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Exhibit R-2, RDT&E Budget Item Justification: PB 2012 Defense Information Systems Agency **DATE:** February 2011

APPROPRIATION/BUDGET ACTIVITY				R-1 ITEM NOMENCLATURE							
0400: <i>Research, Development, Test & Evaluation, Defense-Wide</i> BA 7: <i>Operational Systems Development</i>				PE 0305208K: <i>Distributed Common Ground/Surface Systems</i>							
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	3.140	3.513	3.154	-	3.154	3.259	3.395	3.451	3.451	Continuing	Continuing
NF1: <i>Distributed Common Ground/Surface Systems</i>	3.140	3.513	3.154	-	3.154	3.259	3.395	3.451	3.451	Continuing	Continuing

A. Mission Description and Budget Item Justification

As the sole joint interoperability certification agent, the Joint Interoperability Test Command (JITC) established and maintains a Distributed Development and Test Enterprise (DDTE) for the Department of Defense (DoD) Distributed Common Ground/Surface System (DCGS) program, as directed by the Office of the Under Secretary of Defense (Intelligence) (OUSD(I)). JITC chairs the DCGS Test & Evaluation (T&E) Focus Team, provides test & evaluation for assessing DCGS systems, and engineers and operates the DDTE network. JITC evaluates the DCGS systems' compliance with the DCGS Enterprise Initial Capabilities Document (ICD) and elements of the Net-Ready Key Performance Parameter (NR-KPP) to assess the information needs, timelines and assurance as well as net-ready attributes required for both the technical exchange of information and the end-to-end operational effectiveness of that exchange. DCGS is an integral and critical component of the overall DoD Intelligence, Surveillance, and Reconnaissance (ISR) interoperability and data integration strategy which provides world-wide ground/surface capabilities to receive, process, exploit, and disseminate data from airborne and national reconnaissance sensors/platforms and commercial sources. The key tenets of network-centric operations and the future of DCGS operations lie in the ability for any user to discover, access, and understand the data.

The FY 2012 funding of \$3.154 million supports the DDTE, which provides the DCGS Community of Interest (COI) an operationally relevant environment by establishing and maintaining connectivity between National Agency, Coalition partners and Service facilities at unclassified, collateral, Sensitive Compartmented Information (SCI), and coalition levels. It will also support the DCGS Enterprise assessment, as directed by OUSD(I), and DCGS Governance.

This effort provides the basis for the DCGS Enterprise Assessment, allowing the OUSD (I) to determine the validity and maturity status of the DCGS Enterprise during its development. Rigorous testing and evaluation is required to ensure the DCGS Systems do not bring vulnerabilities to the networks. The DCGS Service Programs of Record end-state domain is the SIPRNet, the C2 network for the entire Department. DCGS, as a whole, is a critical element of the Defense Intelligence Information Enterprise (DI2E).

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APPROPRIATION/BUDGET ACTIVITY 0400: <i>Research, Development, Test & Evaluation, Defense-Wide</i> BA 7: <i>Operational Systems Development</i>	R-1 ITEM NOMENCLATURE PE 0305208K: <i>Distributed Common Ground/Surface Systems</i>
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B. Program Change Summary (\$ in Millions)	<u>FY 2010</u>	<u>FY 2011</u>	<u>FY 2012 Base</u>	<u>FY 2012 OCO</u>	<u>FY 2012 Total</u>
Previous President's Budget	3.145	3.513	3.703	-	3.703
Current President's Budget	3.140	3.513	3.154	-	3.154
Total Adjustments	-0.005	-	-0.549	-	-0.549
• Congressional General Reductions		-			
• Congressional Directed Reductions		-			
• Congressional Rescissions	-	-			
• Congressional Adds		-			
• Congressional Directed Transfers		-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-	-			
• Other Adjustments	-0.005	-	-0.549	-	-0.549

Change Summary Explanation

The -.\$0.005 reduction in FY 2010 is due to increased utilization of DCO and teleconferences in lieu of travel costs.

The -\$0.549 reduction in FY 2012 is due to a reduction in travel costs to support the SECDEF initiative on improving DoD business operation (-\$0.392) and general adjustments for Economic Assumptions and reduction of testing events from 9 to 7 (-\$0.157).

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Exhibit R-2A, RDT&E Project Justification: PB 2012 Defense Information Systems Agency									DATE: February 2011		
APPROPRIATION/BUDGET ACTIVITY				R-1 ITEM NOMENCLATURE				PROJECT			
0400: Research, Development, Test & Evaluation, Defense-Wide BA 7: Operational Systems Development				PE 0305208K: Distributed Common Ground/ Surface Systems				NF1: Distributed Common Ground/Surface Systems			
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
NF1: Distributed Common Ground/ Surface Systems	3.140	3.513	3.154	-	3.154	3.259	3.395	3.451	3.451	Continuing	Continuing
Quantity of RDT&E Articles											

A. Mission Description and Budget Item Justification

Joint Interoperability Test Command (JITC) coordinates with the Military Services and Defense Intelligence Agencies on performing Joint/Distributed Common Ground/Surface System (DCGS) testing and analysis to include event coordination, configuration, instrumentation and integration functions on the Distributed Development and Test Enterprise (DDTE) as part of the DCGS Governance. Under the DCGS Governance, this effort is referred to as the DCGS Test and Evaluation (T&E) Focus Team and is composed of three parts: The DDTE Focus Group, providing and sustaining a distributed development network; the Strategy Focus Group, looking at current and future net-enabled enterprise testing and evaluation methods; and the Execution Focus Group which leverages the Strategy Focus Groups methodologies in execution of test events such as the annual DCGS demonstration, EMPIRE CHALLENGE. These program components enable improved systems engineering and test and evaluation throughout all phases of the DCGS life-cycle culminating in the DCGS Enterprise becoming a contributing member of the Defense Intelligence Information Enterprise (DI2E).

DCGS Programs of Record (PoRs) and Coalition partners use the DDTE network to integrate architecture, standards, and capabilities for implementation of the DCGS Integration Backbone (DIB) and supports the migration to net-centricity, including DCGS Enterprise services for the following PoRs: DCGS-Army (DCGS-A), DCGS-Navy (DCGS-N), Air Force DCGS (AF DCGS), DCGS-Marine Corps (DCGS-MC), DCGS-Special Operations Forces (DCGS-SOF) and the DCGS Intelligence Community (DCGS-IC). Net-enabled enterprise testing is designed to more closely simulate the complexities of an actual combat environment. JITC engineered the DDTE network to support the assessment of the DCGS Enterprise under the DCGS Governance. National Agency capabilities supporting DCGS include Imagery Intelligence (IMINT), Signals Intelligence (SIGINT), Measurement and Signature Intelligence (MASINT) and Human Intelligence (HUMINT), which are integrated and tested in the DDTE domain.

JITC operates the DDTE, providing DCGS PoRs a virtual operationally relevant environment maintaining connectivity between national agency, coalition partners and Service facilities. DDTE allows robust integration of modeling and simulation T&E capabilities across Joint/DCGS events without bringing vulnerabilities to the operational C2 network known as Secret Internet Protocol Router Network (SIPRNET). DDTE has enabled vast improvements in systems engineering, instrumentation and test and evaluation throughout all phases of the DCGS life cycle.

B. Accomplishments/Planned Programs (\$ in Millions)

	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total
Title: Distributed Common Ground/Surface Systems (DCGS)	3.140	3.513	3.154	-	3.154
FY 2010 Accomplishments:					

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B. Accomplishments/Planned Programs (\$ in Millions)		FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO
<p>In FY 2010, four (4) complete Enterprise-level testing and analysis events were accomplished. One Cross-Domain DDTE solution to the SIPRNET for DCGS-A was awarded, more will be acquired in future test events to provide a more realistic test environment. Efforts continue supporting DDTE capability with the DDTE Focus Group sustaining 15 separate DDTE Nodes for the entire fiscal year. DCGS Enterprise T&E support including component and application development, standards conformance evaluation and validation, developmental (DT) and operational testing (OT), Concept of Operations (CONCOPS) activities, and interoperability certifications. Currently two (2) of the six (6) DCGS programs hold Joint Staff interoperability certifications, and JITC is hoping to increase this number pending DCGS Programs readiness. In FY 2010 JITC's Net-centric Instrumentation Lab (NIL) tracked 130,000 queries and responses flowing across five (5) sites on the DDTE network, compared to 25,000 between three (3) sites in FY 2009. Five (5) coalition partners participated in the distributed DCGS DIB testing. Also, the Enterprise and T&E Focus Teams finalized the five (5) Enterprise Focus Team Maturity Model criteria definitions and ensured the entire DCGS community under the DCGS Governance is in agreement on viable testable criteria.</p> <p>FY 2011 Plans: Continues DDTE support and enhanced functionality with ever expanding capability to include our Coalition partners through data sharing. DCGS Enterprise T&E support will include six (6) Enterprise-level test and evaluations for the DCGS PoRs, National Agencies and Coalition Partners. Continuation of development and instrumentation for data collection and testing support on the 15 DCGS network domains, operational testing support, and interoperability testing/certification as required. The T&E Focus Team will validate that the five (5) Enterprise Maturity Model criteria as defined and testable across the entire DCGS Enterprise. The projected costs for FY 2011 are: Fixed Costs \$0.890 million; DDTE Capability Service Support \$1.039 million; DCGS Enterprise T&E Support \$1.584 million.</p> <p>The increase of \$+0.373 in funding between FY 2010 and FY 2011 is due to expansion of test infrastructure of DDTE's instrumentation to include passive collection on the SIPR domain; and expansion of DIB federation activities to true Enterprise capabilities testing.</p> <p>FY 2012 Base Plans: As part of the DCGS Governance, the Chair of the DCGS T&E Focus Team, including the DDTE Focus Group, DCGS T&E Strategy Focus Group and the DCGS T&E Execution Focus Group will continue to support DDTE and enhanced functionality with increased T&E capability. Continued DDTE support and enhanced functionality with increased capability to include more Coalition partners through data sharing. DCGS Enterprise T&E</p>					

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B. Accomplishments/Planned Programs (\$ in Millions)						
		FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total
<p>support will include nine (9) Enterprise-level test and evaluations for the DCGS PoRs, National Agencies and Coalition Partners. Continuation of development and instrumentation for data collection and testing support on the 15 DCGS network domains and enclaves, operational testing support, and interoperability testing/certification as required. These efforts will be measured by the ever expanding Enterprise Maturity Model defined by the DCGS community in FY 2010 and FY 2011. Projected costs for FY 2012 are: Fixed Costs \$0.933 million; DDTE Capability Service Support \$1.000 million; DCGS Enterprise T&E Support \$1.221 million.</p> <p>The FY 2012 -\$0.359 million is in support of the Agency's proposed savings to support the SECDEF initiative on improving DoD business operations.</p> <p>FY 2012 OCO Plans: N/A</p>						
Accomplishments/Planned Programs Subtotals		3.140	3.513	3.154	-	3.154
C. Other Program Funding Summary (\$ in Millions) N/A						
D. Acquisition Strategy DCGS uses an evolutionary acquisition approach constructed under the DCGS Governance. JITC will support the effort by leveraging its existing three prime contracts, with multiple sub-contracts, to support this project. These competitively-awarded, performance-based, non-personal-services contracts provide maximum flexibility for JITC supporting its numerous customers for cost and technical effectiveness, and allows for expansion and contraction of staff years as workload increases and decreases. The current prime contractors that support this effort are Northrop Grumman Mission Systems, Northrop Grumman Information Technology (to be Task N and Task M pending novation), and INTEROP Joint Venture.						
E. Performance Metrics FY 2012 Metrics for the Test and Evaluation Focus Team will ensure DCGS Enterprise T&E support, to include nine (9) Enterprise-level tests and evaluations, for the six (6) DCGS PoRs, and five (5) actively participating Coalition Partners, and interoperability testing/certification as required. Currently, out of eight (8) DCGS base-lined PoRs' software versions systems, two (2) hold Joint Staff (JS) Interoperability (IOP) Certification under development and four (4) are in prototype status. DCGS T&E Focus Team and JITC will continue to collect data on these systems towards overall JS IOP Certification as they develop. JITC's NIL plans on increasing the queries captured across the 15 DDTE nodes in DCGS Enterprise during FY 2012's test events from 130,000 in FY 2010 to over 300,000. This effort provides the basis for the DCGS Enterprise Assessment, allowing OUSD(I) to measure the five (5) levels of maturity of the DCGS Enterprise supporting the DCGS Governance. The Test and Evaluations Focus Team will be expanding data collection instrumentation via DDTE to include all potential DCGS domains and enclaves covering the entire DI2E.						

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2012 Defense Information Systems Agency **DATE:** February 2011

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Support (\$ in Millions)				FY 2011		FY 2012 Base		FY 2012 OCO		FY 2012 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
In-House Contracts	Various	N/A:N/A	15.226	1.124	Oct 2010	0.766	Oct 2011	-		0.766	Continuing	Continuing	Continuing
Subtotal			15.226	1.124		0.766		-		0.766			

Test and Evaluation (\$ in Millions)				FY 2011		FY 2012 Base		FY 2012 OCO		FY 2012 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Engineering/Technical Services 1	C/T&M	Interop:Ft. Hua, AZ	3.052	0.195	Oct 2010	-		-		-	Continuing	Continuing	Continuing
Engineering/Technical Services 2	C/T&M	NGMS:Ft. Hua, AZ	9.802	1.276	Oct 2010	-		-		-	Continuing	Continuing	Continuing
Engineering/Technical Services 3	C/T&M	NGIT:Ft. Hua, AZ	2.260	0.918	Oct 2010	-		-		-	Continuing	Continuing	Continuing
TBD	TBD	TBD:TBD	-	-		2.388	Oct 2011	-		2.388	Continuing	Continuing	Continuing
Subtotal			15.114	2.389		2.388		-		2.388			

	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	30.340	3.513		3.154		-		3.154			

Remarks

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Exhibit R-4, RDT&E Schedule Profile: PB 2012 Defense Information Systems Agency										DATE: February 2011			
APPROPRIATION/BUDGET ACTIVITY					R-1 ITEM NOMENCLATURE					PROJECT			
0400: Research, Development, Test & Evaluation, Defense-Wide					PE 0305208K: Distributed Common Ground/					NF1: Distributed Common Ground/Surface			
BA 7: Operational Systems Development					Surface Systems					Systems			

	FY 2010				FY 2011				FY 2012				FY 2013				FY 2014				FY 2015				FY 2016			
	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
DCGS T&E IPT																												
Connectivity to Other Testbeds & Test Event Conduct																												
Operation and Maintenance Support																												

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Exhibit R-4A, RDT&E Schedule Details: PB 2012 Defense Information Systems Agency			DATE: February 2011
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Schedule Details

Events	Start		End	
	Quarter	Year	Quarter	Year
DCGS T&E IPT	1	2010	4	2016
Connectivity to Other Testbeds & Test Event Conduct	1	2010	4	2016
Operation and Maintenance Support	1	2010	4	2016

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