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Exhibit R-2, RDT&E Budget Item Justification: PB 2014 Army	DATE: April 2013
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APPROPRIATION/BUDGET ACTIVITY					R-1 ITEM NOMENCLATURE							
2040: <i>Research, Development, Test & Evaluation, Army</i> BA 5: <i>System Development & Demonstration (SDD)</i>					PE 0604818A: <i>Army Tactical Command & Control Hardware & Software</i>							
COST (\$ in Millions)	All Prior Years	FY 2012	FY 2013 [#]	FY 2014 Base	FY 2014 OCO ^{##}	FY 2014 Total	FY 2015	FY 2016	FY 2017	FY 2018	Cost To Complete	Total Cost
Total Program Element	-	91.490	77.223	22.958	-	22.958	42.754	46.240	34.933	35.451	Continuing	Continuing
323: <i>Common Hardware Systems</i>	-	7.664	8.012	5.813	-	5.813	9.312	16.425	8.051	8.000	Continuing	Continuing
334: <i>Common Software</i>	-	43.313	0.127	1.453	-	1.453	2.511	2.372	2.261	2.528	Continuing	Continuing
C29: <i>Centralized Technical Support Facility (CTSF)</i>	-	12.584	20.579	4.656	-	4.656	10.343	9.529	7.928	7.923	Continuing	Continuing
C34: <i>Army Tac C2 Sys Eng</i>	-	15.169	48.505	11.036	-	11.036	20.588	17.914	16.693	17.000	Continuing	Continuing
JN1: <i>JOINT NETWORK NODE (JNN) TESTING</i>	-	12.760	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000	Continuing	Continuing

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

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

Note

Reductions reflect reallocation of funds to higher-priority Army efforts.

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 state-of-the-art, fully qualified, interoperable, compatible, deployable, and survivable hardware and computer networking equipment for command, control, and communications at all echelons of command for the United States Army and other Department of Defense (DoD) services. CHS services are provided 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 procures, 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 digitization 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

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APPROPRIATION/BUDGET ACTIVITY

2040: *Research, Development, Test & Evaluation, Army*
BA 5: *System Development & Demonstration (SDD)*

R-1 ITEM NOMENCLATURE

PE 0604818A: *Army Tactical Command & Control Hardware & Software*

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.

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 (Unified Battle 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.

The JNN Warfighter Information Network-Tactical (WIN-T Increment 1) is intended to replace MSE while moving the Army to a unified EOIP Communications System. JNN Testing is the Increment 1b Technical Insertion to Increment 1a for Operational Test, which was conducted in FY 2012 in conjunction with the Increment 2 Initial Operational Test and Evaluation. These systems support the Legacy to Objective transition path. The network is capable of passing unclassified and classified traffic, throughout its entire structure, from Home Station Operations center to the furthest forward Battalion Elements. Designed to meet modularity and rapid deployment mandate, the network is

B. Program Change Summary (\$ in Millions)	FY 2012	FY 2013	FY 2014 Base	FY 2014 OCO	FY 2014 Total
Previous President's Budget	93.846	77.223	47.468	-	47.468
Current President's Budget	91.490	77.223	22.958	-	22.958
Total Adjustments	-2.356	0.000	-24.510	-	-24.510
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-	-			
• Adjustments to Budget Years	-	-	-24.510	-	-24.510
• Other Adjustments 1	-2.356	-	-	-	-

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Exhibit R-2A, RDT&E Project Justification: PB 2014 Army									DATE: April 2013			
APPROPRIATION/BUDGET ACTIVITY 2040: Research, Development, Test & Evaluation, Army BA 5: System Development & Demonstration (SDD)					R-1 ITEM NOMENCLATURE PE 0604818A: Army Tactical Command & Control Hardware & Software				PROJECT 323: Common Hardware Systems			
COST (\$ in Millions)	All Prior Years	FY 2012	FY 2013 [#]	FY 2014 Base	FY 2014 OCO ^{##}	FY 2014 Total	FY 2015	FY 2016	FY 2017	FY 2018	Cost To Complete	Total Cost
323: Common Hardware Systems	-	7.664	8.012	5.813	-	5.813	9.312	16.425	8.051	8.000	Continuing	Continuing
Quantity of RDT&E Articles												
# FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012												
## The FY 2014 OCO Request will be submitted at a later date												
A. Mission Description and Budget Item Justification												
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 at all echelons of command for the United States Army and other Department of Defense (DoD) services. CHS also provides worldwide repair, maintenance, logistics, and technical support 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 2014 funds allow CHS to continue to manage the acquisition and delivery of CHS equipment, technology insertion (adding new hardware to contract) and common standardized testing in support of customer requirements. CHS will begin CHS-5 contract pre-award activities.												
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)									FY 2012	FY 2013	FY 2014	
Title: Acquisition management/delivery of CHS equipment in support of customer requirements Articles: Description: Funding is provided for the following effort FY 2012 Accomplishments: Will continue the management of the acquisition/delivery of CHS equipment in support of customer requirements FY 2013 Plans: Will continue the management of the acquisition/delivery of CHS equipment in support of customer requirements FY 2014 Plans: Will continue the management of the acquisition/delivery of CHS equipment in support of customer requirements									6.864	7.212	5.313	
									0	0		
Title: CHS equipment testing efforts Articles: Description: Funding is provided for the following effort									0.300	0.300	0.000	
									0	0		

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Exhibit R-2A, RDT&E Project Justification: PB 2014 Army		DATE: April 2013	
APPROPRIATION/BUDGET ACTIVITY 2040: <i>Research, Development, Test & Evaluation, Army</i> BA 5: <i>System Development & Demonstration (SDD)</i>		R-1 ITEM NOMENCLATURE PE 0604818A: <i>Army Tactical Command & Control Hardware & Software</i>	PROJECT 323: <i>Common Hardware Systems</i>
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)		FY 2012	FY 2013
FY 2012 Accomplishments: Future CHS customer testing efforts FY 2013 Plans: Will continue to support CHS customer testing efforts			
Title: CHS technology insertion Description: Funding is provided for the following effort FY 2012 Accomplishments: Continue CHS technology insertion FY 2013 Plans: Continue CHS technology insertion FY 2014 Plans: Continue CHS technology insertion		Articles: 0.500 0	0.500 0
Accomplishments/Planned Programs Subtotals		7.664	5.813
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. 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.			

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Exhibit R-2A, RDT&E Project Justification: PB 2014 Army		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 2040: Research, Development, Test & Evaluation, Army BA 5: System Development & Demonstration (SDD)	R-1 ITEM NOMENCLATURE PE 0604818A: Army Tactical Command & Control Hardware & Software	PROJECT 323: Common Hardware Systems

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 FY15 to provide flexibility for Tactical PORs to meet hardware and associated services requirements through full and open competition and to provide an agile solution to support CP CE, network integration activities, capability set development, and transport needs.

E. Performance Metrics

Performance metrics used in the preparation of this justification material may be found in the FY 2010 Army Performance Budget Justification Book, dated May 2010.

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Army												DATE: April 2013			
APPROPRIATION/BUDGET ACTIVITY 2040: Research, Development, Test & Evaluation, Army BA 5: System Development & Demonstration (SDD)						R-1 ITEM NOMENCLATURE PE 0604818A: Army Tactical Command & Control Hardware & Software				PROJECT 323: Common Hardware Systems					
Product Development (\$ in Millions)				FY 2012		FY 2013		FY 2014 Base		FY 2014 OCO		FY 2014 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Support Costs	C/FP	Various:Various	68.226	3.657	Dec 2011	3.730	Dec 2012	2.575	Dec 2013	-		2.575	Continuing	Continuing	Continuing
Product Development	C/FP	Various:Various	77.908	3.207	Dec 2011	3.482	Dec 2012	2.738	Dec 2013	-		2.738	Continuing	Continuing	Continuing
CHS-3 Non Recurring Engineering	C/FFP	General Dynamics:Taunton, MA	17.500	-		-		-		-		-	0.000	17.500	0.000
CHS-4 Non-Recurring Engineering	C/FP	Various:Various	14.150	-		-		-		-		-	Continuing	Continuing	Continuing
Technology Insertion	C/FP	Various:Various	14.277	0.500	Dec 2011	0.500	Dec 2012	0.500	Dec 2013	-		0.500	Continuing	Continuing	Continuing
Subtotal			192.061	7.364		7.712		5.813		0.000		5.813			
Test and Evaluation (\$ in Millions)				FY 2012		FY 2013		FY 2014 Base		FY 2014 OCO		FY 2014 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
CHS Test Activities	Various	Other Government Activities:various	2.354	0.300	Dec 2011	0.300	Dec 2012	-		-		-	Continuing	Continuing	Continuing
Subtotal			2.354	0.300		0.300		0.000		0.000		0.000			
			All Prior Years	FY 2012		FY 2013		FY 2014 Base		FY 2014 OCO		FY 2014 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals			194.415	7.664		8.012		5.813		0.000		5.813			
Remarks															

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Exhibit R-4, RDT&E Schedule Profile: PB 2014 Army																DATE: April 2013			
APPROPRIATION/BUDGET ACTIVITY								R-1 ITEM NOMENCLATURE								PROJECT			
2040: Research, Development, Test & Evaluation, Army								PE 0604818A: Army Tactical Command & Control Hardware & Software								323: Common Hardware Systems			
BA 5: System Development & Demonstration (SDD)																			

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Exhibit R-4A, RDT&E Schedule Details: PB 2014 Army		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 2040: Research, Development, Test & Evaluation, Army BA 5: System Development & Demonstration (SDD)	R-1 ITEM NOMENCLATURE PE 0604818A: Army Tactical Command & Control Hardware & Software	PROJECT 323: Common Hardware Systems

Schedule Details

Events	Start		End	
	Quarter	Year	Quarter	Year
CHS-5 Contract Award	1	2015	1	2015

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Exhibit R-2A, RDT&E Project Justification: PB 2014 Army									DATE: April 2013			
APPROPRIATION/BUDGET ACTIVITY 2040: Research, Development, Test & Evaluation, Army BA 5: System Development & Demonstration (SDD)					R-1 ITEM NOMENCLATURE PE 0604818A: Army Tactical Command & Control Hardware & Software				PROJECT 334: Common Software			
COST (\$ in Millions)	All Prior Years	FY 2012	FY 2013 [#]	FY 2014 Base	FY 2014 OCO ^{##}	FY 2014 Total	FY 2015	FY 2016	FY 2017	FY 2018	Cost To Complete	Total Cost
334: Common Software	-	43.313	0.127	1.453	-	1.453	2.511	2.372	2.261	2.528	Continuing	Continuing
Quantity of RDT&E Articles												
# FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012												
## The FY 2014 OCO Request will be submitted at a later date												
Note												
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 digitization efforts.												
FY14 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 2012	FY 2013	FY 2014	
Title: MC systems single common software enterprise infrastructure development in support of Army and Joint Services requirements. Articles: Description: Funding is provided for the following effort FY 2012 Accomplishments: Will continue the development, acquisition management and delivery of the MC common software enterprise infrastructure in support of Army and Joint Services requirements.									8.455 0	0.000	0.000	
Title: Joint and Coalition interoperability efforts.									1.006 0	0.127 0	0.000	

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Exhibit R-2A, RDT&E Project Justification: PB 2014 Army		DATE: April 2013		
APPROPRIATION/BUDGET ACTIVITY 2040: Research, Development, Test & Evaluation, Army BA 5: System Development & Demonstration (SDD)	R-1 ITEM NOMENCLATURE PE 0604818A: Army Tactical Command & Control Hardware & Software	PROJECT 334: Common Software		
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)		FY 2012	FY 2013	FY 2014
Description: Funding is provided for the following effort FY 2012 Accomplishments: Will continue to serve as the executive agent and provide software for interoperability of Joint and Coalition efforts. FY 2013 Plans: Will continue to serve as the executive agent and provide software for interoperability of Joint and Coalition efforts.				
Title: Mission Command (MC) systems common software service architecture products. Articles: Description: Funding is provided for the following effort FY 2012 Accomplishments: Will continue to develop and evolve the System of System (SoS) architecture for MC, and other systems to include data mediation, tactical messaging, addressing and network initialization and management through the WIT (Warfighter Initialization Tool)		1.898 0	0.000	0.000
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: Description: Funding is provided for the following effort. FY 2012 Accomplishments: 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 as necessary to integrate, integration with common computing environments, and validation. FY 2014 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 as necessary to integrate, integration with common computing environments, and validation.		31.954 0	0.000	1.453
Accomplishments/Planned Programs Subtotals		43.313	0.127	1.453

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Exhibit R-2A, RDT&E Project Justification: PB 2014 Army		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 2040: <i>Research, Development, Test & Evaluation, Army</i> BA 5: <i>System Development & Demonstration (SDD)</i>	R-1 ITEM NOMENCLATURE PE 0604818A: <i>Army Tactical Command & Control Hardware & Software</i>	PROJECT 334: <i>Common Software</i>
C. Other Program Funding Summary (\$ in Millions) N/A		
Remarks Not applicable.		
D. Acquisition Strategy 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. 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.		
E. Performance Metrics Performance metrics used in the preparation of this justification material may be found in the FY 2010 Army Performance Budget Justification Book, dated May 2010.		

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Army												DATE: April 2013			
APPROPRIATION/BUDGET ACTIVITY 2040: Research, Development, Test & Evaluation, Army BA 5: System Development & Demonstration (SDD)						R-1 ITEM NOMENCLATURE PE 0604818A: Army Tactical Command & Control Hardware & Software						PROJECT 334: Common Software			
Management Services (\$ in Millions)				FY 2012		FY 2013		FY 2014 Base		FY 2014 OCO		FY 2014 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Program Office Management	Various	PM Mission Command:Various	8.414	0.747	Jan 2012	0.127		0.320	Jan 2014	-		0.320	Continuing	Continuing	0.000
Subtotal			8.414	0.747		0.127		0.320		0.000		0.320			0.000
Product Development (\$ in Millions)				FY 2012		FY 2013		FY 2014 Base		FY 2014 OCO		FY 2014 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
CS Product Engineering/ Software Development	C/CPFF	Future Skies:Wall Township, NJ	115.135	7.721	Feb 2012	-		-		-		-	Continuing	Continuing	0.000
Mission Command/Army System Engineering & Integration	Various	CACI:Various	4.731	0.816	May 2012	-		1.133	Jan 2014	-		1.133	Continuing	Continuing	0.000
Mission Command System of Systems Architecture Development	Various	Various Contractors / Various Locations:Various	13.228	1.158	Mar 2012	-		-		-		-	Continuing	Continuing	0.000
Evaluation, modification, validation and integration of developed SW	Various	Various:Various	0.000	30.913	Jul 2012	-		-		-		-	Continuing	Continuing	0.000
Subtotal			133.094	40.608		0.000		1.133		0.000		1.133			0.000
Support (\$ in Millions)				FY 2012		FY 2013		FY 2014 Base		FY 2014 OCO		FY 2014 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Program Support	Various	PM Mission Command:Various	6.939	0.567	Apr 2012	-		-		-		-	Continuing	Continuing	0.000
Technical Support	Various	CACI / Various Contractors:APG, MD	1.948	0.191	Apr 2012	-		-		-		-	Continuing	Continuing	0.000
Subtotal			8.887	0.758		0.000		0.000		0.000		0.000			0.000

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Army												DATE: April 2013			
APPROPRIATION/BUDGET ACTIVITY 2040: <i>Research, Development, Test & Evaluation, Army</i> BA 5: <i>System Development & Demonstration (SDD)</i>						R-1 ITEM NOMENCLATURE PE 0604818A: <i>Army Tactical Command & Control Hardware & Software</i>						PROJECT 334: <i>Common Software</i>			

Test and Evaluation (\$ in Millions)				FY 2012		FY 2013		FY 2014 Base		FY 2014 OCO		FY 2014 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Developmental Test	Various	Various Contractors/ Various locations:Various	5.945	1.200	Feb 2012	-		-		-		-	Continuing	Continuing	0.000
Subtotal			5.945	1.200		0.000		0.000		0.000		0.000			0.000

	All Prior Years	FY 2012		FY 2013		FY 2014 Base		FY 2014 OCO		FY 2014 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	156.340	43.313		0.127		1.453		0.000		1.453			0.000

Remarks

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Exhibit R-2A, RDT&E Project Justification: PB 2014 Army										DATE: April 2013		
APPROPRIATION/BUDGET ACTIVITY					R-1 ITEM NOMENCLATURE				PROJECT			
2040: Research, Development, Test & Evaluation, Army BA 5: System Development & Demonstration (SDD)					PE 0604818A: Army Tactical Command & Control Hardware & Software				C29: Centralized Technical Support Facility (CTSF)			
COST (\$ in Millions)	All Prior Years	FY 2012	FY 2013 [#]	FY 2014 Base	FY 2014 OCO ^{##}	FY 2014 Total	FY 2015	FY 2016	FY 2017	FY 2018	Cost To Complete	Total Cost
C29: Centralized Technical Support Facility (CTSF)	-	12.584	20.579	4.656	-	4.656	10.343	9.529	7.928	7.923	Continuing	Continuing
Quantity of RDT&E Articles												

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

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

A. Mission Description and Budget Item Justification

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 2012	FY 2013	FY 2014
Title: Army Interoperability Certification (AIC) Testing	6.584	10.290	1.955
Articles:	0	0	
Description: Description: Conduct Army Interoperability Certification testing/planning/data collection/ data analysis/reporting, interoperability baseline testing, simulation/stimulation validation and distributed testing. Manage the set-up, configuration, integration, and operations and maintenance of the LandWarNet systems on the test floors 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 to support updates to the G-3/5/7 managed baseline.			
FY 2012 Accomplishments: SWB1 is no longer fielded; testing of SWB1 is no longer required; SWB2 is still fielded; limited changes occur. Continued CS 11-12 Tri-Annual and CS 13-14/COE V1.0 baseline AIC test planning, test case development, preparation of test floor architecture design to include information assurance software/ compliance, test tools, and test execution; prepared to conduct CS 13-14/COE V1.0 testing/evaluation and certification. Continued to coordinate with PEO C3T Tactical Network Initialization for baseline Data			

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Exhibit R-2A, RDT&E Project Justification: PB 2014 Army			DATE: April 2013		
APPROPRIATION/BUDGET ACTIVITY 2040: <i>Research, Development, Test & Evaluation, Army</i> BA 5: <i>System Development & Demonstration (SDD)</i>		R-1 ITEM NOMENCLATURE PE 0604818A: <i>Army Tactical Command & Control Hardware & Software</i>		PROJECT C29: <i>Centralized Technical Support Facility (CTSF)</i>	
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)			FY 2012	FY 2013	FY 2014
Products and to incorporate the go-to-war Data Products into AIC tests. Supported CIO/G-6 and TRADOC in developing new test methodology to assess interoperability as systems transition to the implementation of the Common Operating Environment (COE). Supported EPG, ATEC, and OCSE as they develop new test tools to collect data in support of the COE. Facilitated distributed testing as the CIO/G-6 Federated Army Network Site's (FaNS) hub for Network Integration testing in a system of system architecture. FY 2013 Plans: Continue 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; upgrade/refresh 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. Unique infrastructure will be leveraged by ASA(ALT) prior to AIC testing to complete System of System integration. Prepare and execute COE 1.0 AIC conducting information assurance software/compliance, test tools verification of data, and conduct COE 1.0 testing/evaluation and certification; begin COE 2.0 test planning, test case development. Continue to coordinate with PEO C3T Tactical Crypto Network Initialization and to incorporate select go-to-war Data Products into AIC tests. Plan for AIC testing and data collection in the Network Integration Evaluation (NIE) to leverage the operational environment and NIE resources. FY 2014 Plans: Conduct COE 1.0 testing/evaluation and certification. Continue COE 1.0 bi-annual test planning, test case development, to include information assurance software/compliance, and test tools. Continue COE 2.0 test planning and test case development; coordinate with PMs for systems undergoing COE 2.0 testing to determine test architecture; finalize 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. Plan and conduct AIC testing and data collection in the Network Integration Evaluation (NIE) to leverage the operational environment and NIE 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 2012 Accomplishments:			3.540 0	7.301 0	1.473

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B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)			FY 2012	FY 2013	FY 2014
Supported AIC Integration and Testing. Supported PMs for CS 11-12 integration. Supported backward compatibility testing between SWB2 and CS 11-12. Identified and incorporated software tools to monitor performance and assist in issue resolution. Integrated and implemented HBSS technology. Assisted integration and test architectures to include Program of Record (POR) and non-POR radio communications devices to provide PMs and Material Developers testing in realistic environments. Provided CTSF network and systems engineering support to System of Systems Integration Directorate (SoSID) and 2/1 AD/WSMR 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, assisted in virtualizing SW and assist PMs that are new to virtualization. Instituted an Engineering Academy to provide Network Engineering Training.					
FY 2013 Plans: Support AIC Integration and Testing. Support to PMs for CS 13-14/COE V1.0 integration. Support to backward compatibility testing between CS11-12 and CS13-14/COE V1.0. Identify and incorporate software tools to monitor performance and assist in issue resolution. Integrate and implement HBSS technology. Assist integration and test architectures to include Program of Record (POR) and non-POR radio communications devices to provide PMs and Material Developers testing in realistic environments. Provide CTSF network and systems engineering support to System of Systems Integration Directorate (SoSID) and 2/1 AD/WSMR for sensor and platform level for validation of end-to-end communications and interoperability, platform through Army Corps to Joint/Coalition; support NIE. Provide 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. Provide PMs with a Virtualization Suite, assist in virtualizing SW and assist PMs that are new to virtualization.					
FY 2014 Plans: Support AIC Integration and Testing. Support to PMs for COE V1.0 integration. Support to backward compatibility testing between CS11-12 and CS13-14/COE V1.0. Identify and incorporate software tools to monitor performance and assist in issue resolution. Assist integration and test architectures to include Program of Record (POR) and non-POR radio communications devices to provide PMs and Material Developers testing in realistic environments. Provide PMs with a Virtualization Suite and assist in virtualizing SW.					
Title: Configuration Management			1.206	1.427	0.299
Articles:			0	0	
Description: Verify configuration, prior to test, of Program/Product Manager delivered software; control configuration during Program Manager tests of approved Warfighter baselines; maintain configuration integrity of certification test environment; maintain configuration management of certification baselines for HQ/DA CIO/G6 and the LandWarNet/Mission Command baseline for HQ/DA G3/5/7; disseminate approved software to deployed/deploying units.					

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Exhibit R-2A, RDT&E Project Justification: PB 2014 Army		DATE: April 2013			
APPROPRIATION/BUDGET ACTIVITY 2040: Research, Development, Test & Evaluation, Army BA 5: System Development & Demonstration (SDD)		R-1 ITEM NOMENCLATURE PE 0604818A: Army Tactical Command & Control Hardware & Software	PROJECT C29: Centralized Technical Support Facility (CTSF)		
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)		FY 2012	FY 2013	FY 2014	
FY 2012 Accomplishments: Verified software configurations prior to test, controlled certification during test, and maintained baselines for HQ/DA CIO/G6 and LandWarNet baselines for HQ/DA G3/5/7; sustained Configuration Management Tracking Tool Version 3 (CMTSv3) to incorporate CTSF Baseline tracking for Army Interoperability Certification of Systems Under test. Began development of CMTSv3 modules to support the AGILE Process.					
FY 2013 Plans: Verify configuration of PM software drops for COE 1.0 prior to AIC test, control software configuration during test, and maintain baselines for HQ/DA CIO/G6 and LandWarNet/MC baselines for HQ/DA G3/5/7; disseminate software to deployed/deploying units. Continue development/refinement of Sustain Configuration Management Tracking Tool Version 3 (CMTSv3) modules.					
FY 2014 Plans: Verify COE 1.0 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 10 manager for HQ/DA CIO/G6 and LandWarNet/MC baselines for HQ/DA 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. Establish support to AGILE Process with access to CMTSv3 performing audits in support of activities performed at the NIE.					
Title: Management Operations/Program Office		1.254	1.561	0.929	
Articles:		0	0		
Description: Provide management operations consisting of programming and executing funds, personnel, contracts, and identifying reimbursable tests and allocating/collecting appropriate funds.					
FY 2012 Accomplishments: Programmed and executed funds/manpower/contracting requirements; tracked testing schedule, prepared/coordinated/tracked reimbursements for tests (e.g. CS 11-12 Tri-Annual, CS 13-14/COE V1.0, Joint, Coalition, 2/1 AD/WSMR [NIE], etc); and future systems integration. Planned and programmed field support for unit training and exercises.					
FY 2013 Plans: 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, 2/1 AD/WSMR [NIE]), and future systems test events. Coordinate, plan and program field support for unit training and exercises.					
FY 2014 Plans:					

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B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)		FY 2012	FY 2013
Program and execute funds/manpower/contracting requirements; track testing schedule, prepare/coordinate/track reimbursements for tests (COE V1.0 testing, CS 11-12 Tri-Annual testing. Joint, Coalition, 2/1 AD/WSMR [NIE]), and future systems test events. Provide field support coordination for unit training and exercises.			
Accomplishments/Planned Programs Subtotals		12.584	20.579
C. Other Program Funding Summary (\$ in Millions) N/A			
Remarks			
D. Acquisition Strategy 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 (Tri-Annual/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 at 2/1 AD/WSMR (NIE).			
E. Performance Metrics Performance metrics used in the preparation of this justification material may be found in the FY 2010 Army Performance Budget Justification Book, dated May 2010.			

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Army												DATE: April 2013			
APPROPRIATION/BUDGET ACTIVITY 2040: Research, Development, Test & Evaluation, Army BA 5: System Development & Demonstration (SDD)						R-1 ITEM NOMENCLATURE PE 0604818A: Army Tactical Command & Control Hardware & Software						PROJECT C29: Centralized Technical Support Facility (CTSF)			
Product Development (\$ in Millions)				FY 2012		FY 2013		FY 2014 Base		FY 2014 OCO		FY 2014 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
MITRE Corp	FFRDC	Engineering Services:Fort Hood, TX	13.144	1.884	Oct 2011	1.925	Oct 2012	1.150	Oct 2012	-		1.150	Continuing	Continuing	Continuing
CECOM R2 3G	C/CPFF	Enterprise Integration & Validation Infrastructure:Fort Hood, TX	0.000	0.736	Sep 2011	3.877	Sep 2012	0.033	Sep 2013	-		0.033	Continuing	Continuing	Continuing
In-House	Allot	Engineering Services:Fort Hood, TX	0.272	0.920	Oct 2011	1.007	Oct 2012	0.290	Oct 2013	-		0.290	Continuing	Continuing	Continuing
Subtotal			13.416	3.540		6.809		1.473		0.000		1.473			
Support (\$ in Millions)				FY 2012		FY 2013		FY 2014 Base		FY 2014 OCO		FY 2014 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
CECOM Matrix	MIPR	Program and Budget Analysis Support:Fort Hood, TX/Aberdeen Proving Grounds, MD	2.862	0.311	Oct 2011	0.311	Oct 2012	0.049	Oct 2013	-		0.049	Continuing	Continuing	Continuing
In-House Support	Allot	Management Operations, Logistics Support:Fort Hood, TX	4.926	1.343	Oct 2011	1.397	Oct 2012	0.800	Oct 2013	-		0.800	Continuing	Continuing	Continuing
Supplies	C/UCA	Management Operations, Logistics Support:Fort Hood, TX	0.000	0.237	Oct 2011	0.895	Oct 2012	0.080	Oct 2013	-		0.080	Continuing	Continuing	Continuing
Subtotal			7.788	1.891		2.603		0.929		0.000		0.929			

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PE 0604818A: Army Tactical Command & Control Hardware & Softwar...
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Exhibit R-4, RDT&E Schedule Profile: PB 2014 Army			DATE: April 2013		
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			PROJECT C29: <i>Centralized Technical Support Facility (CTSF)</i>		

	FY 2012				FY 2013				FY 2014				FY 2015				FY 2016				FY 2017				FY 2018			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
COE V1.0 (CS13-14)																												
--FBCB2 JCR 1.3																												
--JBCP 1.0																												
--WIN-T Inc 3																												

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Exhibit R-4A, RDT&E Schedule Details: PB 2014 Army			DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 2040: <i>Research, Development, Test & Evaluation, Army</i> BA 5: <i>System Development & Demonstration (SDD)</i>	R-1 ITEM NOMENCLATURE PE 0604818A: <i>Army Tactical Command & Control Hardware & Software</i>	PROJECT C29: <i>Centralized Technical Support Facility (CTSF)</i>	

Schedule Details

Events	Start		End	
	Quarter	Year	Quarter	Year
COE V1.0 (CS13-14)	3	2013	4	2018
--FBCB2 JCR 1.3	4	2012	3	2013
--JBCP 1.0	4	2012	4	2013
--WIN-T Inc 3	3	2015	1	2016

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APPROPRIATION/BUDGET ACTIVITY 2040: Research, Development, Test & Evaluation, Army BA 5: System Development & Demonstration (SDD)					R-1 ITEM NOMENCLATURE PE 0604818A: Army Tactical Command & Control Hardware & Software				PROJECT C34: Army Tac C2 Sys Eng			
COST (\$ in Millions)	All Prior Years	FY 2012	FY 2013 [#]	FY 2014 Base	FY 2014 OCO ^{##}	FY 2014 Total	FY 2015	FY 2016	FY 2017	FY 2018	Cost To Complete	Total Cost
C34: Army Tac C2 Sys Eng	-	15.169	48.505	11.036	-	11.036	20.588	17.914	16.693	17.000	Continuing	Continuing
Quantity of RDT&E Articles												
# FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012												
## The FY 2014 OCO Request will be submitted at a later date												
Note												
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 2014 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 integrator 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 2012	FY 2013	FY 2014	
Title: Continue Army Tactical Battle Command and Network Synchronization and Integration Support									1.277	1.893	0.169	
									0	0		
Description: .												
FY 2012 Accomplishments:												
Provide system-of-systems engineering and technical support to integrate the tactical network across all PEOs in the Army. Design and integrate Network Integration Evaluation and network integration rehearsal activities to include technical recommendations in Network Convergence, Handheld capabilities, Enhanced Mission Command, Command Posts, & network operations. Provide on-site support to troubleshoot the tactical network and work across the Command, Control,												

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B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)		FY 2012	FY 2013	FY 2014
Communications, Computers, Combat Systems, Intelligence, Surveillance, and Reconnaissance (C5ISR) community to develop courses of action in resolving communication and architectural issues. FY 2013 Plans: 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: 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 / CPs to execute System-of-Systems (SoS) and Interoperability Articles: Description: . FY 2012 Accomplishments: Perform network integration efforts to ensure transport and mission command capabilities are integrated on platforms and in the command post. Develop strategies and system-of-systems frameworks to extend the current platform capabilities to the dismounted soldier and to extend mission command applications to on-the-move platforms. Develop execution plan for the integration of future Joint/Coalition capability requirements into the Common Operating Environment framework. Execute ongoing PEO C3T system-of-systems technology insertion evaluation and risk mitigation testing prior to certification and integrated test events. FY 2013 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 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 collaborative developmental approach and training venue for new hire engineers.		1.651 0	2.215 0	1.652
Title: Continue Tactical Network Engineering		1.240	1.497	0.947

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B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)		FY 2012	FY 2013	FY 2014
Articles: Description: . FY 2012 Accomplishments: Design and integrate the Network for the capstone integrated tests and evaluations; provide systems engineering leadership for event planning and on-site support to troubleshoot Network. Lead the Initialization, Network Services, Mission Command, Logistics , NetOps, Test, and system-of-systems engineering Integrated Product Teams (IPTs). Validate ability to maneuver battle command services across the Enterprise and support Army Common Operating Environment(s) framework and implementation. Engineer a baseline PRC-117G network architecture and work with CREW engineers to identify an interoperable solution. FY 2013 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 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.		0	0	
Title: Conduct and Support System Interoperability Engineering and Development of System-of-Systems (SoS) Architectural Products Articles: Description: . FY 2012 Accomplishments: Support mission thread development to achieve additional capability and gain efficiencies through a common, scalable architecture and infrastructure (hardware, services, applications) aligned with the Common Operating Environment that can be deployed at multiple echelons, in multiple Computing Environments, based on mission, across multiple security enclaves (Internet, NIPR, SIPR, JWICS, NSANet, and Coalition). Develop internal PEO C3T data collection reduction and analysis capability to assist in identifying potential network issues early in the systems development of new technologies. Develop a single documented process for system-of-systems architectures for CS 13/14 and beyond. FY 2013 Plans:		2.786 0	3.044 0	2.127

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B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)		FY 2012	FY 2013	FY 2014
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.				
Title: Continue Development and Implementation of Tactical Information Assurance (IA) Articles: Description: . FY 2012 Accomplishments: Continue to support the Security Data and Log Management (SDLM) working group lead under the Army Office of Information Assurance, and Compliance (OIA&C) by providing requirements, architecture, and technical solutions for Army incident response, log management, security event rollup, and archiving. Aid in the documentation of future Army Security and Data Log Management requirements. Coordinate with PM offices for the implementation of PK Enablement. Continue to implement , field, train, and test new policies and phases of Host Based Security System (HBSS). FY 2013 Plans: 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.		0.599 0	0.673 0	0.321
Title: Continue System of Systems Development Articles: Description: . FY 2012 Accomplishments:		4.960 0	5.613 0	3.786

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B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)		FY 2012	FY 2013	FY 2014
Assure the PEO C3T system-of-systems technical capabilities delivered in support of the Army Capability Set Management Process and in support of current operations (OEF-focused) are defined, engineered, and integrated within the PEO and across the Army Enterprise. Provide Army system-of-systems engineering on major HQDA capability initiatives that impact the tactical warfighter. Assess potential command, control and communications solutions to break down functional stove-pipes, accommodate non-POR opportunities, and add a new level of operational agility in support of the warfighter. Deliberate system-of-systems Engineering and Integration; Current Ops system-of-systems Engineering and Integration; Enterprise system-of-systems engineering; Rapid Technology Insertion; PEO C3T Strategic Initiatives. FY 2013 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 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.				
Title: System of Systems (SoS) Engineering and Integration Evolution of the Network Articles: Description: . FY 2012 Accomplishments: Develop streamlined processes to support ASA(ALT) System of Systems (SoS) Systems Engineering (SE) group, Value Engineering (VE), and Lean Six Sigma across all PEO C3T capabilities to include Joint/Coalition partners and the current fight. FY 2013 Plans: 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. FY 2014 Plans: 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.		2.656 0	2.911 0	2.034
Title: Supports Network Intialization and enabling digital communication engineering support. Articles:		0.000	2.460 0	0.000

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B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)		FY 2012	FY 2013
Description: . FY 2013 Plans: 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.			
Title: Enterprise Architecture Articles: Description: Funding is provided for the following effort: To provide architecture products which serve as input to the Armys Agile Process and the Joint Capabilities Integration Development System (JCIDS). They answer Senior leader questions and provide the basis for more extensive architecture required to conduct actual field testing by Army organizations within the Network Integration Evaluation (NIE) process. FY 2013 Plans: Support Army Senior Leader Decision Making: Provide Executive Views of baseline architecture and alternative courses of action which support quick turn analysis and provide essential detail for Senior Army Leaders. Centralized Repository of Enterprise Architecture: Maintain a centralized authoritative repository of Enterprise Architecture Data that supports development and reuse of integrated Army architecture products. Provide a standard suite of architecture development tools, workspace for the development of architecture, and is federated with the architecture repositories of DOD, the Air Force, Navy, and USMC. Operational Support: Develop Army, Joint, and Coalition mission threads for the functional mission areas (Mission Command, Network, Fires, Logistics, Intelligence, Personnel, etc). The resulting products will be used to develop and modify the Force Structure, Generating Force and Network design and determine if functional mission area capabilities meets the operational demands. The products will also be directly correlated to the Software Architectures employed to develop code under the Common Operating Environment (COE) Organizationally Based Architecture:		0.000	28.199 0
			0.000

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Exhibit R-2A, RDT&E Project Justification: PB 2014 Army		DATE: April 2013	
APPROPRIATION/BUDGET ACTIVITY 2040: <i>Research, Development, Test & Evaluation, Army</i> BA 5: <i>System Development & Demonstration (SDD)</i>		R-1 ITEM NOMENCLATURE PE 0604818A: <i>Army Tactical Command & Control Hardware & Software</i>	PROJECT C34: <i>Army Tac C2 Sys Eng</i>
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)		FY 2012	FY 2013
Develop organization based architectures that set the foundation for representing the Army plan and will enable analysis of adjustments (quantity and type) of systems or other architecture elements. This task includes operational, systems and technical architecture verification, validation, certification, and approval. Intelligence Surveillance and Radar: (ISR) Maintain the Intelligence Surveillance and Radar (ISR) baseline architecture to ensure access to authoritative data source in support of the Operating Force and capability set development. Serves as the software engineering agent for the Army COE. Establish and maintain a software support repository for configuration control and re-distribution of the Tactical COE and COE-based Applications. Establish a federation of software SILs across the AMC SW Support Centers to leverage the capabilities of all the centers in support of COE prototyping, assessment and deployment. Chair the design forum across the affected PEOs and Software Centers needed to establish the architectural design rules which enable proper convergence on a COE across the Army Enterprise. Evaluate existing software components from both DOD and Industry for use in a Tactical COE for all computing environments. Provide help desk and integration support to COE application developers across PEOs, reducing overall integration time and cost to implement. Conduct rapid prototyping and integration of capabilities across legacy and emerging systems to demonstrate military utility in the BCT Integration Events and other appropriate venues. Establish design leadership within the AMC Software Centers for the COE and Army Networking by shifting this work from the contractor base into the Army, organic staff and organizations. Define and govern COE standards and policies to ensure information sharing between tactical systems across the Army Network.			
Accomplishments/Planned Programs Subtotals		15.169	48.505
C. Other Program Funding Summary (\$ in Millions)			
N/A			
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 to ensure an interoperable and affordable Army Tactical Command and Control Systems (ATCCS). 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.			

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PE 0604818A: Army Tactical Command & Control Hardware & Softwar...
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Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Army												DATE: April 2013			
APPROPRIATION/BUDGET ACTIVITY 2040: <i>Research, Development, Test & Evaluation, Army</i> BA 5: <i>System Development & Demonstration (SDD)</i>						R-1 ITEM NOMENCLATURE PE 0604818A: <i>Army Tactical Command & Control Hardware & Software</i>						PROJECT C34: <i>Army Tac C2 Sys Eng</i>			
Product Development (\$ in Millions)				FY 2012		FY 2013		FY 2014 Base		FY 2014 OCO		FY 2014 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Emerging Technologies	SS/FP	Northrop Grumman:Fort Monmouth, NJ/Fort Hood, TX	20.038	0.604		1.398		-		-		-	Continuing	Continuing	Continuing
System Of System Engineering and Integration, Current and Strategic Initiatives	C/T&M	CSC Aberdeen Proving Ground /Fort Hood, TX:APG	48.613	2.006		4.731		-		-		-	Continuing	Continuing	Continuing
System of System Engineering & Integration, Current & Strategic Initiative, Architecture Integration	C/T&M	TBD:tbd	0.000	-		-		3.343		-		3.343	Continuing	Continuing	Continuing
Architecture Integration	C/T&M	CSC:various	4.792	2.964		4.629		-		-		-	Continuing	Continuing	Continuing
Systems Engineering Support	SS/FP	LOCKHEED MARTIN:Eatontown, NJ	7.627	0.172		0.473		-		-		-	Continuing	Continuing	Continuing
Systems Engineering Support	C/CPFF	Northrop Grumman:Arlington, VA	0.000	3.000		-		-		-		-	0.000	3.000	0.000
Systems Engineering Support	C/CPFF	TBD:tbd	0.000	-		-		1.750		-		1.750	Continuing	Continuing	Continuing
System of System Architectures, Engineering, and Integration	SS/FP	MITRE:Aberdeen Proving Ground, MD/ Eatontown, NJ	70.764	3.894		6.615		3.327		-		3.327	Continuing	Continuing	Continuing
Tactical Network Initialization	SS/FP	TBD:tbd	0.000	-		2.460		-		-		-	Continuing	Continuing	Continuing
Subtotal			151.834	12.640		20.306		8.420		0.000		8.420			

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Army												DATE: April 2013			
APPROPRIATION/BUDGET ACTIVITY 2040: Research, Development, Test & Evaluation, Army BA 5: System Development & Demonstration (SDD)						R-1 ITEM NOMENCLATURE PE 0604818A: Army Tactical Command & Control Hardware & Software						PROJECT C34: Army Tac C2 Sys Eng			
Support (\$ in Millions)				FY 2012		FY 2013		FY 2014 Base		FY 2014 OCO		FY 2014 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
IN-HOUSE SUPPORT	Various	PEO C3T:APG, MD	23.937	2.060		4.661		1.261		-		1.261	Continuing	Continuing	Continuing
MATRIX	Various	Various:Aberdeen Proving Ground, MD/ Fort Hood, TX	9.955	0.106		0.175		1.006		-		1.006	Continuing	Continuing	Continuing
OTHER GOVERNMENT SUPPORT	Various	Various:Various	6.658	0.363		0.600		0.349		-		0.349	Continuing	Continuing	Continuing
BES Architecture	SS/ FFPLOE	NIE:FTB/WSMR	0.000	-		22.763		-		-		-	0.000	22.763	0.000
Subtotal			40.550	2.529		28.199		2.616		0.000		2.616			
			All Prior Years	FY 2012		FY 2013		FY 2014 Base		FY 2014 OCO		FY 2014 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals			192.384	15.169		48.505		11.036		0.000		11.036			
Remarks															

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Exhibit R-4, RDT&E Schedule Profile: PB 2014 Army												DATE: April 2013			
APPROPRIATION/BUDGET ACTIVITY 2040: Research, Development, Test & Evaluation, Army BA 5: System Development & Demonstration (SDD)								R-1 ITEM NOMENCLATURE PE 0604818A: Army Tactical Command & Control Hardware & Software				PROJECT C34: Army Tac C2 Sys Eng			

	FY 2012				FY 2013				FY 2014				FY 2015				FY 2016				FY 2017				FY 2018			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
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																												

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Exhibit R-4A, RDT&E Schedule Details: PB 2014 Army			DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 2040: <i>Research, Development, Test & Evaluation, Army</i> BA 5: <i>System Development & Demonstration (SDD)</i>	R-1 ITEM NOMENCLATURE PE 0604818A: <i>Army Tactical Command & Control Hardware & Software</i>	PROJECT C34: <i>Army Tac C2 Sys Eng</i>	

Schedule Details

Events	Start		End	
	Quarter	Year	Quarter	Year
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

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Exhibit R-2A, RDT&E Project Justification: PB 2014 Army										DATE: April 2013		
APPROPRIATION/BUDGET ACTIVITY 2040: <i>Research, Development, Test & Evaluation, Army</i> BA 5: <i>System Development & Demonstration (SDD)</i>					R-1 ITEM NOMENCLATURE PE 0604818A: <i>Army Tactical Command & Control Hardware & Software</i>				PROJECT JN1: <i>JOINT NETWORK NODE (JNN) TESTING</i>			
COST (\$ in Millions)	All Prior Years	FY 2012	FY 2013[#]	FY 2014 Base	FY 2014 OCO ^{##}	FY 2014 Total	FY 2015	FY 2016	FY 2017	FY 2018	Cost To Complete	Total Cost
JN1: <i>JOINT NETWORK NODE (JNN) TESTING</i>	-	12.760	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000	Continuing	Continuing
Quantity of RDT&E Articles												
[#] FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012 ^{##} The FY 2014 OCO Request will be submitted at a later date												
A. Mission Description and Budget Item Justification WIN-T Inc 1 is key to the Army's Network Modernization program. As the emerging major component of the Army Bridge to Future Networks, Warfighter Information Network - Tactical (WIN-T) Increment 1, formerly the Joint Network Node (JNN) Network is intended to replace legacy Mobile Subscriber Equipment (MSE) while moving the Army to a unified Everything Over Internet Protocol (EOIP) Communications System. Increment 1: Networking at-the-Halt is capable of passing unclassified and classified traffic levels, throughout its entire structure, from Home Station Operations center to the furthest forward Battalion Elements. Designed to meet modularity and rapid deployment mandate, the network is also intended to support Joint Communications Requirements and internet applications from Coalition partners and from approved Federal Agencies such as the Federal Emergency Management Agency and Department of Homeland Security.												
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)										FY 2012	FY 2013	FY 2014
Title: Operational Testing Event Articles:										12.760 0	0.000	0.000
Description: Funding is provided for the following effort												
FY 2012 Accomplishments: Operational Testing Event												
Accomplishments/Planned Programs Subtotals										12.760	0.000	0.000
C. Other Program Funding Summary (\$ in Millions) N/A												
Remarks												
D. Acquisition Strategy Joint Network Node (JNN) Network has previously been acquired in substantial quantities as urgent Army directive procurement. The JNN program attained Milestone C on 14 May 2007. The product manager was given verbal approval to proceed, in addition to instruction to await an Acquisition Decision Memorandum (ADM) that was to follow finalization of the Warfighter Information Network - Tactical (WIN-T) Nunn-McCurdy hearings. The ADM was issued 5 June 2007 implementing												

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Exhibit R-2A, RDT&E Project Justification: PB 2014 Army		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 2040: <i>Research, Development, Test & Evaluation, Army</i> BA 5: <i>System Development & Demonstration (SDD)</i>	R-1 ITEM NOMENCLATURE PE 0604818A: <i>Army Tactical Command & Control Hardware & Software</i>	PROJECT JN1: <i>JOINT NETWORK NODE (JNN)</i> TESTING
the expected merger of JNN and WIN-T , laying the foundation for the restructured WIN-T program , and directing a number of actions to start the way ahead for the combined program. The WIN-T ACAT 1D program now consist of four separately reporting Increments, with JNN re-designated as WIN-T Increment 1. RDT&E funding will be used to test the output of the production.		
E. Performance Metrics Performance metrics used in the preparation of this justification material may be found in the FY 2010 Army Performance Budget Justification Book, dated May 2010.		

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2014 Army												DATE: April 2013		
APPROPRIATION/BUDGET ACTIVITY 2040: <i>Research, Development, Test & Evaluation, Army</i> BA 5: <i>System Development & Demonstration (SDD)</i>						R-1 ITEM NOMENCLATURE PE 0604818A: <i>Army Tactical Command & Control Hardware & Software</i>				PROJECT JN1: <i>JOINT NETWORK NODE (JNN)</i> TESTING				

Test and Evaluation (\$ in Millions)				FY 2012		FY 2013		FY 2014 Base		FY 2014 OCO		FY 2014 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	All Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
ATEC Testing requirement	Various	TBD:TBD	0.000	12.760		-		-		-		-	0.000	12.760	0.000
Subtotal			0.000	12.760		0.000		0.000		0.000		0.000	0.000	12.760	0.000

	All Prior Years	FY 2012	FY 2013	FY 2014 Base	FY 2014 OCO	FY 2014 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	0.000	12.760	0.000	0.000	0.000	0.000	0.000	12.760	0.000

Remarks

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Exhibit R-4, RDT&E Schedule Profile: PB 2014 Army																DATE: April 2013			
APPROPRIATION/BUDGET ACTIVITY								R-1 ITEM NOMENCLATURE								PROJECT			
2040: Research, Development, Test & Evaluation, Army								PE 0604818A: Army Tactical Command & Control Hardware & Software								JN1: JOINT NETWORK NODE (JNN)			
BA 5: System Development & Demonstration (SDD)																TESTING			

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Exhibit R-4A, RDT&E Schedule Details: PB 2014 Army		DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 2040: Research, Development, Test & Evaluation, Army BA 5: System Development & Demonstration (SDD)	R-1 ITEM NOMENCLATURE PE 0604818A: Army Tactical Command & Control Hardware & Software	PROJECT JN1: JOINT NETWORK NODE (JNN) TESTING

Schedule Details

Events	Start		End	
	Quarter	Year	Quarter	Year
Operational Test	3	2012	3	2012