Exhibit R-2, RDT&E Budget Item Justification: PB 2012 Army										DATE: February 2011	
APPROPRIATION/BUDGET ACTIVITY 2040: *Research, Development, Test & Evaluation, Army* BA 5: *Development & Demonstration (SDD)*				R-1 ITEM NOMENCLATURE PE 0604665A: *FCS Sustainment & Training R&D*							
COST ($ in Millions)	**FY 2010**	**FY 2011**	**FY 2012 Base**	**FY 2012 OCO**	**FY 2012 Total**	**FY 2013**	**FY 2014**	**FY 2015**	**FY 2016**	**Cost To Complete**	**Total Cost**
Total Program Element	685.524	610.389	-	-	-	203.721	251.761	254.232	181.558	Continuing	Continuing
FC6: *BCT Network Hardware & Software*	685.524	610.389	-	-	-	203.721	251.761	254.232	181.558	Continuing	Continuing

Note

FY12: Program was restructured to meet emerging requirements and the funds were used for higher priority requirements.

A. Mission Description and Budget Item Justification

Provides the tools and capabilities necessary for a collection of systems composed of computers, sensors, & platforms linked together to achieve a single capability. This is accomplished through distributed functionality that consists of the following applications and interfaces: a distributed information management backbone, Communications; Intelligence, Surveillance & Reconnaissance; Command & Control(C2); & training & supportability.

The information management backbone necessary for the distributed network is composed of the Integrated Computer System (ICS) Operating System (OS) and hardware (HW) configurations; & the System of Systems Common Operating Environment (SOSCOE). The ICS consists of multiple computer processors, as well as network, graphics & memory cards, & is integrated with software (SW) functionality provided by a modified OS. The ICS hosts the Battle Command System (BCS) software applications. The applications communicate with the ICS via SOSCOE, which separates the SW applications from the ICS HW & Operating System (OS). This isolates changes in the ICS from impacting BCS software applications directly, reducing traditional, integration and maintenance & obsolescence costs. SOSCOE also provides services that allow BCS SW applications located on platforms or other exterior nodes to communicate with each other. The Cross Domain Solution (CDS) is an ICS/BCS HW-SW solution that allows hosting of classified and unclassified data/processing on a single ICS computer.

The Battle Command System (BCS) includes the following software applications: 1. Communication applications which provide the management of voice, data, and video communications between multiple, mobile system platforms. 2. Integration of air and ground sensor data (images, video) into the Common Operational Picture (COP) of the battlefield. 3. Command and Control SW provides the Warfighter the ability to plan how to best maneuver both manned and unmanned systems and their payloads, as well as autonomously/manually control those systems, during the military operation. Additionally, provide the Warfighter with an understanding of the battlefield based on situational awareness data, reporting from friendly units, and assessments of the proximity of enemy threats that is gathered into a COP tailored to the specific region that the unit is conducting combat operations in.
IBCT BCS software development is focused on resolving required improvements discovered during system integration and qualifying each of SW applications prior to fielding. BCS SW development for CP 13/14 is organized into two major SW builds, referred to as Phase 1 and Phase 2.
Common Network Hardware: Includes design, development and prototype procurement of common HW (sensors, computer and radios) required for implementation of the data network. The ICS HW is being commonly developed for each of the platforms with the necessary computing resources, Information Assurance HW, and Soldier workstation processing to support the capabilities required of the BCT. The ICS is being developed using commercial processing equipment but militarized to meet the Information Assurance requirements as well as meet the reliability needs for the harsh environments of a tactical mobile platform. This budget line includes the

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procurement of prototype radios and associated radios integration HW. For FY10 and prior the C4ISR systems include a set of advanced sensors that are integrated onto the ground and air vehicle platforms.

Contractor Network Integration: Inc 1 and CP 13/14, the collection of abovementioned BCS SW applications are each integrated together. Thereafter, HW-SW integration is conducted by integrating the BC SW with the ICS, radio & sensor payloads for each of the IBCT systems. The network hardware and software is integrated in both the lab & in the field to reduce downstream integration and schedule risk, & then formally qualified during a series of Network System Qualification Tests (NSQTs) that support the platform IQTs and LUT.

FY11 funding represented in this document does not reflect the restructure to the program as a result of the recently signed Acquisition Decision Memorandum

B. Program Change Summary ($ in Millions)	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total
Previous President's Budget	655.745	610.389	523.580	-	523.580
Current President's Budget	685.524	610.389	-	-	-
Total Adjustments	29.779	-	-523.580	-	-523.580
• Congressional General Reductions		-			
• Congressional Directed Reductions		-			
• Congressional Rescissions	-	-			
• Congressional Adds		-			
• Congressional Directed Transfers		-			
• Reprogrammings	52.300	-			
• SBIR/STTR Transfer	-22.521	-			
• Adjustments to Budget Years	-	-	-523.580	-	-523.580

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COST ($ in Millions)	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total	FY 2013	FY 2014	FY 2015	FY 2016	Cost To Complete	Total Cost
FC6: *BCT Network Hardware & Software*	685.524	610.389	-	-	-	203.721	251.761	254.232	181.558	Continuing	Continuing
Quantity of RDT&E Articles											

A. Mission Description and Budget Item Justification

Provides the tools and capabilities necessary for a collection of systems composed of computers, sensors, & platforms linked together to achieve a single capability. This is accomplished through distributed functionality that consists of the following applications and interfaces: a distributed information management backbone, Communications; Intelligence, Surveillance & Reconnaissance; Command & Control(C2); & training & supportability.

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Contractor Network Integration: Inc 1 and CP 13/14, the collection of abovementioned BCS SW applications are each integrated together. Thereafter, HW-SW integration is conducted by integrating the BC SW with the ICS, radio & sensor payloads for each of the IBCT systems. The network hardware and software is

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integrated in both the lab & in the field to reduce downstream integration and schedule risk, & then formally qualified during a series of Network System Qualification Tests (NSQTs) that support the platform IQTs and LUT.

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2010	FY 2011	FY 2012
Title: Contractor SOSCOE Development IBCT Increment 1	12.000	-	-
Articles:	0		
Description: Funding is provided for the following effort. ***FY 2010 Accomplishments:*** Continued development of the SOSCOE through 2.7 to support IBCT LUT-10. This software provides updates to support the cross domain solution (CDS) to allow information to pass between classified and unclassified systems. Provided improved capability for system shutdown, restart and data sanitization. Continued the resolution of software integration issues to include Nett Warrior and Joint Tactical Radio System (JTRS) Handheld Manpack and Small form fit (HMS) and National Security Agency (NSA) certified Ground Mobile Radio (GMR) and associated waveforms. Provided resolution of over 500 software anomaly reports identified in LUT-09, FQT, and other integration and test events, which will reduce integration cost and improve system performance and reliability. FQT?ed and released SOSCOE Build 2.7 in 3Q FY10 to support LUT-10. Provided training and help desk support to Battle Command System (BCS) and platform application developers. Provided on-site integration support during software ?to-software integration. Purchased and maintained commercial off the shelf (COTS) License Agreements for all software supplied.			
Title: Contractor SOSCOE Development CP 13/14	51.069	66.466	-
Articles:	0	0	
Description: Funding is provided for the following effort ***FY 2010 Accomplishments:*** Continued development of SOSCOE Build 10 and provided incremental software drops to support early integration with Battle Command System (BCS) CP 13/14 Phase 1 software. The integration of these incremental software drops reduced technical risk, time and resources, prior to the final qualified release of SOSCOE Build 10.6 being available. SOSCOE Builds 10.2 through 10.6 include the following enhancements: updates to chat for supporting resource-constrained platforms; interoperability updates to support new FBCB2 JCR messages; shutdown, restart and data sanitization between different security classifications; database support for resource-constrained platforms; Information Assurance (IA) updates, to include certificate validation; and editing of role-based policies. ***FY 2011 Plans:*** FQT?ed and released SOSCOE Build 10.6 in 1Q FY11 for integration with Battle Command System (BCS) CP 13/14 Phase 1 software. Provide incremental software drops of SOSCOE to support integration with CP 13/14 Phase 2 Battle Command			

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B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2010	FY 2011	FY 2012
System (BCS) CP 13/14 Phase 2 applications. Continue development and integration activities through Build 10.8 until contract termination prior to qualification of software. SOSCOE Build 10.7 through 108will include the following enhancements: 1) enhanced service discovery for the War fighter to access services offered by as many as 5000 BCT platforms on the battlefield, such as searching for available sensors to retrieve data from and connecting with unmanned platforms to control; 2) enhanced interoperability with AFATDS for coordinating fires support to engage enemy targets; the ability to tailor the size and tools provided by SOSCOE for resource-constrained platforms such as the Common Controller; 3) network Quality of Service (QoS) controls into SOSCOE for ensuring that more important information is given priority for being passed across the network; 4) dynamic (during the mission) platform reconfiguration for mission re-tasking and hardware failure recovery where the system is reconfigured to support a lesser mission capability; and 5) enhanced scalability of chat and whiteboard and directory data to ensure that Soldiers across the entire BCT can each collaborate with each other. (FY 11 current funding requirement is $38,550 based on RMD XXX and anticipated ADM terminating the Network activity in 2nd Quarter FY 11.)			
Title: Contractor Communication Systems Software IBCT Increment 1 ***Articles:*** ***Description:*** Funding is provided for the following effort ***FY 2010 Accomplishments:*** Based on software developed in FY09, integrated the Network Management System (NMS) with the Battle Command System (BCS) by resolving most Software Problem Reports (SPR's) and other integration issues prior to fielding. Supported integration of the NMS and Battle Command System (BCS) with SOSCOE and with platforms. This includes initial interface with the cross domain guard (CDG), PEO C3T systems (Secure Key Loader (SKL) and Automated Communications Electronic Software (ACES)) and Joint Tactical Radio System (JTRS) Network Management systems (Joint WNW Network Manager (JWNM). JWNM Excursion in October demonstrated managing the Ground Mobile Radio (GMR) in the field with combined NMS systems. FQT?ed the NMS software in 3Q FY10 to support IBCT Increment 1 LUT-10.	2.899 0	-	-
Title: Contractor Communication Systems Software CP 13/14 ***Articles:*** ***Description:*** Funding is provided for the following effort ***FY 2010 Accomplishments:*** Continued development of Network Management System (NMS) CP 13/14 Phase 1 software. NMS CP 13/14 Phase 1 capabilities provide network management of the communication elements (i.e. radios, routers, computers, firewalls, etc) for the new systems being added to the network. Additionally, began development of CP 13/14 Phase 2 software. NMS CP 13/14 Phase 2 capability includes: enhancements to Network Planning (i.e., how the network will be organized and configured for new missions, which	34.575 0	59.143 0	-

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B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2010	FY 2011	FY 2012
includes generating communications plans for the JTRS NMS; enhancements to core Network Management functionality, to include fault, configuration management, security, policy and platform network management; enhancements to the presentation of the network on the Warfighter Machine Interface (WMI) screen; and the ability for BDE/BN TOC communications personnel to update the JTRS Network Management System (NMS)-which generates the configurations (frequencies, keys, etc.) for each of the JTRS radios on the network-by transferring the communications plan via removable media (i.e., CD or thumb drive) to the JTRS NMS (unlike Increment 1 where the operators have to manually input/type the information in). ***FY 2011 Plans:*** Continue development of NMS CP 13/14 Phase 1 software. Complete development of Phase 1functionality, provide integration support to the Network System Integration and Test (NSIT) lab, and resolve Software Problem Reports (SPRs) until contract termination prior to qualification of software. Continue CP 13/14 Phase 2 software development and provide incremental releases of software capability to the NSIT to support integration with each of the Battle Command applications and communications elements (i.e., computers and radios) until contract termination. (FY 11 current funding requirement is $34,303 based on RMD XXX and anticipated ADM terminating the Network activity in 2nd Quarter FY 11.)			
Title: Contractor Battle Command Software - Systems Engineering / Program Management (SE/PM) IBCT Increment 1 ***Articles:*** ***Description:*** Funding is provided for the following effort ***FY 2010 Accomplishments:*** Provided technical oversight of the software development effort. Provided quality assurance, configuration management and purchased software development licenses. Conducted requirements verification and validation (V&V) of software. Provided data deliverables, participated in technical/management reviews and provided on-site participation as required. Includes subcontractor fee associated with Warfighter Machine Interface Services (WMIS), Situational Understanding (SU), and Battle Command & Mission Execution (BCME). Capabilities include: explicit handoff of Unattended Ground Sensors (UGS) control from one Network Integration Kit (NIK) to another; accelerated image transfer from the sensors to FBCB2; and allowing multiple images to be associated with the same enemy object tracked on the Common Operating Platform (COP) to improve situational awareness and survivability.	2.091 0	-	-
Title: Contractor Battle Command Software - Systems Engineering/Program Management (SE/PM) CP 13/14 ***Articles:*** ***Description:*** Funding is provided for the following effort ***FY 2010 Accomplishments:***	24.939 0	34.946 0	-

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B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2010	FY 2011	FY 2012
Battle Command Software - Systems Engineering/Program Management (SE/PM) FY10 CP 13/14: Provided technical oversight of the software development effort. Conducted requirements decomposition and architecture/design for Phase 1. Provided quality assurance, configuration management and purchased software development licenses. Conducted requirements verification and validation (V&V) of software delivered. Provided data deliverables, participated in technical/management reviews and provided on-site participation as required. Includes subcontractor fee associated with Warfighter Machine Interface Services (WMIS), Situational Understanding (SU), Battle Command & Mission Execution (BCME), and Planning and Preparation Services (PPS). ***FY 2011 Plans:*** Provide technical oversight of the software development effort. Conduct requirements decomposition and architecture/design. Provide quality assurance, configuration management and purchase software development licenses. Conduct requirements verification and validation (V&V) of software delivered. Provide data deliverables, participate in technical/management reviews and provide on-site participation as required. Includes subcontractor fee associated with Warfighter Machine Interface Services (WMIS), Situational Understanding (SU), Battle Command & Mission Execution (BCME), and Planning and Preparation Services (PPS). (FY 11 current funding requirement is $20,268 based on RMD XXX and anticipated ADM terminating the Network activity in 2nd Quarter FY 11.)			
Title: Contractor Battle Command Software - Warfighter Machine Interface Services (WMIS) Increment 1 ***Articles:*** ***Description:*** Funding is provided for the following effort ***FY 2010 Accomplishments:*** Corrected 75 Software Problem Reports (SPRs) discovered during Increment 1 IBCT LUT-09 and concurrent testing to improve reliability for the soldier to access and execute network capabilities through the WMIS display. Performed integration with the cross domain guard (CDG) for message passing between different security classifications. Provided integration support to the Network System Integration and Test (NSIT) lab. FQT?ed and released Increment 1 WMIS software in 3Q FY10 to support the Network Integration Kit (NIK) Network System Qualification Test (NSQT) prior to Increment 1 IBCT LUT-10. Additional Increment 1 capabilities include modifications to the layout of the WMIS screen based on user feedback from the field, increasing access and visibility; and auto-adjusting the WMIS window to occupy the entire FBCB2 screen which provides more information to the warfighter.	1.140 0	-	-
Title: Contractor Battle Command Software - Warfighter Machine Interface Services (WMIS) CP 13/14 ***Articles:*** ***Description:*** Funding is provided for the following effort	13.594 0	27.934 0	-

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B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2010	FY 2011	FY 2012
FY 2010 Accomplishments: Continued software development/coding of WMIS to support Battle Command System (BCS) CP 13/14 Phase 1 and provided releases to support early BCS system-level integration. Corrected 24 Software Problem Reports (SPRs). Integrated with SOSCOE Builds 10.2 through 10.5. Provided software-to-software integration support to the Network System Integration and Test (NSIT). WMIS CP 13/14 Phase 1 capability includes: enhanced user display, thereby providing ease of access and more information to the Warfighter. For example, this includes logon, startup, shutdown, and role management; enhancements to primitives (i.e., buttons, menus, windows, etc., on the Warrior Machine Interface (WMI) screen); enhancements to the presentation builder; and enhancements to support collaboration between soldiers on the network. ***FY 2011 Plans:*** Continue software development/coding of WMIS to support Battle Command System (BCS) CP 13/14 Phase 1. Complete developments for Phase 1 functionality, provide integration support to the Network System Integration and Test (NSIT), and resolve SPRs until contract termination prior to qualification of software. Began development of WMIS to support Battle Command System (BCS) CP 13/14 Phase 2. Continue until contract termination. Provide multiple software releases of incremental capability to support early Battle Command System (BCS) system-level integration. Provide integration support to the (NSIT) during software-to-software integration. WMIS CP 13/14 Phase 2 software functionality includes: improved layout of the screens and enhancements to the Presentation Services, which manage how the information is being presented to the Warfighter and allows the Warfighter to tailor their preferences of how the default interface is configured. (FY 11 current funding requirement is $16,202 based on RMD XXX and anticipated ADM terminating the Network activity in 2nd Quarter FY 11.)			
Title: Contractor Battle Command Software - Battle Command & Mission Execution (BCME) IBCT Increment 1 ***Articles:*** ***Description:*** Funding is provided for the following effort ***FY 2010 Accomplishments:*** Corrected 63 Software Problem Reports (SPRs) discovered during Increment 1 IBCT LUT-09 and concurrent testing. Performed integration with the cross domain guard (CDG) for message passing between different security classifications. Provided integration support to the Network System Integration and Test (NSIT) lab. FQT?ed and released Increment 1 BCME software in 3Q FY10 to support the Network Integration Kit (NIK) Network System Qualification Test (NSQT) prior to Increment 1 IBCT LUT-10. BCME Increment 1 capabilities include command and control of the UGS gateway and sensor nodes to improve the situational awareness of the soldier. BCME also provides the ability to receive and display (via the WMIS screen) alert notifications based on sensor hits and tampering of the device to reduce the need for the soldier to continuously monitor the UGS	3.970 0	-	-

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B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2010	FY 2011	FY 2012
field. BCME also provides the Current Force Platform Interface Manager (CFPIM) to interface with FBCB2 located on the NIK-equipped platform to allow the soldier to start-up, administer and control the system.			
Title: Contractor Battle Command Software - Battle Command & Mission Execution (BCME) CP 13/14	38.662	27.156	-
Articles:	0	0	
Description: Funding is provided for the following effort ***FY 2010 Accomplishments:*** Continued software development/coding of BCME to support Battle Command System (BCS) CP 13/14 Phase 1. Corrected 7 Software Problem Reports (SPRs). Provided integration releases to support early BCS system-level integration. Integrated with SOSCOE Builds 10.2 through 10.5. Provided integration support to the Network System Integration and Test (NSIT). BCME CP 13/14 Phase 1 includes: enhancements to alerts and notifications; task organization; basic airspace monitoring of blue forces traveling within the airspace corridor; sensor control; platform control; and fires and effects control through interoperability with Advanced Field Artillery Tactical Data System (AFATDS) via SOSCOE. ***FY 2011 Plans:*** Continue software development/coding of BCME to support Battle Command System (BCS) CP 13/14 Phase 1. Complete developments of Phase 1 functionality, provide integration support to the Network System Integration and Test (NSIT), and resolve SPRs until contract termination prior to qualification of software. Began development of BCME to support Battle Command System (BCS) CP 13/14 Phase 2. Provide multiple software releases of incremental capability to support early BCS system-level integration and provide integration support to the NSIT. Continue until contract termination. BCME CP 13/14 Phase 2 software includes enhancements to: alerts and notifications; task organization; sensor control; and fires and effects control for engagement of Line of Sight (LOS) targets, deconfliction of the ground-space for unmanned and manned vehicle conflicts, such as route planning and direct fires engagements to avoid fratricide and loss of platforms. (FY 11 current funding requirement is $15,751 based on RMD XXX and anticipated ADM terminating the Network activity in 2nd Quarter FY 11.)			
Title: Contractor Battle Command Software - Situational Understanding (SU) IBCT Increment 1	1.504	-	-
Articles:	0		
Description: Funding is provided for the following effort ***FY 2010 Accomplishments:*** Corrected 25 Software Problem Reports (SPRs) discovered during Increment 1 IBCT LUT-09 and concurrent testing. Performed integration with the cross domain guard (CDG) for message passing between different security classifications. Provided integration support to the Network System Integration and Test (NSIT) lab. FQT?ed and released Increment 1 SU software in 3Q			

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B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2010	FY 2011	FY 2012
FY10 to support the Network Integration Kit (NIK) Network System Qualification Test (NSQT) prior to Increment 1 IBCT LUT-10. SU Increment 1 will retrieve Battle Space Objects from Level 1 Fusion and publish them to the Common Operational Picture (COP). Provides the capability to send BSO and imagery to FBCB2/JCR.			
Title: Contractor Battle Command Software - Situational Understanding (SU) CP 13/14	17.940	19.414	-
Articles:	0	0	
Description: Funding is provided for the following effort ***FY 2010 Accomplishments:*** Continued software development/coding of SU to support Battle Command System (BCS) CP 13/14 Phase 1. Integrated with SOSCOE Builds 10.2 through 10.5. Provided integration releases to support early BCS system-level integration. Provided integration support to the Network System Integration and Test (NSIT). Corrected 2 Software Problem Reports (SPRs) identified during software-to-software integration by the NSIT. Situational Understanding (SU) CP 13/14 Phase 1 includes: enhancements to object refinement and situation refinement, to include blue/red force aggregation into military units and identification of terrain obstacles; threat refinement, to include identification of platform-to-platform, indirect fires, and unit-to-unit threats; fusion process refinement, to include recommendations on how information is fused, sensor tasking recommendations based on sensor coverage gaps and Areas of Interest (AOI); and identification and classification of newly acquired platforms on the battlefield as either friendly, enemy, neutral or unknown. ***FY 2011 Plans:*** Continue software development/coding of SU to support Battle Command System (BCS) CP 13/14 Phase 1. Complete developments of Phase 1 functionality, provide software-to-software integration support to NSIT, and resolve SPRs until contract termination prior to qualification of software. Began development of SU to support Battle Command System (BCS) CP 13/14 Phase 2. Provide multiple software releases of incremental capability to support early BCS system-level integration. Provide integration support to the Network System Integration and Test (NSIT). Continue until contract termination. Phase 2 of SU will providing the following capability: removal of entities from the COP over time that no longer are relevant to the mission; incorporation of terrain data while combining sensor images and data into the COP for an improved awareness and understanding of the battlefield; interoperability updates to share situational awareness data with systems external to the IBCT; and receipt of weather data from BDE/Enterprise systems for displaying to the Warfighter and for planning future missions. (FY 11 current funding requirement is $11,260 based on RMD XXX and anticipated ADM terminating the Network activity in 2nd Quarter FY 11.)			
Title: Contractor Battle Command Software - Planning and Preparation Services (PPS) CP 13/14	8.677	8.561	-
Articles:	0	0	
Description: Funding is provided for the following effort			

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B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2010	FY 2011	FY 2012
FY 2010 Accomplishments: Continued software development/coding of PPS to support Battle Command System (BCS) CP 13/14 Phase 1. Corrected 8 Software Problem Reports (SPRs). Provided integration releases to support early BCS system-level integration. Integrated with SOSCOE Builds 10.2 through 10.5. Provided integration support to the Network System Integration and Test (NSIT). PPS CP 13/14 Phase 1 includes development of the maneuver planner, ground space planner; and capability to analyze the terrain using map data to plan the route for an Unmanned Ground Vehicle (UGV). ***FY 2011 Plans:*** Continue software development/coding of PPS to support Battle Command System (BCS) CP 13/14 Phase 1. Complete developments for Phase 1 functionality, provide integration support to the Network System Integration and Test (NSIT), and resolve SPRs until contract termination prior to qualification of software. Began development of PPS to support Battle Command System (BCS) CP 13/14 Phase 2. Provide multiple software releases of incremental capability to support early BCS system-level integration. Provide integration support to the. Continue until contract termination. PPS CP 13/14 Phase 2 includes: ground-space planning, with the capability to combine planning information to provide the user with automated recommendations for ground route planning for the UGVs; sensor planning to assist the commander in placement of sensor assets on the battlefield; enhanced maneuver planning to assist the commander on how to maneuver platforms on the battlefield prior to executing a mission; and the terrain analyzer, to identify obstacles and hazards. (FY 11 current funding requirement is $4,966 based on RMD XXX and anticipated ADM terminating the Network activity in 2nd Quarter FY 11.)			
Title: Contractor Fusion Software IBCT Increment 1 ***Articles:*** ***Description:*** Funding is provided for the following effort ***FY 2010 Accomplishments:*** Continued resolution of Software Problem Reports (SPR's) identified during Increment 1 LUT-09 for Sensor Data Management (SDM) and Level 1 Fusion (L1F) software. Corrected 23 Software Problem Reports (SPRs) for L1F and 17 SPRs for SDM. FQT?ed and released SDM and L1F Increment 1 software to the Network System Integration and Test (NSIT) in 3Q FY10 for the Network Integration Kit (NIK) Network System Qualification Test (NSQT), proceeding IBCT LUT-10. L1F subsequently provided enhancements to algorithms for combining sensor data. These enhancements were tested and verified in a delta NSQT that took place in 1QFY11. Capabilities: SDM will capture sensor data and make it available via the network. L1F will aggregate sensor data into battle space objects to be presented via WMIS as part of the Common Operational Picture (COP).	1.426 0	-	-
Title: Contractor Fusion Software CP 13/14 ***Articles:***	17.006 0	12.510 0	-

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B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2010	FY 2011	FY 2012
Description: Funding is provided for the following effort ***FY 2010 Accomplishments:*** Continued software development/coding of Fusion software to support Battle Command System (BCS) CP 13/14 Phase 1. Integrated with SOSCOE Builds 10.1 through 10.5. Provided multiple releases of Sensor Data Management (SDM) and Level 1 Fusion (L1F) CP 13/14 Phase 1 software, to simplify integration, reduce schedule and technical risk, with the result of minimizing cost of integrating the Battle Command System (BCS). Corrected 3 Software Problem Reports (SPRs) for L1F and 8 SPRs for SDM. Provided integration support to the Network System Integration and Test (NSIT). SDM CP 13/14 Phase 1 capability includes interfacing with upgraded sensor payloads on the Class I and SUGV and new sensor payloads from ARV-A (L). SDM incorporates electro-optical infrared (EO/IR) sensor data from the SUGV so that the Warfighter can receive advanced knowledge of enemy locations and hazards from a safe distance in Urban environments. L1F CP 13/14 Phase 1 capability includes creation of the Distributed Fusion Manager (DFM), which will more efficiently fuse/combine/ consolidate sensor data and Battle Space Objects (BSO's), reducing network traffic by limiting information to those who require the information; and enhancements to the Blue Force Location Service (BFLS), which provides platform positions for nearby friendly platforms. ***FY 2011 Plans:*** Continue software development/coding of SDM and L1F to support Battle Command System (BCS) CP 13/14 Phase 1. Complete developments of Phase 1 functionality, provide integration support to NSIT, and resolve SPRs until contract termination prior to qualification of software. Began development of Sensor Data Management (SDM) and Level 1 Fusion (LIF) to support Battle Command System (BCS) CP 13/14 Phase 2. Provide multiple releases to simplify integration, reduce schedule and technical risk, with the result of minimizing cost of integrating the Battle Command System (BCS). Integrate with SOSCOE Builds 10.6 and 10.7. Provide integration support to the Network System Integration and Test (NSIT). Continue until contract termination. Planned SDM CP 13/14 Phase 2 capability includes updated interfaces with the Aided Target Recognition (AiTR) sensor; updated sensor suite control for the ARV-A(L); and interfacing with the current force system Distributed Common Ground System-Army (DCGS-A). SDM receives enemy location updates from Distributed Common Ground Station-Army (DCGS-A) and integrates it into the BCT-M database. Sharing of enemy locations with other systems increases the survivability and combat effectiveness of the BCT. Planned L1F CP 13/14 Phase 2 capability includes enhancements to the Blue Force Location Service (BFLS), fusion engines, and the Distributed Fusion Manager (DFM). The DFM will manage the transfer of Intel data to enable the User to receive relevant data faster. (FY 11 current funding requirement is $7,256 based on RMD XXX and anticipated ADM terminating the Network activity in 2nd Quarter FY 11.)			
Title: Contractor Embedded Training Software CP 13/14	15.940	14.455	-
Articles:	0	0	

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B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2010	FY 2011	FY 2012
Description: A common set of training software/tools, referred to as Training Common Components (TCC), are being developed to support the following types of training for the IBCT: Computer Based Training (CBT), Live Training, Individual Operator Training (IOT), and Leader/Battle Staff (LBS). Computer Based Training (CBT) provides the Warfighter a basic understanding of how to interface with the WMI to complete a set of operation tasks (i.e., how to generate and disseminate a report, chat or whiteboard with other Warfighters, access current force systems for data, etc.) and maintain the IBCT systems. CBT can also be used by the Warfighter to access AKO to complete technical and annually required coursework. CBT will be available on workstations, NIK and CC. The IOT trains the operator on how to operate unmanned platforms, such as how to connect, manually drive, follow a user-defined route, and laze a target. IOT will be available on workstations and CC. Live training allows for IBCT systems (NIK, CC and Unmanned Platforms) to collectively participate in live training exercises while at the home station, local training area, or Combat Training Center (CTC). This includes the ability for IBCT systems, integrated with the TCCs and SOSCOE, to interface with Multiple Integrated Laser Engagement System (MILES), Combat Training Center - Instrumentation Systems (CTC-IS) and One Tactical Engagement Simulation system (OneTESS). The TCC's also provide the capability to log the training exercise and evaluate the performance of individuals and the unit. The Leader/Battle Staff (LBS) training capability (available on the CC) instructs commanders on how to tactically operate and employ (i.e., ***FY 2010 Accomplishments:*** Provided multiple releases of TCC's for CP 13/14 Phase 1 to simplify integration, reduce schedule and technical risk, with the result of minimizing cost of integrating the Battle Command System (BCS). Integrated with SOSCOE Builds 10.2 through 10.5. Capability includes Computer Based Training (CBT) for Soldiers; initial Leader Battle Staff (LBS) training; initial Individual Operator Training (IOT) for unmanned platforms; and interoperability of the Multiple Integrated Laser Engagement System (MILES) and training ranges to provide initial live training for the SUGV, UAV Class I, ARV-A(L) and CC IBCT systems; and Individual Operator Training (IOT) of unmanned platforms on the CC. ***FY 2011 Plans:*** Continue development of TCC's for CP 13/14 and initiate integration and test with the Battle Command System (BCS) until contract termination prior to qualification of software. The TCC's provide the tools for the following training capability: enhanced Computer Based Training (CBT), enhanced Leader Battle Staff (LBS) training for instructing commanders and staffs in warfighting Tactics, Techniques and Procedures (TTPs) that use the actual CP 13/14 Battle Command System (BCS) software applications and communications systems; providing Individual Operator Training (IOT) for instructing the operation of the CC for controlling the SUGV, and CL 1 UAV. Live training capability will also be enhanced for the IBCT platforms, to enable interoperability with Combat Training Center - Instrumentation Systems (CTC-IS), Home station Instrumentation Training System (HITS) and			

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B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2010	FY 2011	FY 2012
Digital Range Training system (DRTS). (FY 11 current funding requirement is $8,384 based on RMD XXX and anticipated ADM terminating the Network activity in 2nd Quarter FY 11.)			
Title: Contractor Logistics Products Application Integration IBCT Increment 1 ***Articles:*** ***Description:*** Funding is provided for the following effort ***FY 2010 Accomplishments:*** Provided incremental releases of Logistics Decision Support System (LDSS) and Platform Soldier-Mission Readiness System (PS-MRS) Increment 1 software to the Network System Integration and Test (NSIT) lab in support of early integration of the Battle Command System (BCS) for IBCT LUT-10. Resolved Software Problem Reports (SPR's) discovered during IBCT LUT-09. FQT?ed and released LDSS and PS-MRS Increment 1 software to NSIT in support of Network System Qualification Test (NSQT), leading to the IBCT LUT-10. Key logistical capabilities provided during Increment 1 include: 1) Readiness Monitoring of the battery levels for the T-UGS and SUGV, an on/off status of the Integrated Computer System (ICS) and the BCS software applications running on the NIK; and the status of the UAS CL 1; 2) Report the status of the Increment 1 systems to FBCB2 for display on the Common Operating Picture (COP); and 3) Diagnostics of failed components for Increment 1 systems with a basic display of the IETMs for aiding the Operator during repair in the field.	8.000 0	-	-
Title: Contractor Logistics Products Application Integration CP 13/14 ***Articles:*** ***Description:*** Funding is provided for the following effort ***FY 2010 Accomplishments:*** Provided multiple software releases of incremental logistical capability which are integrated with SOSCOE Builds 10.2 through 10.5 to support early CP 13/14 Phase 1 Battle Command System integration. Provided integration support to the Network System Integration and Test. Logistics Decision Support System CP 13/14 Phase 1 includes: calculation of platform supply requirements via the supply planner, thereby decreasing the logistical footprint and increasing the OPTEMPO of the platforms; manually process requests for maintenance; determine platform consumable status; adherence to information assurance requirements; and integration with the Cross Domain Guard (CDG). The Logistics Data Management System (LDMS) CP 13/14 Phase 1 includes development of the Logical Data Manager to provide the following: manage the configuration of platforms; interface to access the Army Property Book Unit Supply Enhanced, Standard Army Retail Supply System, and Global Transportation Network enterprise-level logistics systems through the Logistics Information Warehouse; interface to commercial transportation systems; interface with systems for inventory and other asset visibility data; additional reporting for equipment availability analysis; reporting for Product Support Integrators; and inventory performance, transportation performance & asset visibility analysis	29.518 0	30.444 0	-

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B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2010	FY 2011	FY 2012
as part of the supply chain. Platform Soldier-Mission Readiness System (PS-MRS) CP 13/14 Phase 1 includes: diagnostics capabilities, to include fault detection/isolation & platform availability; scheduled maintenance and resupply; remote diagnostics on unmanned systems; interface with the CDG; and integration of Interactive Electronic Technical Manuals (IETM) capabilities, to include directed navigation and viewing through the WMI screen. The enhanced IETM capabilities decrease the time to repair by coordinating with PS-MRS diagnostics to identify the single-point-of-failure and provide specific automated task technical references to repair the identified component/unit. ***FY 2011 Plans:*** Continue software development of Logistics Products to support CP 13/14 Phase 1. Complete developments of Phase 1 functionality, provide integration support to NSIT, and resolve SPRs until contract termination prior to qualification of software. Began development of Logistics Products to support Battle Command System (BCS) CP 13/14 Phase 2. Continue until contract termination. Provide multiple software releases of incremental logistics capability to support early BCS system-level integration. Provide integration support to the Network System Integration and Test. Logistics Decision Support System (LDSS) CP 13/14 Phase 2 includes: distribute maintenance requests via the maintenance manager; disseminate platform readiness and aggregate platform readiness by platform type using current force systems; adherence to information assurance requirements; and integration of new messages with the Cross Domain Guard. Logistic Data Management System (LDMS) CP 13/14 Phase 2 capability [Logistics Data Manager (LDM) and Logistics Data Agent (LDA)] includes: collect maintenance, supply, heath and status data from the Platforms for analysis. Additional LDM capability includes: Sending Condition Based Maintenance Plus (CBM+) data to Global Combat Support System - Army (GCSS-Army). (FY 11 current funding requirement is $17,658 based on RMD XXX and anticipated ADM terminating the Network activity in 2nd Quarter FY 11.)			
Title: Contractor Range Extension Relay Increment 1 ***Articles:*** ***Description:*** Funding is provided for the following effort ***FY 2010 Accomplishments:*** Complete 18 engineering upgrade to HW and software configuration of the Range Extension Relay. Continued reliability growth; improved sensor/software modalities and deliver soldier carrying MOLLE packs.	2.360 0	-	-
Title: Contractor Ground Sensors Hardware CP 13/14 ***Articles:*** ***Description:*** Funding is provided for the following effort ***FY 2010 Accomplishments:***	70.440 0	-	-

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B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2010	FY 2011	FY 2012
Conduct Production Readiness Review (PRR) for SUGV (militarized head) in 3Q FY10. Complete delivery of 8 SUGV EO/IR/ LRF. Design/development efforts to support incorporation of 3rd Gen FLIR within MREO (light) sensor package. Conduct CDR for MREO ARV-A(L). Begin long-lead prototype procurement of 8 MREOs (7 prototypes and 1 spare) for ARV-A(L) with delivery in FY11. Continue the Acoustic Locating Array Sensor (ALAS) design and to support ARV-A(L) PDR milestones. Continue Sensor Suite Control software code and unit test.			
Title: Contractor Air Sensor Hardware CP 13/14 ***Articles:*** ***Description:*** Funding is provided for the following effort ***FY 2010 Accomplishments:*** Began ASTAMIDS initial flight tests in November 2009. Due to termination of Class IV Program, the remaining ASTAMIDS sensor and SAR/GMTI interfaces was also terminated in January 2010. Conduct CL I EOIR/LD/LRF sensor CDR, and continue development of sensor package through the Production Readiness Review (PRR). Begin long-lead procurement of 14 prototypes Electro Optical Infrared (EOIR/LD) Class 1 Sensors. The remaining effort for the Air Sensor Hardware for FY11 and beyond are included in PE 0604664 FC3.	13.300 0	-	-
Title: Contractor Communication Hardware (Air and Ground) IBCT Increment 1 ***Articles:*** ***Description:*** Funding is provided for the following effort ***FY 2010 Accomplishments:*** Delivered remainder of 19 System Development and Demonstration (SDD) Network Interface Kits (NIKs) for government field testing. Upgraded 19 NIKs with JTRS Ground Mobile Radio (GMR) Engineering Development Models (EDM) radios to support Increment 1 LUT-10 testing. Completed Engineering upgrade to hardware and software configuration of 16 Range Extension Relays currently used in Increment 1. Upgraded 23 JTRS GMRs with SRW 1.0c. Provided technical support for the 19 GMR set for testing at White Sands Missile Range/Ft. Bliss including software updates, OE updates, waveform updates, configuration file development, and onsite technical expertise. Procured 153 HMS radios, performed software updates on the radios, provided technical support for resolving discovered issues. Built and delivered 3 JTRS Network Management suite to support FY10 testing and validation of information exchange between the other CP equipment (ACES, SKL, etc) and the NMS Communications Systems Software. The JTRS Network Management suite consists of several laptops and ancillary equipment (cables, switches and One Way Guard) to support the JTRS WNW Network Manager (JWNM) (GMR and WNW) and SRW Network Manager (SRWNM) 1.0+ (HMS and GMR) for planning, configuring, and managing the radio/waveforms of the IBCT and the separate	38.039 0	-	-

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B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2010	FY 2011	FY 2012
security enclaves (Secret, TUI, Black). Conducted Technical Field Test, Force Development Test and Evaluation, and Limited User Test. Conducted NIK Increment 1 CDR. Conducted evaluations of alternative radio solutions for tele-operations.			
Title: Contractor Communication Hardware (Air and Ground) CP 13/14	5.780	20.840	-
Articles:	0	0	
Description: Funding is provided for the following effort ***FY 2010 Accomplishments:*** Initiated procurement of 251 rifleman radios for common controller. Delivered and integrated 3 JTRS Small Form Factor (SFF) based Communications/Navigation Units (CNU) for Small Unmanned Ground Vehicle (SUGV). Delivered 62 GMR EDM radios to integration labs for INC2 SDD efforts. Prepared and delivered Payload Training Support Packages. Updated Graphic Training Package for soldier training for test events. Completed System engineering of the network architecture and waveform load-set. Conducted communications systems and NIK PDRs. Conducted communications systems CDR. Completed System Engineering, and delivered Interface Control Documentation (ICDs), for communications and NIK systems to be integrated into ARV-A(L)s and Army wheeled ground vehicles (e.g. HMMWV and MRAP). ***FY 2011 Plans:*** Complete procurement of 251 rifleman radios for Common Controller. Procure and prepare test stations and conduct final integration and test acceptance of NIK payloads. The NIK consists of the GMR Radio, the Integrated Computer System, and the Ground Platform Communications System integrating elements, specifically, cables, antennas, and unique signal filters for the vehicle implementation Plan Conduct Critical Design Review (CDR) for Network Interface Kit (NIK). Complete NIK design, update ICDs and schematics. Procure and deliver 20 NIK payloads for integration into HMMWVs for CP 13/14 Limited User Test (LUT). Procure and integrate into Network System Integration and Test (NSIT) SIL. Sponsored the development of the teleops version of SRW (SRW 1.1) to support ARV(L) and SUGV platforms. (FY 11 current funding requirement is $12,088 based on RMD XXX and anticipated ADM terminating the Network activity in 2nd Quarter FY 11.)			
Title: Contractor Common Controller (CC), Hardware and Software CP 13/14	34.210	50.138	-
Articles:	0	0	
Description: The Common Controller (CC) represents the follow-on capability to each unmanned systems unique controller identified in the draft CDD by replacing the E-IBCT controllers of the Small Unmanned Vehicle (SUGV), the Urban Unattended Ground Sensor (U-UGS), Tactical Unattended Ground Sensors (T-UGS), the Class I Unmanned Aerial System (CLS I UAS), the Multi-Mission Unmanned Ground Vehicle (MM-UGV), and other Battalion and below unmanned systems IAW the draft CC CDD. CC capability provides the IBCT with Soldier-borne unmanned system control and networking capability for the dismounted Soldier. The CC exhibits robust mission planning features and a Warfighter Machine Interface (WMI) which provides			

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B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2010	FY 2011	FY 2012
the Soldier with a common user control interface which reduces the cross-training burden previously associated with having multiple controllers. The CC will use the same battery as the Nett Warrior (formerly known as Ground Soldier System, GSS) thus reducing the logistics footprint. As a networking device, the CC will possess the capability to display and transmit time sensitive sensor data to leaders at different echelons within the BCT. The timely dissemination of sensor data will improve situational awareness and understanding throughout the BCT.In order to provide increased dismounted control capability, CC fielding has been accelerated into Brigade 4 of Increment 1 (FY13/14). The CC with additional BCS functionality and reduced size and weight will be fielded as a part of CP 13/14 (FY15/16). In order to provide greater capability to the Soldier sooner, the CC Spiral 2 & 3 leverages a hardware design that is approximately 80% common among CC spirals. The major difference between CC Spiral 2 and 3 is improved software and communication capability. ***FY 2010 Accomplishments:*** Common Controller (CC) program events included participation in the Brigade Combat Team Integration Exercise for Vice Chief of Staff of the Army in Q04FY10 and the Brigade Combat Team Modernization - Combined Interoperability and Network Experiment (CINE) in Q04FY10. These experimentation events demonstrated CC networking and unmanned systems control capabilities integrated into a brigade network architecture. Specifically, the CC was able to control a unmanned systems (SUGV) and transmit JVMF messages including PLI to a Land Warrior (Platoon leader) via the SRW Platoon network in intra-platoon communications. The CC Team also participated in the Soldier Radio Waveform - Evaluation Radio Alternative for SUGV (SRW ERAS) in Q03FY10 which evaluated teleops waveform capabilities in an operational environment. Other CC Team events included successfully Completion of Hot Vibration and Shock Tests for the CC Spiral 2 (S2). ***FY 2011 Plans:*** Conduct CC Critical Design Review by the end of 2 Qtr FY11. Begin procurement of 37 Spiral 2 and 49 Spiral 3 prototypes to be deliverd in FY11. (FY 11 current funding requirement is $29,080 based on RMD XXX and anticipated ADM terminating the Network activity in 2nd Quarter FY 11.)			
Title: Contractor ICS - Computer Processing, Hardware and Software IBCT Increment 1 ***Articles:*** ***Description:*** Funding is provided for the following effort ***FY 2010 Accomplishments:*** ICS Hardware: Upgraded the ICS Type VI to avoid hazardous materials (HAZMAT) from the Gigabit Ethernet Switch Module (GESM). Additionally, worked toward obtaining NSA certification of Cross Domain Guard (CDG) processor board, operating system (RedHat 5.0) and software application as part of the ICS. The ICS was updated to host a certified Cross Domain Guard/	15.740 0	-	-

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B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2010	FY 2011	FY 2012
Solution, replacing a surrogate that was used in FY09. Began planning for classified testing of the CDG for IOT&E FY11. ICS Software: For Increment 1, resolved 7 Software Problem Reports (SPR's), and provided integration support to the Network System Integration & Test (NSIT) lab prior to the Network System Qualification Test (NSQT) in 4Q FY10 and the delta NSQT in 1QFY11.			
Title: Contractor ICS - Computer Processing, Hardware and Software CP 13/14 ***Articles:***	69.240 0	99.958 0	-
Description: Funding is provided for the following effort ***FY 2010 Accomplishments:*** Continued ICS design effort and delivery of 6 ICS Type VII Emulators to support early integration, prior to the ARV-A (L) Integrated Qualification Test (IQT). Thereafter, delivered 3 ICS Type VII brassboards for integration with the ARV-A(L). Deliveries of these items were scheduled to be made to various Network SILs, platform developers, platform integrators, and test facilities. ICS Software: FQT?ed and Released ICS Build 3.0 Real Time Operating System (OS) and Linux Version 5 Operating System (OS) in 1Q FY10 to support the Network System Qualification Tests (NSQTs). ICS Build 3.0 included enhancements to Application Programmer Interface (API) Definition. Conducted ICS Build 3.5 objectives (LCO) and architecture (LCA) reviews in 3Q-4Q FY10. Conducted Preliminary and Critical design reviews (PDR (2QFY10), CDR (4QFY10) for Large Network Processor Version 2 (LNP V2) and Small Network Processor (SNP). ICS Build 3.5 includes enhancements to Volume Management State Management; Power Management; Platform Management and Linux OS Extensions. ***FY 2011 Plans:*** Continue ICS design effort and deliver 10 LNPV2 Brassboard prototypes, 2 LNPv2 emulators, 3 hybrid ICS and 3 SNP brassboard prototypes. Both the LNPv2 and SNP expect to leverage off of ICS LRU developments bringing high level routing, extended processing, memory, encrypted storage and VITA standard LRM's to the type VI chassis. The LNP V2 will be less expensive than the Type VI and will provide greater capability (including some hardware encryption and router/firewall capabilities). The SNP is the down sized version of the LNPv2 designed to bring the minimal network connectivity to BCT platforms like Trucks. Build, qualify test and deliver 26 Large Network Processor Version 2, 6 type VII BrassBoards, and 7 type VII Prototypes for the ARV-A(L). ICS Software: For CP 13/14, begin coding, unit test and integration of ICS Build 3.5 software, to include the Real-Time (RTOS) and L5OS (RedHat Enterprise Linux 5.4 derivative) operating systems (OS). Deliver 36 Man-packable Network Integration Kit (MNIK)s. The MNIK converts the messages between radio networks, and routes the message to recipients on the second radio system. This automated message handling creates an interoperable link between systems/subsystems. The MNIK provides range extension, data mediation, proxy, filtering and profile management to the dismounted soldier's unit. These functions enable the dismounted soldier's network to connect to a geographically remote mobile Command Post, a Commander's vehicle, a Tactical Operations Center and/or another MNIK System. The MNIK will consist of the following components as described in			

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B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2010	FY 2011	FY 2012
the Buyer Specification., Computer Subsystem (CSS), Radio Subsystem (RSS), Wrist Control Unit (WCU), Power Subsystem (PSS),Interconnecting Cables, Load Bearing Equipment (LBE), and MNIK Software Subsystem (MSS). (FY 11 current funding requirement is $57,976 based on RMD XXX and anticipated ADM terminating the Network activity in 2nd Quarter FY 11.)			
Title: Contractor Network Integration (SW/SW and SW/HW) IBCT Increment 1 ***Articles:*** ***Description:*** Funding is provided for the following effort ***FY 2010 Accomplishments:*** Continued integration of Battle Command System (BCS) Increment 1 software deliveries (engineering drops and final build) prior to Increment 1LUT-10. Conducted Hardware/Software integration of the BCS with the Integrated Computer System (ICS) Type VI variant and the Ground Mobile Radio (GMR) as part of the Network Integration Kit (NIK), these activities included integration, test and verification activities to make sure successful integration is achieved. In addition to lab testing, conducted field testing for each BCS Engineering Release integrated with the NIK. Resolved any remaining NIK and BCS integration issues, including the verification of approximately 600 moderate-to-high-level software problem reports (SPR's), impacting software functionality and reliability, and completed a Network Systems Qualification Test (NSQT) on the NIK in 3Q FY10 to support Increment 1 LUT-10, with a delta NSQT taking place in 1QFY11 for enhancements to algorithms for combining sensor data, updates to the OS and resolutions of SPRs discovered during LUT 10 BCS Increment 1 included integration of SOSCOE Build 2.7 with the Integrated Computer System (ICS) Build 2.0 Operating System (OS), incorporating the Cross Domain Guard (CDG).	17.460 0	-	-
Title: Contractor Network Integration (SW/SW and SW/HW) CP 13/14 ***Articles:*** ***Description:*** Funding is provided for the following effort ***FY 2010 Accomplishments:*** Performed integration and test among each of the CP 13/14 Phase 1 software subsystems as part of Battle Command System (BCS) Integration/Test effort. This included checking out and integrating incremental deliveries of software capability that were delivered by each of the Battle Command application developers. This incremental approach identified gaps in interfaces between each of the software applications or defective functionality which are later addressed through the disposition, implementation and closure of Software Problem Reports (SPRs). Additionally, conducted hardware/software Integration. Integrated and performed lab testing of the CP 13/14 Phase 1 BCS with each of the computer and radio configurations for the NIK, ARV-A(L), UAS CL 1, SUGV and the Centralized Controller (CC) systems to ensure proper integration and functionality. The integration and qualification of the BCS is necessary for the functionality provided by individual software applications to be realized	35.799 0	54.074 0	-

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APPROPRIATION/BUDGET ACTIVITY 2040: *Research, Development, Test & Evaluation, Army* BA 5: *Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604665A: *FCS Sustainment & Training R&D*	PROJECT FC6: *BCT Network Hardware & Software*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2010	FY 2011	FY 2012
as operational capability by the Warfighter. This approach also ensures that the BCS, computer hardware and radios perform reliably during platform system testing and thereby reduces integration-related cost and schedule risk. ***FY 2011 Plans:*** Continue integration of CP 13/14 BCS Phase 1 software capability provided by each of the Battle Command, Fusion, Logistical and Embedded Training application developers until contract termination prior to qualification of software. Provide Integration Releases (IRs) in 2QFY11 for early integration of the CC in conjunction with the unmanned systems and the NIK. BCS Phase 1 will include integration of SOSCOE Builds 10.1 through 10.6 with the latest versions of the ICS Operating Systems (OS). For CP 13/14 Phase 2 software development, integrate the new software capability provided by incremental deliveries from each of the Battle Command, Fusion, Logistical and Embedded Training application developers until contract termination. Provide early integration of a subset of capabilities planned for Phase 2 in 2QFY11. This will include integration of SOSCOE Builds 10.6 and 10.7 and the latest versions of the ICS OS. (FY 11 current funding requirement is $31,363 based on RMD XXX and anticipated ADM terminating the Network Software development activity in 2nd Quarter FY 11 and integration of Network components by the end of FY11.)			
Title: Government GFX IBCT Increment 1 ***Articles:*** ***Description:*** Funding is provided for the following effort ***FY 2010 Accomplishments:*** Network Analysis and Integration Laboratory (NAIL) is a government laboratory that performs inherent government end-to-end (E2E) network design, integration, and performance-risk reduction analysis in support of Brigade Combat Team Modernization (BCTM). NAIL performed an assessment of IBCT Increment 1 network performance capability and existing design performance gaps, and delivered multiple Increment 1 Network Design Solutions (Radio allocations, Network configuration, traffic routing, Voice, Scalability) that optimized the performance of the Warfighter?s network. 1) Simulated all aspects of the BCTN Network Architecture to include Increment 1 scenarios, radio waveforms, battle command applications traffic load on the network, etc. 2) Determined IBCT network connectivity requirements. 3) Developed / delivered Increment 1 Radio Waveform Allocations, defining the distribution/positioning of Army Waveforms on platforms including Subnet Plan and Frequency Channel Assignment, and developed Network Routing Architecture allowing warfighter and platform applications to be able to talk to each other. 4) Provided Common Controller (CC) Tele-Operations of Small Unmanned Ground Vehicle (SUGV) and Large Robotic Vehicle Tele-Operation Operational Effectiveness and determined radio performance requirements for Tele-Operations Warfighter Operation Effectiveness. 5) Designed, prototyped and delivered a Voice Architecture and Voice Signaling Design for BCTM to include design and integration of BCTM Voice Cross-banding System Software on Increment 1 Network Experiment resulting in the ability to for a warfighter to talk across a network with different radio waveforms and report critical Position Location Information (PLI),	13.131 0	-	-

Exhibit R-2A, RDT&E Project Justification: PB 2012 Army		DATE: February 2011
APPROPRIATION/BUDGET ACTIVITY 2040: *Research, Development, Test & Evaluation, Army* BA 5: *Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604665A: *FCS Sustainment & Training R&D*	PROJECT FC6: *BCT Network Hardware & Software*

B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2010	FY 2011	FY 2012
Situation awareness (SA), and imagery in real time during the mission. 6) Optimized Battle Command Applications network traffic through modeling and simulation analyzes, prediction, and regulating the behavior of data transmitted over that network. Delivered Traffic Engineering (TE) Design in support of Increment 1 Battle Command (BC), TE Requirements for SOSCOE, and Offered Load (OL) Database Development, defining the total Increment 1 traffic over the network. Mitigated and established network traffic requirements in support of FY10 Limited User Test (LUT). 7) Assessed performance of Warfighter Network transport middleware (SOSCOE) and mitigated the risk of miss-configuration for scalability by obtaining the optimal configuration. The NAIL deliverables mitigate network performance risk and enable the warfitghter with an optimized Network that integrates Battle Command applications, sensors, platforms and services allowing for timely dissemination of orders, Battlefield PLI and situation awareness. An Evaluation of Radio Alternatives for SUGV and Common Controller was completed. SRW demonstrated performance potential resulted in the joint decision by JPEO JTRS and PEO I to fund the improvement of the SRW waveform to add tele-operations capability.			
Title: Government GFX CP 13/14	32.774	31.746	-
Articles:	0	0	
Description: Funding is provided for the following effort			
FY 2010 Accomplishments: The NAIL performed CP13/14 Network design maturity assessment and delivered data products that optimized the network, mitigated technical risk, cost and schedule to the Prime Contractor and the Army in support of BCTM. Delivered data in support of BCTM Program Network Technical Interchange Meetings (TIMs), System/Subsystem Design Description (SSDD), Limited User Tests (LUTs), Initial Operational Test & Evaluation (IOTE), Network CDR (NCDR) and SoS CDR. 1) Determined CP 13/14 Network connectivity performance, capabilities requirements. 2) Provided technical guidance to Prime on evolution of CP 13/14 network design and performance requirements of Network A Specification and system integration of the WLS. 3) Performed Network Design Maturity Risk Assessment and Risk Mitigation for CP 13/14 and delivered to Prime and Army: Subnet Plan, Frequency Channel Assignment, Routing Architecture to include Multicast/Unicast for Brigade per Operational Mission Nets, Internet Protocol (IP) Address Book and Assignment Schema. 4) Produced Voice Dismount Software, and integrated Voice System Software with Ground Soldier System (GSS), Warfighter Information Network-Tactical (WIN-T), and Network Interface Kits (NIKs). 5) Developed/delivered TE Design for CP 13/14 BC, TE Requirements for CP 13/14 SOSCOE software builds, and OL Database Development and Specification of CP 13/14 Traffic on the Network (Enables the Warfighter with optimized and efficient Battle Command services across the network) 6) Delivered Software Load Allocation definition for all CP 13/14 BC Software on NIK Configurations and delivered Reliable Network Transport Design for NIK/ Force XXI Battle Command Brigade and Below (FBCB2) BC Environment, utilizing Ground Mobile Radio (GMR) and WIN-T for Communications Transport.			
FY 2011 Plans:			

Exhibit R-2A, RDT&E Project Justification: PB 2012 Army		DATE: February 2011
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B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2010	FY 2011	FY 2012
NAIL shall expand the use of the state of the art high fidelity network transport models and Battle Command representations, update the M&S Baseline with Shared Code Models utilizing actual Wideband Network Waveform (WNW) and Soldier Radio Waveform (SRW) source code, enhance Waveform Virtualization (execution of waveform software in a simulation environment separate for the underlying hardware resource) capability and instrumentation. Parameterize tactical network stimulus capability utilizing the latest Operational OL representation of total traffic over the network to mitigate and optimize the performance of the network. The NAIL shall perform network maturity assessment, scalability and the end-to-end network performance of the CP 13/14 Network by performing large scale live, virtual and constructive experimentation activities. Shall result in the physical characteristics and performance properties of the network in support of risk mitigation for System of System (SoS) CDR, Initial Operational Test & Evaluation (IOTE), and Limited User Tests (LUT). 1) Enhance the design /development of Network Routing Architecture, Voice BCTM cross-banding architecture and WLS for BCTM CP13/14. Provides optimization of the network traffic engineering and network planning requirements and enables the Warfighter with an optimized scalable network capable of passing communications service across multiple radio waveform types. 2). Conduct thorough Network maturity assessment, based on PEO I testing and PM JTRS Waveform Testing. 3). Conduct data reduction and analysis, accessioning network and Battle Command (BC) applications scalability, reliability and robustness upon mobility. 4) Continually assess and update the performance and scalability of SOSCOE in tactical MANET environment. 5) Continue design and integration of the Army's low-cost dismount solution for robotics platform control, aerial surveillance and Command and Control (C2) / Situation Awareness / Voice integration. Mitigates network performance risk and enables the warfitghter with a optimized BCTM Network. To provide a tele-ops capable Type 2 certified radio/waveform for Multi Mission Unmanned Ground Vehicle, the jointly developed SRW 1.1 waveform will be ported to the GMR. (FY 11 current funding requirement is $48,910 based upon RMD XXX and PEO I's new mission of Network Integration)			
Title: Contractor Fee ***Articles:*** ***Description:*** Funding is provided for the following effort ***FY 2011 Plans:*** Contractor prime fee is included in all prior accomplishment statements. (This accomplishment should be equal to $0).	-	52.604 0	-
Title: Termination Cost ***Articles:*** ***Description:*** Funding is provided for the following effort ***FY 2010 Accomplishments:*** Special Termination Costs for MGV, Class IV and MULE Network Components	52.301 0	-	-

Exhibit R-2A, RDT&E Project Justification: PB 2012 Army		DATE: February 2011
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B. Accomplishments/Planned Programs ($ in Millions, Article Quantities in Each)	FY 2010	FY 2011	FY 2012
These costs are paid to the contractor and subcontractors as per FAR 31.205 for; Severance Pay, Reasonable costs continuing after termination, Settlement of expenses, and the costs to return field service personnel from remote or liaison sites. In addition to the FAR termination costs this element includes Disposition of Terminated Material to other Army agencies. These funds also include all cost for packaging, transporting, and short and long term storage of selected materials IAW FAR 45/49. All Secure equipment was dispositioned IAW NSA requirements.			
Accomplishments/Planned Programs Subtotals	685.524	610.389	-

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total	FY 2013	FY 2014	FY 2015	FY 2016	Cost To Complete	Total Cost
• 0604646A: *Non-Line of Sight - Launch System*	88.205	81.247								0.000	169.452
• 0604660A: *FCS Manned Ground Vehicles & Common Grd Vehicle Components*	231.103									0.000	231.103
• 0604661A: *FCS System of Systems Engr & Program Management*	847.011	568.711	383.872		383.872		518.188	648.502	352.069	0.000	3,808.398
• 0604662A: *FCS Reconnaissance (UAV) Platforms*	92.444	50.304								0.000	142.748
• 0604663A: *FCS Unmanned Ground Vehicles*	122.418	249.948	143.840		143.840		106.480	131.880	32.009	0.000	911.047
• 0604664A: *FCS Unattended Ground Sensors*	39.664	7.515	0.499		0.499					0.000	47.678
• WTCV G86200: *FCS Spin Out Program*	210.909									0.000	210.909
• ACFT A00015: *BCT Unmanned Aerial Veh (UAVs) Incr 1*		44.206								0.000	44.206
• OPA B00001: *BCT Unattended Ground Sensor*		29.718								0.000	29.718
• OPA B00002: *BCT Network*		176.543								0.000	187.068
• OPA B00003: *BCT Network Incr 2*							229.528	187.955	179.653	0.000	768.167

Exhibit R-2A, RDT&E Project Justification: PB 2012 Army		DATE: February 2011
APPROPRIATION/BUDGET ACTIVITY 2040: *Research, Development, Test & Evaluation, Army* BA 5: *Development & Demonstration (SDD)*	R-1 ITEM NOMENCLATURE PE 0604665A: *FCS Sustainment & Training R&D*	PROJECT FC6: *BCT Network Hardware & Software*

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total	FY 2013	FY 2014	FY 2015	FY 2016	Cost To Complete	Total Cost
• OPA F00001: *BCT Unmanned Ground Vehicle*		20.046	24.805		24.805					0.000	48.096
• OPA F00002: *BCT Unmanned Ground Vehicle Incr 2*			11.924		11.924		422.192	834.171	696.603	0.000	2,414.904
• OPA G80001: *BCT Training/ Logistics/Management*		61.581	149.308		149.308		49.792	28.259		0.000	435.142
• OPA G00002: *BCT Training/ Logistics/Management Incr 2*			57.103		57.103		441.250	347.466	273.354	0.000	1,308.265

D. Acquisition Strategy

A 23 June 2009 Acquisition Decision Memorandum (ADM) directed the cancellation of the FCS (BCT) acquisition program. It also instructed the Army to transition to an Army modernization plan consisting of a number of integrated acquisition programs. At that time, the SO E-IBCT was designated a pre-MDAP, with a Milestone C decision scheduled for the first quarter FY10. A follow-on ADM was issued 9 July 2009. In it, the Army was directed to continue efforts to improve the brigades beyond the Early Infantry Brigade Combat Team acquisition until a standalone program(s) is defined later in 2010. An Army BCT Modernization Defense Acquisition Board (DAB) was then held on October 16, 2009 to review the Army's plans for the post-Future Combat Systems efforts and confirm the Army brigade modernization acquisition plans were consistent with the Secretary of Defense's guidance. An ADM issued after this DAB stated: "The approach, for Increment 1 (Early-Infantry Brigade Combat Team (E-IBCT)) and the Ground Combat Vehicle (GCV) effort, is consistent with the Secretary's guidance and each is being positioned for more in-depth review and acquisition decisions later in 2009." The Increment 1 E-IBCT Milestone C took place 22 December 2009 and was approved in an ADM dated 24 December 2009. The Program Executive Office-Integration (PEO-I) has modified the existing contract to be compliant with the aforementioned ADMs. On 12-Jan 2011 a follow on DAB approved procurement of brigades 2 & 3. This budget justification reflects the latest OSD DAB for Increment 1 (E-IBCT) program and the follow-on IBCT modernization program as approved in RMD XXXX.

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.

Exhibit R-3, RDT&E Project Cost Analysis: PB 2012 Army			DATE: February 2011
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Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	FY 2011 Cost	FY 2011 Award Date	FY 2012 Base Cost	FY 2012 Base Award Date	FY 2012 OCO Cost	FY 2012 OCO Award Date	FY 2012 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
SoSCOE / INFO MGT SYSTEM SOFTWARE	Various	THE BOEING COMPANY:St. Louis, MO	-	66.466		-		-		-	Continuing	Continuing	Continuing
COMMUNICATIONS SYSTEMS SOFTWARE & NETWORK MGT SOFTWARE	Various	THE BOEING COMPANY,:St. Louis, MO	-	59.143		-		-		-	Continuing	Continuing	Continuing
BATTLE COMMAND SOFTWARE	Various	THE BOEING COMPANY,:ST LOUIS, MO	-	118.011		-		-		-	Continuing	Continuing	Continuing
FUSION SOFTWARE	Various	THE BOEING COMPANY,:ST LOUIS, MO	-	12.510		-		-		-	Continuing	Continuing	Continuing
EMBEDDED TRAINING SOFTWARE	Various	THE BOEING COMPANY,:ST LOUIS, MO	-	14.455		-		-		-	Continuing	Continuing	Continuing
RANGE EXTENSION RELAY	Various	THE BOEING COMPANY,:ST LOUIS, MO	-	-		-		-		-	Continuing	Continuing	Continuing
CONTRACTOR LOGISTICS PRODUCTS APPLICATION INTEGRATION	Various	THE BOEING COMPANY,:ST LOUIS, MO	-	30.444		-		-		-	Continuing	Continuing	Continuing
GROUND SENSOR INTEGRATOR HARDWARE	Various	THE BOEING COMPANY,:ST LOUIS, MO	-	-		-		-		-	Continuing	Continuing	Continuing
AIR SENSOR HARDWARE	Various	THE BOEING COMPANY,:ST LOUIS, MO	-	-		-		-		-	Continuing	Continuing	Continuing
COMMUNICATION HARDWARE - AIR & GROUND	Various	THE BOEING COMPANY,:ST LOUIS, MO	-	20.840		-		-		-	Continuing	Continuing	Continuing
COMMON CONTROLLER, HARDWARE AND SOFTWARE	Various	THE BOEING COMPANY:ST LOUIS, MO	-	50.138		-		-		-	Continuing	Continuing	Continuing
	Various		-	99.958		-		-		-	Continuing	Continuing	Continuing

Exhibit R-3, RDT&E Project Cost Analysis: PB 2012 Army		DATE: February 2011
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Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	FY 2011 Cost	FY 2011 Award Date	FY 2012 Base Cost	FY 2012 Base Award Date	FY 2012 OCO Cost	FY 2012 OCO Award Date	FY 2012 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
ICS COMPUTER PROCESSING HARDWARE AND SOFTWARE		THE BOEING COMPANY,:ST LOUIS, MO											
CONTRACT NETWORK INTEGRATION (SW/SW) AND SW/HW)	Various	THE BOEING COMPANY:ST LOUIS, MO	-	54.074		-		-		-	Continuing	Continuing	Continuing
Government GFX	Various	PEO I:Warren, MI	-	31.746		-		-		-	Continuing	Continuing	Continuing
Contractor Fee	Various	BOEING:ST LOUIS, MO	-	52.604		-		-		-	Continuing	Continuing	Continuing
		Subtotal	-	610.389		-		-		-			

Remarks

1: Subcontractor: Lockheed Martin Integrated Systems and Solutions, San Diego, CA; (ISR Level 1 Fusion)
2: Subcontractor: Northrop Grumman Network Management Systems, Carson, CA; (Network Mgt Sys)
3: Subcontractor: Boeing Mesa, Mesa, AZ; (Warfighter Machine Interface)
4: Subcontractor: Northrop Grumman Mission Systems, Carson, CA; (Logistics Decision Support Software)
5: Subcontractor: Raytheon Network Centric, Fort Wayne, IN; (Battle Command & Mission Execution)
6: Subcontractor: Network Centric Systems/Austin Info Systems, Austin, TX; (Situational Understanding)
7: Subcontractor: General Dynamics C4 Systems, Scottsdale, AZ; (Sensor Data Mgt)(Planning & Preparation Services)
8. Subcontractor: Raytheon Network Centric Systems, Plano, TX; (Ground Sensor Integrator)
9. Subcontractor: Northrop Grumman Electronic Sys CMS, Belcamp, MD; (Air Sensor Integrator)
10. Subcontractor: BAE Systems, Wayne, NJ; (Air & Ground Communication Integration)
11. Subcontractor: General Dynamics Adv Info Sys, Bloomington, MN; (Integrated Computer Systems)
12. Subcontractor: Honeywell Defense & Electronics System, Albuquerque, NM; (Platform Soldier Mission Readiness System)
13. Subcontractor: IBM, Bethesda, MD; (Logistics Data Management Systems)
14. Subcontractor: Lockheed Martin Missiles and Fire Control, Dallas, TX
15. Subcontractor: Textron, Willington, MA

NOTE: The FY10 funding does not include the $52.3M which was approved by congress in Reprogramming Action 10-11 PA.

Contractor Sensor Development

FY10: All platform specific sensor development costs for the Unattended Ground Sensor (UGS), Unmanned Ground Vehicle (UGV), and Reconnaissance (UAV) Platform are also included in this Program Element.

FY11: All Platform specific sensor development costs are included in the appropriate Platform Program Element.

Exhibit R-3, RDT&E Project Cost Analysis: PB 2012 Army		DATE: February 2011
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Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	FY 2011 Cost	FY 2011 Award Date	FY 2012 Base Cost	FY 2012 Base Award Date	FY 2012 OCO Cost	FY 2012 OCO Award Date	FY 2012 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
SBIR/STTR	Various	Various:Various	-	-		-		-		-	Continuing	Continuing	Continuing
		Subtotal	-	-		-		-		-			

Remarks

Government SEPM

FY10/11: All platform specific Government Engineering and PM costs for this project are included in 0604661 FCS SoS Engineering and Program Management Program Element (FC2).

FY12: All platform specific Government Engineering and PM costs for this project are included in this Program Element.

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	FY 2011 Cost	FY 2011 Award Date	FY 2012 Base Cost	FY 2012 Base Award Date	FY 2012 OCO Cost	FY 2012 OCO Award Date	FY 2012 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
GOVERNMENT TEST AND M&S	Various	PEO I:Warren, MI	-	-		-		-		-	Continuing	Continuing	Continuing
		Subtotal	-	-		-		-		-			

Remarks

FY10-FY12: All System of System Test and Evaluation costs for this project are included in 0604661 FCS SoS Engineering and Program Management Program Element.

FY10/ F11: All Platform specific Test and Evaluation costs for this project are included in 0604661 FCS Sos Engineering and Program Management Program Element.

FY12: All Platform specific Test and Evaluation costs for this project are included in this Program Element.

	Total Prior Years Cost	FY 2011		FY 2012 Base		FY 2012 OCO		FY 2012 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	-	610.389		-		-		-			

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2012 Army		DATE: February 2011
APPROPRIATION/BUDGET ACTIVITY 2040: *Research, Development, Test & Evaluation, Army* BA 5: *Development & Demonstration (SDD)*	**R-1 ITEM NOMENCLATURE** PE 0604665A: *FCS Sustainment & Training R&D*	**PROJECT** FC6: *BCT Network Hardware & Software*

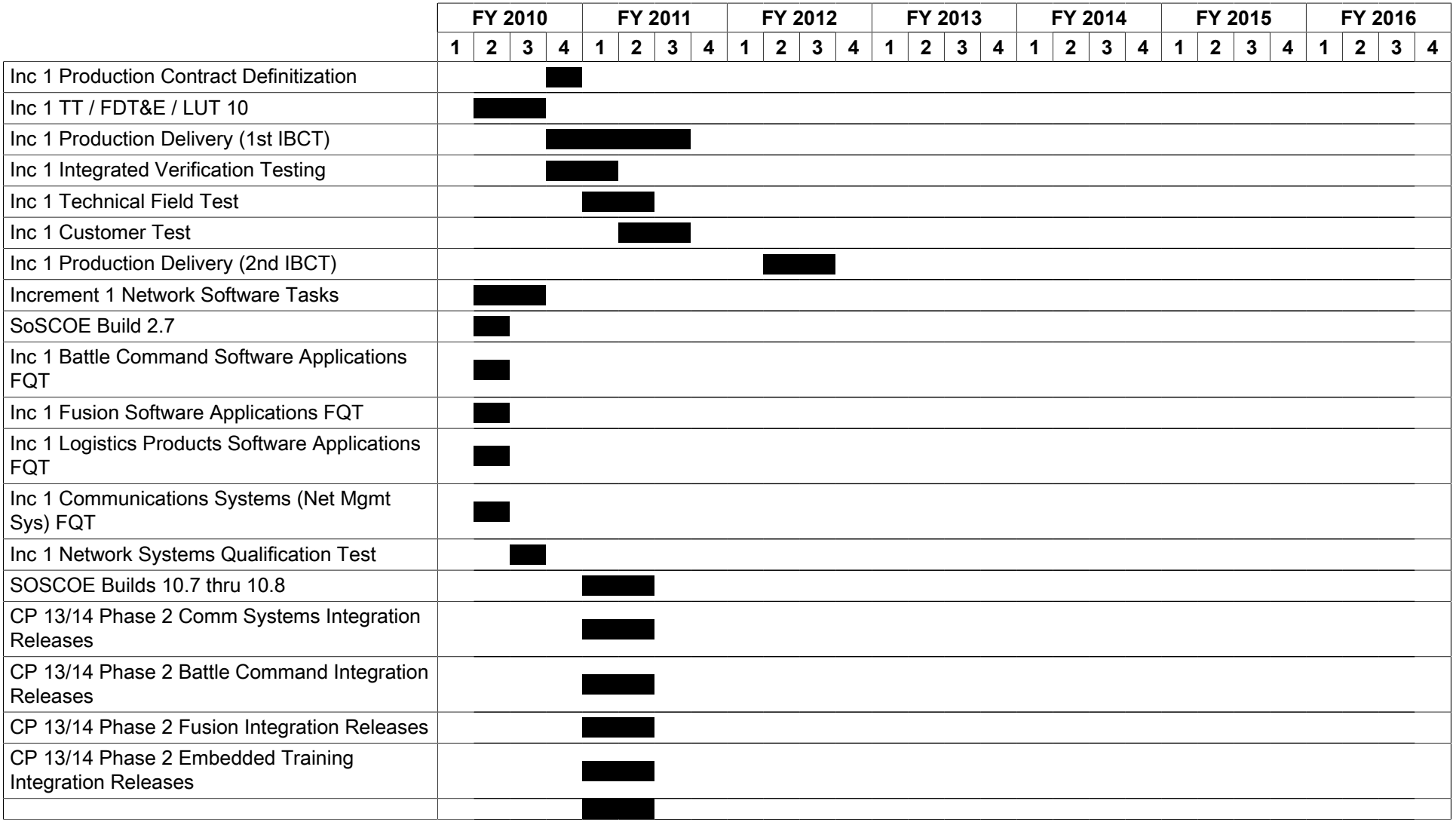

Exhibit R-4, RDT&E Schedule Profile: PB 2012 Army		DATE: February 2011
APPROPRIATION/BUDGET ACTIVITY 2040: *Research, Development, Test & Evaluation, Army* BA 5: *Development & Demonstration (SDD)*	**R-1 ITEM NOMENCLATURE** PE 0604665A: *FCS Sustainment & Training R&D*	**PROJECT** FC6: *BCT Network Hardware & Software*

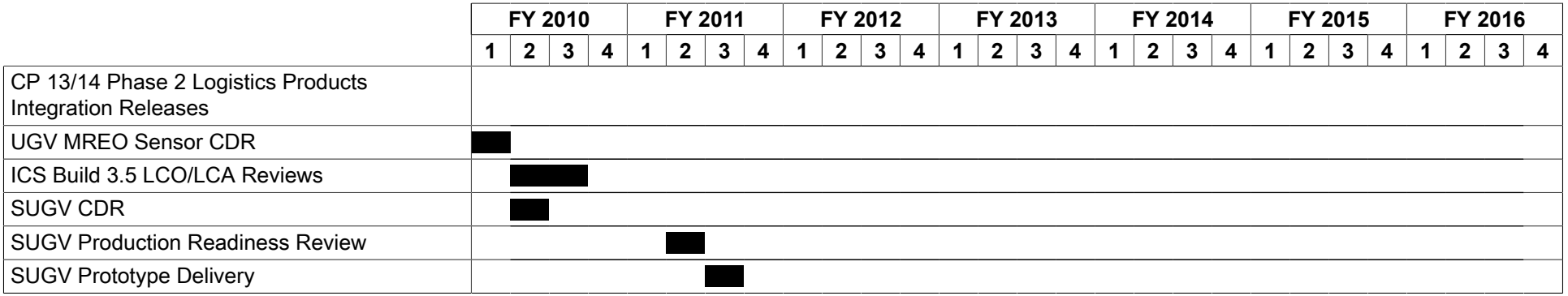

Exhibit R-4A, RDT&E Schedule Details: PB 2012 Army		DATE: February 2011
APPROPRIATION/BUDGET ACTIVITY 2040: *Research, Development, Test & Evaluation, Army* BA 5: *Development & Demonstration (SDD)*	**R-1 ITEM NOMENCLATURE** PE 0604665A: *FCS Sustainment & Training R&D*	**PROJECT** FC6: *BCT Network Hardware & Software*

Schedule Details

	Start		End	
Events	**Quarter**	**Year**	**Quarter**	**Year**
Inc 1 Production Contract Definitization	4	2010	4	2010
Inc 1 TT / FDT&E / LUT 10	2	2010	3	2010
Inc 1 Production Delivery (1st IBCT)	4	2010	3	2011
Inc 1 Integrated Verification Testing	4	2010	1	2011
Inc 1 Technical Field Test	1	2011	2	2011
Inc 1 Customer Test	2	2011	3	2011
Inc 1 Production Delivery (2nd IBCT)	2	2012	3	2012
Increment 1 Network Software Tasks	2	2010	3	2010
SoSCOE Build 2.7	2	2010	2	2010
Inc 1 Battle Command Software Applications FQT	2	2010	2	2010
Inc 1 Fusion Software Applications FQT	2	2010	2	2010
Inc 1 Logistics Products Software Applications FQT	2	2010	2	2010
Inc 1 Communications Systems (Net Mgmt Sys) FQT	2	2010	2	2010
Inc 1 Network Systems Qualification Test	3	2010	3	2010
SOSCOE Builds 10.7 thru 10.8	1	2011	2	2011
CP 13/14 Phase 2 Comm Systems Integration Releases	1	2011	2	2011
CP 13/14 Phase 2 Battle Command Integration Releases	1	2011	2	2011
CP 13/14 Phase 2 Fusion Integration Releases	1	2011	2	2011
CP 13/14 Phase 2 Embedded Training Integration Releases	1	2011	2	2011
CP 13/14 Phase 2 Logistics Products Integration Releases	1	2011	2	2011
UGV MREO Sensor CDR	1	2010	1	2010
ICS Build 3.5 LCO/LCA Reviews	2	2010	3	2010

Exhibit R-4A, RDT&E Schedule Details: PB 2012 Army		DATE: February 2011
APPROPRIATION/BUDGET ACTIVITY 2040: *Research, Development, Test & Evaluation, Army* BA 5: *Development & Demonstration (SDD)*	**R-1 ITEM NOMENCLATURE** PE 0604665A: *FCS Sustainment & Training R&D*	**PROJECT** FC6: *BCT Network Hardware & Software*

	Start		End	
Events	**Quarter**	**Year**	**Quarter**	**Year**
SUGV CDR	2	2010	2	2010
SUGV Production Readiness Review	2	2011	2	2011
SUGV Prototype Delivery	3	2011	3	2011