ARMY RDT&E BUDGET ITEM JUSTIFICATION (R2 Exhibit)

May 2009

BUDGET ACTIVITY	PE NUMBER AND TITLE
7 - Operational system development	**0305208A - Distributed Common Ground/Surface Systems**

	COST (In Thousands)	FY 2008 Actual	FY 2009 Estimate	FY 2010 Estimate	Cost to Complete	Total Cost
	Total Program Element (PE) Cost	128334	68662	188425	Continuing	Continuing
956	Distributed Common Ground System (DCGS) (MIP)	57736	22456	187760	Continuing	Continuing
D06	DCGS-A FUSION INTEGRATION (MIP)	24515	6604			31119
D07	DCGS-A COMMON MODULES (MIP)	34591	28066			62657
D08	DCGS-A SENSOR INTEGRATION (MIP)	10826	10871			21697
D15	MUSE & TES TADSS (MIP)	666	665	665		6634

A. Mission Description and Budget Item Justification: Distributed Common Ground System - Army (DCGS-A) will serve as the primary ground system of systems for airborne and ground sensor platforms. DCGS-A enables the commander to achieve situational understanding by leveraging multiple sources of data, information and intelligence to synchronize the elements of Joint and Combined Arms combat power to See First, Understand First, Act First and Finish Decisively. The core functions of DCGS-A are receipt and processing of select Intelligence, Surveillance and Reconnaissance (ISR) sensor data, control of select Army sensor systems, intelligence synchronization, ISR planning, reconnaissance and surveillance (R&S) integration, fusion of sensor information, and direction and distribution of relevant threat, non-aligned, friendly and environmental (weather and geospatial) information. DCGS-A will support three primary roles: 1. As an analyst tool set, DCGS-A provides the User a capability to collaborate, synchronize and integrate organic and non-organic direct and general support collection elements with operations; 2. As the ISR component of the Army Battle Command, DCGS-A provides the ability to discover and use all relevant threat, non-combatant, weather, and geospatial data and to evaluate technical data and information on behalf of a Commander; 3. DCGS-A provides organizational elements the ability to control select sensor platforms/payloads and process the collected data.

DCGS-A draws information from a wide variety of automated and manual sources; on-board sensors, space platforms and unattended air and ground vehicles to enable the land component commander to achieve situational understanding, execute battle command, synchronize fires and effects and rapidly shift battle focus to protect the force and employ his forces more effectively. DCGS-A allows commanders at all levels to visualize and understand the threat and environment, predict threat intentions, execute targeting through targeting support, conduct ISR integration and support Information Operations.

DCGS-A Projects D06 (Fusion Integration), D07 (Common Modules) and D08 (Sensor Integration) have been consolidated into a single DCGS-A Project (956) for ease of reporting purposes beginning in FY10. Project 956 provides the DCGS-A enterprise system level design, net-centric architecture and infrastructure, integration of the DCGS Integrated Backbone (DIB), single and Multi-Intelligence automated fusion capabilities, development of a common set of ISR analysis tools, and sensor integration to include sensor control, tasking and interoperability. Project D15 funds Training Aids, Devices, Simulators and Simulations (TADSS) for the Tactical Exploitation System (TES).

DCGS-A includes hardware for Fixed and Mobile configurations and common software that is scaleable and tailored by echelon and is interoperable with sensors, other Battlefield Operating Systems (BOS), and the DoD Distributed Common Ground/Surface System (DCG/SS) Family of Systems (FoS). Within the Brigade Combat Teams (BCTs), DCGS-A provides the Mobile ISR capability as well as an embedded software application on the Future Combat System (FCS) FoS and other select platforms. At the

Corps, Division and Echelons Above Corps (EAC), DCGS-A is composed of hardware and software in Mobile and Fixed site configurations. As a system of systems, DCGS-A will consolidate and replace the capabilities found in the following Current Force systems: Joint Intelligence Operations Capability-Iraq (JIOC-I), All Source Analysis System (ASAS), Counter Intelligence/Human Intelligence (CI/HUMINT) Single Source Workstation, Tactical Exploitation System (TES), Guardrail Common Sensor (GRCS) Intelligence Processing Facility (IPF), Prophet Control, Common Ground Station (CGS), Digital Topographic Support System (DTSS) and Integrated Meteorological System (IMETS), sensor control and processing of select Unmanned Aerial Vehicles (UAVs) and Enhanced Trackwolf processing capabilities. DCGS-A is a key component of Transformation and a top Army priority.

ARMY RDT&E BUDGET ITEM JUSTIFICATION (R2 Exhibit)

May 2009

BUDGET ACTIVITY	PE NUMBER AND TITLE
7 - Operational system development	**0305208A - Distributed Common Ground/Surface Systems**

B. Program Change Summary	FY 2008	FY 2009	FY 2010
Previous President's Budget (FY 2009)	90088	57704	17639
Current BES/President's Budget (FY 2010)	128334	68662	188425
Total Adjustments	38246	10958	170786
Congressional Program Reductions		-228	
Congressional Rescissions			
Congressional Increases	5529	11186	
Reprogrammings	32717		
SBIR/STTR Transfer			
Adjustments to Budget Years			170775

Change Summary Explanation: Funding - FY08: $5.529 million GWOT supplemental to design and build Mobile Brigade Combat Team test article to support Mobile Basic LUT. $28.6 million reprogrammed to fund DCGS-A SPIRNET to classified programs. FY10 $170.8M: $147.8M increase to support continuing DCGS-A system development; $23M to support ISR Surge.

ARMY RDT&E BUDGET ITEM JUSTIFICATION (R2a Exhibit)

May 2009

BUDGET ACTIVITY	PE NUMBER AND TITLE	PROJECT
7 - Operational system development	**0305208A - Distributed Common Ground/Surface Systems**	**956**

COST (In Thousands)		FY 2008 Actual	FY 2009 Estimate	FY 2010 Estimate	Cost to Complete	Total Cost
956	Distributed Common Ground System (DCGS) (MIP)	57736	22456	187760	Continuing	Continuing

A. Mission Description and Budget Item Justification: Distributed Common Ground System - Army (DCGS-A) will serve as the primary ground system of systems for Army airborne and ground sensor platforms defined as Future Force systems. DCGS-A enables the commander to achieve situational understanding by leveraging multiple sources of data, information, and intelligence to synchronize the elements of Joint and Combined Arms combat power (maneuver, maneuver support and maneuver sustainment support). The core functions of DCGS-A are: receipt and processing of space, airborne, ground and maritime Intelligence, Surveillance and Reconnaissance (ISR) sensor data; control of select Army and joint ISR sensor systems; intelligence synchronization; ISR planning, reconnaissance and surveillance (R&S) integration; fusion of sensor information, and direction and distribution/dissemination of sensor information. It draws information from a wide variety of automated and manual sources; on-board sensors, space platforms, unattended air and ground vehicles, existing and new ISR capabilities, and an assortment of databases to enable the land component commander to execute battle command, synchronize fires and effects, rapidly shift battle focus, achieve situational understanding, protect the force, and employ forces more effectively. DCGS-A allows commanders at all levels to visualize, analyze and understand the threat and environment, predict threat intentions, execute targeting through targeting support, conduct ISR integration and support Information Operations.

This project provides for the design, development, integration and test of the DCGS-A system of systems at all echelons, from embedded DCGS-A up to Fixed Site operations. The effort includes system engineering, software integration and development, test & evaluation, and use of Modeling and Simulation (M&S) to develop DCGS-A Mobile systems with common multi-function hardware and software capable of performing all DCGS-A functions. It establishes the DCGS-A Federated Network Centric Enterprise, facilitating system integration and network-enabled capability of existing and future intelligence, surveillance and reconnaissance (ISR) ground stations, eventually consolidating these capabilities into a single system of systems. It matures DCGS-A sensor fusion and all source production capabilities, leveraging existing tools and on-going Future Combat System (FCS)/Science and Technology (S&T) developmental efforts to meet the requirements for battle management and situational awareness, intelligence preparation of the battlespace (battle damage assessments, course of action/predictive analysis, wargaming), target development (deliberate, time critical, high value/high payoff), collection/ISR management (requirement and mission), electronic warfare/countermeasures, force protection, indications and warnings, operational security, and battlefield visualization and presentation. This project also addresses ISR sensor integration and interoperability with existing and new platforms and sensors to include a common data link solution.

DCGS-A provides an enterprise level approach based on a Service Oriented Architecture (SOA) to provide Commanders' and Staffs' access to various ISR ground station information from any ground station, and data exchange between Army ISR ground stations for improved intelligence sharing and understanding. DCGS-A will achieve joint, allied and coalition interoperability through implementation of the 10.2 DCGS Integration Backbone (DIB) to access other Services data and information that is critical to the Land Component Commander.

FY10 funds design, development and test of the DCGS-A Mobile Basic configuration to include the DCGS-A Software Baseline (DSB).

Accomplishments/Planned Program:	FY 2008	FY 2009	FY 2010
Continue design and development of DCGS-A enterprise level net-centric architecture in support of Current and Future Force systems.	42211	5626	124416
Continue to evaluate, integrate and test new software applications and components for incorporation into the DCGS-A Software Baseline (DSB).	3775	2160	21601
Ongoing interoperability testing and evaluation to include Central Test Support Facility (CTSF) testing, Future Combat System (FCS) experimentation and integration and Joint testing and evaluation.	3050	2110	1600
Continue to migrate sensor fusion processes and Current Force systems capabilities (multi-INT sources, geospatial and weather data) into DCGS-A Service Oriented Architecture (SOA) environment. Continue development and integration of SIGINT and All Source applications and the integration framework for DCGS-A Multi-Funtion Workstation (MFWS). (previously Project D06)		1360	2558
Continued analysis and prototyping for porting sensor fusion mission applications into the FCS environment. (previously Project D06)			3550
Continue to develop and enhance two-way Battle Command to include Joint Command and Control (JC2) interoperability. (previously Project D07)			5665
Continue to isolate and integrate Current Force Multi-INT sensor (Human Intelligence, Imagery Intelligence, Signal Intelligence, Measurement and Signature Intelligence) modules into the DCGS-A network. Continued planning and analysis of Future Force Multi-INT sensor modules for incorporation into the DCGS-A network. (previously Project D08)			5370
Complete DCGS-A ASAS Integration.	2400		
Continue Asymmetric Threat Response and Analysis Project (ATRAP).	2400	2400	
Continue Effects Based Approach to Operations.	1000	1600	
Continue Heuristic Internet Protocol Engine.	2900	2000	
Develop Constant Look Operational Support Environment (CLOSE).		1600	
Develop Blast Risk Analysis and Mitigation Application (BRAMA).		800	
Develop Beyond Line of Sight (BLOS) Network for MASINT Sensors.		800	
Develop Silver Fox and MANTA.		2000	
Modify Intelligence Integrated Architecture (I2A) to apply cloud computing technology to operational and tactical DCGS-A architecture.			23000
Total	57736	22456	187760

B. Other Program Funding Summary	FY 2008	FY 2009	FY 2010	To Compl	Total Cost
PE 654321 All Source Analysis System (B19)(MIP)	3289	3399			6688
PE 0604321 CI/HUMINT Software Products (B41) (MIP)	3406	1716	3132		8254
K28801 ASAS Modules (MIP)	147149	58161			205310
BK5275 CI HUMINT Automated Reporting and Collection (CHARCS)(MIP)	28543	37521	38717	Continuing	Continuing
BZ7316 DCGS-A (MIP)	224271	177448	252454	Continuing	Continuing

Comment:

C. Acquisition Strategy DCGS-A will be executed via an evolutionary acquisition approach, providing incremental capability through Technology Insertion of Current Force systems and System Development and Demonstration (SDD) of Capability Demonstration Document (CDD) requirements. Each version will incorporate and validate select DCGS-A capabilities into the overall DCGS-A system baseline, emphasizing migration of current force capabilities through integrated testing and continuous evaluation opportunities.

ARMY RDT&E COST ANALYSIS (R3)

May 2009

BUDGET ACTIVITY
7 - Operational system development

PE NUMBER AND TITLE
0305208A - Distributed Common Ground/Surface Systems

PROJECT
956

I. Product Development	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2008 Cost	FY 2008 Award Date	FY 2009 Cost	FY 2009 Award Date	FY 2010 Cost	FY 2010 Award Date	Cost To Complete	Total Cost	Target Value of Contract
Design and development of DCGS-A architecture, software baseline and mobile hardware configuration.	CPAF	Northrop Grumman		35948	2-3Q	5537	2-3Q	146490	1Q	Cont.	Cont.	Cont.
SETA Support to Visualization/Data Sharing, Modeling & Simulation	T&M	Booz-Allen, Eatontown, NJ	15225	1450	2Q					Cont.	16675	Cont.
DCGS-A Product Selection and Integration	MIPR	CERDEC/SEC, Ft. Monmouth, NJ	17270	1996	1-2Q					Cont.	19266	Cont.
SIL Software Integration	MIPR	CERDEC/RDCOM Ft. Monmouth, NJ	10285	1782	1-4Q	1252	1-4Q	1250	1-4Q	Cont.	Cont.	Cont.
Metadata Catalog	T&M	MITRE, Eatontown, NJ	6014	2460	2Q	1121	2Q	4135	2Q	Cont.	Cont.	Cont.
Asymmetric Threat Response and Analysis Project	MIPR	Battle Labs	2500	2400	2Q	2400	2Q				7300	
Effects Based Approach to Operations	MIPR	Battle Labs	1000	800	2Q	1600	2Q				3400	
DCGS-A ASAS Integration	MIPR	Battle Labs		2400	2Q						2400	
Advanced Architecture Designs for NCW	MIPR	Battle Labs		1600	2Q						1600	
Heuristic Internet Protocol Engine	MIPR	Battle Labs		1900	2Q	2000	2Q				3900	
Blast Risk Analysis and Mitigation Application	MIPR	Battle Labs	1050		2Q	800					1850	
Constant Look Operational Support Environment (CLOSE)	MIPR	Battle Labs			2Q	800					800	
Beyond Line of Sight (BLOS) Network for MASINT Sensors	MIPR	Battle Labs			2Q	800					800	
Silver Fox and MANTA	MIPR	Battle Labs			2Q	2000					2000	
ISR Surge/Cloud Development	MIPR	CERDEC/SEC, Ft Monmouth, NJ						23000			23000	
Subtotal:			53344	52736		18310		174875		Cont.	Cont.	Cont.

ARMY RDT&E COST ANALYSIS (R3)

May 2009

BUDGET ACTIVITY
7 - Operational system development

PE NUMBER AND TITLE
0305208A - Distributed Common Ground/Surface Systems

PROJECT
956

II. Support Costs	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2008 Cost	FY 2008 Award Date	FY 2009 Cost	FY 2009 Award Date	FY 2010 Cost	FY 2010 Award Date	Cost To Complete	Total Cost	Target Value of Contract
Objective Doctrine/TTP Development	MIPR	Ft. Huachuca, AZ	6923	100	2Q	100	2Q			Cont.	Cont.	Cont.
Matrix Support	MIPR	CECOM, Fort Monmouth NJ	5974	600	1Q	600	1Q	3765	1Q	Cont.	Cont.	Cont.
Subtotal:			12897	700		700		3765		Cont.	Cont.	Cont.

III. Test And Evaluation	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2008 Cost	FY 2008 Award Date	FY 2009 Cost	FY 2009 Award Date	FY 2010 Cost	FY 2010 Award Date	Cost To Complete	Total Cost	Target Value of Contract
Joint Interoperability Test and Evaluation	MIPR	CTSF, Ft. Hood	3263	250	2Q	250	2Q	250	2Q		4138	
Operational Test support for DCGS-A	MIPR	ATEC	2669	1450	2Q	2096	2Q	1450	2Q		13115	
Subtotal:			5932	1700		2346		1700			17253	

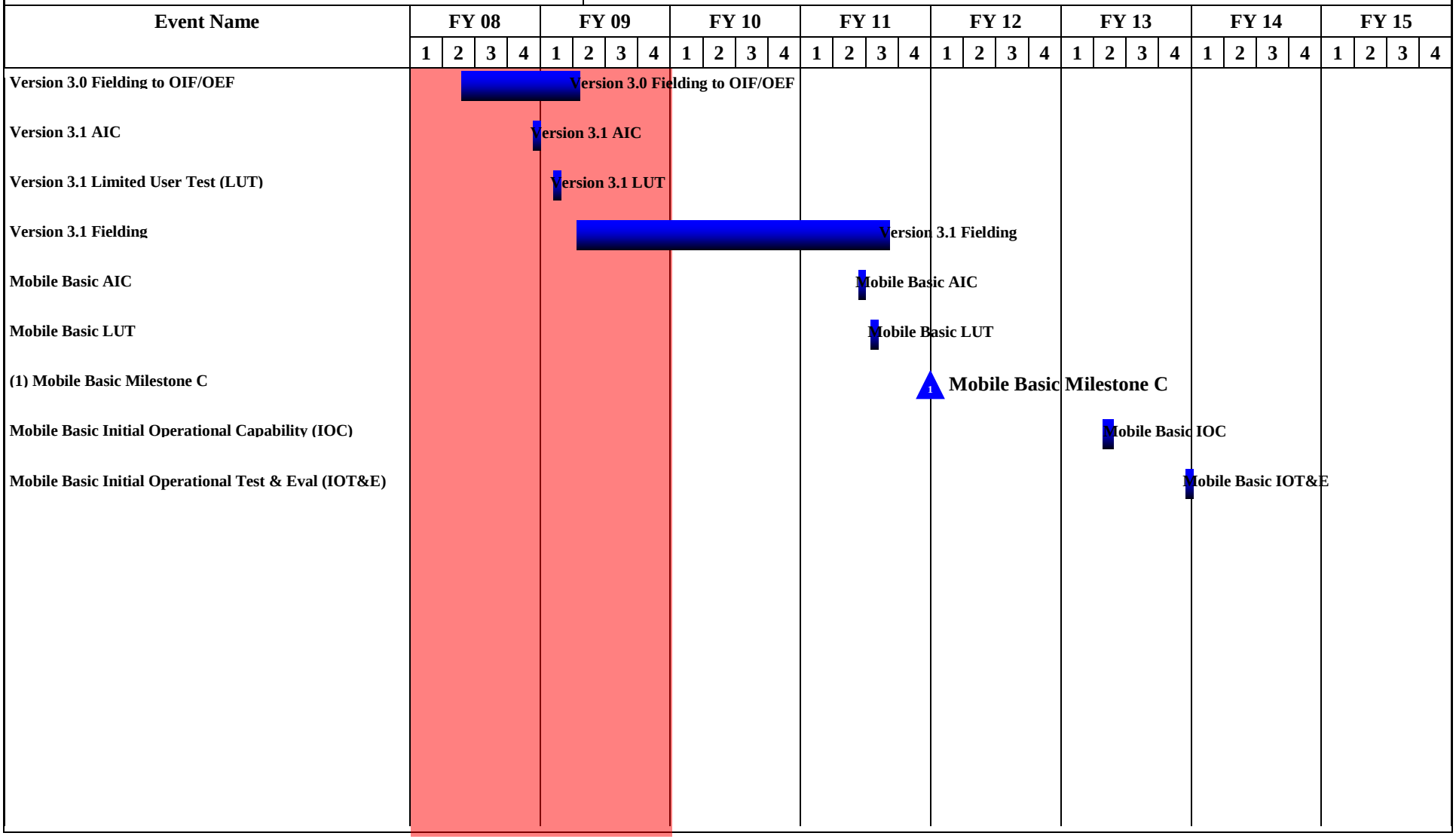
IV. Management Services	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2008 Cost	FY 2008 Award Date	FY 2009 Cost	FY 2009 Award Date	FY 2010 Cost	FY 2010 Award Date	Cost To Complete	Total Cost	Target Value of Contract
Project Management	In-House	PM, DCGS-A	7075	2600	1Q	1100	1Q	7420	1Q	Cont.	Cont.	Cont.
Subtotal:			7075	2600		1100		7420		Cont.	Cont.	Cont.

Project Total Cost:			**79248**	**57736**		**22456**		**187760**		**Cont.**	**Cont.**	**Cont.**

Schedule Profile (R4 Exhibit)

May 2009

BUDGET ACTIVITY	PE NUMBER AND TITLE	PROJECT
7 - Operational system development	**0305208A - Distributed Common Ground/Surface Systems**	**956**



Schedule Detail (R4a Exhibit)

May 2009

BUDGET ACTIVITY	PE NUMBER AND TITLE	PROJECT
7 - Operational system development	**0305208A - Distributed Common Ground/Surface Systems**	**956**

Schedule Detail	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015
Version 3.0 Fielding to OIF/OEF	2Q - 4Q	1Q - 2Q						
Version 3.1 AIC	4Q							
Version 3.1 Limited User Test (LUT)		1Q						
Version 3.1 Fielding		2Q - 4Q	1Q - 4Q	1Q - 3Q				
Mobile Basic AIC				2Q				
Mobile Basic LUT				3Q				
Mobile Basic Milestone C				4Q				
Mobile Basic Initial Operational Capability (IOC)						2Q		
Mobile Basic Initial Operational Test & Eval (IOT&E)						4Q		

ARMY RDT&E BUDGET ITEM JUSTIFICATION (R2a Exhibit)

May 2009

BUDGET ACTIVITY	PE NUMBER AND TITLE	PROJECT
7 - Operational system development	**0305208A - Distributed Common Ground/Surface Systems**	**D06**

COST (In Thousands)	FY 2008 Actual	FY 2009 Estimate	FY 2010 Estimate	Cost to Complete	Total Cost
D06 DCGS-A FUSION INTEGRATION (MIP)	24515	6604			31119

A. Mission Description and Budget Item Justification: Distributed Common Ground System - Army (DCGS-A) will serve as the primary ground system of systems for airborne and ground sensor platforms defined as Future Force systems. DCGS-A enables the commander to achieve situational understanding by leveraging multiple sources of data, information, and intelligence to synchronize the elements of Joint and Combined Arms combat power (maneuver, maneuver support and maneuver sustainment support). The core functions of DCGS-A are: collection and processing of space, airborne, ground and maritime Intelligence, Surveillance and Reconnaissance (ISR) sensor data; control of select Army and joint ISR sensor systems; intelligence synchronization; ISR planning, reconnaissance and surveillance (R&S) integration; fusion of sensor information, and direction and distribution/dissemination of sensor information. It draws information from a wide variety of automated and manual sources; on-board sensors, space platforms, unattended air and ground vehicles, existing and new ISR capabilities, and an assortment of databases to enable the land component commander to execute battle command, synchronize fires and effects, rapidly shift battle focus, achieve situational understanding, protect the force, and employ his forces more effectively. DCGS-A allows commanders at all levels to visualize and understand the threat and environment, predict threat intentions, execute targeting through targeting support, conduct ISR integration and support Information Operations.

This project establishes DCGS-A sensor fusion and all source production capabilities, leveraging previously completed algorithm, on-going Future Combat System (FCS) and Science and Technology (S&T) developmental efforts to meet the requirements for battle management and situational awareness, intelligence preparation of the battlespace (battle damage assessments, course of action/predictive analysis, wargaming), target development (deliberate, time critical, high value/high payoff), collection/ISR management (requirement and mission), electronic warfare/countermeasures, force protection, indications and warnings, operational security, and battlefield visualization and presentation. The Sensor Fusion capability will address both traditional intelligence disciplines (signals intelligence, imagery intelligence, human intelligence, measurements and signatures intelligence) from organic, Theater, and National assets (systems and databases), and non-traditional sources (open source intelligence, fire support) to achieve a complete and universal understanding of the situation in support of the commander/warfighter, battle command databases, and the Common Operational Picture (COP). The sensor fusion capability will support all types of units across a broad spectrum of both traditional and non-traditional operations, and improve interoperability with Joint, Allied, and Coalition forces.

FY09 funds the development and integration of traditional and non-traditional multi-intelligence sensor fusion products and technologies into the DCGS-A Fixed, Mobile and Embedded configurations to produce a fully automated fusion capability.

Funding for this efffort continues under Project 956 beginning in FY 2010.

Accomplishments/Planned Program:	FY 2008	FY 2009	FY 2010
Continue normalization and integration of sensor fusion process and Multi-INT sources, geospatial and weather data.	5159	2145	
Continue to enhance controlled interface technology for improved product distribution at multiple security levels.	2087	2119	

Continued analysis and prototyping for porting sensor fusion mission applications into the FCS environment.	1309	1043	
Continue to migrate sensor fusion processes and Current Force systems capabilities into DCGS-A architecture/Service Oriented Architecture (SOA) environment.	15960	1297	
Total	24515	6604	

B. Other Program Funding Summary	FY 2008	FY 2009	FY 2010	To Compl	Total Cost
PE 654321 ASAS Evolutionary ACQ (B19) (TIARA)	3322	3411			6733
K28801 ASAS Modules	52485	58718	9992		140235

Comment:

C. Acquisition Strategy DCGS-A will be executed via an evolutionary acquisition approach, providing incremental capability through Technology Insertion of Current Force systems and System Development and Demonstration (SDD) of Capability Demonstration Document (CDD) requirements. Each increment will incorporate and validate select DCGS-A capabilities into the overall DCGS-A system baseline, emphasizing migration of current force capabilities through integrated testing and continuous evaluation opportunities.

ARMY RDT&E BUDGET ITEM JUSTIFICATION (R2a Exhibit)

May 2009

BUDGET ACTIVITY	PE NUMBER AND TITLE	PROJECT
7 - Operational system development	**0305208A - Distributed Common Ground/Surface Systems**	**D07**

COST (In Thousands)	FY 2008 Actual	FY 2009 Estimate	FY 2010 Estimate	Cost to Complete	Total Cost
D07 DCGS-A COMMON MODULES (MIP)	34591	28066			62657

A. Mission Description and Budget Item Justification: Distributed Common Ground System - Army (DCGS-A) will serve as the primary ground system of systems for airborne and ground sensor platforms defined as Objective Force systems. DCGS-A enables the commander to achieve situational understanding by leveraging multiple sources of data, information, and intelligence to synchronize the elements of Joint and Combined Arms combat power (maneuver, maneuver support and maneuver sustainment support). The core functions of DCGS-A are: collection and processing of space, airborne, ground and maritime Intelligence, Surveillance and Reconnaissance (ISR) sensor data; control of select Army and joint ISR sensor systems; intelligence synchronization; ISR planning, reconnaissance and surveillance (R&S) integration; fusion of sensor information, and direction and distribution/dissemination of sensor information. It draws information from a wide variety of automated and manual sources; on-board sensors, space platforms, unattended air and ground vehicles, existing and new ISR capabilities, and an assortment of databases to enable the land component commander to execute battle command, synchronize fires and effects, rapidly shift battle focus, achieve situational understanding, protect the force, and employ his forces more effectively. DCGS-A allows commanders at all levels to visualize and understand the threat and environment, predict threat intentions, execute targeting through targeting support, conduct ISR integration and support Information Operations.

This project provides for the design, development, integration and test of the DCGS-A system of systems at all echelons, from embedded DCGS-A up to Fixed Site operations. The effort includes system engineering, software integration and development, test & evaluation, and use of Modeling and Simulation (M&S) to develop DCGS-A Mobile systems with common multi-function hardware and software combinations (i.e. user workstations) capable of performing all DCGS-A functions. Development will focus on common module hardware and software that is scaleable to allow commanders increased flexibility in the intelligence force package deployed such that it can be tailored to the echelon, location, and mission that DCGS-A will be required to support. Included in the development will be the stand-up of a Federated Systems Integration Lab (SIL) to assess and implement existing and new candidate software applications and components into the DCGS-A baseline design. A common set of ISR Analysis Tools to support collaboration, exploitation, fusion and collection management will be developed that operate within the construct of distributed, reach operations within the DCGS-A enterprise in order to maximize data access and minimize forward footprint. This will ultimately result in a DCGS-A design that reduces physical and logistics footprint, eases training burden, and decreases sustainability requirements.

FY09 funds development of Technology Insertion modules providing DCGS-A capabilities into Current Force systems, common module multi-function hardware, Battle Command interoperability and integration and test of new software applications.

Funding for this effort continues under Project 956 beginning in FY 2010.

Accomplishments/Planned Program:	FY 2008	FY 2009	FY 2010
Continuation of Embedded DCGS-A design/analysis and Future Combat System (FCS) support.	3060	3140	
Continue to evaluate, integrate and test existing and new software applications. Integrate Best Value components from DoD wide systems into DCGS-A baseline.	6524	3350	

Continue to develop and enhance two-way Battle Command to include Joint Command and Control (JC2) interoperability.	3135	2475	
Continued Technology Insertion of Current Force capabilities into integrated DCGS-A baseline.	21872	19101	
Total	34591	28066	

B. Other Program Funding Summary	FY 2008	FY 2009	FY 2010	To Compl	Total Cost
BZ7316 DCGS-A Unit of Employment	146632	179146	201430	Continuing	Continuing
KA2550 Digital Topographic SPT SYS (DTSS)	38591	26979	8500		74070

Comment:

C. Acquisition Strategy DCGS-A will be executed via an evolutionary acquisition approach, providing incremental capability through Technology Insertion of Current Force systems and System Development and Demonstration (SDD) of Capability Demonstration Document (CDD) requirements. Each increment will incorporate and validate select DCGS-A capabilities into the overall DCGS-A system baseline, emphasizing migration of current force capabilities through integrated testing and continuous evaluation opportunities.

ARMY RDT&E BUDGET ITEM JUSTIFICATION (R2a Exhibit)

May 2009

BUDGET ACTIVITY	PE NUMBER AND TITLE	PROJECT
7 - Operational system development	**0305208A - Distributed Common Ground/Surface Systems**	**D08**

COST (In Thousands)	FY 2008 Actual	FY 2009 Estimate	FY 2010 Estimate	Cost to Complete	Total Cost
D08 DCGS-A SENSOR INTEGRATION (MIP)	10826	10871			21697

A. Mission Description and Budget Item Justification: Distributed Common Ground System - Army (DCGS-A) will serve as the primary ground system of systems for airborne and ground sensor platforms defined as Future Force systems. DCGS-A enables the commander to achieve situational understanding by leveraging multiple sources of data, information, and intelligence to synchronize the elements of Joint and Combined Arms combat power (maneuver, maneuver support and maneuver sustainment support). The core functions of DCGS-A are: collection and processing of space, airborne, ground and maritime Intelligence, Surveillance and Reconnaissance (ISR) sensor data; control of select Army and joint ISR sensor systems; intelligence synchronization; ISR planning, reconnaissance and surveillance (R&S) integration; fusion of sensor information, and direction and distribution/dissemination of sensor information. It draws information from a wide variety of automated and manual sources; on-board sensors, space platforms, unattended air and ground vehicles, existing and new ISR capabilities, and an assortment of databases to enable the land component commander to execute battle command, synchronize fires and effects, rapidly shift battle focus, achieve situational understanding, protect the force, and employ his forces more effectively. DCGS-A allows commanders at all levels to visualize and understand the threat and environment, predict threat intentions, execute targeting through targeting support, conduct ISR integration and support Information Operations.

This project addresses Intelligence, Surveillance and Reconnaissance (ISR) sensor integration and interoperability with existing and new platforms and sensors to include a common data link solution.

FY09 funds integration of new and modified sensor data into DCGS-A Systems, Test and Training of the new capability.

Funding for this effort continues under Project 956 beginning in FY 2010.

Accomplishments/Planned Program:	FY 2008	FY 2009	FY 2010
Continue to isolate and integrate Current Force Multi-INT sensor (Human Intelligence, Imagery Intelligence, Signal Intelligence, Measurement and Signature Intelligence)data into the DCGS-A network.	2859	2344	
Continued planning and analysis of Future Force Multi-INT sensor modules for incorporation into the DCGS-A network.	4276	4283	
Continue to refactor Current Force ISR capabilities in the DCGS-A infrastructure.	1606	1020	
Continued development of training materials for V3 and Mobile systems.	2085	3224	
Total	10826	10871	

B. Other Program Funding Summary	FY 2008	FY 2009	FY 2010	To Compl	Total Cost
BZ7316 DCGS-A Unit of Employment	146632	179146	201430	Continuing	Continuing

Comment:

C. Acquisition Strategy DCGS-A will be executed via an evolutionary acquisition approach, providing incremental capability through Technology Insertion of Current Force systems and System Development and Demonstration (SDD) of Capability Demonstration Document (CDD) requirements. Each increment will incorporate and validate select DCGS-A capabilities into the overall DCGS-A system baseline, emphasizing migration of current force capabilities through integrated testing and continuous evaluation opportunities.