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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 0102326F: REGION/ SECTOR OPERATIONS CONTROL CENTER							
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	23.151	25.589	23.732	0.000	23.732	24.701	22.588	22.262	22.443	Continuing	Continuing
674592: Region/Sector Operations Modernization Center (R/SAOC)	23.151	25.589	23.732	0.000	23.732	24.701	22.588	22.262	22.443	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), for the Atmospheric Early Warning System (AEWS). The BCS-F program, which supports 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.

This program is in Budget Activity 7, Operational System Development, because it provides funding for the replacement of a currently existing and operating system.

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APPROPRIATION/BUDGET ACTIVITY		R-1 ITEM NOMENCLATURE			
3600: Research, Development, Test & Evaluation, Air Force		PE 0102326F: REGION/ SECTOR OPERATIONS CONTROL CENTER			
BA 7: Operational Systems Development					
B. Program Change Summary (\$ in Millions)					
	FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total
Previous President's Budget	23.151	25.734	0.000	0.000	0.000
Current President's Budget	23.151	25.589	23.732	0.000	23.732
Total Adjustments	0.000	-0.145	23.732	0.000	23.732
• Congressional General Reductions		-0.145			
• Congressional Directed Reductions		0.000			
• Congressional Rescissions	0.000	0.000			
• Congressional Adds		0.000			
• Congressional Directed Transfers		0.000			
• Reprogrammings	0.000	0.000			
• SBIR/STTR Transfer	0.000	0.000			
• Other Adjustments	0.000	0.000	23.732	0.000	23.732

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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 0102326F: <i>REGION/ SECTOR</i> <i>OPERATIONS CONTROL CENTER</i>				PROJECT 674592: <i>Region/Sector Operations</i> <i>Modernization Center (R/SAOC)</i>			
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
674592: <i>Region/Sector Operations</i> <i>Modernization Center (R/SAOC)</i>	23.151	25.589	23.732	0.000	23.732	24.701	22.588	22.262	22.443	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), for the Atmospheric Early Warning System (AEWS). The BCS-F program, which supports 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.

This program is in Budget Activity 7, Operational System Development, because it provides funding for the replacement of a currently existing and operating system.

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

	FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total
MAJOR THRUST: System Development of BCS-F.	15.221	17.715	15.023	0.000	15.023

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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 Program (\$ in Millions)						
		FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total
FY 2009 Accomplishments: In FY 2009: Performed analysis and resolution of technical reports stemming from Increment 3.1 testing. Developed Increment 3.2 of BCS-F to include design of graphical user interfaces and ingest of standard air operations planning documents.						
FY 2010 Plans: In FY 2010: Field operational Increment 3.1 systems in preparation for Initial Operational Capability (IOC) determination for Increment 3.1. Perform the majority of development work for Increment 3.2 and prepare system for testing in FY 2011.						
FY 2011 Base Plans: In FY 2011: Perform analysis and resolution of technical reports stemming from Increment 3.2 testing.						
FY 2011 OCO Plans: In FY 2011 OCO: N/A						
MAJOR THRUST: Program Management/Systems Engineering.		3.345	3.687	3.564	0.000	3.564
FY 2009 Accomplishments: In FY 2009: Continued program management and systems engineering in support of Increment 3.1 Developmental Test (DT) and Operational Test (OT). Continued efforts in support of Increment 3.2 design and concept refinement.						
FY 2010 Plans: In FY 2010: Perform program management and systems engineering in support of fielding of Increment 3.1. Continue efforts in support of Increment 3.2 development and pre-test efforts.						

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B. Accomplishments/Planned Program (\$ in Millions)						
		FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total
FY 2011 Base Plans: In FY 2011: Perform program management and systems engineering in support of Increment 3.2 DT and OT. Perform program management and systems engineering in support of Increment 4.0 design and concept development efforts.						
FY 2011 OCO Plans: In FY 2011 OCO:N/A						
MAJOR THRUST: Continue Program Support (i.e. travel, supplies, equipment, misc).		1.482	1.018	1.513	0.000	1.513
FY 2009 Accomplishments: In FY 2009: Supported Increment 3.1 test and development efforts. Supported Increment 3.2 design and development efforts.						
FY 2010 Plans: In FY 2010: Support Increment 3.1 fielding efforts. Support Increment 3.2 development and pre-test efforts.						
FY 2011 Base Plans: In FY 2011: Support Increment 3.2 test and development efforts. Support initial Increment 4.0 development efforts.						
FY 2011 OCO Plans: In FY 2011 OCO: N/A						
MAJOR THRUST: Test and Evaluation.		3.103	3.169	3.632	0.000	3.632
FY 2009 Accomplishments: In FY 2009: Performed DT/OT of Increment 3.1.						

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B. Accomplishments/Planned Program (\$ in Millions)											
						FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total	
<p><i>FY 2010 Plans:</i> In FY 2010: Perform follow-on testing and certification of Increment 3.1 as the system fields.</p> <p><i>FY 2011 Base Plans:</i> In FY 2011: Perform DT/OT of Increment 3.2.</p> <p><i>FY 2011 OCO Plans:</i> In FY 2011 OCO: N/A</p>											
Accomplishments/Planned Programs Subtotals						23.151	25.589	23.732	0.000	23.732	
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 0102362F: <i>Region/ Sector</i> <i>Operations Control Center (BCS-F)</i> <i>(OPAF)</i>	14.266	11.132	13.989	0.000	13.989	12.546	11.622	12.014	12.338	0.000	0.000
D. Acquisition Strategy											
The BCS-Fixed program is utilizing 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 2011 Air Force											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
Continue acquisition activities associated with System Development	SS/CPAF	Thales Raytheon Systems Fullerton, CA	15.221	17.715	Dec 2009	15.023	Nov 2010	0.000		15.023	Continuing	Continuing	Continuing
Subtotal			15.221	17.715		15.023		0.000		15.023			
Remarks													
Support (\$ 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 Tech Spt	TM	Various Various	1.569	1.754	Dec 2009	1.553	Dec 2010	0.000		1.553	Continuing	Continuing	Continuing
System Engineering	FFRDC	Mitre Bedford, MA	1.776	1.933	Oct 2009	2.011	Oct 2010	0.000		2.011	Continuing	Continuing	Continuing
Program Office Support	Various/ Various	Various Various	1.482	1.018	Oct 2009	1.513	Oct 2010	0.000		1.513	Continuing	Continuing	Continuing
Subtotal			4.827	4.705		5.077		0.000		5.077			
Remarks													

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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
46th Test Wing/Other Test Act	Various/ Various	Various Various	3.103	3.169	Nov 2009	3.232	Nov 2010	0.000		3.232	Continuing	Continuing	Continuing
NCR-IADS Integration Testing	Various/ Various	Various Various	0.000	0.000		0.400	Dec 2010	0.000		0.400	Continuing	Continuing	Continuing
Subtotal			3.103	3.169		3.632		0.000		3.632			
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			23.151	25.589		23.732		0.000		23.732			
Remarks Total Prior Years Cost may include only FY 2009 data.													

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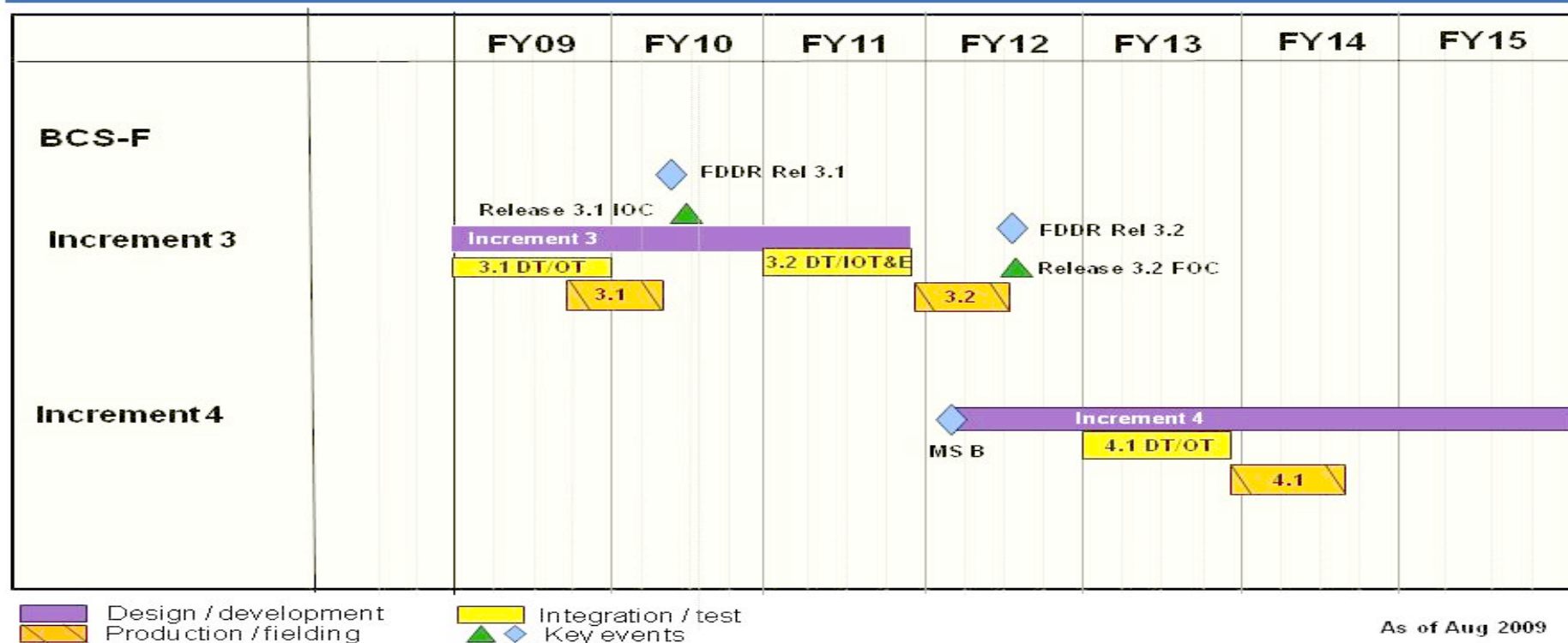
R-1 ITEM NOMENCLATURE

PE 0102326F: REGION/ SECTOR
OPERATIONS CONTROL CENTER

674592: *Region/Sector Operations
Modernization Center (R/SAOC)*



BCS - F Schedule



PB11 R-Docs

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Exhibit R-4A, RDT&E Schedule Details: 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 0102326F: REGION/ SECTOR OPERATIONS CONTROL CENTER		PROJECT 674592: Region/Sector Operations Modernization Center (R/SAOC)	
Schedule Details				
Event	Start		End	
	Quarter	Year	Quarter	Year
Continuation of BCS-F Increment 3 Software Development	1	2009	4	2011
BCS-F Increment 3 Release 3.1 DT/OT	1	2009	4	2009
BCS-F Increment 3 Release 3.1 Fielding Decisions	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	4	2011

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