Exhibit R-2, RDT&E Budget Item Justification: PB 2016 Defense Information Systems Agency

R-1 Program Element (Number/Name)

0400: Research, Development, Test & Evaluation, Defense-Wide I BA 7:

PE 0305208K I Distributed Common Ground/Surface Systems

**Date:** February 2015

Operational Systems Development

Appropriation/Budget Activity

COST (\$ in Millions)	Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	Cost To Complete	Total Cost
Total Program Element	40.223	3.348	3.400	3.239	-	3.239	3.260	3.350	3.362	3.392	Continuing	Continuing
NF1: Distributed Common Ground/Surface Systems	40.223	3.348	3.400	3.239	-	3.239	3.260	3.350	3.362	3.392	Continuing	Continuing

### A. Mission Description and Budget Item Justification

As the sole joint interoperability certification agent, the Joint Interoperability Test Command established and maintains a Distributed Development and Test Enterprise 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). DCGS is an integral and critical component of the overall DoD Intelligence, Surveillance, and Reconnaissance interoperability and data integration strategy which provides world-wide capabilities to receive, process, exploit, and disseminate data from airborne and national reconnaissance sensors/platforms and commercial sources.

B. Program Change Summary (\$ in Millions)	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total
Previous President's Budget	3.348	3.400	3.400	-	3.400
Current President's Budget	3.348	3.400	3.239	-	3.239
Total Adjustments	-	-	-0.161	-	-0.161
<ul> <li>Congressional General Reductions</li> </ul>	-	-			
<ul> <li>Congressional Directed Reductions</li> </ul>	-	-			
<ul> <li>Congressional Rescissions</li> </ul>	-	-			
<ul> <li>Congressional Adds</li> </ul>	-	-			
<ul> <li>Congressional Directed Transfers</li> </ul>	-	-			
<ul> <li>Reprogrammings</li> </ul>	-	-			
SBIR/STTR Transfer	-	-			
Other Adjustments	-	_	-0.161	-	-0.161

## **Change Summary Explanation**

The FY 2016 decrease of -\$0.161 is due to testing remotely rather than on-site following automation improvements.

Exhibit R-2A, RDT&E Project J	ustification:	PB 2016 D	Defense Info	rmation Sy	stems Ager	ncy				Date: Febr	uary 2015		
Appropriation/Budget Activity 0400 / 7						<b>am Elemen</b> 08K / Distrib urface Syste	uted Comm		Number/Name) tributed Common Ground/Surface				
COST (\$ in Millions)	Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	Cost To Complete	Total Cost	
NF1: Distributed Common Ground/Surface Systems	40.223	3.348	3.400	3.239	-	3.239	3.260	3.350	3.362	3.392	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 to conduct Joint/Distributed Common Ground/ Surface System (DCGS) testing and analysis, including event coordination, configuration, instrumentation and integration functions on the Distributed Development and Test Enterprise (DDTE). Under the DCGS Governance, this effort, referred to as the DCGS Test and Evaluation (T&E) Focus Team (FT), 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 T&E methods; and the Execution Focus Group, which leverages the Strategy Focus Group's methodologies in executing DCGS Enterprise assessment events, such as the annual DCGS demonstration, ENTERPRISE CHALLENGE. These efforts improve systems engineering and T&E throughout all phases of the DCGS life-cycle, resulting in improved capabilities to share net-centric data and services between the DCGS Programs of Record (PoRs) and the overarching Defense Intelligence Information Enterprise (DI2E).

Operates and maintains the DDTE, providing DCGS PoRs a virtual operationally relevant assessment environment maintaining connectivity between Service facilities, National Agency capabilities, and Coalition partners. DDTE allows robust integration of modeling and simulation T&E capabilities across Joint DCGS events without introducing vulnerabilities to operational Command and Control networks and has enabled improvements in systems engineering, instrumentation and T&E throughout all phases of the DCGS life cycle.

DCGS PoRs and Coalition partners use the DDTE network, which supports the net-centric maturity assessment of the DCGS Enterprise under the DCGS Governance, to integrate architecture, standards, and capabilities for implementation of the DCGS Integration Backbone and support the migration to net-centricity, including DCGS Enterprise services for the Military Departments, DCGS-Special Operations Forces and the DCGS Intelligence Community. National Agency capabilities supporting DCGS include Geospatial Intelligence, Signals Intelligence, Measurement and Signature Intelligence and Human Intelligence, which are integrated and tested in the DDTE domain.

B. Accomplishments/Planned Programs (\$ in Millions)	FY 2014	FY 2015	FY 2016
Title: Distributed Common Ground/Surface Systems (DCGS)	3.348	3.400	3.239
FY 2014 Accomplishments:  Continued to support DDTE and provide enhanced functionality with expanding T&E capability, with a focus automated evaluations of net-centric data and web services. Determined the extent DCGS Enterprise can complied with established visible, accessible, understandable, and interoperable (VAUSI) standards that available and accessible in a "storefront" that enhances enhanced the sharing of net-centric data and ser	apabilities comply and make made them		

PE 0305208K: *Distributed Common Ground/Surface System...*Defense Information Systems Agency

	UNCLASSIFIED				
Exhibit R-2A, RDT&E Project Justification: PB 2016 Defense In:	formation Systems Agency		Date: F	ebruary 2015	5
Appropriation/Budget Activity 0400 / 7	R-1 Program Element (Number/Name) PE 0305208K I Distributed Common Ground/Surface Systems	Project NF1 / System	und/Surface		
B. Accomplishments/Planned Programs (\$ in Millions)			FY 2014	FY 2015	FY 2016
provided access to a T&E framework that provides provided valida supported reciprocity with other T&E organizations using accepted Enterprise maturity assessments. Enterprise T&E support will con the DCGS PoRs, National Agencies and Coalition Partners. Conti and testing support on the 15 DCGS network domains and enclave documented in an annual DCGS T&E FT Enterprise Assessment F	TAE environments and tools to provide data for DCGS attinued to include Enterprise-level assessment events for inued development and instrumentation for data collection es. These efforts will bewere measured by the EMM and	1			
Will continue to support DDTE and provide enhanced functionality automated evaluations of net-centric data and web services. To further and conduct compliance testing of services against established star "storefront" that enhances the sharing of net-centric data and service initial "Testing as a Service" capabilities that will enable DCGS ento the development and acquisition processes. Enterprise T&E supposuch as Enterprise Challenge and Unified Vision for the DCGS Poldevelopment and instrumentation for data collection and testing supposed to increase as mission-based to command and control. Data collected by these assessment efforts annual DCGS Enterprise Assessment Report.	urther DCGS Enterprise capabilities, will establish procedulandards prior to making them available and accessible in a cices and promotes reuse of capabilities. Will establish an cities to test for standards compliance early and often during ort will continue to include Enterprise-level assessment express. National Agencies and Coalition Partners. Will continual port on the DCGS network domains and enclaves; the resting starts to span other communities of interest such as	ures a d host ng vents ue number			
The increase of +\$0.052 from FY 2014 to FY 2015 is for advancen specific analytic software.	ment of DCGS T&E Focus Team (FT) Strategy and expan	sion of			
FY 2016 Plans: Continuing to support DDTE and to provide enhanced functionality automated evaluations of net-centric data and web services. Incorposite technology, and "big data" in assessment methodologies at Defense Intelligence Information Enterprise (DI2E) capabilities, con against established standards to enhance the sharing and promote Service" (TaaS) capabilities that enable DCGS entities and other of for standards compliance early and often during the development at include Enterprise-level assessment events such as Enterprise Ch Partners. Continuing development and instrumentation for data con enclaves; with the number of active DDTE nodes increasing from the continuing development and instrumentation for data con enclaves; with the number of active DDTE nodes increasing from the continuing development and instrumentation for data continuing development and instrumentation develop	porating new technologies such as cloud computing, nd practices. To further DCGS Enterprise and associated inducting compliance testing of data, metadata, and service reuse of net centric capabilities. Enhancing "Testing as communities of interest (COIs), such as industry partners, and acquisition processes. Enterprise T&E support continuallenge for the DCGS PoRs, National Agencies and Coal ellection and testing support on the DCGS network domain	ces a to test ues to ition is and			

PE 0305208K: *Distributed Common Ground/Surface System...*Defense Information Systems Agency

Exhibit R-2A, RDT&E Project Justification: PB 2016 Defense	se Information Systems Agency		Date: F	Date: February 201					
Appropriation/Budget Activity 0400 / 7	R-1 Program Element (Number/Name) PE 0305208K I Distributed Common Ground/Surface Systems			Name) Common Grou	und/Surface				
B. Accomplishments/Planned Programs (\$ in Millions)			FY 2014	FY 2015	FY 2016				
assessment venues with other DI2E entities. Developing and can gather data on capabilities not instantiated on the DDTE t maturity of the DCGS Enterprise. Data collected by these ass and documented in an annual DCGS Enterprise Assessment	est domain to provide a more robust evaluation of the net-cen essment efforts are reflected in the Enterprise Maturity Model	ntric							
The decrease of -\$0.161 from FY 2015 to FY 2016 is due to to improvements and delay of end of life hardware replacement.	esting remotely rather than on-site following automation								

### C. Other Program Funding Summary (\$ in Millions)

N/A

#### Remarks

### D. Acquisition Strategy

A T&E Mission Support Services (MSS) cost plus fixed fee contract provides T&E support by performing a wide range of non-personal services to encompass testing, scientific, engineering, logistic, administrative, and ancillary support of the DISA T&E missions.

#### **E. Performance Metrics**

The DCGS T&E FT performs a minimum of six DCGS Enterprise assessments per year, and the results are consolidated into the T&E FT Enterprise Assessment Report annually. The T&E FT also provides input to the DCGS Enterprise Focus Team's State of the Enterprise (SoE) Report, which includes the Enterprise Maturity Model (EMM) and shows measurable DCGS Enterprise net-centric maturity progress over time.

The T&E FT also leverages Joint Interoperability Certification testing to support the evaluation of DCGS Enterprise maturity. In FY14, of the six DCGS PoR systems, three hold current Joint Staff (JS), Command, Control, Communications, & Computers/Cyber (J6) Interoperability (IOP) Certifications and continue to conduct IOP testing on emerging releases. One DCGS PoR has completed interoperability testing, and the joint IOP certification is pending. The remaining two PoRs are not required to be JS J6 certified, but the T&E FT leverages data collected during periodic IOP assessments of these programs during enterprise-level demonstrations and test events. Due to increased automation for data collection, parsing and analysis, in addition to advances in PoR and Enterprise maturity, the T&E FT increases the cumulative number of net-centric capability evaluations each year. This trend is expected to continue in FY15 and FY16. This effort provides the basis for the DCGS Enterprise Assessment, allowing the Office of the Under Secretary of Defense (Intelligence) to measure the level of maturity of the DCGS Enterprise supported by the DCGS Governance.

UNCLASSIFIED
Page 4 of 7

**Accomplishments/Planned Programs Subtotals** 

3.348

3.400

3.239

Exhibit R-3, RDT&E	Project C	ost Analysis: PB 2	2016 Defe	nse Infor	mation Sy	ystems A	gency					Date:	February	/ 2015	
Appropriation/Budg 0400 / 7	et Activity	1		PE 030	ogram Ele 5208K / D //Surface	istribute		Project (Number/Name) NF1 / Distributed Common Ground/Surface Systems							
Support (\$ in Million	ıs)			FY 2	2014	FY :	2015	FY 2			2016 CO	FY 2016 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To	Total Cost	Target Value of Contract
In-House Contracts	Various	N/A : N/A	18.059	1.004	Oct 2013	1.000	Oct 2014	0.900	Oct 2015	-		0.900	Continuing	Continuing	Continuing
		Subtotal	18.059	1.004		1.000		0.900		-		0.900	-		-
Test and Evaluation	(\$ in Milli	ions)		FY 2	2014	FY 2	2015	FY 2 Ba	2016 se		2016 CO	FY 2016 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To	Total Cost	Target Value of Contract
Engineering/Technical Services 1	C/T&M	Interop : Ft. Hua, AZ	3.763	-		-		-		-		-	-	3.763	3.376
Engineering/Technical Services 2	C/T&M	NGMS : Ft. Hua, AZ	12.927	-		-		-		-		-	-	12.927	12.927
Engineering/Technical Services 3	C/T&M	NGIT : Ft. Hua, AZ	3.612	-		-		-		-		-	-	3.612	3.612
Engineering/Technical Services 4	C/Various	Various : Various	0.157	0.586	Oct 2013	0.600	Oct 2014	0.209	Oct 2015	-		0.209	Continuing	Continuing	Continuing
Engineering/Technical Services 5	C/CPFF	TASC, Inc : Andover, MA	1.705	1.758	Oct 2013	1.800	Oct 2014	2.130	Oct 2015	-		2.130	-	-	-
		Subtotal	22.164	2.344		2.400		2.339		-		2.339	-	-	-
			Prior Years	FY 2	2014	FY :	2015	FY 2 Ba			2016 CO	FY 2016 Total	Cost To	Total Cost	Target Value of Contract
		Project Cost Totals	40.223	3.348		3.400		3.239		-		3.239	-	-	-

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2016 D	efer	se Ir	nform	nati	on S	Syste	ems	Age	ncy	•											I	Date	: Fe	brua	ry 2	015		
Appropriation/Budget Activity 0400 / 7											istrik	Number/Name) tributed Common Ground/Surfac					ırfac											
		FY 2	014			FY 2	2015	5		FY 2	2016	<b>.</b>		FY 2	2017			FY 2	2018		ļ	-Y 2	019		F	Y 20	20	
	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	3 4	4
DCGS																												
DCGS T&E IPT																												
Connectivity to Other Testbeds & Test Event Conduct																												
DDTE Operation and Maintenance Support																												

Exhibit R-4A, RDT&E Schedule Details: PB 2016 Defense Information System	ms Agency		Date: February 2015
1	1 3 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	- , (	umber/Name) ibuted Common Ground/Surface

# Schedule Details

	Sta	art	Eı	nd
Events by Sub Project	Quarter	Year	Quarter	Year
DCGS				
DCGS T&E IPT	1	2014	4	2020
Connectivity to Other Testbeds & Test Event Conduct	1	2014	4	2020
DDTE Operation and Maintenance Support	1	2014	4	2020