

**UNCLASSIFIED**

PE NUMBER: 0102326F

PE TITLE: REGION/ SECTOR OPERATIONS CONTROL CENTER

<b>Exhibit R-2, RDT&amp;E Budget Item Justification</b>	DATE <b>February 2004</b>
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<b>BUDGET ACTIVITY</b> <b>07 Operational System Development</b>	<b>PE NUMBER AND TITLE</b> <b>0102326F REGION/ SECTOR OPERATIONS CONTROL CENTER</b>
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Cost (\$ in Millions)	FY 2003 Actual	FY 2004 Estimate	FY 2005 Estimate	FY 2006 Estimate	FY 2007 Estimate	FY 2008 Estimate	FY 2009 Estimate	Cost to Complete	Total
Total Program Element (PE) Cost	26.286	32.185	19.047	24.328	19.442	19.420	19.287	Continuing	TBD
4592 Region/Sector Operations Modernization Center (R/SAOC)	26.286	32.185	19.047	24.328	19.442	19.420	19.287	Continuing	TBD

**(U) A. Mission Description and Budget Item Justification**

Battle Control System (BCS) Family of Systems (FOS) is comprised of fixed sites for Homeland Defense (HLD) [Region/Sector Operation Control Center, PE 0102326F (referred to herein as Battle Control System-Fixed {BCS-F})] and mobile Theater Battle Management (TBM) Command and Control (C2) nodes [Modular Control System, PE 0207412F (referred to herein as Battle Control System-Mobile {BCS-M})]. Battle Control System-Fixed (BCS-F) is the upgrade 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 will provide a next-generation Command and Control, Communications, Computer and Intelligence (C4I) system with enhanced capability to integrate data from existing and future civil and military defense surveillance systems into a comprehensive recognized air picture to enhance 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. The legacy system (R/SAOC) has reached saturation in its capability to receive, process, display, exchange, and employ air surveillance data from current sensor and communication systems, thus contributing to delays in the kill chain. The outdated technology has become increasingly difficult and costly to sustain and provides no opportunity for application enhancement.

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

**(U) B. Program Change Summary (\$ in Millions)**

	<u>FY 2003</u>	<u>FY 2004</u>	<u>FY 2005</u>
(U) Previous President's Budget	35.000	22.573	19.697
(U) Current PBR/President's Budget	26.286	32.185	19.047
(U) Total Adjustments	-8.714	9.612	
(U) Congressional Program Reductions	-0.209	-0.388	
Congressional Rescissions	-0.370		
Congressional Increases		10.000	
Reprogrammings	-7.087		
SBIR/STTR Transfer	-1.048		

**(U) Significant Program Changes:**

HAC approved a \$10M plus up in FY04 for Northcom-FAA National Capital Region Airspace Integration which was originally placed in PE 0305906F, NCMC - TW/AA System (R-197 in FY 04), and then transferred to this PE.

## Exhibit R-2a, RDT&amp;E Project Justification

DATE

February 2004

BUDGET ACTIVITY				PE NUMBER AND TITLE			PROJECT NUMBER AND TITLE		
<b>07 Operational System Development</b>				<b>0102326F REGION/ SECTOR OPERATIONS CONTROL CENTER</b>			<b>4592 Region/Sector Operations Modernization Center (R/SAOC)</b>		
Cost (\$ in Millions)	FY 2003 Actual	FY 2004 Estimate	FY 2005 Estimate	FY 2006 Estimate	FY 2007 Estimate	FY 2008 Estimate	FY 2009 Estimate	Cost to Complete	Total
4592 Region/Sector Operations Modernization Center (R/SAOC)	26.286	32.185	19.047	24.328	19.442	19.420	19.287	Continuing	TBD
Quantity of RDT&E Articles	0	0	0	0	0	0	0		

**(U) A. Mission Description and Budget Item Justification**

Battle Control System (BCS) Family of Systems (FOS) is comprised of fixed sites for Homeland Defense (HLD) [Region/Sector Operation Control Center, PE 0102326F (referred to herein as Battle Control System-Fixed {BCS-F})] and mobile Theater Battle Management (TBM) Command and Control (C2) nodes [Modular Control System, PE 0207412F (referred to herein as Battle Control System-Mobile {BCS-M})]. Battle Control System-Fixed (BCS-F) is the upgrade 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 will provide a next-generation Command and Control, Communications, Computer and Intelligence (C4I) system with enhanced capability to integrate data from existing and future civil and military defense surveillance systems into a comprehensive recognized air picture to enhance 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. The legacy system (R/SAOC) has reached saturation in its capability to receive, process, display, exchange, and employ air surveillance data from current sensor and communication systems, thus contributing to delays in the kill chain. The outdated technology has become increasingly difficult and costly to sustain and provides no opportunity for application enhancement.

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

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

	<u>FY 2003</u>	<u>FY 2004</u>	<u>FY 2005</u>
(U) Continue Acquisition Activities associated with System Development of the BCS-F, to include but not limited to Software Development, System Integration, Purchase of Government Furnished Equipment, Production Representative Hardware, Test, Certification and System Support.	23.800	28.389	15.590
(U) Continue Program Management/Systems Engineering	2.174	3.302	3.107
(U) Continue Program Support (i.e. travel, supplies, equipment, misc)	0.312	0.494	0.350
(U) Total Cost	26.286	32.185	19.047

**(U) C. Other Program Funding Summary (\$ in Millions)**

	<u>FY 2003</u>	<u>FY 2004</u>	<u>FY 2005</u>	<u>FY 2006</u>	<u>FY 2007</u>	<u>FY 2008</u>	<u>FY 2009</u>	<u>Cost to</u>	<u>Total Cost</u>
	<u>Actual</u>	<u>Estimate</u>	<u>Estimate</u>	<u>Estimate</u>	<u>Estimate</u>	<u>Estimate</u>	<u>Estimate</u>	<u>Complete</u>	
(U) Other Procurement, AF (3080)	0.000	0.000	8.010	19.228	24.119	19.351	19.373	Continuing	TBD

**(U) D. Acquisition Strategy**

The BCS Program Family of Systems is utilizing a spiral development acquisition strategy to further advance Command and Control (C2) concepts supporting future aerospace operations and all contracts are awarded after open competitions.

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**Exhibit R-3, RDT&E Project Cost Analysis**

DATE

**February 2004**

BUDGET ACTIVITY			PE NUMBER AND TITLE					PROJECT NUMBER AND TITLE				
<b>07 Operational System Development</b>			<b>0102326F REGION/ SECTOR OPERATIONS CONTROL CENTER</b>					<b>4592 Region/Sector Operations Modernization Center (R/SAOC)</b>				
<u>(U) Cost Categories</u>	<u>Contract Method &amp; Type</u>	<u>Performing Activity &amp; Location</u>	<u>Total</u>	<u>FY</u>	<u>FY</u>	<u>FY</u>	<u>FY</u>	<u>FY</u>	<u>FY</u>	<u>Cost to</u>	<u>Total</u>	<u>Target</u>
(Tailor to WBS, or System/Item Requirements) (\$ in Millions)			<u>Prior to FY</u>	<u>2003</u>	<u>2003</u>	<u>2004</u>	<u>2004</u>	<u>2005</u>	<u>2005</u>	<u>Complete</u>	<u>Cost</u>	<u>Value of</u>
			<u>2003</u>	<u>Cost</u>	<u>Award</u>	<u>Cost</u>	<u>Award</u>	<u>Cost</u>	<u>Award</u>			<u>Contract</u>
			<u>Cost</u>		<u>Date</u>		<u>Date</u>		<u>Date</u>			
<u>(U) Product Development</u>												
LITTON	CPAF/C	Agoura Hills, CA	48.274								48.274	48.274
PROLOGIC INC.	CPFF/SS	Fairmont, WV	2.591								2.591	2.591
THALES RAYTHEON	FFP/C	Fullerton, CA		22.272	Apr-03	24.251	Dec-03	12.827	Dec-04	Continuing	TBD	TBD
MIDS LVT-1 Terminals	MIPR	SPAWAR, San Diego, CA	1.083								1.083	1.083
Various	Various		0.776	0.647	Jun-03	1.196	Dec-03	1.000	Dec-04	Continuing	TBD	TBD
Subtotal Product Development			52.724	22.919		25.447		13.827		Continuing	TBD	TBD
Remarks:												
<u>(U) Support</u>												
MITRE	Various	Bedford, MA	7.464	0.435	Oct-02	1.009	Oct-03	0.895	Oct-04	Continuing	TBD	TBD
ITSP	Various	Bedford, MA	7.852	1.739	Feb-03	2.293	Feb-04	2.212	Feb-04	Continuing	TBD	TBD
Program Office Support	Various		3.403	0.312		0.494		0.350		Continuing	TBD	TBD
Subtotal Support			18.719	2.486		3.796		3.457		Continuing	TBD	TBD
Remarks:												
<u>(U) Test &amp; Evaluation</u>												
46th Test Wing/Other Test Act			0.941	0.881	Jul-03	2.942	Nov-03	1.763	Nov-04	Continuing	TBD	TBD
Subtotal Test & Evaluation			0.941	0.881		2.942		1.763		Continuing	TBD	TBD
Remarks:												
<u>(U) Total Cost</u>			72.384	26.286		32.185		19.047		Continuing	TBD	TBD

Exhibit R-4, RDT&E Schedule Profile

DATE

February 2004

BUDGET ACTIVITY  
07 Operational System Development



PE NUMBER AND TITLE  
0102326F REGION/ SECTOR  
OPERATIONS CONTROL CENTER

PROJECT NUMBER AND TITLE  
4592 Region/Sector Operations  
Modernization Center (R/SAOC)

**Exhibit R-4: PE 0102326F REGION/SECTOR OPERATIONS CONTROL CENTER**

Fiscal Year	FY 02				FY 03				FY 04				FY 05				FY 06				FY 07				FY 08				FY 09						
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4			
NORAD Contingency Suite (NCS)	IOI			Development				Complete				Sustainment																							
Alaska Aerospace Surveillance and Range Operations Modernization (AASROM) (formerly known as ROAC-Alaska)*								CDR				Field																							
BCS-F Spiral 1					Contract Award				Fielding Decision				IOC																						
BCS-F Spiral 2													Fielding Decision				IOC																		
BCS-F Spiral 3													Fielding Decision				IOC																		

\* AASROM funding was previously within this PE, but is now part of PE 0207434F, Link -16 Support and Sustainment

-  Planned Ongoing Activity
-  Completed Event
-  Planned Task(s)

<b>Exhibit R-4a, RDT&amp;E Schedule Detail</b>	DATE <b>February 2004</b>
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<b>BUDGET ACTIVITY</b> <b>07 Operational System Development</b>	<b>PE NUMBER AND TITLE</b> <b>0102326F REGION/ SECTOR OPERATIONS CONTROL CENTER</b>	<b>PROJECT NUMBER AND TITLE</b> <b>4592 Region/Sector Operations Modernization Center (R/SAOC)</b>
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	<u>FY 2003</u>	<u>FY 2004</u>	<u>FY 2005</u>
(U) <b><u>Schedule Profile</u></b>			
(U) Complete NORAD Contingency Suite (NCS) Development	2Q		
(U) Critical design review for Alaska Aerospace Surveillance Range and Operations Modernization (AASROM) (formerly known as ROAC-Alaska)		2Q	
(U) Complete Alaska Aerospace Surveillance Range and Operations Modernization (AASROM)			2Q
(U) BCS-F Spiral 1 Contract Award	3Q		
(U) BCS-F Spiral 1 IOC			2Q
(U) BCS-F Spiral 2 IOC			2Q