

<b>Exhibit R-2, RDT&amp;E Budget Item Justification</b>	DATE <b>May 2009</b>
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<b>BUDGET ACTIVITY</b> <b>07 Operational System Development</b>	<b>PE NUMBER AND TITLE</b> <b>0305110F Satellite Control Network</b>
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Cost (\$ in Millions)	FY 2008 Actual	FY 2009 Estimate	FY 2010 Estimate	FY 2011 Estimate	FY 2012 Estimate	FY 2013 Estimate	FY 2014 Estimate	FY 2015 Estimate	Cost to Complete	Total
Total Program Element (PE) Cost	23.530	16.547	20.991	0.000	0.000	0.000	0.000	0.000	Continuing	TBD
3276 Satellite Control Network	23.530	16.547	20.991	0.000	0.000	0.000	0.000	0.000	Continuing	TBD

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

The Air Force Satellite Control Network (AFSCN) mission is to command and control space systems and to distribute space system information in support of operational DoD missions, National Security, RDT&E programs, and other designated users. Air Force Space Command (AFSPC) performs operations, maintenance, modernization, and sustainment of the system to provide operational capabilities validated by a Joint Staff Capstone Requirements Document and a Headquarters USAF-approved Operational Requirements Document (ORD). This program element contains funds for the development and acquisition of this integrated national satellite telemetry, tracking, commanding, and data relay capability to meet the requirements of the growing inventory of operational and developmental DoD, National, Civil, and Allied satellite systems.

The AFSCN is a global infrastructure of control centers, Remote Tracking Stations (RTSs), and communications links that provides unique capability for DoD to deploy and operate its satellites. AFSCN provides the highly reliable command and control, communications, and range systems required to support the nation's surveillance, navigation, communications, warning, and weather satellite operations. The AFSCN is the DoD's common user network that provides satellite state-of-health, telemetry, tracking, and commanding (TT&C) for the following operational and future satellite systems: Defense Meteorological Satellite Program (DMSP), Global Positioning System (GPS), Defense Satellite Communications System (DSCS), Defense Support Program (DSP), Space Based Infrared System (SBIRS), Space-Based Space Surveillance (SBSS), Space Tracking and Surveillance System (STSS), Fleet Satellite (FLEETSAT), Military Strategic and Tactical Relay Satellite (MILSTAR), the Navy's Ultra High Frequency Follow-On (UHF F/O), Mobile User Objective System (MUOS), Advanced EHF (AEHF), Wideband Global SATCOM (WGS), Transformational Communications Satellites (TSAT), Skynet, NATO III/IV, and classified programs. Support to NASA and National Oceanic and Atmospheric Administration (NOAA) satellites is provided on an "as required" basis. In addition, the AFSCN provides launch and early orbit tracking operations in support of all major US launches and provides satellite end-of-life disposal operations. It is the world's only global satellite control network equipped with high-power capability necessary for satellite rescue and anomaly resolution operations.

AFSCN Improvement and Modernization (I&M) is an ongoing program of replacements and upgrades which will meet AFSPC operational requirements to replace non-standard, unsupported equipment with more reliable, maintainable, interoperable, and standardized hardware and software. This new equipment will enable AFSPC satellite operations to be performed with fewer, less skilled personnel and will reduce hardware/software maintenance costs. The principal efforts within this program are currently focused on Range Upgrades and Network Operations Upgrades.

RANGE UPGRADES: This effort will upgrade the current RTSs. Several integrated efforts, which are now grouped into the RTS Block Change (RBC) effort, will standardize, automate and make interoperable the remote tracking stations through the replacement of outdated government unique equipment with commercial off-the-shelf technology in order to reduce failures, correct operational deficiencies, and reduce operating and sustainment costs. Additionally, interoperability efforts to address standards and protocols and external user connectivity are included in this segment.

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May 2009

BUDGET ACTIVITY

**07 Operational System Development**

PE NUMBER AND TITLE

**0305110F Satellite Control Network**

NETWORK OPERATIONS UPGRADES: These critical upgrades improve AFSCN resource management capabilities.

This effort is in Budget Activity 7, Operational System Development, because it supports a fielded system.

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

	<u>FY 2008</u>	<u>FY 2009</u>	<u>FY 2010</u>
(U) Previous President's Budget	26.898	16.758	19.026
(U) Current PBR/President's Budget	23.530	16.547	20.991
(U) Total Adjustments	-3.368	-0.211	
(U) Congressional Program Reductions		-0.166	
Congressional Rescissions		-0.045	
Congressional Increases			
Reprogrammings	-2.848		
SBIR/STTR Transfer	-0.520		

**(U) Significant Program Changes:**

FY08 below threshold reprogrammings (-\$2.848M) to support higher DoD priorities; FY10 reduction for higher DoD priorities (-\$2.035M) and increase (+\$4.0M) to support development of dual frequency band uplink capability in RBC.

**Exhibit R-2a, RDT&E Project Justification**

DATE  
**May 2009**

BUDGET ACTIVITY <b>07 Operational System Development</b>					PE NUMBER AND TITLE <b>0305110F Satellite Control Network</b>			PROJECT NUMBER AND TITLE <b>3276 Satellite Control Network</b>		
Cost (\$ in Millions)	FY 2008 Actual	FY 2009 Estimate	FY 2010 Estimate	FY 2011 Estimate	FY 2012 Estimate	FY 2013 Estimate	FY 2014 Estimate	FY 2015 Estimate	Cost to Complete	Total
3276 Satellite Control Network	23.530	16.547	20.991	0.000	0.000	0.000	0.000	0.000	Continuing	TBD
Quantity of RDT&E Articles	0	0	0	0	0	0	0	0		

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**Exhibit R-2a, RDT&E Project Justification**

DATE

**May 2009**

BUDGET ACTIVITY <b>07 Operational System Development</b>	PE NUMBER AND TITLE <b>0305110F Satellite Control Network</b>	PROJECT NUMBER AND TITLE <b>3276 Satellite Control Network</b>
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NETWORK OPERATIONS UPGRADES: These critical upgrades improve AFSCN resource management capabilities.

This effort is in Budget Activity 7, Operational System Development, because it supports a fielded system.

(U) <b><u>B. Accomplishments/Planned Program (\$ in Millions)</u></b>	<u>FY 2008</u>	<u>FY 2009</u>	<u>FY 2010</u>
(U) Range Upgrades: continue upgrades to include development of interoperability and RTS Block Change efforts. Continue high power amplifier development to include S-band capability. Continue predeployment system engineering and network integration.	17.149	3.568	17.711
(U) Network Operations Upgrades: no network operations development efforts are budgeted in FY10.	0.049	9.825	0.000
(U) Program support, to include System Program Office operations, SETA, FFRDC and Systems Engineering and Integration	6.332	3.154	3.280
(U) Total Cost	23.530	16.547	20.991

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

	<u>FY 2008</u> <u>Actual</u>	<u>FY 2009</u> <u>Estimate</u>	<u>FY 2010</u> <u>Estimate</u>	<u>FY 2011</u> <u>Estimate</u>	<u>FY 2012</u> <u>Estimate</u>	<u>FY 2013</u> <u>Estimate</u>	<u>FY 2014</u> <u>Estimate</u>	<u>FY 2015</u> <u>Estimate</u>	<u>Cost to</u> <u>Complete</u>	<u>Total Cost</u>
(U) OPAF, Electronics & Telecom Equipment (BA 03, PE 0305110F, P-64)	48.258	64.966	58.865							

(U) **D. Acquisition Strategy**

The AF uses the competitively awarded Satellite Control Network Contract (SCNC), managed by Space and Missile System Center, to modernize and sustain the AFSCN on a non-interference basis as it continues to support operational, RDT&E, and other designated users. The AF has also awarded sole source contracts to Honeywell and intends to award additional contracts in FY10 to continue to modernize the AFSCN.

UNCLASSIFIED

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

DATE

**May 2009**

BUDGET ACTIVITY				PE NUMBER AND TITLE					PROJECT NUMBER AND TITLE			
<b>07 Operational System Development</b>				<b>0305110F Satellite Control Network</b>					<b>3276 Satellite Control Network</b>			
(U) <u>Cost Categories</u> (Tailor to WBS, or System/Item Requirements) (\$ in Millions)	<u>Contract Method &amp; Type</u>	<u>Performing Activity &amp; Location</u>	<u>Total Prior to FY 2008 Cost</u>	<u>FY 2008 Cost</u>	<u>FY 2008 Award Date</u>	<u>FY 2009 Cost</u>	<u>FY 2009 Award Date</u>	<u>FY 2010 Cost</u>	<u>FY 2010 Award Date</u>	<u>Cost to Complete</u>	<u>Total Cost</u>	<u>Target Value of Contract</u>
(U) <u>Product Development</u> Satellite Control Network Contract	C/CPAF	Honeywell, Colorado Springs, CO	95.699	17.198	Dec-07	13.393	Dec-08	17.711	Dec-09	Continuing	TBD	TBD
Subtotal Product Development			95.699	17.198		13.393		17.711		Continuing	TBD	TBD
Remarks:												
(U) <u>Support</u> Program Support (FFRDC, SETA, SPO ops)	various	various	73.903	6.332	Dec-07	3.154	Dec-08	3.280	Dec-09	Continuing	TBD	TBD
Subtotal Support			73.903	6.332		3.154		3.280		Continuing	TBD	TBD
Remarks:												
(U) Total Cost			169.602	23.530		16.547		20.991		Continuing	TBD	TBD

Exhibit R-4, RDT&E Schedule Profile

DATE

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BUDGET ACTIVITY  
07 Operational System Development

PE NUMBER AND TITLE  
0305110F Satellite Control Network

PROJECT NUMBER AND TITLE  
3276 Satellite Control Network

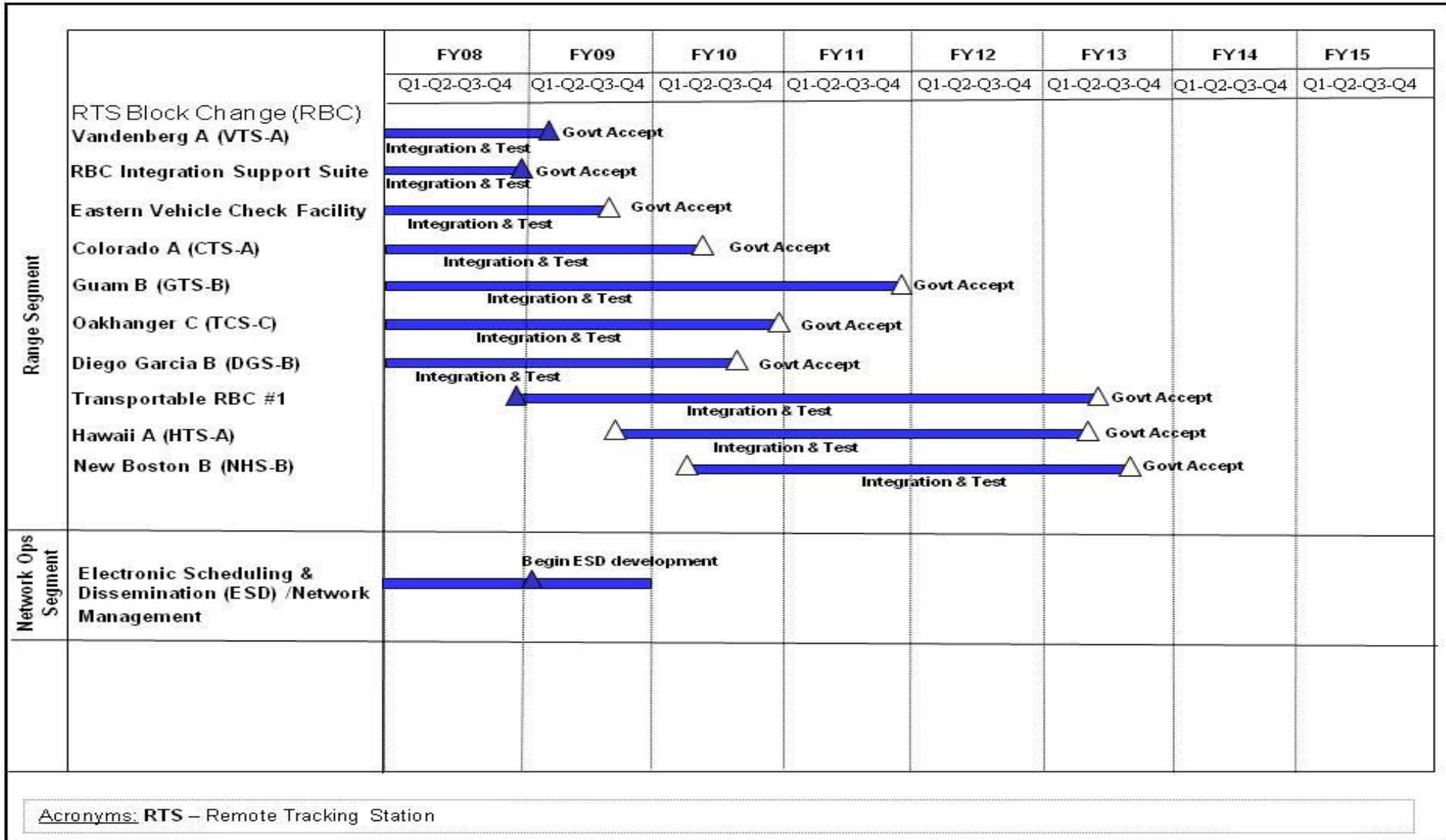


Exhibit R-4a, RDT&E Schedule Detail		DATE	
		May 2009	
BUDGET ACTIVITY	PE NUMBER AND TITLE	PROJECT NUMBER AND TITLE	
07 Operational System Development	0305110F Satellite Control Network	3276 Satellite Control Network	
	<u>FY 2008</u>	<u>FY 2009</u>	<u>FY 2010</u>
(U) <b>Schedule Profile</b>			
(U) RANGE UPGRADES (RBC- Remote Tracking Station (RTS) Block Change)			
(U) - Vandenberg-A RBC Gov't acceptance		1Q	
(U) - Begin Transportable RBC #1	4Q		
(U) - RBC Integration Support Suite Gov't acceptance	4Q		
(U) - Eastern Vehicle Check Facility Gov't acceptance		3Q	
(U) - Begin Hawaii-A RBC		3Q	
(U) - Colorado RBC Gov't acceptance			2Q
(U) - Begin New Boston-B RBC			2Q
(U) - Diego Garcia-B Gov't acceptance			3Q
(U) - Oakhanger-C RBC Gov't acceptance			4Q
(U) - Guam-B RBC Gov't acceptance			
(U) NETWORK OPERATIONS UPGRADES			
(U) - Electronic Scheduling & Dissemination upgrade development		1Q	

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