ARMY RDT&E BUDGET ITEM JUSTIFICATION (R-2 Exhibit)

June 2001

BUDGET ACTIVITY	PE NUMBER AND TITLE	PROJECT
7 - OPERATIONAL SYSTEMS DEV	**0305208A - Distributed Common Ground Systems**	**956**

COST (In Thousands)		FY 2000 Actual	FY 2001 Estimate	FY 2002 Estimate	FY 2003 Estimate	FY 2004 Estimate	FY 2005 Estimate	FY 2006 Estimate	FY 2007 Estimate	Cost to Complete	Total Cost
956	DISTRIBUTED COMMON GROUND SYSTEM (DCGS) (JMIP)	8004	7821	85242	0	0	0	0	0	0	0

A. Mission Description and Budget Item Justification:

PLEASE NOTE: This administration has not addressed FY2003-2007 requirements. All FY 2003-2007 budget estimates included in this book are notional only and subject to change.

This project supports the engineering development of the Distributed Common Ground Station, Army (DCGS-A). DCGS-A supports network centric warfare by providing timely, multi-INT battle management and targeting information to Field Commanders at all echelons. Advanced networking, sensor connectivity and processing will provide commanders at all echelons a common intelligence view of the battlefield and access to intelligence data and products that are currently available only within echelons or not available in a timely manner. Modular and scalable components will provide flexibility in deploying assets and capabilities in support of all echelons and across a broad spectrum of conflicts. DCGS-A efforts include common unified software and hardware infrastructure across IEW BOS systems. Tactical Exploitation System (TES), Division TES (DTES), Guardrail Information Node (GR/IFN), Prophet, ASAS Block II SS, Tactical UAV Ground Control Station (GCS), and Common Ground Station (CGS) migrate to a common architecture infrastructure. The Army & Air Force have co-chairing authorship of the Joint DoD Capstone Requirements Document for the OSD Digitized Common Ground System (DCGS). This project also supports the engineering development and acquisition of Army Common Imagery Ground/Surface Systems (CIGSS). The objective of CIGSS is to enable all systems to receive, process, exploit, and report any imagery source regardless of platform or sensor type to meet the intelligence and targeting needs of tactical commanders. The CIGSS project provides the warfighter with an integrated and interoperable airborne reconnaissance imagery processing and exploitation capability that can be tailored for all levels of conflict. This project incorporates Army funds originally divested from Defense Airborne Reconnaissance Office for the imagery portion of the TES. TES provides the commander with maximum flexibility to satisfy intelligence needs under a wide range of operational scenarios. TES operators can perform multiple imagery Intelligence (IMINT), Signal Intelligence (SIGINT), cross-intelligence, or dissemination functions from any workstation. TES provides extensive communication capabilities, including UHF, S,X,C and Ku radio frequency band communications. TES interfaces with and serves as the preprocessor for the All Source Analysis (ASAS), Common Ground Station (CGS), and the Digital Topographical Support System (DTSS). Specific details are provided in the Joint Military Intelligence Programs (JMIP) and Tactical Intelligence and Related Activities (TIARA) Congressional Budget Justification Book (CBJB)

FY 2000 Accomplishments

- 1940 Continued CIG/SS elements sustaining engineering to implement software upgrades and enhancements to maintain compatibility with changing national and tactical interfaces (ETRAC and MIES).
- 1450 Advanced Synthetic Aperture Radar (ASAR) Improvement Program (AIP) upgrade into TES.

FY 2000 Accomplishments (Continued)

- 4614 Continued CIG/SS elements sustaining engineering to implement software upgrades and enhancements to maintain compatibility with changing national and tactical interfaces (TES).

Total 8004

FY 2001 Planned Program

- 1000 Continue CIG/SS elements sustaining engineering to implement software upgrades and enhancements to maintain compatibility with changing national and tactical interfaces (MIES).
- 540 Advanced Synthetic Aperture Radar (ASAR) Improvement Program (AIP) upgrades into TES.
- 6281 Continue CIG/SS elements sustaining engineering to implement software upgrades and enhancements to maintain compatibility with changing national and tactical interfaces (TES).

Total 7821

FY 2002 Planned Program

- 7492 Continue CIG/SS elements sustaining engineering to implement software upgrades and enhancements to maintain compatibility with changing national and tactical interfaces (TES)
- 750 AIP Upgrades into TE
- 20000 Tactical Exploitation System - Main (TES-M) to III Corps - key element of Block I DCGS-A Architecture
- 20000 Fabrication, integration, test and fielding of a Guardrail Information Node (GR/IFN) to replace the GR/CS System 2 Integrated Processing Facility (IPF)as a part of DCGS-A
- 5000 Development of TES and GR/IFN interface for DCGS-A Block I
- 7000 Studies and analysis for DCGS-A Blocks II and III with an emphasis on the necessary communications/dissemination infrastructure and trade off analysis, database structure, and data element synchronization
- 10600 Conduct non-recurring engineering (NRE) to segment the TCS/MTI code.
- 5300 Develop and integrate the appropriate motion imagery capabilities into application subsets.
- 6100 Conduct NRE for common processing, exploitation and visualization application segments in an effort to derive a uniform application/toolset across and among Services.
- 3000 Development of Tactics, Techniques and Procedures (TTPs) and associated developmental, operational and interoperability (Joint Interoperability Test Center - JITC) testing.

Total 85242

B. Program Change Summary	FY 2000	FY 2001	FY 2002	FY 2003
Previous President's Budget (FY2001 PB)	8066	7894	8212	0
Appropriated Value	8066	7894	0	0
Adjustments to Appropriated Value	0	0	0	0
a. Congressional General Reductions	0	0	0	0
b. SBIR / STTR	0	0	0	0
c. Omnibus or Other Above Threshold Reductions	0	0	0	0
d. Below Threshold Reprogramming	0	0	0	0
e. Rescissions	-62	-73	0	0
Adjustments to Budget Years Since FY2001 PB	0	0	77030	0
Current Budget Submit (FY 2002/2003 PB)	8004	7821	85242	0

$77 million was added to the FY2002 budget for Block I of the DCGS-A. DCGS-A funding will be used for development and integration of initial DCGS-A Block I system for the Counter-Attack Corps (III Corps), including integration of the functionalities of current and planned Ground Processing and Exploitation stations (Joint STARS Common Ground Station (CGS), Guardrail IPF, TUAV's Ground Control Station, Tactical Exploitation System (TES)). DCGS-A Block I is the first step to achieving a Intelligence, Surveillance, and Reconnaissance (ISR) networking capability and will include the integration of Synthetic Aperture Radar (SAR), Moving Target Indicator (MTI), National and theater imagery, as well as national and national and tactical SIGINT processing capabilities.

C. Other Program Funding Summary	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	To Compl	Total Cost
PE 0603766A Project D907 (TIARA)	0	0	16749	0	0	0	0	0	0	0
PE 0604766A TES/DCGS-A (TIARA)	71879	57884	68205	0	0	0	0	0	0	0
BZ7315 TENCAP (TIARA)	4351	12735	0	0	0	0	0	0	0	0
BZ7316 CIG/SS (JMIP)	2779	2807	2611	0	0	0	0	0	0	0
BZ7317 Tactical Surveillance System (TIARA)	0	0	26168	0	0	0	0	0	0	0

D. Acquisition Strategy: The DCGS-A program Block I will be awarded primarily to original manufacturers of the legacy systems working together to establish the necessary interfaces and data sharing capabilities. As the program move from Block II to Block III, it will progress to a competitive development effort for a more robust common ground architecture solution based on an objective hardware configuration.

E. Schedule Profile	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007
Complete development of TES Main to III Corps				0	0	0	0	0
Guardrail Information Node (GR/IFN) component of DCGS-				0	0	0	0	0
Integration of Common Ground Station (CGS) capability into DCGS-A Block I				0	0	0	0	0
TES and GR/IFN interface				0	0	0	0	0
Complete Imagery portion of TES-Forward #1 and field	2Q			0	0	0	0	0
Complete Imagery portion of TES-Main #1 and field	4Q			0	0	0	0	0
Field Imagery portion of TES #2 - #6 *		4Q	4Q	0	0	0	0	0

* The majority of TES system funding is under PE 0604766A (TES/DCGS-A)

ARMY RDT&E COST ANALYSIS(R-3)

June 2001

BUDGET ACTIVITY
7 - OPERATIONAL SYSTEMS DEV

PE NUMBER AND TITLE
0305208A - Distributed Common Ground Systems

PROJECT
956

I. Product Development	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2001 Cost	FY 2001 Award Date	FY 2002 Cost	FY 2002 Award Date	FY 2003 Cost	FY 2003 Award Date	Cost To Complete	Total Cost	Target Value of Contract
a . ETRAC CIG/SS	C/CPAF	Northrop Grumman, Linthicum, MD	5537	0		0		0	0	0	0	Continue
b . MIES CIG/SS	SS/CPFF	DBA, Melbourne FL	3187	1000	1Q	0		0	0	0	0	Continue
c . TES CIG/SS *	C/CPFF	Northrop Grumman, Linthicum, MD	7855	6821	2Q	8242	2Q	0	0	0	0	Continue
d . III Corps TES MAIN	C/CPFF	Northrop Grumman, Linthicum, MD	0	0		20000	2Q	0	0	0	0	0
e . GR/IFN component of DCGS-A	SS/CPFF	TRW, Sunnyvale,CA	0	0		20000	1Q	0	0	0	0	0
f . TES and GR/IFN interface	C/CPFF	Northrop Grumman, Linthicum, MD	0	0		5000	1Q	0	0	0	0	0
g . Software Segmetation	T&M	Motorola, Scottsdale, AZ	0	0		11700	2Q	0	0	0	0	0
h . Software Integration	CP	Northrup Grumman, Baltimore, MD	0	0		1300	2Q	0	0	0	0	0
i . Software Integration	T&M	TRW, El Segundo, CA	0	0		1100	2Q	0	0	0	0	0
j . Software Integration	T&M	Lockheed Martin, Denver, CO	0	0		1100	2Q	0	0	0	0	0

ARMY RDT&E COST ANALYSIS(R-3)

June 2001

BUDGET ACTIVITY
7 - OPERATIONAL SYSTEMS DEV

PE NUMBER AND TITLE
0305208A - Distributed Common Ground Systems

PROJECT
956

I. Product Development (continued)	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2001 Cost	FY 2001 Award Date	FY 2002 Cost	FY 2002 Award Date	FY 2003 Cost	FY 2003 Award Date	Cost To Complete	Total Cost	Target Value of Contract
k . Software Development	T&M	Northrup Grumman, Baltimore, MD	0	0		2000	1Q	0	0	0	0	0
l . Exploitation	TBD	TBD	0	0		1800	1Q	0	0	0	0	0
m . Visualization	TBD	TBD	0	0		2100	1Q	0	0	0	0	0
Subtotal:			16579	7821		74342		0		0	0	Continue

Remarks: * Majority of TES development is funded under PE 0604766A.

II. Support Cost	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2001 Cost	FY 2001 Award Date	FY 2002 Cost	FY 2002 Award Date	FY 2003 Cost	FY 2003 Award Date	Cost To Complete	Total Cost	Target Value of Contract
a . DCGS Imagery IPT	MIPR	OGAs at various locations for Support	0	0		700	2Q	0	0	0	0	0
b . Doctrine/TTP Development	MIPR	Ft. Huachuca, AZ	0	0		1000	1Q	0	0	0	0	0
c . Architecture (all views) Development	MIPR	Ft. Huachuca, AZ	0	0		2400	3Q	0	0	0	0	0
d . CONOPS & TTP Refinement	MIPR	Ft. Huachuca, AZ	0	0		1500	3Q	0	0	0	0	0
e . Communications/Dissemination Trade Study	MIPR	DCSINT	0	0		2000	1Q	0	0	0	0	0

ARMY RDT&E COST ANALYSIS(R-3)

June 2001

BUDGET ACTIVITY
7 - OPERATIONAL SYSTEMS DEV

PE NUMBER AND TITLE
0305208A - Distributed Common Ground Systems

PROJECT
956

II. Support Cost (continued)	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2001 Cost	FY 2001 Award Date	FY 2002 Cost	FY 2002 Award Date	FY 2003 Cost	FY 2003 Award Date	Cost To Complete	Total Cost	Target Value of Contract
Subtotal:			0	0		7600		0		0	0	0

III. Test and Evaluation	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2001 Cost	FY 2001 Award Date	FY 2002 Cost	FY 2002 Award Date	FY 2003 Cost	FY 2003 Award Date	Cost To Complete	Total Cost	Target Value of Contract
a . Operational Testing	MIPR	USAIC&FH Battlelab	0	0		200	2Q	0	0	0	0	0
b . Integrated Developmental Testing	TBD	TBD	0	0		700	2Q	0	0	0	0	0
c . Operational Testing	MIPR	ATEC	0	0		800	3Q	0	0	0	0	0
d . Interoperability Certification Update	MIPR	JTIC, Ft. Huachuca, AZ	0	0		500	3Q	0	0	0	0	0
e . Participation in DCGS & Transformation Precursor Events	MIPR	Various OGAs	0	0		1100	2Q	0	0	0	0	0
Subtotal:			0	0		3300		0		0	0	0

Remarks: Not Applicable

ARMY RDT&E COST ANALYSIS(R-3)

June 2001

BUDGET ACTIVITY
7 - OPERATIONAL SYSTEMS DEV

PE NUMBER AND TITLE
0305208A - Distributed Common Ground Systems

PROJECT
956

IV. Management Services	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2001 Cost	FY 2001 Award Date	FY 2002 Cost	FY 2002 Award Date	FY 2003 Cost	FY 2003 Award Date	Cost To Complete	Total Cost	Target Value of Contract
Subtotal:			0	0		0		0		0	0	0
Remarks: Not Applicable												
Project Total Cost:			16579	7821		85242		0		0	0	Continue