R-2A, RDT&E Project Justification: PB 2015 Army		Date: March 2014
Appropriation/Budget Activity 2040 / 5	R-1 Program Element (Number/Name) PE 0604818A / <i>Army Tactical Command & Control Hardware & Software</i>	Project (Number/Name) C34 / <i>Army Tac C2 Sys Eng</i>
C. Other Program Funding Summary (\$ in Millions) Remarks Not applicable for this item.		
D. Acquisition Strategy This project provides the technical and programmatic disciplines required for systems engineering and integration, experimentation, acquisition management, testing, interoperability, support to fielding and sustainment. It will focus on System-of-Systems (SoS) Systems Engineering and Integration for the tactical network with increased emphasis on immediate Warfighter needs as well as leveraging emerging technologies, through the G3 LandWarNet Capability Set Development and Integration. The Technical Management Division (TMD) will ensure that the Program Executive Office Command, Control, Communications-Tactical (PEO C3T) capability portfolio is effectively SoS engineered and integrated to meet the tactical Warfighter's evolving mission needs.		
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 / 5						R-1 Program Element (Number/Name) PE 0604818A / Army Tactical Command & Control Hardware & Software						Project (Number/Name) C34 / Army Tac C2 Sys Eng			
Product Development (\$ 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
Emerging Technologies	SS/FP	CACI : Aberdeen Proving Ground, MD	20.642	0.450		-		-		-		-	Continuing	Continuing	Continuing
Emerging Technologies	SS/FP	Southwest Research Installation : Aberdeen Proving Ground, MD	0.000	0.175		-		-		-		-	-	0.175	-
System Of System Engineering and Integration, Current and Strategic Initiatives	C/T&M	CSC Aberdeen Proving Ground /Fort Hood, TX : APG	50.619	7.071		-		-		-		-	Continuing	Continuing	Continuing
System of System Engineering & Integration, Current & Strategic Initiative, Architecture Integration	C/T&M	TBD : tbd	0.000	-		3.341		2.662		-		2.662	Continuing	Continuing	Continuing
Architecture Integration	C/T&M	CSC : various	7.756	1.249		-		-		-		-	Continuing	Continuing	Continuing
Systems Engineering Support	SS/FP	LOCKHEED MARTIN : Eatontown, NJ	7.799	-		-		-		-		-	Continuing	Continuing	Continuing
Systems Engineering Support	C/CPFF	Northrop Grumman : Arlington, VA	3.000	2.282		-		-		-		-	-	5.282	-
Systems Engineering Support	C/CPFF	TBD : tbd	0.000	-		1.749		1.393		-		1.393	Continuing	Continuing	Continuing
System of System Architectures, Engineering, and Integration	SS/FP	MITRE : Aberdeen Proving Ground, MD/ Eatontown, NJ	74.658	6.069		3.325		2.650		-		2.650	Continuing	Continuing	Continuing
Tactical Network Initialization	SS/FP	Future Skys Inc. : Neptune, NJ	0.000	0.600		-		-		-		-	Continuing	Continuing	Continuing
Subtotal			164.474	17.896		8.415		6.705		-		6.705	-	-	-

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2015 Army												Date: March 2014			
Appropriation/Budget Activity 2040 / 5						R-1 Program Element (Number/Name) PE 0604818A / Army Tactical Command & Control Hardware & Software				Project (Number/Name) C34 / Army Tac C2 Sys Eng					
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
IN-HOUSE SUPPORT	Various	PEO C3T : APG, MD	25.997	1.403		1.260		1.801		-		1.801	Continuing	Continuing	Continuing
MATRIX	Various	Various : Aberdeen Proving Ground, MD	10.061	0.802		1.006		0.472		-		0.472	Continuing	Continuing	Continuing
OTHER GOVERNMENT SUPPORT	Various	Various : Various	7.021	-		0.349		-		-		-	Continuing	Continuing	Continuing
Subtotal			43.079	2.205		2.615		2.273		-		2.273	-	-	-
			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			207.553	20.101		11.030		8.978		-		8.978	-	-	-
Remarks															

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Exhibit R-4, RDT&E Schedule Profile: PB 2015 Army			Date: March 2014		
Appropriation/Budget Activity 2040 / 5		R-1 Program Element (Number/Name) PE 0604818A / Army Tactical Command & Control Hardware & Software			Project (Number/Name) C34 / Army Tac C2 Sys Eng

	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
Continue Army Battle Command (ABCS)/ Capability Sets (CS) Testing and Eval																												
Network Load Exercise 13.1																												
Communication Exercise 13.1																												
Pilot 13.1																												
Network Load Exercise 13.2																												
Communication Exercise 13.2																												
Network Pilot 13.2																												
Capability Set 13 Fielding																												
Network Load Exercise 14.1																												
Communications Exercise 14.1																												
Network Pilot 14.1																												
Network Load Exercise 14.2																												
Communications Exercise 14.2																												
Network Pilot 14.2																												
Capability Set 14 Fielding																												

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Exhibit R-4A, RDT&E Schedule Details: PB 2015 Army			Date: March 2014
Appropriation/Budget Activity 2040 / 5	R-1 Program Element (Number/Name) PE 0604818A / <i>Army Tactical Command & Control Hardware & Software</i>	Project (Number/Name) C34 / <i>Army Tac C2 Sys Eng</i>	

Schedule Details

Events	Start		End	
	Quarter	Year	Quarter	Year
Continue Army Battle Command (ABCS)/Capability Sets (CS) Testing and Eval	1	2008	4	2019
Network Load Exercise 13.1	1	2013	1	2013
Communication Exercise 13.1	1	2013	1	2013
Pilot 13.1	1	2013	1	2013
Network Load Exercise 13.2	2	2013	2	2013
Communication Exercise 13.2	3	2013	3	2013
Network Pilot 13.2	3	2013	3	2013
Capability Set 13 Fielding	2	2013	2	2014
Network Load Exercise 14.1	1	2014	1	2014
Communications Exercise 14.1	1	2014	1	2014
Network Pilot 14.1	1	2014	1	2014
Network Load Exercise 14.2	2	2014	2	2014
Communications Exercise 14.2	3	2014	3	2014
Network Pilot 14.2	3	2014	3	2014
Capability Set 14 Fielding	1	2014	4	2014