

ARMY RDT&E BUDGET ITEM JUSTIFICATION (R-2 Exhibit)							February 2003				
BUDGET ACTIVITY 5 - System Development and Demonstration				PE NUMBER AND TITLE 0604770A - Joint Surveillance/Target Attack Radar System				PROJECT 202			
COST (In Thousands)		FY 2002 Actual	FY 2003 Estimate	FY 2004 Estimate	FY 2005 Estimate	FY 2006 Estimate	FY 2007 Estimate	FY 2008 Estimate	FY 2009 Estimate	Cost to Complete	Total Cost
202	ARMY COMMON GROUND STATION (CGS) (TIARA)	7485	4511	4705	0	0	0	0	0	0	44834
<p><u>A. Mission Description and Budget Item Justification:</u> The long-term objective capability is to migrate CGS with Army ISR Ground Processing capabilities into DCGS-A, a modular/scalable network centric design utilizing objective hardware that integrates signal, imagery, and other intelligence processing into a common ground station. The Common Ground Station (CGS) is a rapidly deployable and mobile tactical sensor data processing and dissemination center mounted on two High Mobility Multi-Wheeled Vehicles (HMMWVs) that supports interim functionality DCGS as part of Future Combat System. As part of the Stryker Brigade Combat Team (SBCT), and the Counter Attack Corps, CGS provides a key interface between intelligence and command and control systems by concurrently providing timely intelligence data and receiving the Common Tactical Picture (CTP) via the Tactical Operations Center (TOC) Local Area Network (LAN). CGS integrates imagery and signals Intelligence, Surveillance and Reconnaissance (ISR) data products into a single visual presentation of the battlefield, providing commanders at Echelons Above Corps (EAC), Corps, Divisions and Brigades with Near Real Time (NRT) situational awareness, enhanced battle management and targeting capabilities. CGS initially served as the ground station for the Joint Surveillance Target Attack Radar System (Joint STARS), but has evolved into a multi-sensor ground station that receives, processes and displays sensor data from Predator, Tactical UAV (TUAV), Airborne Reconnaissance Low (ARL), U2, Guardrail/Common Sensor (GRCS) and Integrated Broadcast Service (IBS) while preserving a small tactical footprint. This system supports the interim transition path and also develops advanced capabilities for incorporation into Distributed Common Ground System-Army (DCGS-A) in support of the Objective Force. CGS is the Army's premier radar Moving Target Indicator (MTI) ground station, receiving MTI data from Joint STARS, ARL and U2 sensors. Additionally, CGS receives, processes and cross cues data to include SAR, EO/IR, video and Signals Intelligence (SIGINT). CGS disseminates timely targeting and battlefield surveillance data to Army Battle Command System (ABCS) nodes such as the All Source Analysis System (ASAS) and Advanced Field Artillery Tactical Data System (AFATDS). A robust, self-contained communications suite ensures connectivity with both sensors and command and control nodes under a wide range of battlefield scenarios and conditions. CGS contains a robust modeling and simulation capability that supports linkage to sensor simulations, system-of-systems training and participation in a wide range of exercises on a worldwide basis. The Joint Services Workstation (JSWS) is a single operator, transportable, reduced footprint, dismounted workstation variant of the CGS that uses the same hardware and software and provides the same functionality as the CGS. The CGS/JSWS fulfills an urgent air-land battlefield requirement by providing an Army/Air Force sensor and attack control capability to locate, track, classify and assist in attacking moving and stationary targets beyond the Forward Line of Troops (FLOT). This project will provide architecture upgrades facilitating dissemination of CGS products to command and control systems located across multiple echelons and expanding modeling and simulation capabilities in support of unit and staff training. This system supports the Interim transition path of the Transformation Campaign Plan (TCP).</p> <p>FY04 funds Modeling and Simulation (M&S) capabilities to support unit and staff training via a network environment and enhancement of existing CGS tools and applications to support migration to DCGS-A.</p>											

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Accomplishments/Planned Program

	FY 2002	FY 2003	FY 2004	FY 2005
Conduct/continue/complete enhancement of existing CGS applications to support RTIP, ACS and other sensors and integrate and enhance CGS collaboration/data sharing with other tactical processing nodes across battlefield echelons to support migration to DCGS-A architecture.	1786	1040	1574	0
Expand Modeling & Simulation (M&S) capabilities to support unit and staff training via network environment.	1805	1571	1881	0
Engineering support to migrate CGS functionality into Distributed Common Ground System-Army (DCGS-A) Block I and develop documentation for Objective DCGS architecture.	3384	1300	900	0
Coalition Aerial Surveillance and Reconnaissance (CAESAR) Support.	510	600	350	0
Totals	7485	4511	4705	0

B. Program Change Summary

	FY 2002	FY 2003	FY 2004	FY 2005
Previous President's Budget (FY 2003)	8026	4740	4939	6267
Current Budget (FY 2004/2005 PB)	7485	4511	4705	0
Total Adjustments	-541	-229	-234	-6267
Congressional program reductions	-41	-229		
Congressional rescissions				
Congressional increases				
Reprogrammings	-500			
SBIR/STTR Transfer				
Adjustments to Budget Years			-234	-6267

FY2005 - Funds realigned to Distributed Common Ground System - Army requirements.

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<u>C. Other Program Funding Summary</u>	<u>FY 2002</u>	<u>FY 2003</u>	<u>FY 2004</u>	<u>FY 2005</u>	<u>FY 2006</u>	<u>FY 2007</u>	<u>FY 2008</u>	<u>FY 2009</u>	<u>To Compl</u>	<u>Total Cost</u>
BA1080 Joint STARS (TIARA)	21156	8387	8261	0	0	0	0	0	0	37804
BS9724 Joint STARS Spares	3849	3176	295	0	0	0	0	0	0	7320
1001018A NATO AGS C35	0	503	503	601	598	696	682	706	Continue	Continue
0305208A Distributed Common Ground System (JMIP)	71836	44823	32292	42377	86579	110095	111148	115624	Continue	Continue
BZ7316 Distributed Common Ground System	0	0	0	6840	3105	12810	22526	20111	Continue	Continue
BZ7317 TES (TIARA)	33434	17576	0	0	0	0	0	0	Continue	Continue
AZ2000 GUARDRAIL MODS (TIARA) (DCGS-A GRIFN Only)	0	0	3176	2201	0	0	0	0	0	5377
PE 0603750D CAESAR ACTD (OSD AS&C)	1200	800	400	0	0	0	0	0	0	2400
PE 0603923D8Z CAESAR ACTD (OSD AT&L-	2700	700	0	0	0	0	0	0	0	3400
PE 0603789F /27581F Air Force AFRL/SAFAQID	1940	370	300	3610	0	0	0	0	0	6220
PE 65126J JSTAMDO	500	400	0	0	0	0	0	0	0	900

D. Acquisition Strategy: The Milestone C approval for Common Ground Station (CGS) was granted by the Defense Acquisition Board in August 2000. The baseline CGS is being enhanced via block approach to migrate the CGS functionality into the objective Distributed Common Ground System (DCGS). The enhancements were awarded sole source the General Dynamics.

ARMY RDT&E COST ANALYSIS(R-3)									February 2003			
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I. Product Development	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2003 Cost	FY 2003 Award Date	FY 2004 Cost	FY 2004 Award Date	FY 2005 Cost	FY 2005 Award Date	Cost To Complete	Total Cost	Target Value of Contract
a . TCDL	CPFF	General Dynamics, Scottsdale, AZ	1645	0		0		0		0	1645	1645
b . SCDL/JSWB Data Link Improvement	C/FP	Cubic Corp, San Diego, CA	15641	0		0		0		0	15641	15641
c . Enhanced Sensor Exploitation & Operator Tools/P3I Development	C/FP	General Dynamics, Scottsdale, AZ	11900	0		0		0		0	11900	11937
d . Modeling & Simulation	C/FP	General Dynamics, Scottsdale, AZ	1956	400	1Q	350	1Q	0		0	2706	2706
e . JSWS Battle Lab Hardware Support	FFP	General Dynamics, Scottsdale, AZ	2836	0		0		0		0	2836	2836
f . Field Support	T&M	General Dynamics, Scottsdale, AZ	6450	0		0		0		0	6450	6882
g . Technology Insertion	FFP	General Dynamics, Scottsdale, AZ	7000	0		0		0		0	7000	7000
h . SATCOM Interface	T&M	General Dynamics, Scottsdale, AZ	1733	0		0		0		0	1733	0
i . CAESAR Support	C/FP	General Dynamics, Scottsdale, AZ	1260	500	1Q	250	1Q	0		0	2010	2010

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I. Product Development (continued)	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2003 Cost	FY 2003 Award Date	FY 2004 Cost	FY 2004 Award Date	FY 2005 Cost	FY 2005 Award Date	Cost To Complete	Total Cost	Target Value of Contract
j . CGS Collaboration/Data Sharing	C/FP	General Dynamics, Scottsdale, AZ	4687	830	1Q	2774	1Q	0		0	8291	8966
Subtotal:			55108	1730		3374		0		0	60212	59623
II. Support Cost	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2003 Cost	FY 2003 Award Date	FY 2004 Cost	FY 2004 Award Date	FY 2005 Cost	FY 2005 Award Date	Cost To Complete	Total Cost	Target Value of Contract
a . Matrix Support	MIPR	CECOM, Fort Monmouth NJ	1892	55	1Q	85	1Q	0		0	2032	0
b . Joint Test Force Support	MIPR	CECOM, Fort Monmouth NJ	575	55	1Q	55	1Q	0		0	685	0
c . Engineering Support		Booze-Allen Hamilton, Eatontown NJ	2420	1795	1Q	695	1Q	0		0	4910	0
Subtotal:			4887	1905		835		0		0	7627	0

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III. Test and Evaluation	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2003 Cost	FY 2003 Award Date	FY 2004 Cost	FY 2004 Award Date	FY 2005 Cost	FY 2005 Award Date	Cost To Complete	Total Cost	Target Value of Contract
a . Operational Reliability Demonstration Test (ORDT)	MIPR	TEXCOM/OEC	6770	0		0		0		0	6770	0
b . ORDT	C/T&M	General Dynamics, Scottsdale, AZ	5387	0		0		0		0	5387	5387
c . Block 10 Operational Assessment	T&M	General Dynamics, Scottsdale, AZ	1269	0		0		0		0	1269	5586
d . Division Capstone Exercise I & II	CPFF	General Dynamics, Scottsdale, AZ	3203	0		0		0		0	3203	4838
e . Spiral Developmental / Interoperability Testing	T&M	General Dynamics, Scottsdale, AZ	592	0		0		0		0	592	0
f . DT/OT	MIPR	Multiple	0	400	2Q	0		0		0	400	0
Subtotal:			17221	400		0		0		0	17621	15811

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IV. Management Services	Contract Method & Type	Performing Activity & Location	Total PYs Cost	FY 2003 Cost	FY 2003 Award Date	FY 2004 Cost	FY 2004 Award Date	FY 2005 Cost	FY 2005 Award Date	Cost To Complete	Total Cost	Target Value of Contract
a . Project Management	In House Support	PM, DCGS-A Fort Monmouth NJ	3289	476	1Q	496	1Q	0		0	4261	0
Subtotal:			3289	476		496		0		0	4261	0
Project Total Cost:			80505	4511		4705		0		0	89721	75434

Schedule Profile Detail (R-4a Exhibit)							February 2003	
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<u>Schedule Detail</u>	<u>FY 2002</u>	<u>FY 2003</u>	<u>FY 2004</u>	<u>FY 2005</u>	<u>FY 2006</u>	<u>FY 2007</u>	<u>FY 2008</u>	<u>FY 2009</u>
Participate in Desert Pivot Exercises thru Modeling and Simulation	1-4Q	1-4Q						
Field DCGS-A at XVIII Abn Corps			2Q					
Demonstrations at Division Capstone Exercises I and II	1Q							
Migration into DCGS-A (FCS UA)		3Q						
Migration into DCGS-A (FCS UE)			1Q					