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Exhibit R-2, RDT&E Budget Item Justification: PB 2012 Air Force	DATE: February 2011
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APPROPRIATION/BUDGET ACTIVITY				R-1 ITEM NOMENCLATURE							
3600: <i>Research, Development, Test & Evaluation, Air Force</i> BA 7: <i>Operational Systems Development</i>				PE 0102326F: <i>REGION/ SECTOR OPERATIONS CONTROL CENTER</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	25.482	23.732	12.672	-	12.672	0.398	-	-	-	Continuing	Continuing
674592: <i>Region/Sector Operations Modernization Center (R/SAOC)</i>	25.482	23.732	12.672	-	12.672	0.398	-	-	-	Continuing	Continuing

A. Mission Description and Budget Item Justification

Battle Control System-Fixed (BCS-F) is the replacement for the fixed sites for the Region/Sector Air Operations Center (R/SAOC), also known as Region Air Operations Center-Air Defense Sector (RAOC-ADS). The BCS-F program, which supports Operation NOBLE EAGLE, is a next-generation battle management command and control system with enhanced capability to integrate data from existing and future civil and military defense surveillance systems into a comprehensive recognized air picture and National Capital Region/Integrated Air Defense System (NCR/IADS). This multi-input single integrated air control picture enhances the North American Aerospace Defense/Combatant Commander's (NORAD/CC's) capability to conduct peacetime air sovereignty, transition, and conventional warfare in the event of aggression toward the North American continent (including Hawaii). The BCS-F system serves as the Air Force's Homeland Defense battle management, command, and control hub and integrates data from radar sensors, data links, and the supporting communications architecture. It provides the tactical communications and data link capabilities that enable planning, directing, coordinating, and controlling forces for air surveillance, air defense, and control of sovereign US air space (including the National Capital Region). BCS-F is a bi-national cooperative program with Canada, ensuring air defense and surveillance capability for the entire North American continent (including Hawaii). BCS-F achieved Initial Operational Capability in October 2006. The current effort focuses on the modernization and improvement of the hardware and software suite to address operational gaps as well as preventing and overcoming diminishing manufacturing sources and obsolescence issues. NCR-IADS is the post-September 11 2001, quickly established, ground based air defense system using sensors to enhance the air surveillance picture that is incorporated in BCS-F.

This program is in Budget Activity 7, Operational System Development because this budget activity includes development efforts to upgrade systems that have been fielded or have received approval for full rate production and anticipate production funding in the current or subsequent fiscal year.

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APPROPRIATION/BUDGET ACTIVITY 3600: <i>Research, Development, Test & Evaluation, Air Force</i> BA 7: <i>Operational Systems Development</i>	R-1 ITEM NOMENCLATURE PE 0102326F: <i>REGION/ SECTOR OPERATIONS CONTROL CENTER</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	25.589	23.732	24.701	-	24.701
Current President's Budget	25.482	23.732	12.672	-	12.672
Total Adjustments	-0.107	-	-12.029	-	-12.029
• Congressional General Reductions		-			
• Congressional Directed Reductions		-			
• Congressional Rescissions	-	-			
• Congressional Adds		-			
• Congressional Directed Transfers		-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-	-			
• Other Adjustments	-0.107	-	-12.029	-	-12.029

Change Summary Explanation

Congressional General Reduction in FY10.
Increment 4 funding removed FY12-16 due to higher Air Force priorities.

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Exhibit R-2A, RDT&E Project Justification: PB 2012 Air Force									DATE: February 2011		
APPROPRIATION/BUDGET ACTIVITY 3600: Research, Development, Test & Evaluation, Air Force BA 7: Operational Systems Development				R-1 ITEM NOMENCLATURE PE 0102326F: REGION/ SECTOR OPERATIONS CONTROL CENTER				PROJECT 674592: Region/Sector Operations Modernization Center (R/SAOC)			
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
674592: Region/Sector Operations Modernization Center (R/SAOC)	25.482	23.732	12.672	-	12.672	0.398	-	-	-	Continuing	Continuing
Quantity of RDT&E Articles	0	0	0	0	0	0	0	0	0		

A. Mission Description and Budget Item Justification

Battle Control System-Fixed (BCS-F) is the replacement for the fixed sites for the Region/Sector Air Operations Center (R/SAOC), also known as Region Air Operations Center-Air Defense Sector (RAOC-ADS). The BCS-F program, which supports Operation NOBLE EAGLE, is a next-generation battle management command and control system with enhanced capability to integrate data from existing and future civil and military defense surveillance systems into a comprehensive recognized air picture and National Capital Region/Integrated Air Defense System (NCR/IADS). This multi-input single integrated air control picture enhances the North American Aerospace Defense/Combatant Commander's (NORAD/CC's) capability to conduct peacetime air sovereignty, transition, and conventional warfare in the event of aggression toward the North American continent (including Hawaii). The BCS-F system serves as the Air Force's Homeland Defense battle management, command, and control hub and integrates data from radar sensors, data links, and the supporting communications architecture. It provides the tactical communications and data link capabilities that enable planning, directing, coordinating, and controlling forces for air surveillance, air defense, and control of sovereign US air space (including the National Capital Region). BCS-F is a bi-national cooperative program with Canada, ensuring air defense and surveillance capability for the entire North American continent (including Hawaii). BCS-F achieved Initial Operational Capability in October 2006. The current effort focuses on the modernization and improvement of the hardware and software suite to address operational gaps as well as preventing and overcoming diminishing manufacturing sources and obsolescence issues. NCR-IADS is the post-September 11 2001, quickly established, ground based air defense system using sensors to enhance the air surveillance picture that is incorporated in BCS-F.

This program is in Budget Activity 7, Operational System Development because this budget activity includes development efforts to upgrade systems that have been fielded or have received approval for full rate production and anticipate production funding in the current or subsequent fiscal year.

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

	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total
Title: Product Development	19.099	16.067	7.571	-	7.571
Description: System Development of BCS-F.					
FY 2010 Accomplishments: Fielded operational Increment 3.1 systems in preparation for Initial Operational Capability (IOC) determination for Increment 3.1. Performed development work for Increment 3.2 and prepared system for testing in FY 11/ FY12.					
FY 2011 Plans:					

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Exhibit R-2A, RDT&E Project Justification: PB 2012 Air Force				DATE: February 2011			
APPROPRIATION/BUDGET ACTIVITY 3600: Research, Development, Test & Evaluation, Air Force BA 7: Operational Systems Development		R-1 ITEM NOMENCLATURE PE 0102326F: REGION/ SECTOR OPERATIONS CONTROL CENTER		PROJECT 674592: Region/Sector Operations Modernization Center (R/SAOC)			
B. Accomplishments/Planned Programs (\$ in Millions)			FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total
Performing development work for increment 3.2 and performing analysis and resolution of technical reports stemming from Increment 3.2 testing. FY 2012 Base Plans: Will complete 3.2 development and analysis and resolution of technical reports stemming from Increment 3.2 testing. FY 2012 OCO Plans:							
Title: Systems Engineering Description: Program Management/Systems Engineering. FY 2010 Accomplishments: Performed systems engineering in support of fielding of Increment 3.1. Continued efforts in support of Increment 3.2 development and pre-test efforts. FY 2011 Plans: Performing systems engineering in support of Increment 3.2 development and testing. FY 2012 Base Plans: Will perform systems engineering in support of Increment 3.2 development and testing. FY 2012 OCO Plans:			3.505	3.352	3.547	-	3.547
Title: Test & Evaluation Description: Test and Evaluation. FY 2010 Accomplishments: Performed follow-on testing and certification of Increment 3.1 as the system fields. FY 2011 Plans: Performing DT/OT of Increment 3.2. Performing NCR-IADS integration testing. FY 2012 Base Plans:			2.878	4.313	1.554	-	1.554

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Exhibit R-2A, RDT&E Project Justification: PB 2012 Air Force							DATE: February 2011				
APPROPRIATION/BUDGET ACTIVITY 3600: <i>Research, Development, Test & Evaluation, Air Force</i> BA 7: <i>Operational Systems Development</i>			R-1 ITEM NOMENCLATURE PE 0102326F: <i>REGION/ SECTOR</i> <i>OPERATIONS CONTROL CENTER</i>			PROJECT 674592: <i>Region/Sector Operations</i> <i>Modernization Center (R/SAOC)</i>					
B. Accomplishments/Planned Programs (\$ in Millions)							FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total
Will perform follow-on testing and certification of Increment 3.2 as the system fields. Will perform NCR-IADS integration testing.											
FY 2012 OCO Plans:											
Accomplishments/Planned Programs Subtotals							25.482	23.732	12.672	-	12.672
C. Other Program Funding Summary (\$ in Millions)											
Line Item	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
• OPAF: <i>PE#010236F , Region/ Sector Air Operations Center</i>	11.132	13.989	34.431	0.000	34.431	11.177	11.587	3.835	3.921	Continuing	Continuing
• O&M: <i>PE#010236F , Region/ Sector Air Operations Center</i>	0.000	0.000	0.000	0.000	0.000	2.500	11.000	11.500	11.500	Continuing	Continuing
D. Acquisition Strategy											
The BCS-Fixed program is utilizing a sole source contract to execute an incremental development acquisition strategy to further advance tactical Battle Management C2 capabilities.											
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.											

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2012 Air Force											DATE: February 2011		
APPROPRIATION/BUDGET ACTIVITY 3600: Research, Development, Test & Evaluation, Air Force BA 7: Operational Systems Development				R-1 ITEM NOMENCLATURE PE 0102326F: REGION/ SECTOR OPERATIONS CONTROL CENTER				PROJECT 674592: Region/Sector Operations Modernization Center (R/SAOC)					
Product Development (\$ 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
Continue acquisition activities associated with System Development	SS/CPIF	Thales Raytheon Systems:Fullerton, CA	19.099	16.067	Mar 2011	7.571	Dec 2011	-		7.571	0.000	42.737	TBD
Subtotal			19.099	16.067		7.571		-		7.571	0.000	42.737	
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
Program Management Tech Spt	C/FFP	Various:Various,	2.098	1.773	Dec 2010	1.968	Dec 2011	-		1.968	0.000	5.839	TBD
System Engineering	SS/FFP	MITRE:Bedford, MA	1.407	1.579	Oct 2010	1.579	Oct 2011	-		1.579	0.000	4.565	TBD
Subtotal			3.505	3.352		3.547		-		3.547	0.000	10.404	
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
46th Test Wing/Other Test Act	Various	Various:Various,	2.878	3.913	Dec 2010	1.155	Oct 2011	-		1.155	0.000	7.946	TBD
NCR-IADS Integration Testing	Various	Various:Various,	-	0.400	Dec 2010	0.399	Dec 2011	-		0.399	Continuing	Continuing	TBD
Subtotal			2.878	4.313		1.554		-		1.554			
Management Services (\$ 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
Subtotal			-	-		-		-		-	0.000	0.000	0.000

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APPROPRIATION/BUDGET ACTIVITY 3600: <i>Research, Development, Test & Evaluation, Air Force</i> BA 7: <i>Operational Systems Development</i>			R-1 ITEM NOMENCLATURE PE 0102326F: <i>REGION/ SECTOR</i> <i>OPERATIONS CONTROL CENTER</i>			PROJECT 674592: <i>Region/Sector Operations</i> <i>Modernization Center (R/SAOC)</i>					
	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	25.482	23.732		12.672		-		12.672			
Remarks											

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Exhibit R-4, RDT&E Schedule Profile: PB 2012 Air Force		DATE: February 2011
APPROPRIATION/BUDGET ACTIVITY 3600: <i>Research, Development, Test & Evaluation, Air Force</i> BA 7: <i>Operational Systems Development</i>	R-1 ITEM NOMENCLATURE PE 0102326F: <i>REGION/ SECTOR</i> <i>OPERATIONS CONTROL CENTER</i>	PROJECT 674592: <i>Region/Sector Operations</i> <i>Modernization Center (R/SAOC)</i>

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Exhibit R-4A, RDT&E Schedule Details: PB 2012 Air Force			DATE: February 2011
APPROPRIATION/BUDGET ACTIVITY 3600: <i>Research, Development, Test & Evaluation, Air Force</i> BA 7: <i>Operational Systems Development</i>	R-1 ITEM NOMENCLATURE PE 0102326F: <i>REGION/ SECTOR</i> <i>OPERATIONS CONTROL CENTER</i>	PROJECT 674592: <i>Region/Sector Operations</i> <i>Modernization Center (R/SAOC)</i>	

Schedule Details

Events	Start		End	
	Quarter	Year	Quarter	Year
Continuation of BCS-F Increment 3 Software Development	1	2010	2	2012
BCS-F Increment 3 Release 3.1 DT/OT	1	2010	4	2010
BCS-F Increment 3 Release 3.1 Fielding Decision	2	2010	2	2010
BCS-F Increment 3 Release 3.1 IOC	2	2010	2	2010
BCS-F Increment 3 Release 3.2 DT/IOT&E	1	2011	3	2012
BCS-F Increment 3 Release 3.2 Fielding Decision	4	2012	4	2012
BCS-F Increment 3 Release 3.2 FOC	1	2013	1	2013

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