

UNCLASSIFIED

Exhibit R-2, RDT&E Budget Item Justification: PB 2011 Air Force									DATE: February 2010		
APPROPRIATION/BUDGET ACTIVITY 3600: Research, Development, Test & Evaluation, Air Force BA 7: Operational Systems Development				R-1 ITEM NOMENCLATURE PE 0303141F: Global Combat Support System (GCSS)							
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	8.613	3.319	3.393	0.000	3.393	0.000	0.000	0.000	0.000	Continuing	Continuing
675046: Systems Engineering & Integration	8.613	3.319	3.393	0.000	3.393	0.000	0.000	0.000	0.000	Continuing	Continuing
A. Mission Description and Budget Item Justification Global Combat Support System-Air Force (GCSS-AF) will provide the warfighter and supporting elements with timely, accurate, and trusted Agile Combat Support (ACS) information. This information will have the appropriate level of security needed for the Air Expeditionary Forces (AEF) to execute the Air Force mission throughout the full spectrum of military operations. The GCSS-AF program modernizes, consolidates, develops, and integrates Air Force and Department of Defense combat support information systems. The modernized system is being developed in compliance with and hosted on the Network Centric Enterprise Systems, replacing the Defense Information Infrastructure (DII) Common Operating Environment (COE). The modernized system is implemented and sustained worldwide and supports both wartime and peacetime requirements using hardware, software, and communications capabilities available from standard open systems government contracts and communications infrastructure programs. In this manner, GCSS-AF avoids added costs, removes business processing inefficiencies, reduces deployment footprint, and improves the speed with which information flows. Continued test and evaluation is critical to avoid technical obsolescence of this critical infrastructure and includes studies and analysis to support both current program planning and execution and future program planning. This program is in Budget Activity 7, Operational System Development, because the program modernizes Automated Information Systems (AIS).											

UNCLASSIFIED

R-1 Line Item #177

Page 1 of 10

UNCLASSIFIED

Exhibit R-2, RDT&E Budget Item Justification: PB 2011 Air Force				DATE: February 2010	
APPROPRIATION/BUDGET ACTIVITY 3600: Research, Development, Test & Evaluation, Air Force BA 7: Operational Systems Development		R-1 ITEM NOMENCLATURE PE 0303141F: Global Combat Support System (GCSS)			
B. Program Change Summary (\$ in Millions)					
	FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total
Previous President's Budget	5.744	3.727	0.000	0.000	0.000
Current President's Budget	8.613	3.319	3.393	0.000	3.393
Total Adjustments	2.869	-0.408	3.393	0.000	3.393
• Congressional General Reductions		0.000			
• Congressional Directed Reductions		0.000			
• Congressional Rescissions	0.000	-0.056			
• Congressional Adds		0.000			
• Congressional Directed Transfers		0.000			
• Reprogrammings	0.000	0.000			
• SBIR/STTR Transfer	0.000	0.000			
• Other Adjustments	2.869	-0.352	3.393	0.000	3.393
Congressional Add Details (\$ in Millions, and Includes General Reductions)					
Project: 675046: Systems Engineering & Integration					
Congressional Add: Tech Order Optimization.					
Congressional Add Subtotals for Project: 675046					
Congressional Add Totals for all Projects					
Change Summary Explanation					
As GCSS-AF moves into sustainment, it has reduced needs for RDT&E funding. The ramp down noted from FY09 to FY10 reflects the reduced need. The Air Force added \$3M in FY09 to support the continued engineering and test support necessary to allow for mutually supporting compatibility among emerging applications and infrastructure, explicitly the Initial Infrastructure Build (IIB) and the Singularly Managed Infrastructure with Enterprise Level Security (SMIELS) pilot and further ensure continued warfighter support over the GCSS-AF infrastructure; and for the evaluation of the secure cloud computing requirements for the Air Force.					

UNCLASSIFIED

R-1 Line Item #177

Page 2 of 10

UNCLASSIFIED

Exhibit R-2A, RDT&E Project Justification: PB 2011 Air Force									DATE: February 2010		
APPROPRIATION/BUDGET ACTIVITY 3600: Research, Development, Test & Evaluation, Air Force BA 7: Operational Systems Development				R-1 ITEM NOMENCLATURE PE 0303141F: Global Combat Support System (GCSS)				PROJECT 675046: Systems Engineering & Integration			
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
675046: Systems Engineering & Integration	8.613	3.319	3.393	0.000	3.393	0.000	0.000	0.000	0.000	Continuing	Continuing
Quantity of RDT&E Articles	0	0	0	0	0	0	0	0	0		
A. Mission Description and Budget Item Justification											
Global Combat Support System - Air Force (GCSS-AF) is an umbrella program to develop a modern integrated system that provides for Agile Combat Support (ACS) for the Air Force. This information is necessary to train, equip, deploy, employ, sustain and redeploy Air Expeditionary Forces (AEF) worldwide during peace and war and support the warfighting Combatant Commanders. The GCSS-AF architecture is an integrated set of system products that orchestrate the passing of combat support data between applications and software objects, and provides the warfighter real-time access to accurate, current information and decision support tools. It is based on open standard technologies. Included are efforts such as hardware and software engineering; modeling and simulation; design optimization; hardware and software commercial off the shelf (COTS) analysis; and architecture design. Other standard technologies include architecture and integration framework interface definitions, standards and descriptions; system engineering; software and hardware integration; testing; and other special studies as required. Other efforts included to successfully enable application and cross-application capabilities are requirements analysis, interface analysis, and modeling and simulation. Also included are developing guidelines for application developers, technical support to application developers, technical integration, prototyping, application interface testing, architecture testing of applications and common services, support for business process reengineering, and developing common services for application utilization.											
This program is in Budget Activity 7, Operational System Development, because the program modernizes Automated Information Systems (AIS).											
B. Accomplishments/Planned Program (\$ in Millions)											
							FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total
MAJOR THRUST: Integration Framework (IF) Development, Engineering Support, Test and Evaluation, Program Management, and Operations directly related to Test and Evaluation efforts.							7.210	3.319	3.393	0.000	3.393
FY 2009 Accomplishments: In FY 2009: Continued test and evaluation of COTS (Commecial Off The Shelf) products as vendors change their supported baseline and drive changes to the currently sustained increment of GCSS-AF.											

UNCLASSIFIED

R-1 Line Item #177

Page 3 of 10

UNCLASSIFIED

Exhibit R-2A, RDT&E Project Justification: PB 2011 Air Force				DATE: February 2010		
APPROPRIATION/BUDGET ACTIVITY 3600: <i>Research, Development, Test & Evaluation, Air Force</i> BA 7: <i>Operational Systems Development</i>		R-1 ITEM NOMENCLATURE PE 0303141F: <i>Global Combat Support System (GCSS)</i>		PROJECT 675046: <i>Systems Engineering & Integration</i>		
B. Accomplishments/Planned Program (\$ in Millions)						
		FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total
<p>This includes studies and analysis to support both current and future program planning and execution. Evaluated a Secure Cloud Computing Environment with capabilities suitable for use on classified networks and developed a Return On Investment (ROI) report for the deployment of the secure cloud for the Air Force. The AF also studied an Initial Infrastructure Build (IIB) Pilot to evaluate concepts associated with a Singularly Managed Infrastructure (SMI) with an Enterprise Level Security (ELS).</p> <p><i>FY 2010 Plans:</i> In FY 2010: Continued test and evaluation of COTS (Commercial Off The Shelf) products as vendors change their supported baseline and drive changes to the currently sustained increment of GCSS-AF. Evaluate Cloud Computing and IIB to develop executable and cost effective options to the deployed GCSS-AF baseline.</p> <p><i>FY 2011 Base Plans:</i> In FY 2011: Extend test and evaluation efforts to exploit COOP capability and better balance GCSS-AF loads. Continued test and evaluation of COTS (Commercial Off The Shelf) products as vendors change their supported baseline and drive changes to the currently sustained increment of GCSS-AF.</p> <p><i>FY 2011 OCO Plans:</i> In FY 2011 OCO: N/A</p>						
Accomplishments/Planned Programs Subtotals		7.210	3.319	3.393	0.000	3.393
		FY 2009	FY 2010			
Congressional Add: Tech Order Optimization.		1.403	0.000			

UNCLASSIFIED

R-1 Line Item #177

Page 4 of 10

UNCLASSIFIED

Exhibit R-2A, RDT&E Project Justification: PB 2011 Air Force							DATE: February 2010					
APPROPRIATION/BUDGET ACTIVITY 3600: Research, Development, Test & Evaluation, Air Force BA 7: Operational Systems Development			R-1 ITEM NOMENCLATURE PE 0303141F: Global Combat Support System (GCSS)				PROJECT 675046: Systems Engineering & Integration					
B. Accomplishments/Planned Program (\$ in Millions)												
							FY 2009	FY 2010				
FY 2009 Accomplishments: In FY 2009: Advanced Tech Order Optimization by developing a business case for a modernized TO environment and implemented COTS tools and technologies that leverage lean processing procedures.												
FY 2010 Plans: In FY 2010: N/A												
Congressional Adds Subtotals							1.403	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	
• PE 0303141F: Global Combat Support System, (O&M)	57.080	66.815	100.652	0.000	100.652	61.079	63.341	66.262	68.976	0.000	0.000	
• PE 0303141F (1): Global Combat Support System, (OPAF)	2.643	16.941	17.110	0.000	17.110	0.000	0.000	0.000	0.000	0.000	0.000	
D. Acquisition Strategy												
GCSS-AF is an ACAT III program delegated to the Program Executive Office (PEO) for Command and Control and Combat Support (PEO C2&CS) for acquisition oversight. The preponderance of GCSS-AF development, that is system engineering, design, and installation, was provided for in the Indefinite Delivery/Indefinite Quantity (ID/IQ) contract with Firm-Fixed-Price (FFP), Cost Reimbursable (CR), Cost-Plus-Fixed-Fee (CPFF), Cost-Plus-Award-Fee (CPAF), and Labor-Hour (LH) Contract Line Item Numbers (CLINs), awarded after full and open competition in 1996. While the Air Force competes a new contract to support the fielded capability and continue required test and evaluation efforts for GCSS-AF capabilities, the program uses a bridge vehicle, that is an ID/IQ contract with FFP, CPFF, and CR CLINs, issued December 09, 2009, with Lockheed Martin Corporation of Endicott, NY.												
E. Performance Metrics												
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.												

UNCLASSIFIED

R-1 Line Item #177

Page 5 of 10

UNCLASSIFIED

Exhibit R-3, RDT&E Project Cost Analysis: PB 2011 Air Force											DATE: February 2010																																																																																																											
APPROPRIATION/BUDGET ACTIVITY 3600: <i>Research, Development, Test & Evaluation, Air Force</i> BA 7: <i>Operational Systems Development</i>				R-1 ITEM NOMENCLATURE PE 0303141F: <i>Global Combat Support System (GCSS)</i>				PROJECT 675046: <i>Systems Engineering & Integration</i>																																																																																																														
Product Development (\$ in Millions) <table border="1" style="width:100%; border-collapse: collapse; margin-top: 10px;"> <thead> <tr> <th rowspan="2">Cost Category Item</th> <th rowspan="2">Contract Method & Type</th> <th rowspan="2">Performing Activity & Location</th> <th rowspan="2">Total Prior Years Cost</th> <th colspan="2">FY 2010</th> <th colspan="2">FY 2011 Base</th> <th colspan="2">FY 2011 OCO</th> <th>FY 2011 Total</th> <th rowspan="2">Cost To Complete</th> <th rowspan="2">Total Cost</th> <th rowspan="2">Target Value of Contract</th> </tr> <tr> <th>Cost</th> <th>Award Date</th> <th>Cost</th> <th>Award Date</th> <th>Cost</th> <th>Award Date</th> <th>Cost</th> </tr> </thead> <tbody> <tr> <td>Integrated Framework Development (Prime Contractor)</td> <td>C/Various</td> <td>Lockheed Martin IT Endicott, NY</td> <td align="right">58.219</td> <td align="right">2.200</td> <td align="center">Oct 2009</td> <td align="right">2.307</td> <td align="center">Oct 2010</td> <td align="right">0.000</td> <td></td> <td align="right">2.307</td> <td align="center">Continuing</td> <td align="center">Continuing</td> <td align="center">Continuing</td> </tr> <tr> <td>Engineering Support</td> <td>FFRDC</td> <td>Mitre Corporation Boston, MA</td> <td align="right">4.938</td> <td align="right">0.700</td> <td align="center">Oct 2009</td> <td align="right">0.723</td> <td align="center">Oct 2010</td> <td align="right">0.000</td> <td></td> <td align="right">0.723</td> <td align="center">Continuing</td> <td align="center">Continuing</td> <td align="center">Continuing</td> </tr> <tr> <td>Secure Cloud Computing</td> <td>SS/FFP</td> <td>INTERNATIONAL BUSINESS MACHINES CORPORATION IBM 12902 FEDERAL SYSTEMS PAR Fairfax, VA</td> <td align="right">1.300</td> <td align="right">0.000</td> <td></td> <td align="right">0.000</td> <td></td> <td align="right">0.000</td> <td></td> <td align="right">0.000</td> <td align="center">Continuing</td> <td align="center">Continuing</td> <td align="right">1.300</td> </tr> <tr> <td>IIB</td> <td>C/Various</td> <td>VARIOUS VARIOUS</td> <td align="right">2.050</td> <td align="right">0.000</td> <td></td> <td align="right">0.000</td> <td></td> <td align="right">0.000</td> <td></td> <td align="right">0.000</td> <td align="center">Continuing</td> <td align="center">Continuing</td> <td align="right">3.000</td> </tr> <tr> <td>Tech Order Optimization</td> <td>C/Various</td> <td>Lockheed Martin IT Owego, NY</td> <td align="right">2.565</td> <td align="right">0.000</td> <td></td> <td align="right">0.000</td> <td></td> <td align="right">0.000</td> <td></td> <td align="right">0.000</td> <td align="right">0.000</td> <td align="right">2.565</td> <td align="right">2.565</td> </tr> <tr> <td align="right" colspan="3">Subtotal</td><td align="right">69.072</td><td align="right">2.900</td><td></td><td align="right">3.030</td><td></td><td align="right">0.000</td><td></td><td align="right">3.030</td><td></td><td></td><td></td> </tr> </tbody> </table>														Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	FY 2010		FY 2011 Base		FY 2011 OCO		FY 2011 Total	Cost To Complete	Total Cost	Target Value of Contract	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Integrated Framework Development (Prime Contractor)	C/Various	Lockheed Martin IT Endicott, NY	58.219	2.200	Oct 2009	2.307	Oct 2010	0.000		2.307	Continuing	Continuing	Continuing	Engineering Support	FFRDC	Mitre Corporation Boston, MA	4.938	0.700	Oct 2009	0.723	Oct 2010	0.000		0.723	Continuing	Continuing	Continuing	Secure Cloud Computing	SS/FFP	INTERNATIONAL BUSINESS MACHINES CORPORATION IBM 12902 FEDERAL SYSTEMS PAR Fairfax, VA	1.300	0.000		0.000		0.000		0.000	Continuing	Continuing	1.300	IIB	C/Various	VARIOUS VARIOUS	2.050	0.000		0.000		0.000		0.000	Continuing	Continuing	3.000	Tech Order Optimization	C/Various	Lockheed Martin IT Owego, NY	2.565	0.000		0.000		0.000		0.000	0.000	2.565	2.565	Subtotal			69.072	2.900		3.030		0.000		3.030			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	FY 2010		FY 2011 Base		FY 2011 OCO		FY 2011 Total	Cost To Complete	Total Cost	Target Value of Contract																																																																																																									
				Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost																																																																																																												
Integrated Framework Development (Prime Contractor)	C/Various	Lockheed Martin IT Endicott, NY	58.219	2.200	Oct 2009	2.307	Oct 2010	0.000		2.307	Continuing	Continuing	Continuing																																																																																																									
Engineering Support	FFRDC	Mitre Corporation Boston, MA	4.938	0.700	Oct 2009	0.723	Oct 2010	0.000		0.723	Continuing	Continuing	Continuing																																																																																																									
Secure Cloud Computing	SS/FFP	INTERNATIONAL BUSINESS MACHINES CORPORATION IBM 12902 FEDERAL SYSTEMS PAR Fairfax, VA	1.300	0.000		0.000		0.000		0.000	Continuing	Continuing	1.300																																																																																																									
IIB	C/Various	VARIOUS VARIOUS	2.050	0.000		0.000		0.000		0.000	Continuing	Continuing	3.000																																																																																																									
Tech Order Optimization	C/Various	Lockheed Martin IT Owego, NY	2.565	0.000		0.000		0.000		0.000	0.000	2.565	2.565																																																																																																									
Subtotal			69.072	2.900		3.030		0.000		3.030																																																																																																												
Remarks																																																																																																																						

UNCLASSIFIED

R-1 Line Item #177

Page 6 of 10

UNCLASSIFIED

Exhibit R-3, RDT&E Project Cost Analysis: PB 2011 Air Force											DATE: February 2010			
APPROPRIATION/BUDGET ACTIVITY 3600: <i>Research, Development, Test & Evaluation, Air Force</i> BA 7: <i>Operational Systems Development</i>				R-1 ITEM NOMENCLATURE PE 0303141F: <i>Global Combat Support System (GCSS)</i>				PROJECT 675046: <i>Systems Engineering & Integration</i>						
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	VARIOUS VARIOUS	5.197	0.000		0.190	Oct 2010	0.000		0.190	Continuing	Continuing	Continuing	
Subtotal			5.197	0.000		0.190		0.000		0.190				
Remarks														
Management Services (\$ 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	
Program Management and Operations	Various/ Various	VARIOUS VARIOUS	5.027	0.419	Oct 2009	0.173	Oct 2010	0.000		0.173	Continuing	Continuing	Continuing	
Subtotal			5.027	0.419		0.173		0.000		0.173				
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			79.296	3.319		3.393		0.000		3.393				
Remarks														
Total Prior Years Cost may include only FY 2009 data.														

UNCLASSIFIED

R-1 Line Item #177

Page 7 of 10

UNCLASSIFIED

Exhibit R-4, RDT&E Schedule Profile: PB 2011 Air Force

DATE: February 2010

APPROPRIATION/BUDGET ACTIVITY

3600: Research, Development, Test & Evaluation, Air Force
BA 7: Operational Systems Development

R-1 ITEM NOMENCLATURE

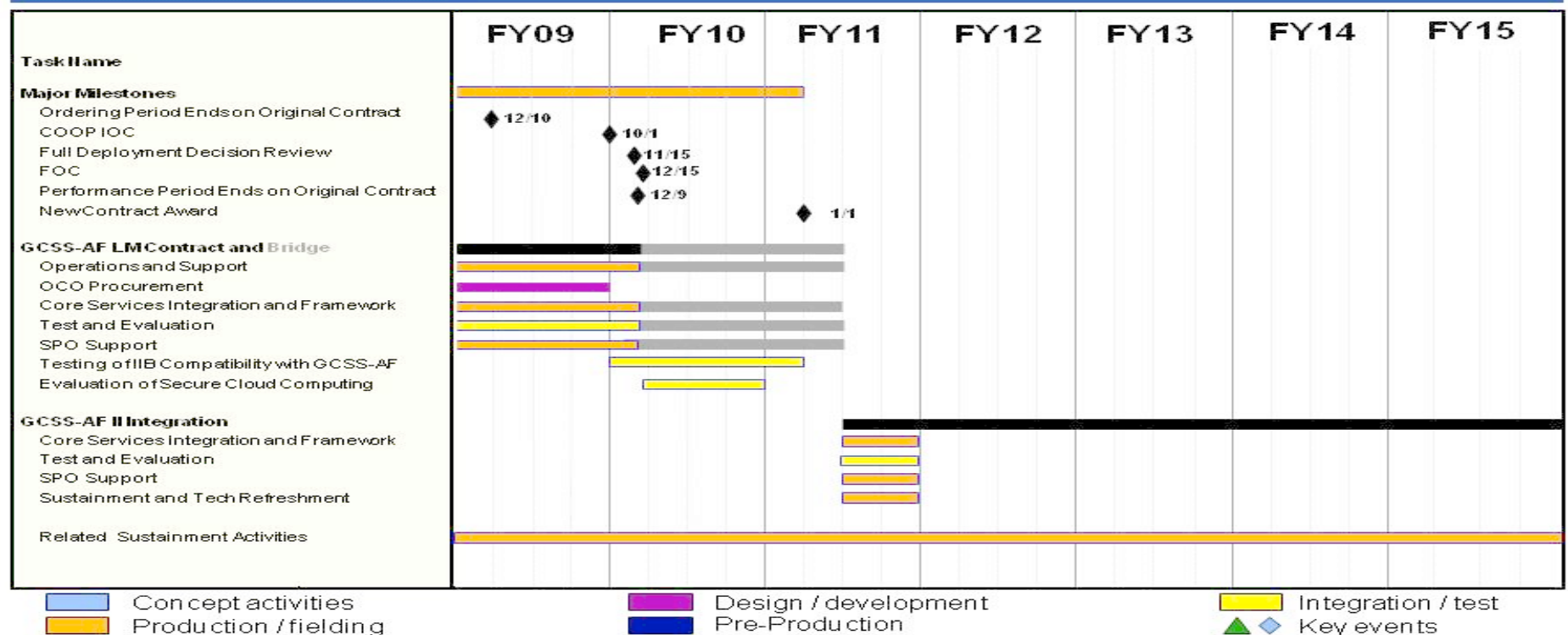
PE 0303141F: Global Combat Support System (GCSS)

PROJECT

675046: Systems Engineering & Integration



Global Combat Support System – Air Force



PB11 R-DOCS

Depicted by installation/production flow

1

UNCLASSIFIED

R-1 Line Item #177

Page 8 of 10

UNCLASSIFIED

Exhibit R-4A, RDT&E Schedule Details: PB 2011 Air Force			DATE: February 2010
APPROPRIATION/BUDGET ACTIVITY 3600: <i>Research, Development, Test & Evaluation, Air Force</i> BA 7: <i>Operational Systems Development</i>	R-1 ITEM NOMENCLATURE PE 0303141F: <i>Global Combat Support System</i> (GCSS)	PROJECT 675046: <i>Systems Engineering & Integration</i>	

Schedule Details

Event	Start		End	
	Quarter	Year	Quarter	Year
Major Milestones	1	2009	2	2011
Ordering Period Ends on Original Contract	1	2009	1	2009
COOP IOC	1	2010	1	2010
Full Deployment Decision Review (FDDR)	1	2010	1	2010
Full Operational Capability (FOC)	1	2010	1	2010
Performance Period Ends on Original Contract	1	2010	1	2010
New Contract Award	2	2011	2	2011
Original GCSS-AF/Lockheed Martin Contract and Bridge	1	2009	2	2011
Operations and Support	1	2009	2	2011
OCO Procurement	1	2009	4	2009
Core Services Integration and Framework	1	2009	2	2011
Test and Evaluation	1	2009	2	2011
SPO Support	1	2009	2	2011
Testing of IIB Compatibility with GCSS-AF	1	2010	1	2011
Evaluation of Secure Cloud Computing	1	2010	4	2010
GCSS-AF II Integration	2	2011	4	2011
Core Services Integration and Framework (1)	2	2011	4	2011
Test and Evaluation (2)	2	2011	4	2011

UNCLASSIFIED

R-1 Line Item #177

Page 9 of 10

UNCLASSIFIED

Exhibit R-4A, RDT&E Schedule Details: PB 2011 Air Force			DATE: February 2010	
APPROPRIATION/BUDGET ACTIVITY 3600: <i>Research, Development, Test & Evaluation, Air Force</i> BA 7: <i>Operational Systems Development</i>		R-1 ITEM NOMENCLATURE PE 0303141F: <i>Global Combat Support System (GCSS)</i>		PROJECT 675046: <i>Systems Engineering & Integration</i>

Event	Start		End	
	Quarter	Year	Quarter	Year
SPO Support (3)	2	2011	4	2011
Sustainment and Tech Refreshment	2	2011	4	2011
Related Sustainment Activities	1	2009	4	2011

UNCLASSIFIED

R-1 Line Item #177

Page 10 of 10