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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 3600: <i>Research, Development, Test & Evaluation, Air Force</i> BA 7: <i>Operational Systems Development</i>	R-1 ITEM NOMENCLATURE PE 0305110F: <i>Satellite Control Network</i>
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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	19.522	21.667	18.337	-	18.337	14.792	14.990	15.149	15.334	Continuing	Continuing
673276: <i>Satellite Control Network</i>	19.522	21.667	18.337	-	18.337	14.792	14.990	15.149	15.334	Continuing	Continuing

Note

The program funding includes overhead reduction efficiencies that are not intended to impact program content. The efficiencies reductions total \$0.681M in FY12.

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 DoD, Intelligence Community (IC), and Civil operational and RDT&E missions, and other designated users. The AFSCN is a fielded, globally-distributed infrastructure of control centers, Remote Tracking Stations (RTSs), and communications links that provides unique capability for designated users to deploy and operate their 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. Air Force Space Command (AFSPC) performs operations, maintenance, modernization, and sustainment of the system to provide operational capabilities validated by a US Strategic Command (USSTRATCOM) Initial Capabilities Document and a Headquarters USAF-approved Operational Requirements Document (ORD). This program element funds the development and acquisition of AFSCN Improvement and Modernization (I&M), an ongoing program of replacements and upgrades which will meet validated USSTRATCOM and AFSPC operational requirements to replace non-standard, unsupportable equipment with more reliable, maintainable, interoperable, and standardized hardware and software. This new equipment is intended to enable AFSPC satellite operations to be performed with reduced hardware/software maintenance costs. The principal efforts within this program are focused on Range Upgrades, Network Operations Upgrades, and associated studies. RANGE UPGRADES: This effort will upgrade the current RTSs. Several integrated efforts are grouped into the RTS Block Change (RBC) effort, which will standardize, automate and make interoperable the remote tracking stations through the replacement of outdated government-unique equipment with standardized equipment and 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. FY12 funds provide system engineering, integration and test support for the RBC efforts to include S-band high power amplifier development. NETWORK OPERATIONS UPGRADES: These critical upgrades improve AFSCN resource management capabilities. FY12 funds provide continued development of the Electronic Scheduling and Dissemination (ESD) 3.0 upgrade. This effort is in Budget Activity 7, Operational System Development, because it supports a fielded system.

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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	20.825	21.667	19.883	-	19.883
Current President's Budget	19.522	21.667	18.337	-	18.337
Total Adjustments	-1.303	-	-1.546	-	-1.546
• Congressional General Reductions		-			
• Congressional Directed Reductions		-			
• Congressional Rescissions	-	-			
• Congressional Adds		-			
• Congressional Directed Transfers		-			
• Reprogrammings	-0.088	-			
• SBIR/STTR Transfer	-1.215	-			
• Other Adjustments	-	-	-1.546	-	-1.546

Change Summary Explanation

FY10: decreased -\$1.215M for Small Business Innovative Research

FY12: decreased -\$1.546M

The program funding includes overhead reduction efficiencies that are not intended to impact program content. The efficiencies reductions total \$0.681M in FY12.

The FY12 program funding includes reductions for higher AF priorities totaling \$0.865M.

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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 0305110F: Satellite Control Network				PROJECT 673276: Satellite Control Network			
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
673276: Satellite Control Network	19.522	21.667	18.337	-	18.337	14.792	14.990	15.149	15.334	Continuing	Continuing
Quantity of RDT&E Articles	0	0	0	0	0	0	0	0	0		
A. Mission Description and Budget Item Justification											
<p>The Air Force Satellite Control Network (AFSCN) mission is to command and control space systems and to distribute space system information in support of DoD, Intelligence Community (IC), and Civil operational and RDT&E missions, and other designated users. The AFSCN is a fielded, globally-distributed infrastructure of control centers, Remote Tracking Stations (RTSs), and communications links that provides unique capability for designated users to deploy and operate their 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. Air Force Space Command (AFSPC) performs operations, maintenance, modernization, and sustainment of the system to provide operational capabilities validated by a US Strategic Command (USSTRATCOM) Initial Capabilities Document and a Headquarters USAF-approved Operational Requirements Document (ORD). This program element funds the development and acquisition of AFSCN Improvement and Modernization (I&M), an ongoing program of replacements and upgrades which will meet validated USSTRATCOM and AFSPC operational requirements to replace non-standard, unsupportable equipment with more reliable, maintainable, interoperable, and standardized hardware and software. This new equipment is intended to enable AFSPC satellite operations to be performed with reduced hardware/software maintenance costs. The principal efforts within this program are focused on Range Upgrades, Network Operations Upgrades, and associated studies. RANGE UPGRADES: This effort will upgrade the current RTSs. Several integrated efforts are grouped into the RTS Block Change (RBC) effort, which will standardize, automate and make interoperable the remote tracking stations through the replacement of outdated government-unique equipment with standardized equipment and 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. FY12 funds provide system engineering, integration and test support for the RBC efforts to include S-band high power amplifier development. NETWORK OPERATIONS UPGRADES: These critical upgrades improve AFSCN resource management capabilities. FY12 funds provide continued development of the Electronic Scheduling and Dissemination (ESD) 3.0 upgrade. This effort is in Budget Activity 7, Operational System Development, because it supports a fielded system.</p>											
B. Accomplishments/Planned Programs (\$ in Millions)							FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total
Title: Range Upgrades							11.974	16.589	13.556	-	13.556
Description: Continue development of interoperability and RTS Block Change (RBC) efforts. These include high power amplifier development for S-band capability and predeployment system engineering and network integration.											
FY 2010 Accomplishments: Continued systems engineering, integration, and testing for Eastern Vehicle Checkout Facility, Diego Garcia, Colorado, Guam, Oakhanger, Hawaii, and New Boston RBC efforts, as well for the RBC Transportable asset											

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B. Accomplishments/Planned Programs (\$ in Millions)		FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total
#1. Continued risk reduction efforts for Geodesic Dome Phased Array Antenna development. Continued development for Compatible Command & Control demo. FY 2011 Plans: Continue systems engineering, integration, and testing for gov't acceptance of Eastern Vehicle Checkout Facility, Diego Garcia, Colorado and Oakhanger RBC efforts. Continue Guam, Hawaii, New Boston RBC and the RBC Transportable asset #1. Begin Thule RBC efforts. Begin high power amplifier development for RBC to include S-band. Continue Geodesic Dome Phased Array Antenna and Compatible C2 development efforts. FY 2012 Base Plans: Continue systems engineering, integration, and testing for gov't acceptance of Guam (Side B) RBC, as well as continue RBC efforts for Hawaii, New Boston, Thule, and the RBC Transportable asset #1. Begin systems engineering, integration and testing core electronics RBC upgrades for Oakhanger (side B) and Vandenberg (side B) Remote Tracking Stations. Continue high power amplifier development for RBC to include S-band, to enable dual-band commanding. FY 2012 OCO Plans: Not Applicable						
Title: Network Operations Upgrades Description: Continue Electronic Scheduling & Dissemination (ESD) 3.0 upgrade FY 2010 Accomplishments: Continued ESD 3.0 development FY 2011 Plans: Continue ESD 3.0 development. FY 2012 Base Plans: Continue ESD 3.0 development FY 2012 OCO Plans: Not Applicable		3.571	1.633	1.250	-	1.250
Title: Program Support Description: Program support to include FFRDC and SETA.		3.977	3.445	3.531	-	3.531

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Exhibit R-2A, RDT&E Project Justification: PB 2012 Air Force				DATE: February 2011							
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B. Accomplishments/Planned Programs (\$ in Millions)											
	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total						
<i>FY 2010 Accomplishments:</i> Program support to include FFRDC and SETA.											
<i>FY 2011 Plans:</i> Program support to include FFRDC and SETA.											
<i>FY 2012 Base Plans:</i> Program support to include FFRDC and SETA.											
<i>FY 2012 OCO Plans:</i> Not Applicable											
Accomplishments/Planned Programs Subtotals	19.522	21.667	18.337	-	18.337						
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 0305110F, Satellite Control Network (Space)</i>	58.185	60.383	61.386	0.000	61.386	64.219	65.424	60.787	62.252	Continuing	Continuing
D. Acquisition Strategy											
The AF uses the competitively awarded Satellite Control Network Contract (SCNC), managed by Space and Missile Systems 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 to continue to modernize the AFSCN.											
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 0305110F: Satellite Control Network				PROJECT 673276: Satellite Control Network					
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
Satellite Control Network Contract	Various	Honeywell:Colorado Springs, CO	179.815	18.222	Dec 2010	14.806	Dec 2011	-		14.806	Continuing	Continuing	TBD
Subtotal			179.815	18.222		14.806		-		14.806			
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 Support (FFRDC, SETA, SPO ops)	Various	various:various,	87.386	3.445	Dec 2010	3.531	Dec 2011	-		3.531	Continuing	Continuing	TBD
Subtotal			87.386	3.445		3.531		-		3.531			
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
Subtotal			-	-		-		-		-	0.000	0.000	0.000
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
			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			267.201	21.667		18.337		-		18.337			
Remarks													

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Exhibit R-4, RDT&E Schedule Profile: PB 2012 Air Force		DATE: February 2011
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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 0305110F: <i>Satellite Control Network</i>	PROJECT 673276: <i>Satellite Control Network</i>	

Schedule Details

Events	Start		End	
	Quarter	Year	Quarter	Year
RANGE UPGRADES (RBC- Remote Tracking Station (RTS) Block Change)	1	2012	4	2012
- Eastern Vehicle Check Facility integration/test/Gov't accept	1	2010	2	2011
- Colorado-A RBC integration/test/Gov't accept	1	2010	4	2011
- Guam-B RBC integration/test/Gov't accept	1	2010	2	2012
- Oakhanger-C RBC integration/test/Gov't accept	1	2010	3	2011
- Diego Garcia-B RBC integration/test/Gov't accept	1	2010	3	2011
- Transportable RBC integration/test/Gov't accept	1	2010	2	2013
- Hawaii-A RBC contract award/integration/test/Gov't accept	2	2010	1	2014
- New Boston-B RBC contract award/integration/test/Gov't accept	4	2010	2	2014
- Thule-C RBC contract award/integration/test/Gov't accept	3	2011	1	2015
- Oakhanger-B RBC core contract award/integration/test/Gov't accept	2	2012	2	2014
- Vandenberg-B RBC core contract award/integration/test/Gov't accept	3	2012	4	2014
- Additional RBC contract awards	2	2013	3	2016
- S Band/Dual Band High Power Amplifier development contract award	2	2011	2	2011
- S Band/Dual Band Preliminary Design Review	3	2012	3	2012
- S Band/Dual Band Critical Design Review/integration/test/Gov't accept	1	2013	2	2014
NETWORK OPERATIONS UPGRADES	1	2012	4	2012
- Electronic Scheduling & Dissemination (ESD) Critical Design Review/build/integration/test	4	2010	4	2012

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