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Exhibit R-2, RDT&E Budget Item Justification: PB 2013 Air Force									DATE: February 2012		
APPROPRIATION/BUDGET ACTIVITY 3600: Research, Development, Test & Evaluation, Air Force BA 7: Operational Systems Development				R-1 ITEM NOMENCLATURE PE 0303150F: WWMCCS/GLOBAL COMMAND & CONTROL SYSTEM							
COST (\$ in Millions)	FY 2011	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total	FY 2014	FY 2015	FY 2016	FY 2017	Cost To Complete	Total Cost
Total Program Element	4.846	3.825	4.316	-	4.316	3.813	3.582	3.336	3.379	Continuing	Continuing
674667: Global Command and Control System - AF	4.846	3.825	4.316	-	4.316	3.813	3.582	3.336	3.379	Continuing	Continuing
Quantity of RDT&E Articles	0	0	0	0	0	0	0	0	0		

## **A. Mission Description and Budget Item Justification**

The Global Command and Control System (GCCS) is the Joint Command and Control (C2) System of Record and the designated C2 migration system for the DoD. It is an integrated Command, Control, Communications, Computer, and Intelligence (C4I) system capable of supporting all echelons of the US military command structure. GCCS solves C4I interoperability problems between Service components by establishing a Common Core Operating Environment supporting net-centric objectives. The GCCS-Air Force program provides C2, intelligence, surveillance, reconnaissance (ISR), Cyber, and operational information to the Commander Air Force Forces (COMAFFOR) for planning and execution, air space deconfliction, targeting, weaponeering, and many other applications supporting air operational command and control, and fully supports the Aerospace Expeditionary Force (AEF) concept.

The Air Force is responsible for integration of Air Force unique mission applications with the Common Core Operating Environment. Integration efforts are directed towards future aerospace C2 concepts supporting requirements for the AOC, including ISR, and intended to automate operational systems with an objective of providing the right people with the right information at the right time while reducing the overall footprint of the system. As they migrate to the GCCS Joint (GCCS-J) core environment, GCCS-AF will integrate applications into the WINx environment satisfying warfighter requirements for the Common Operational Picture (COP), Joint Warning and Reporting Network (JWARN), Joint Targeting Toolbox (JTT), Logistics Feasibility Analysis Capability (LOGFAC), Deliberate Crisis Action Planning and Execution Segment (DCAPES) capabilities, and other information assurance mechanisms.

Funding will also support development and systems engineering activities, to include (1) facilitating improvements to system effectiveness through efficient segregation of mission capabilities (apps, services, applications) from underlying networking, middleware and computing infrastructures by using common architecture, standards, and services, and (2) employing a rapid/agile IT acquisition process to effectively deliver capabilities to the warfighter.

Activities also include studies and analysis to support both current program planning and execution and future program planning. The GCCS-AF program is actively supporting planning for transition of functionality to DOD's emerging next generation joint C2 enabler. The GCCS-AF funding will be used to implement evolving Joint and Air Force GCCS functional capability as well as facilitate transition, development and delivery of functionality to DoD's next generation joint C2 enabler.

This program is in Budget Activity 7, Operational System Development. These budget activities include development efforts to upgrade systems currently fielded or has approval for full rate production and anticipate production funding in the current or subsequent fiscal year.

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B. Program Change Summary (\$ in Millions)		FY 2011	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total
Previous President's Budget		3.055	3.854	4.308	-	4.308
Current President's Budget		4.846	3.825	4.316	-	4.316
Total Adjustments		1.791	-0.029	0.008	-	0.008
• Congressional General Reductions		-	-0.029			
• Congressional Directed Reductions		-	-			
• Congressional Rescissions		-	-			
• Congressional Adds		-	-			
• Congressional Directed Transfers		-	-			
• Reprogrammings		-	-			
• SBIR/STTR Transfer		-0.241	-			
• Other Adjustments		2.032	-	0.008	-	0.008
Change Summary Explanation						
FY11 increase in Adjustment Row is due to a Congressional Add.						
FY12 Congressional General Reduction (FFRDC, Sec. 8023) of 0.029M.						
FY13 slight funding increase to support program efforts.						
C. Accomplishments/Planned Programs (\$ in Millions)				FY 2011	FY 2012	FY 2013
Title: Synchronization, Integration, Test, and Planning				4.846	3.589	3.666
Description: This effort consists of: synchronization, integration and testing of current/upgraded capabilities; operational baseline problem analysis and technical solution implementation; and systems engineering for infrastructure migration to the next generation joint C2 architecture.						
FY 2011 Accomplishments: Continued integration and test of Air Force capabilities into GCCS baseline configurations. Conducted GCCS-AF 4.2.x operational baseline problem analysis and technical solution implementation. Conducted C2 interoperability and performance studies in support of further consolidation of GCCS Global Release (GR) and Strategic Server Enclave (SSE) configurations to ensure synchronization and interoperability between AF and joint GCCS components. Continued systems engineering support to migration objectives. Conducted studies and analysis to develop stronger configuration control and security protection strategies. Strengthened configuration management, performance engineering and security protection strategies to facilitate migration to the DOD's emerging joint C2 architecture.						
FY 2012 Plans:						

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C. Accomplishments/Planned Programs (\$ in Millions)								FY 2011	FY 2012	FY 2013	
Continue systems engineering support to GCCS synchronization and migration objective. Conduct GCCS 4.2.x/ joint C2 operational problem analysis and technical solutions implementation. Conduct studies and analysis to develop stronger configuration control and security protection strategies. Strengthen configuration management performance engineering and security protection to strategies to facilitate migration to the DOD's emerging joint C2 architecture.  <b>FY 2013 Plans:</b> Will continue systems engineering support to GCCS synchronization and migration objectives with emerging new joint C2 ( e.g. APEX, JPES). Conduct GCCS 4.2.1 / joint C2 operational problem analysis and technical solutions implementation following joint C2 Objective Architecture. Will perform analysis for implementation strategy for transition of baseline systems to new x86 hardware architecture implementations, authentication/authorizations, net-centric core services, and cyber protection mechanisms.											
<b>Title:</b> GCCS support of Global Force Management  <b>Description:</b> This effort is to modify GCCS to consume authoritative force structure from GFM DI Org Servers, linking the identifiers to or replacing current identifiers and, as applicable, exposing the data in a net-centric fashion.  <b>FY 2012 Plans:</b> Per FY12 GFM-DI guidance, modify GCCS to consume authoritative force structure from GFM DI Org Servers, linking the identifiers to or replacing current identifiers and, as applicable, exposing the data in a net-centric fashion.  <b>FY 2013 Plans:</b> Per FY13 GFM-DI guidance, will further modify GCCS to consume authoritative force structure from GFM DI Org Servers, linking the identifiers to or replacing current identifiers and, as applicable, exposing the data in a net-centric fashion.								-	0.236	0.650	
Accomplishments/Planned Programs Subtotals								4.846	3.825	4.316	
D. Other Program Funding Summary (\$ in Millions)											
Line Item	FY 2011	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total	FY 2014	FY 2015	FY 2016	FY 2017	Cost To Complete	Total Cost
• PE 0303150F, Air Force Global Co...: N/A	9.159	13.310	15.829	0.000	15.829	13.559	12.179	13.960	13.397	Continuing	Continuing
• PE 0303150F, Global Combat Suppo...: N/A (1)	34.602	38.536	37.389	0.000	37.389	36.999	37.445	38.269	39.499	Continuing	Continuing

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<b>E. Acquisition Strategy</b> GCCS-AF is developed and fielded using a spiral acquisition approach, synchronized with Common Operating Environment (COE) and compliant with the GCCS-Joint (GCCS-J) baseline. All deployment of GCCS-AF capabilities are synchronized with the GCCS-J program fielding schedule, which is led by DISA. The GCCS-AF program is actively supporting DOD planning for transition of functionality to DOD's emerging next generation joint C2 enabler.		
<b>F. Performance Metrics</b> Please refer to the Performance Base Budget Overview Book for information on how Air Force resources are applied and how those resources are contributing to Air Force performance goals and most importantly, how they contribute to our mission.		

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<b>Exhibit R-4, RDT&amp;E Schedule Profile:</b> PB 2013 Air Force		<b>DATE:</b> February 2012
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<b>Exhibit R-4A, RDT&amp;E Schedule Details:</b> PB 2013 Air Force			<b>DATE:</b> February 2012
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## Schedule Details

Events	Start		End	
	Quarter	Year	Quarter	Year
SIGNIFICANT EVENTS	1	2011	4	2017
GCCS-J Hardware Baseline	1	2011	4	2017
--- v4.2.0.8 Fielding	2	2012	2	2012
--- v4.2.0.9 Fielding	3	2012	3	2012
--- v4.2.0.8/9 Fielding	1	2013	1	2013
--- v4.2.1 Fielding	1	2014	1	2014
GCSS-AF Client Baseline	1	2011	4	2017
--- v4.2.1 Fielding (1)	1	2014	1	2014
--- JC2, V1.0 Fielding	3	2016	3	2016
--- JC2, V2.0 Fielding	2	2017	2	2017
Strategic Server Enclave (SSE) Baseline	1	2011	4	2017
--- v4.2 Fielding	3	2011	3	2011
--- v4.2.0.1 Fielding	3	2011	3	2011
--- v4.2.1 (DCAPES, 4.2.2.1) Fielding	1	2014	1	2014
--- v4.2.2 (DCAPES, v5.0.0.1/LOGFAC, v3.0) Fielding	1	2014	1	2014
--- v5.0 (begins DCAPES, Increment 2b) Fielding	1	2015	1	2015
--- v5.1 (DCAPES increment 2b) Fielding	2	2016	2	2016