

ARMY RDT&E BUDGET ITEM JUSTIFICATION (R2 Exhibit)							February 2004					
BUDGET ACTIVITY 5 - System Development and Demonstration				PE NUMBER AND TITLE 0604770A - Joint Surveillance/Target Attack Radar System				PROJECT 202				
COST (In Thousands)				FY 2003 Actual	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)			4509	4656	0	0	0	0	0	0	44783

A. Mission Description and Budget Item Justification: 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.

These system modifications support both the Current/Stryker Brigade Combat Team (SBCT) and the Future Force transition path of the Transformation Campaign Plan (TCP).

ARMY RDT&E BUDGET ITEM JUSTIFICATION (R2 Exhibit)**February 2004**

BUDGET ACTIVITY

5 - System Development and Demonstration

PE NUMBER AND TITLE

**0604770A - Joint Surveillance/Target Attack
Radar System**

PROJECT

202

No funding in FY 05.

<u>Accomplishments/Planned Program</u>	FY 2003	FY 2004	FY 2005
Complete enhancement of existing CGS applications to integrate and enhance CGS collaboration/data sharing with other tactical processing nodes across battlefield echelons to support migration to DCGS-A architecture.	1040	1525	0
Complete Modeling & Simulation (M&S) capabilities to support unit and staff training via network environment.	1569	1881	0
Engineering support to migrate CGS functionality into Distributed Common Ground System-Army (DCGS-A) and develop documentation for DCGS-A architecture.	1300	900	0
Complete Coalition Aerial Surveillance and Reconnaissance (CAESAR) Support.	600	350	0
Totals	4509	4656	0

<u>B. Program Change Summary</u>	FY 2003	FY 2004	FY 2005
Previous President's Budget (FY 2004)	4511	4705	0
Current Budget (FY 2005 PB)	4509	4656	0
Total Adjustments	-2	-49	0
Congressional program reductions		-44	
Congressional rescissions			
Congressional increases			
Reprogrammings	-2	-5	
SBIR/STTR Transfer			
Adjustments to Budget Years			

ARMY RDT&E BUDGET ITEM JUSTIFICATION (R2 Exhibit)

February 2004

BUDGET ACTIVITY

5 - System Development and Demonstration

PE NUMBER AND TITLE

0604770A - Joint Surveillance/Target Attack Radar System

PROJECT

202

C. Other Program Funding Summary

	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	To Compl	Total Cost
BA1080 Joint STARS (TIARA)	9587	8200	0	0	0	0	0	0	38943
BS9724 Joint STARS Spares	3287	293	0	0	0	0	0	0	7429
1001018A NATO AGS C35	503	498	614	603	688	700	728	Continue	Continue
0305208A Distributed Common Ground System (JMIP)	44805	37266	44183	88631	110819	115631	120774	Continue	Continue
BZ7316 Distributed Common Ground System	15803	2667	9575	9946	24632	33579	34287	Continue	Continue
BZ7317 TES (TIARA)	17576	0	0	0	0	0	0	Continue	Continue
AZ2000 GUARDRAIL MODS (TIARA) (DCGS-A GRIFN Only)	0	0	0	0	0	0	0	0	5000
PE 0603750D CAESAR ACTD (OSD AS&C)	800	400	0	0	0	0	0	0	2400
PE 0603923D8Z CAESAR ACTD (OSD AT&L-CAESAR)	700	0	0	0	0	0	0	0	3400
PE 0603789F/27581F Air Force AFRL/SAFAQID	370	300	3610	0	0	0	0	0	6220
PE 65126J JSTAMDO	400	0	0	0	0	0	0	0	900

D. Acquisition Strategy: The baseline CGS capability is being enhanced via block upgrade approach to support other sensors and integrate CGS collaboration/data sharing with other tactical processing nodes across battlefield echelons to support migration to DCGS-A architecture. The enhancements were awarded sole source to General Dynamics.

ARMY RDT&E COST ANALYSIS(R3)									February 2004			
BUDGET ACTIVITY					PE NUMBER AND TITLE					PROJECT		
5 - System Development and Demonstration					0604770A - Joint Surveillance/Target Attack Radar System					202		
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 . TC DL	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	1615	2Q	0		0	3971	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/DCGS-A Migration	FFP	General Dynamics, Scottsdale, AZ	7000	0		900	2Q	0		0	7900	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	350	2Q	0		0	2110	2010

ARMY RDT&E COST ANALYSIS(R3)									February 2004			
BUDGET ACTIVITY					PE NUMBER AND TITLE					PROJECT		
5 - System Development and Demonstration					0604770A - Joint Surveillance/Target Attack Radar System					202		
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	1500	2Q	0		0	7017	8966
Subtotal:			55108	1730		4365		0		0	61203	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	0		0		0	4215	0
Subtotal:			4887	1905		140		0		0	6932	0

ARMY RDT&E COST ANALYSIS(R3)									February 2004			
BUDGET ACTIVITY					PE NUMBER AND TITLE					PROJECT		
5 - System Development and Demonstration					0604770A - Joint Surveillance/Target Attack Radar System					202		
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

ARMY RDT&E COST ANALYSIS(R3)										February 2004		
BUDGET ACTIVITY					PE NUMBER AND TITLE					PROJECT		
5 - System Development and Demonstration					0604770A - Joint Surveillance/Target Attack Radar System					202		
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	474	1Q	151	1Q	0		0	3914	0
Subtotal:			3289	474		151		0		0	3914	0
Project Total Cost:			80505	4509		4656		0		0	89670	75434

Schedule Profile (R4 Exhibit)																						February 2004															
BUDGET ACTIVITY 5 - System Development and Demonstration												PE NUMBER AND TITLE 0604770A - Joint Surveillance/Target Attack Radar System																PROJECT 202									
Event Name		FY 02				FY 03				FY 04				FY 05				FY 06				FY 07				FY 08				FY 09							
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4								
Production and Fielding		Production and Fielding																																			
System Retrofits										System Retrofits																											
Joint Distributive Virtual Combat Range																																					
(1) Virtual Flag Exercise														▲ 1																							

Schedule Detail (R4a Exhibit)						February 2004	
BUDGET ACTIVITY 5 - System Development and Demonstration			PE NUMBER AND TITLE 0604770A - Joint Surveillance/Target Attack Radar System				PROJECT 202
<u>Schedule Detail</u>	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009
Participate in Desert Pivot/Virtual Flag 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							
Migration into DCGS-A		1-4Q					