Exhibit R-2, RDT&E Budget Item Justification: PB 2011 Defense Information Systems Agency	DATE: February 2010
APPROPRIATION/BUDGET ACTIVITY 0400: *Research, Development, Test & Evaluation, Defense-Wide* BA 7: *Operational Systems Development*	R-1 ITEM NOMENCLATURE PE 0303150K: *Global Command and Control System*

COST ($ in Millions)	FY 2009 Actual	FY 2010 Estimate	FY 2011 Base Estimate	FY 2011 OCO Estimate	FY 2011 Total Estimate	FY 2012 Estimate	FY 2013 Estimate	FY 2014 Estimate	FY 2015 Estimate	Cost To Complete	Total Cost
Total Program Element	34.213	37.161	26.247	0.000	26.247	26.980	27.648	8.551	8.045	Continuing	Continuing
CC01: *Global Command and Control System-Joint (GCCS-J)*	28.112	29.361	26.247	0.000	26.247	26.980	27.648	8.551	8.045	Continuing	Continuing
CC02: *Collaborative Force Analysis, Sustainment, and Transportation System (CFAST)*	6.101	7.800	0.000	0.000	0.000	0.000	0.000	0.000	0.000	Continuing	Continuing

A. Mission Description and Budget Item Justification

☐Global Command and Control System – Joint (GCCS-J) is a part of the GCCS Family of Systems (FoS). In response to Congressional direction (Section 247 of Fiscal Year 2010 National Defense Authorization Act (NDAA)), GCCS FoS will form the basis for the evolution of new command and control capabilities within the Department of Defense (DoD). While sustaining and synchronizing currently fielded systems, Defense Information Systems Agency (DISA) will modernize and enhance current capabilities to support both the DoD Components and Joint warfighter as a part of a synchronized, orchestrated DoD-wide effort that will transition the current GCCS FoS into a more agile, net-centric, services-oriented environment. The GCCS FoS will adopt and adapt to the on-going changes in the information technology acquisition process, as described in the March 2009 Report of the Defense Science Board Task Force on DoD Policies and Procedures for the Acquisition of Information Technology (and as referenced in Section 804 of Fiscal Year 2010 NDAA), and be designed to include (a) early and continual involvement of the user; (b) multiple, rapidly executed increments or releases of capability; (c) early, successive prototyping to support an evolutionary approach; and (d) a modular, open-systems approach. As part of these changes, the GCCS FoS will take advantage of streamlined processes within the requirements community, such as the “IT Box”. GCCS-J will continue to provide critical command and control (C2) capability to the Commander-in-Chief, Secretary of Defense, National Military Command Center, Combatant Commands (COCOMs), Joint Force Commanders, and Service Component Commanders including superior battlespace awareness, which provides an integrated, near real-time picture of the battlespace necessary to conduct joint and multinational operations. GCCS-J continues to enhance information superiority and supports the operational concepts of full-dimensional protection and precision engagement. The Overseas Contingency Operations - GCCS-J Integrated Imagery and Intelligence (I3) provides software modifications to the GCCS-J I3/Common Operating Picture (COP) baseline in direct support of United States Central Command (USCENTCOM) War funding requirements. These software modifications require extensive coding and testing in order to effect their implementation. The requested Research, Development, Test and Evaluation (RDT&E) funding is critical to support DoD Transformation efforts in the area of Strategic and Operational Command and Control. If funding is not received, GCCS-J will not be able to leverage the investments the Department has made in a variety of programs and initiatives to bring them together in the context of a service oriented architecture. Insufficient funding hinders the ability to develop and field operational fixes, upgrades and modernization that could lead to system degradation and obsolescence.

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Adaptive Planning and Execution (APEX) is the DoD's replacement methodology for the adaptive planning capability previously provided by the Collaborative Force Analysis Sustainment and Transportation (CFAST) portal, constructing timely and agile war plans that achieve national security objectives.

B. Program Change Summary ($ in Millions)

	FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total
Previous President's Budget	35.917	26.511	0.000	0.000	0.000
Current President's Budget	34.213	37.161	26.247	0.000	26.247
Total Adjustments	-1.704	10.650	26.247	0.000	26.247
• Congressional General Reductions		-0.350			
• Congressional Directed Reductions		0.000			
• Congressional Rescissions	0.000	0.000			
• Congressional Adds		0.000			
• Congressional Directed Transfers		11.000			
• Reprogrammings	0.000	0.000			
• SBIR/STTR Transfer	0.000	0.000			
• Other Adjustments	-1.704	0.000	26.247	0.000	26.247

Change Summary Explanation

Due to significant program delays, the Senate Armed Services Committee redirected funding towards PE 0303150K Global Command and Control System (GCCS-J) to enhance the Department's existing command control capability (NDAA Act for Fiscal Year 2010, Senate Armed Services Committee Report 111–35, July 2, 2009). The DoD did not estimate FY 2011 cost when the FY 2010 President's Budget was prepared.

Exhibit R-2A, RDT&E Project Justification: PB 2011 Defense Information Systems Agency									DATE: February 2010		
APPROPRIATION/BUDGET ACTIVITY 0400: *Research, Development, Test & Evaluation, Defense-Wide* BA 7: *Operational Systems Development*				R-1 ITEM NOMENCLATURE PE 0303150K: *Global Command and Control System*				PROJECT CC01: *Global Command and Control System-Joint (GCCS-J)*			
COST ($ in Millions)	**FY 2009 Actual**	**FY 2010 Estimate**	**FY 2011 Base Estimate**	**FY 2011 OCO Estimate**	**FY 2011 Total Estimate**	**FY 2012 Estimate**	**FY 2013 Estimate**	**FY 2014 Estimate**	**FY 2015 Estimate**	**Cost To Complete**	**Total Cost**
CC01: *Global Command and Control System-Joint (GCCS-J)*	28.112	29.361	26.247	0.000	26.247	26.980	27.648	8.551	8.045	Continuing	Continuing
Quantity of RDT&E Articles											

A. Mission Description and Budget Item Justification

☐Global Command and Control System – Joint (GCCS-J) is the DoD Joint Command and Control (C2) system of record that provides information integration and decision-support capabilities that enable the exercise of authority and direction over assigned and attached forces, operating in a net-centric, collaborative information environment.

As part of the GCCS Family of Systems (FoS), GCCS-J will migrate to a more sophisticated “n-tier” architecture supporting dynamic infrastructure resources, thin browser-based clients, and net-centric enterprise services. N-tier architecture is a way of organizing and decomposing system components into multiple logical tiers with each tier of this architecture, and the components of which it is comprised, focusing on a broad aspect of the system (e.g. presentation logic, business logic, data services). Web standard-based, or other types of services are used to enable communication between components in the various tiers as well as external service consumers. This capability, when fully implemented, brings tremendous robustness and agility that cannot be matched by client/server or monolithic architectures. When implemented on a standards-based Commercial Off The Shelf (COTS) software, it provides scalability and prevents the Program Management Office (PMO) from getting “locked in” to a particular vendor. This system organization is key to enabling GCCS-J deployments that support enterprise-wide user communities. High priority services identified for early inclusion are identity management via Public Key Infrastructure (PKI), directory services, portal framework, and publish and subscribe capability. These services provide a stronger security mechanism than user name and password approach. To achieve these services, GCCS-J will fully implement a new interface capability using XML to provide the flexibility to support independent version changes and improved availability to enterprise data. In FY 2011, funding will be transferred from the Net-Enabled Command Capability (NECC) to GCCS-J to meet the DISA priority and commitment to fully fund development activities required to provide a robust and secure GCCS-J system to the users, to include Global and the Joint Operations Planning and Execution System (JOPES). Updates to GCCS-J will be done on a limited basis to allow access to next generation services or capabilities made available during this time period. Funding will also provide for the evolution of new command and control capabilities within the Department of Defense (DoD). While sustaining and synchronizing currently fielded systems, DISA will modernize and enhance current capabilities to support both the DoD Components (e.g., Service, Combat Support Agency) and Joint warfighter as part of a synchronized, orchestrated DoD-wide effort that will transition the current GCCS FoS into a more agile, net-centric, services-oriented environment. The GCCS FoS will adopt and adapt to the on-going changes in the information technology acquisition process, as described in the March 2009 Report of the Defense Science Board Task Force on DoD Policies and Procedures for the Acquisition of Information Technology (and as referenced in Section 804 of Fiscal Year 2010 NDAA), and be designed to include (a) early and continual involvement of the user; (b) multiple, rapidly executed increments or releases of capability; (c) early, successive prototyping

Exhibit R-2A, RDT&E Project Justification: PB 2011 Defense Information Systems Agency		DATE: February 2010
APPROPRIATION/BUDGET ACTIVITY 0400: *Research, Development, Test & Evaluation, Defense-Wide* BA 7: *Operational Systems Development*	R-1 ITEM NOMENCLATURE PE 0303150K: *Global Command and Control System*	PROJECT CC01: *Global Command and Control System-Joint (GCCS-J)*

to support an evolutionary approach; and (D) a modular, open-systems approach. As part of these changes, the GCCS FoS will take advantage of streamlined processes within the requirements community, such as the "IT Box".

B. Accomplishments/Planned Program ($ in Millions)

	FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total
Development and Strategic Planning	21.865	21.425	20.998	0.000	20.998
FY 2009 Accomplishments: In FY 2009 GCCS-J completed the development and testing of the final Block V version releases, the last full acquisition block for the program prior to the system moving into sustainment (FY 2010-FY 2015). These releases addressed high priority requirements, and implemented enhancements to fielded capabilities in support of the following mission areas: Intelligence; Situational Awareness; Readiness; and Force Planning, Employment, Protection, and Deployment. Some of the high priority requirements include functional enhancements for COP and Integrated Imagery and Intelligence (I3), infrastructure and security upgrades, and Government Service Problem Report fixes to the GCCS-J fielded system; and the GCCS-J FoS Alert Infrastructure (GFAI) alerting services. GCCS-J completed final development and testing of GCCS-J 4.2 Spiral Releases (Global 4.2, SORTS 4.2, JOPES 4.2) addressing operational requirements and net-centric architecture implementation					
FY 2010 Plans: The majority of FY 2010 RDT&E funding funds the development and testing of the GCCS-J applications against BEA 10 and JAVA 1.6 to address COTS obsolescence for the current versions used in GCCS-J. This migration will keep the GCCS-J suites more secure and sustainable at the operating sites by keeping the operating systems current and utilizing the latest version of COTS software. Funding is also being used to address critical emerging needs based on use of GCCS-J in current operations.					
FY 2011 Base Plans: GCCS-J will include development efforts to resolve and implement fixes for critical GSPR and Information Assurance Vulnerability Alerts (IAVA) in addition to critical or emerging user needs. The PMO will use funding to complete upgrades to the infrastructure required due to COTS obsolescence.					

Exhibit R-2A, RDT&E Project Justification: PB 2011 Defense Information Systems Agency		DATE: February 2010
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B. Accomplishments/Planned Program ($ in Millions)

	FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total
Additionally, funding will focus on providing support for synchronization efforts between GCCS-J and the FoS to ensure interfaces continue to function between systems. Updates to GCCS-J will also be done on a limited basis to allow access to next generation services or capabilities made available during this time period. Remaining FY 2011 RDT&E funding will be used to modernize and develop the Department's next generation Joint Command and Control program evolving from the GCCS-J and Family of Systems (FoS) and incorporating the most advanced agile technologies and capabilities. To modernize the system, GCCS-J and the FoS will leverage the investments the Department has made in a variety of programs and initiatives and bring them together in the context of a Service Oriented Architecture. As the architecture evolves, improvements will be made to decouple interfaces and migrate existing functional capabilities to the enterprise. If GCCS-J does not receive RDT&E funding in FY 2011, GCCS-J will not maintain synchronization with other efforts in the GCCS Family of Systems.					
Integration and Test (I&T)	6.247	5.186	5.249	0.000	5.249
GCCS-J's incremental, spiral Integration & Test (I&T) approach permits an earlier start of integration testing since all new segments will not be available at the beginning of testing. This risk reduction strategy allows testing in smaller, more manageable increments, while still enforcing a level of Block V testing commensurate to the operational and technical complexity of each release. In accordance with Department guidelines and determined through an initial risk assessment conducted by the GCCS-J Program Management Office (PMO), GCCS-J spiral releases will be relatively low risk with minimal potential to impact other system applications and disrupt the basic system's ability to support the mission. *FY 2009 Accomplishments:* GCCS-J's incremental, spiral Integration & Test (I&T) approach permitted an earlier start of integration testing since all new segments were not available at the beginning of testing. This risk reduction strategy allowed testing in smaller, more manageable increments, while still enforcing a level of Block					

Exhibit R-2A, RDT&E Project Justification: PB 2011 Defense Information Systems Agency		DATE: February 2010
APPROPRIATION/BUDGET ACTIVITY 0400: *Research, Development, Test & Evaluation, Defense-Wide* BA 7: *Operational Systems Development*	R-1 ITEM NOMENCLATURE PE 0303150K: *Global Command and Control System*	PROJECT CC01: *Global Command and Control System-Joint (GCCS-J)*

B. Accomplishments/Planned Program ($ in Millions)

	FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total
V testing commensurate to the operational and technical complexity of each release. In accordance with Department guidelines and determined through an initial risk assessment conducted by the GCCS-J Program Management Office (PMO), GCCS-J spiral releases were relatively low risk with minimal potential to impact other system applications and disrupt the basic system's ability to support the mission. *FY 2010 Plans:* GCCS-J will continue to employ the same incremental, spiral I&T approach in the post Block V testing of the sustainment and synchronization efforts. *FY 2011 Base Plans:* GCCS-J will continue to employ the same incremental, spiral I&T approach in the post Block V testing of the sustainment and synchronization efforts.					
The Overseas Contingency Operations GCCS-J Integrated Imagery and Intelligence (I3) funding provides for software modifications to the GCCS-J I3/Common Operational Picture (COP) baseline in direct support of USCENTCOM War funding requirements. These software modifications require extensive coding and testing in order to effect their implementation. Specifically: (a) improve Visualization client interface for both Analyst Workshop (AWS) and AWS Web ($1.500 million); (b) process and display additional Unmanned Aerial Video (UAV) formats ($0.500 million); and (c) provide access and display of additional Open Source Intelligence data ($0.750 million). *FY 2010 Plans:* The Overseas Contingency Operations - GCCS-J Integrated Imagery and Intelligence (I3) funding provides for software modifications to the GCCS-J I3/COP baseline in direct support of USCENTCOM War funding requirements. These software modifications require extensive coding and testing in order to effect their implementation. Specifically: (a) improve Visualization client interface for both Analyst	0.000	2.750	0.000	0.000	0.000

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B. Accomplishments/Planned Program ($ in Millions)

	FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total
Workshop (AWS) and AWS Web ($1.500 million); (b) process and display additional Unmanned Aerial Video (UAV) formats ($0.500 million); and (c) provide access and display of additional Open Source Intelligence data ($0.750 million).					
Accomplishments/Planned Programs Subtotals	28.112	29.361	26.247	0.000	26.247

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total	FY 2012	FY 2013	FY 2014	FY 2015	Cost To Complete	Total Cost
• O&M, DW/PE 0303150K: *O&M, DW*	86.161	76.127	92.239		92.239	94.332	92.918	109.611	109.611	Continuing	Continuing
• Procurement,DW/PE 0303150K: *Procurement,DW*	9.041	7.021	5.275		5.275	5.333	5.513	3.827	3.334	Continuing	Continuing

D. Acquisition Strategy

GCCS-J development, integration, and migration efforts are primarily supported through Cost Reimbursable Task Orders issued under competitively awarded contracts. Use of performance-based contract awards is maximized while use of Time and Material (T&M) contracts is minimized to those providing programmatic support versus software development, integration, or testing. The GCCS-J Acquisition Strategy is structured to retain contractors capable of satisfying cost, schedule, and performance objectives. The Program Management Office (PMO) contract awards incorporate provisions requiring contractors to establish and manage specific earned value data. The PMO's strategy mitigates risk by requiring monthly Contract Performance Reviews (CPRs) and utilizes award fee contracts where appropriate to incentivize performance.

E. Performance Metrics

Capabilities Provided: GCCS-J assesses performance using the sustainment and synchronization activities in FY 2010. Each activity addresses outstanding high priority requirements, while continuing to implement enhancements to fielded capabilities. These enhancements may modify existing GCCS-J mission applications, new candidate solutions provided by executive agents, technical refresh actions to minimize COTS end-of-life issues, and/or interfacing with additional high value data sources.

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Cost & Schedule Management: The GCCS-J program employs a tailored subset of earned value concepts that fit within ANSI/EIA Standard 748. Contractors are required to plan, budget, and schedule resources in time-phased “planned value” increments constituting a cost and schedule measurement baseline. This approach encourages contractors to use effective internal cost and schedule management control systems. The PMO evaluates performance by conducting thorough Post-award Contract Reviews (PCRs) and monthly CPRs. The GCCS-J Program Manager (PM) also conducts weekly critical path reviews of the GCCS-J release schedules to ensure tasks are on track and to mitigate risk across the entire program.

GCCS-J FY 2009 (Results) FY 2010 (Estimated) FY 2011
(Estimated)
Effectively communicate with external command and control systems Global 4.2, JOPES 4.2, and SORTS 4.2 successfully completed testing with a 100% of all current and new system interfaces. 100% successful test of new critical system interfaces, as well as continued 100% successful test of current system interfaces. TBD
Fuse select C2 capabilities into a comprehensive, interoperable system eliminating the need for inflexible, duplicative, stovepipe C2 systems Global v4.1.1 was fielded at 36 sites, 35 of which were critical. GCCS-J post Block V will focus on planned migration to Net-centric Joint C2 capabilities in coordination with Enterprise Services (NCES). Web-enabled apps to support ubiquitous clients TBD
The availability of the GCCS-J Strategic Server Enclaves enable enhanced capabilities to the user community Global 4.1.1.1 is an emergent release to field fixes to global 4.1.1. It includes I3 and infrastructure fixes to issues identified during fielding and testing. A release of post Block V and emerging warfighter requirements to GCCS-J Strategic Server Enclaves in FY 2010. TBD

Exhibit R-3, RDT&E Project Cost Analysis: PB 2011 Defense Information Systems Agency			DATE: February 2010
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Product Development ($ in Millions)

				FY 2010		FY 2011 Base		FY 2011 OCO		FY 2011 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
Product Development 1	C/CPAF	NGMS Reston, VA	61.279	6.029	Jun 2009	5.947	Jun 2010	0.000		5.947	Continuing	Continuing	73.255
Product Development 2	C/CPAF	NGMS Reston, VA	48.486	7.512	Jul 2009	6.298	Jul 2010	0.000		6.298	Continuing	Continuing	62.296
Product Development 3	C/CPAF	AB Floyd Alexandria, VA	12.477	0.000		0.000		0.000		0.000	0	12.477	12.477
Product Development 4	C/CPAF	Femme Comp Inc Chantilly, VA	7.249	0.000		0.000		0.000		0.000	Continuing	Continuing	7.249
Product Development 5	C/CPFF	SAIC Falls Church, VA	5.876	0.000		0.000		0.000		0.000	0	5.876	5.876
Product Development 6	C/CPFF	SAIC Falls Church, VA	8.772	0.971	Jun 2009	0.267	Jun 2010	0.000		0.267	Continuing	Continuing	10.010
Product Development 7	SS/FFP	Dynamic Systems Los Angeles	3.189	0.254	Jan 2010	0.070	Mar 2010	0.000		0.070	Continuing	Continuing	3.513
Product Development 8	C/CPFF	Pragmatics McLean, VA	26.523	1.078	Aug 2009	1.028	Aug 2010	0.000		1.028	Continuing	Continuing	28.629
Product Development 9	MIPR	Booz Allen Hamilton McLean, VA	3.394	0.000		0.000		0.000		0.000	0	3.394	3.394
Product Development 10	MIPR	JDISS Suitland, MD	6.039	0.000		0.000		0.000		0.000	0	6.039	6.039
Product Development 11	C/FFP	NGMS Reston, VA	4.790	0.000		0.000		0.000		0.000	0	4.790	4.790
Product Development 12	C/CPAF	NGMS Reston, VA	14.834	3.641	Aug 2010	2.999	Sep 2010	0.000		2.999	Continuing	Continuing	21.464

Exhibit R-3, RDT&E Project Cost Analysis: PB 2011 Defense Information Systems Agency		DATE: February 2010
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Product Development ($ in Millions)

				FY 2010		FY 2011 Base		FY 2011 OCO		FY 2011 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
Product Development 13	MIPR	SPAWAR Charleston, SC	5.270	0.000		0.000		0.000		0.000	Continuing	Continuing	5.270
Product Development 14	FFRDC	MITRE, McLean, VA	6.015	0.372	Mar 2009	0.118	Mar 2010	0.000		0.118	Continuing	Continuing	6.505
Product Development 15	MIPR	Dept of Energy, Army Research Lab, PD Intelligence Fusion, GSA/FAS	5.710	1.116		0.306	Mar 2010	0.000		0.306	Continuing	Continuing	7.132
Product Development 16	C/CPAF	Tactical 3-D COP (T3DCOP)	3.200	0.000		0.000		0.000		0.000	0	3.200	3.200
Product Development 17	SS/FFP	Joint Info Technology Center Initiative Joint Info Technology Center Initiative	20.400	0.000		0.000		0.000		0.000	0	20.400	20.400
Product Development 18	MIPR	DIA DIA	4.716	0.439	Mar 2009	0.121	Mar 2010	0.000		0.121	Continuing	Continuing	5.276
		Subtotal	248.219	21.412		17.154		0.000		17.154	0.000	56.176	286.775

Remarks

Exhibit R-3, RDT&E Project Cost Analysis: PB 2011 Defense Information Systems Agency			DATE: February 2010
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Test and Evaluation ($ in Millions)

				FY 2010		FY 2011 Base		FY 2011 OCO		FY 2011 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
Test and Evaluation 1	C/CPAF	SAIC Church, VA	23.133	1.243	Aug 2009	2.393	Aug 2010	0.000		2.393	Continuing	Continuing	26.769
Test and Evaluation 2	MIPR	JITC Ft Huachuca, AZ	15.737	6.068	Oct 2009	5.500	Oct 2010	0.000		5.500	Continuing	Continuing	27.305
N/A	MIPR	Slidell Slidell	0.436	0.000		0.000		0.000		0.000	0	0.436	0.436
Test and Evaluation 3	MIPR	SSC San Diego, CA	6.911	0.638	Oct 2010	1.200	Oct 2011	0.000		1.200	Continuing	Continuing	7.980
		Subtotal	46.217	7.949		9.093		0.000		9.093	0.000	0.436	62.490

Remarks

	Total Prior Years Cost	FY 2010		FY 2011 Base		FY 2011 OCO		FY 2011 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	294.436	29.361		26.247		0.000		26.247	0.000	56.612	349.265

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2011 Defense Information Systems Agency			DATE: February 2010
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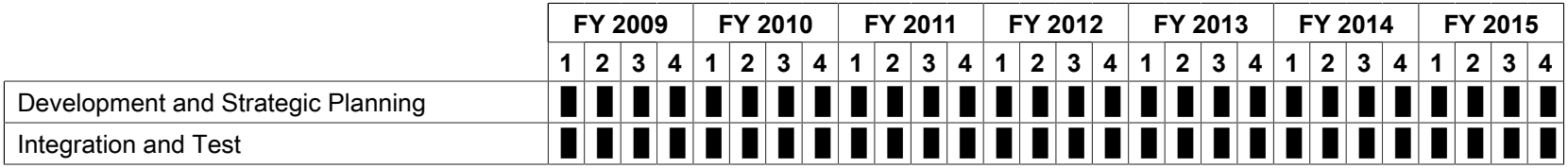

Exhibit R-4A, RDT&E Schedule Details: PB 2011 Defense Information Systems Agency		DATE: February 2010
APPROPRIATION/BUDGET ACTIVITY 0400: *Research, Development, Test & Evaluation, Defense-Wide* BA 7: *Operational Systems Development*	**R-1 ITEM NOMENCLATURE** PE 0303150K: *Global Command and Control System*	**PROJECT** CC01: *Global Command and Control System-Joint (GCCS-J)*

Schedule Details

	Start		End	
Event	**Quarter**	**Year**	**Quarter**	**Year**
Development and Strategic Planning	1	2009	4	2015
Integration and Test	1	2009	4	2015

Exhibit R-2A, RDT&E Project Justification: PB 2011 Defense Information Systems Agency			DATE: February 2010
APPROPRIATION/BUDGET ACTIVITY 0400: *Research, Development, Test & Evaluation, Defense-Wide* BA 7: *Operational Systems Development*	R-1 ITEM NOMENCLATURE PE 0303150K: *Global Command and Control System*	PROJECT CC02: *Collaborative Force Analysis, Sustainment, and Transportation System (CFAST)*	

COST ($ in Millions)	FY 2009 Actual	FY 2010 Estimate	FY 2011 Base Estimate	FY 2011 OCO Estimate	FY 2011 Total Estimate	FY 2012 Estimate	FY 2013 Estimate	FY 2014 Estimate	FY 2015 Estimate	Cost To Complete	Total Cost
CC02: *Collaborative Force Analysis, Sustainment, and Transportation System (CFAST)*	6.101	7.800	0.000	0.000	0.000	0.000	0.000	0.000	0.000	Continuing	Continuing
Quantity of RDT&E Articles											

A. Mission Description and Budget Item Justification

The Collaborative Force Analysis Sustainment and Transportation (CFAST) portal was the primary adaptive planning operational prototype capability. Due to operational issues, CFAST was shut down on 30 June 2009. The DoD examined various strategies for providing a replacement adaptive planning capability. Adaptive Planning and Execution (APEX) is the DoD's replacement methodology for constructing timely and agile war plans that achieve national security objectives. APEX is a suite of software tools that provides Adaptive Planning (AP) capabilities to include: campaign planning, forecast predictions, information management, and rapid execution. Currently the Department of Defense has several operational capabilities and systems that provide functionality to support the APEX business process.

FY 2010 RDT&E funding is being utilized to provide initial adaptive planning and execution/force projection capabilities that will be accessible in a net-centric environment and focus on providing the joint forces commander with the data and information needed to make timely, effective, and informed decisions. The APEX strategy will provide new capabilities to rapidly generate and modify a Time-Phased Force & Deployment Data (TPFFD) file required to execute a plan and automatically provide that TPFFD as a force requirements list to the Joint Capability Requirements Manager (JCRM) tool. This will provide for valid contingency sourcing as well as model and analyze specific courses of action to determine execution feasibility. Once fielded the new APEX capabilities, specifically Rapid TPFFD Builder (RTB) and Integrated Gaming System (IGS), will allow a planner to shorten the planning cycle from a two year process. IGS allows a planner to rapidly select and position forces on a map to determine best force on force scenario to win the fight. RTB will allow a planner to quickly create a TPFFD and automatically generate planning dates based on lift allocations and prioritized force movements. Funding will also develop/modernize, integrate, test, and field APEX enterprise capabilities for the warfighter on the Global Information Grid (GIG).

B. Accomplishments/Planned Program ($ in Millions)

	FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total
Development and Strategic Planning	5.619	7.307	0.000	0.000	0.000

Exhibit R-2A, RDT&E Project Justification: PB 2011 Defense Information Systems Agency		DATE: February 2010
APPROPRIATION/BUDGET ACTIVITY 0400: *Research, Development, Test & Evaluation, Defense-Wide* BA 7: *Operational Systems Development*	R-1 ITEM NOMENCLATURE PE 0303150K: *Global Command and Control System*	PROJECT CC02: *Collaborative Force Analysis, Sustainment, and Transportation System (CFAST)*

B. Accomplishments/Planned Program ($ in Millions)

	FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total
APEX will produce capabilities and integrate capabilities via spiral development, allowing for the rapid introduction of net centric planning capabilities to include contingency and crisis planning and execution. The APEX capabilities will map to the business processes as identified in the AP Roadmap. *FY 2009 Accomplishments:* CFAST successfully transitioned from Oak Ridge National Laboratory to the Space and Naval Warfare Systems Center (SSC), San Diego to emerge into a net-centric enterprise service. Upon cancellation of the program in fourth quarter CFAST capabilities were converted to Adaptive Planning and Execution (APEX). *FY 2010 Plans:* Capability and Force Requirements Manipulation: Improves the Force Builder force generation tool to include Task Organization and Mass/Selective Edits for units within the Time Phased Force And Deployment Data (TPFDD) files. The improvements enable the scheduled movement of forces and supplies into an area of operations. Force Builder allows the planner to build a draft list of forces, group them into force modules and place them into a priority of movement that is honored by scheduling applications. Improvements will include a refined level of detail which provides a higher quality estimate for logistics and transportation needs and reduces the time required to build a plan. Interoperability. APEX contains unique software capabilities but relies upon data feeds from external systems. Data requirements and improvements will include Readiness data; fine grain unit information; migration to new data standards; and importing/exporting into new formats. Course of Action Development – Provides an initial capability that allows planners to simulate the scheduled TPFDD flow of forces into the area of operations and the actions required to fulfill the mission. The simulation shall include effects based operations as well as attrition warfare. The course of action will allow feedback into the planning applications in order to refine the forces required for an operation.					

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B. Accomplishments/Planned Program ($ in Millions)

	FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total
Integration and Test	0.482	0.493	0.000	0.000	0.000

Integration and Test (I&T): APEX employs an incremental spiral I&T methodology in accordance with testing and information assurance regulations, as applicable. This risk reduction strategy allows testing in smaller, more manageable versions, while still enforcing a level of testing commensurate to the operational and technical complexity of each release. This approach permits an earlier start of integration testing as well as making capability available to users for evaluation during actual planning events. CFAST/APEX also finances independent security evaluations of CFAST/APEX versions in order to maintain the Authority To Operate (ATO) status. This approach ensures the operational suitability and effectiveness, interoperability, and security of APEX for warfighter use.

FY 2009 Accomplishments:

Integration and Test (I&T): APEX employs an incremental spiral I&T methodology in accordance with testing and information assurance regulations, as applicable. This risk reduction strategy allows testing in smaller, more manageable versions, while still enforcing a level of testing commensurate to the operational and technical complexity of each release. This approach permits an earlier start of integration testing as well as making capability available to users for evaluation during actual planning events. CFAST/APEX also finances independent security evaluations of CFAST/APEX versions in order to maintain the Authority To Operate (ATO) status. This approach ensures the operational suitability and effectiveness, interoperability, and security of APEX for warfighter use.

FY 2010 Plans:

Integration and Test (I&T): APEX employs an incremental spiral I&T methodology in accordance with testing and information assurance regulations, as applicable. This risk reduction strategy allows testing in smaller, more manageable versions, while still enforcing a level of testing commensurate to the operational and technical complexity of each release. This approach permits an earlier start of integration testing as well as making capability available to users for evaluation during actual planning events. CFAST/APEX also finances independent security evaluations of CFAST/APEX versions in

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B. Accomplishments/Planned Program ($ in Millions)

	FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total
order to maintain the Authority To Operate (ATO) status. This approach ensures the operational suitability and effectiveness, interoperability, and security of APEX for warfighter use. *FY 2011 Base Plans:* No funding is requested for FY2011 due to prioritization of APEX against the sustainment and synchronization requirements of the GCCS-J Family of Systems (FoS).					
Accomplishments/Planned Programs Subtotals	6.101	7.800	0.000	0.000	0.000

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total	FY 2012	FY 2013	FY 2014	FY 2015	Cost To Complete	Total Cost
• O&M, DW/PE 0303150K: *O&M, DW*	8.700	8.572	0.000		0.000	0.000	0.000	0.000	0.000	0	25.552
• Procurement, DW/PE 0303150K: *Procurement, DW*	1.467	1.462	0.000		0.000	0.000	0.000	0.000	0.000	0	8.449

D. Acquisition Strategy

Joint Requirements Oversight Council (JROC) memorandum (JROCM) 102-04, Subject: Collaborative Force Analysis, Sustainment and Transportation System (CFAST) Future Development, designated U.S. Joint Forces Command (USJFCOM) as the Functional Proponent for Adaptive Planning and the Defense Information Systems Agency (DISA) as the Material Solution Provider, effective July 2004. The APEX Acquisition Strategy is structured to retain contractors capable of satisfying cost, schedule, and performance objectives. APEX utilizes Cost Reimbursable Task Orders (TO) issued under competitively awarded contracts. APEX maximizes the use of competitively awarded IDIQ contracts and requires contractors to establish and manage specific earned value data. The APEX strategy mitigates risk by requiring Contract Performance Reviews (CPR) and utilizes Award Fee contracts where appropriate to incentivize performance.

E. Performance Metrics

Cost & Schedule Management APEX utilizes earned value management to manage technical cost and schedule requirements. Contractors are required to plan, budget, and schedule resources in time-phased “planned value” increments constituting a cost and schedule measurement baseline. This approach encourages

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contractors to use effective internal cost and schedule management control systems. Performance is evaluated by conducting contractor performance reviews as well as weekly critical path reviews of the APEX release schedules to ensure tasks are on track and to mitigate risk across the entire lifecycle.

Exhibit R-3, RDT&E Project Cost Analysis: PB 2011 Defense Information Systems Agency			DATE: February 2010
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Product Development ($ in Millions)

				FY 2010		FY 2011 Base		FY 2011 OCO		FY 2011 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
Product Development	MIPR	SPAWAR San Diego, CA	20.205	7.307	Feb 2010	0.000		0.000		0.000	Continuing	Continuing	27.512
		Subtotal	20.205	7.307		0.000		0.000		0.000			27.512

Remarks

Test and Evaluation ($ in Millions)

				FY 2010		FY 2011 Base		FY 2011 OCO		FY 2011 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
Test and Evaluation	MIPR	SPAWAR San Diego, CA	1.766	0.493	Feb 2010	0.000		0.000		0.000	Continuing	Continuing	2.259
		Subtotal	1.766	0.493		0.000		0.000		0.000			2.259

Remarks

	Total Prior Years Cost	FY 2010		FY 2011 Base		FY 2011 OCO		FY 2011 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	21.971	7.800		0.000		0.000		0.000			29.771

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	Total Prior Years Cost	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total	Cost To Complete	Total Cost	Target Value of Contract

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2011 Defense Information Systems Agency			DATE: February 2010
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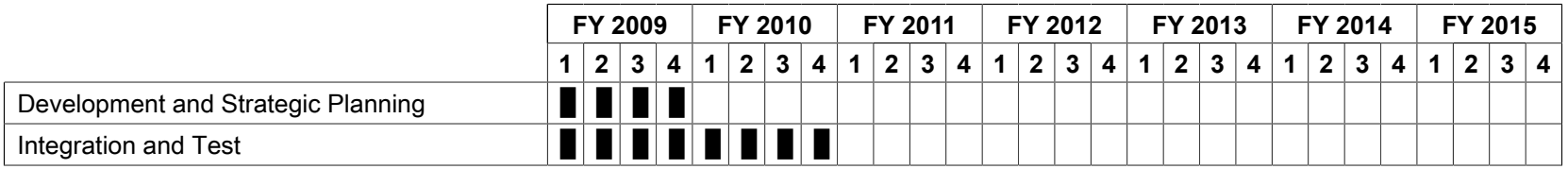

Exhibit R-4A, RDT&E Schedule Details: PB 2011 Defense Information Systems Agency		DATE: February 2010
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Schedule Details

	Start		End	
Event	**Quarter**	**Year**	**Quarter**	**Year**
Development and Strategic Planning	1	2009	4	2009
Integration and Test	1	2009	4	2010