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**Exhibit R-2, RDT&E Budget Item Justification: PB 2011 Air Force** **DATE:** February 2010

<b>APPROPRIATION/BUDGET ACTIVITY</b> 3600: <i>Research, Development, Test &amp; Evaluation, Air Force</i> BA 5: <i>Development &amp; Demonstration (SDD)</i>	<b>R-1 ITEM NOMENCLATURE</b> PE 0603840F: <i>Global Broadcast Service (GBS)</i>
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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	17.475	31.072	18.171	0.000	18.171	2.269	2.428	0.000	0.000	Continuing	Continuing
65A023: <i>Satellite Broadcast Management Transition</i>	17.475	31.072	18.171	0.000	18.171	2.269	2.428	0.000	0.000	0.000	84.773

**Note**

Funding for the GBS ACAT I program (Project 4887, Global Broadcast Service) in PE 0603840F completed in FY08.

**A. Mission Description and Budget Item Justification**

Global Broadcast Service provides DoD with an efficient, high data rate broadcast capability from distributed information sources to dispersed warfighters who receive the broadcast directly on small, inexpensive user terminals. This Program Element funds the broadcast transmit activities associated with the GBS architecture. The GBS broadcast receive segment consists of Service-funded terminals, known as Receive Suites, which receive the broadcast and then disseminate information to local users. Service Receive Suites and the integration into service networks are funded in other Program Elements. GBS broadcast data includes video (especially from Unmanned Aerial Vehicles), imagery, logistics, weather data, maps and operational orders. The GBS space segment includes transponders on operational Navy satellites, currently Ultra High Frequency Follow-On (UFO) 8 and UFO 10, augmentation by commercial leased Ku-band transponders, and now the Wideband Global SATCOM (WGS) System. Currently, the GBS broadcast segment consists of Satellite Broadcast Managers (SBMs) for the broadcast build and Primary Injection Points (PIPs) for the broadcast uplink, and the Transportable Satellite Broadcast Managers (TSBMs) for the broadcast build in theatre. The SBMs and PIPs, together known as Transmit Suites, are located at Navy facilities. The Theatre Injection Point (TIP) is a ground mobile satellite terminal suite transportable via two heavy High Mobility Multi-purpose Wheeled Vehicles (HMMWV) consisting of the TSBM and the Army Phoenix terminal. During FY09-12, to address commercial-off-the-shelf (COTS) obsolescence issues, broadcast creation will transition to existing Defense Information Systems Agency (DISA) Defense Enterprise Computing Centers (DECCs) and the broadcast will be uplinked through DISA Teleport sites. The DECC transition contract was awarded on 15 May 09. This effort has been designated as an ACAT III program and funding has been realigned (i.e., a separate BPAC has been created) to delineate between the current ACAT I GBS program and the ACAT III SBM Transition program.

In FY11, this effort continues to fund systems transmission security, information assurance, and the transition/upgrade of the SBM systems to the DISA DECC architecture.

Funding is in Budget Activity 5, System Development and Demonstration, since program is fielding pre-production equipment.

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<b>APPROPRIATION/BUDGET ACTIVITY</b> 3600: <i>Research, Development, Test &amp; Evaluation, Air Force</i> BA 5: <i>Development &amp; Demonstration (SDD)</i>	<b>R-1 ITEM NOMENCLATURE</b> PE 0603840F: <i>Global Broadcast Service (GBS)</i>
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**B. Program Change Summary (\$ in Millions)**

	<u>FY 2009</u>	<u>FY 2010</u>	<u>FY 2011 Base</u>	<u>FY 2011 OCO</u>	<u>FY 2011 Total</u>
Previous President's Budget	18.709	31.124	0.000	0.000	0.000
Current President's Budget	17.475	31.072	18.171	0.000	18.171
Total Adjustments	-1.234	-0.052	18.171	0.000	18.171
• Congressional General Reductions		-0.052			
• 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	-1.234	0.000	18.171	0.000	18.171

**Change Summary Explanation**

The FY 2010 President's Budget submittal did not reflect FY 2011 through FY2015 funding. Therefore, explanation of changes between the two budget positions cannot be made in a relevant manner.

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**Exhibit R-2A, RDT&E Project Justification: PB 2011 Air Force** **DATE:** February 2010

<b>APPROPRIATION/BUDGET ACTIVITY</b> 3600: <i>Research, Development, Test &amp; Evaluation, Air Force</i> BA 5: <i>Development &amp; Demonstration (SDD)</i>	<b>R-1 ITEM NOMENCLATURE</b> PE 0603840F: <i>Global Broadcast Service (GBS)</i>	<b>PROJECT</b> 65A023: <i>Satellite Broadcast Management Transition</i>
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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
65A023: <i>Satellite Broadcast Management Transition</i>	17.475	31.072	18.171	0.000	18.171	2.269	2.428	0.000	0.000	0.000	84.773
Quantity of RDT&E Articles	0	0	0	0	0	0	0	0	0		

**A. Mission Description and Budget Item Justification**

Global Broadcast Service provides DoD with an efficient, high data rate broadcast provided by distributed information sources to dispersed warfighters who receive the broadcast directly on small, inexpensive user terminals. GBS broadcast data includes video (especially from Unmanned Aerial Vehicles), imagery, logistics, weather data, maps and operational orders. The GBS space segment includes transponders on operational Navy satellites, currently UFO 8 and UFO 10, augmentation by commercial leased Ku-band transponders, and now the Wideband Global SATCOM (WGS) System. Currently, the GBS broadcast segment consists of Satellite Broadcast Managers (SBMs) for the broadcast build and Primary Injection Points (PIPs) for the broadcast uplink, and the Transportable Satellite Broadcast Managers (TSBMs) for the broadcast build in theatre. The SBMs and PIPs, together known as Transmit Suites, are located at Navy facilities. The Theatre Injection Point (TIP) is a ground mobile satellite terminal suite transportable via two heavy High Mobility Multi-purpose Wheeled Vehicles (HMMWV) consisting of the TSBM and the Army Phoenix terminal. During FY09-11, to address commercial-off-the-shelf (COTS) obsolescence issues, the broadcast creation will transition to existing Defense Information Systems Agency (DISA) Defense Enterprise Computing Centers (DECCs) and the broadcast will be uplinked through DISA Teleport sites.

The FY08 contract award for DECC transition has been delayed to FY09 due to an acquisition strategy change to conduct a full and open competition. FY10 continues to fund systems transmission security, information assurance, transition/upgrade of the SBM systems to the DISA DECC architecture, and continued analysis of alternatives for ORD III requirements.

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

	FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total
MAJOR THRUST: Develop a robust satellite broadcast management architecture and implement systems transmission security (TRANSEC).	17.475	31.072	18.171	0.000	18.171

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2011 Air Force							<b>DATE:</b> February 2010				
<b>APPROPRIATION/BUDGET ACTIVITY</b> 3600: <i>Research, Development, Test &amp; Evaluation, Air Force</i> BA 5: <i>Development &amp; Demonstration (SDD)</i>			<b>R-1 ITEM NOMENCLATURE</b> PE 0603840F: <i>Global Broadcast Service (GBS)</i>			<b>PROJECT</b> 65A023: <i>Satellite Broadcast Management Transition</i>					
<b>B. Accomplishments/Planned Program (\$ in Millions)</b>											
						<b>FY 2009</b>	<b>FY 2010</b>	<b>FY 2011 Base</b>	<b>FY 2011 OCO</b>	<b>FY 2011 Total</b>	
<p><i>FY 2009 Accomplishments:</i> In FY2009: Awarded the SBM DECC development contract to transition the broadcast management functions to the DISA DECC.</p> <p><i>FY 2010 Plans:</i> In FY2010: Continue SBM DECC development to include the Final Design Review.</p> <p><i>FY 2011 Base Plans:</i> In FY2011: Continue SBM DECC development to transition the broadcast management functions to the DISA DECC. Modify the Air Force-owned Transportable Satellite Broadcast Managers (TSBM) to insure compatibility with the new SBM DECC architecture and meet TRANSEC requirements.</p> <p><i>FY 2011 OCO Plans:</i> In FY 2011 OCO: Not Applicable.</p>											
Accomplishments/Planned Programs Subtotals						17.475	31.072	18.171	0.000	18.171	
<b>C. Other Program Funding Summary (\$ in Millions)</b>											
<b>Line Item</b>	<b>FY 2009</b>	<b>FY 2010</b>	<b>FY 2011 Base</b>	<b>FY 2011 OCO</b>	<b>FY 2011 Total</b>	<b>FY 2012</b>	<b>FY 2013</b>	<b>FY 2014</b>	<b>FY 2015</b>	<b>Cost To Complete</b>	<b>Total Cost</b>
• PE 0303600F: <i>GBS Transmit Strings, OPAF</i>	0.000	1.672	1.661	0.000	1.661	0.000	0.000	0.000	0.000	0.000	30.097
• PE 0303601F: <i>GBS Receive Suites/TIPs, OPAF</i>	2.100	7.683	21.516	0.000	21.516	16.417	0.420	0.000	0.000	0.000	127.036
	0.000	3.536	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	3.536

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2011 Air Force	<b>DATE:</b> February 2010
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<b>APPROPRIATION/BUDGET ACTIVITY</b> 3600: <i>Research, Development, Test &amp; Evaluation, Air Force</i> BA 5: <i>Development &amp; Demonstration (SDD)</i>	<b>R-1 ITEM NOMENCLATURE</b> PE 0603840F: <i>Global Broadcast Service (GBS)</i>	<b>PROJECT</b> 65A023: <i>Satellite Broadcast Management Transition</i>
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**C. Other Program Funding Summary (\$ in Millions)**

<u>Line Item</u>	<u>FY 2009</u>	<u>FY 2010</u>	<u>FY 2011</u> <u>Base</u>	<u>FY 2011</u> <u>OCO</u>	<u>FY 2011</u> <u>Total</u>	<u>FY 2012</u>	<u>FY 2013</u>	<u>FY 2014</u>	<u>FY 2015</u>	<u>Cost To</u> <u>Complete</u>	<u>Total Cost</u>
• PE 0303601F (1): <i>MILSATCOM Terminals, GBS Receive Suites, RDT&amp;E</i>											

**D. Acquisition Strategy**

Conduct a full and open competition to award a new contract to transfer Satellite Broadcast Management functionality to two Defense Enterprise Computing Center (DECC) facilities. The DECC will utilize a new hardware and software architecture to resolve impending Commercial off the Shelf (COTS) obsolescence, Information Assurance compliance and sustainment issues. The new contract will also implement, as appropriate, follow-on GBS ORD III Pre-Planned Product Improvement capabilities into the GBS DECC-based system, as additional funding becomes available.

**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

<b>APPROPRIATION/BUDGET ACTIVITY</b> 3600: <i>Research, Development, Test &amp; Evaluation, Air Force</i> BA 5: <i>Development &amp; Demonstration (SDD)</i>	<b>R-1 ITEM NOMENCLATURE</b> PE 0603840F: <i>Global Broadcast Service (GBS)</i>	<b>PROJECT</b> 65A023: <i>Satellite Broadcast Management Transition</i>
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**Product Development (\$ in Millions)**

Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	FY 2010		FY 2011 Base		FY 2011 OCO		FY 2011 Total	Cost To Complete	Total Cost	Target Value of Contract
				Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
DECC Transition (Lockheed Martin Information Systems and Global Services)	C/CPFF	Lockheed Martin Information Systems and Global Services Gaithersburg, MD	7.561	22.749	Oct 2009	7.072	Oct 2010	0.000		7.072	Continuing	Continuing	0.000
TSBM Upgrade	TBD/TBD	TBD TBD	0.000	0.000		3.300	Nov 2010	0.000		3.300	0.000	3.300	0.000
Phase 2 Government System Integration	Various/ Various	Various Various	13.650	5.028	Oct 2009	5.208	Nov 2010	0.000		5.208	Continuing	Continuing	0.000
<b>Subtotal</b>			21.211	27.777		15.580		0.000		15.580			0.000

**Remarks**

**Support (\$ in Millions)**

Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	FY 2010		FY 2011 Base		FY 2011 OCO		FY 2011 Total	Cost To Complete	Total Cost	Target Value of Contract
				Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
Program Support (Various)	Various/ Various	Various Various	7.169	2.259	Nov 2009	2.250	Nov 2010	0.000		2.250	Continuing	Continuing	0.000
<b>Subtotal</b>			7.169	2.259		2.250		0.000		2.250			0.000

**Remarks**

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**Exhibit R-3, RDT&E Project Cost Analysis: PB 2011 Air Force** **DATE:** February 2010

<b>APPROPRIATION/BUDGET ACTIVITY</b> 3600: <i>Research, Development, Test &amp; Evaluation, Air Force</i> BA 5: <i>Development &amp; Demonstration (SDD)</i>	<b>R-1 ITEM NOMENCLATURE</b> PE 0603840F: <i>Global Broadcast Service (GBS)</i>	<b>PROJECT</b> 65A023: <i>Satellite Broadcast Management Transition</i>
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**Test and Evaluation (\$ in Millions)**

Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	FY 2010		FY 2011 Base		FY 2011 OCO		FY 2011 Total	Cost To Complete	Total Cost	Target Value of Contract
				Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
Test and Evaluation (Various)	Various/ Various	Various Various	1.040	1.036	Nov 2009	0.341	Nov 2010	0.000		0.341	Continuing	Continuing	0.000
<b>Subtotal</b>			1.040	1.036		0.341		0.000		0.341			0.000

**Remarks**

Project Cost Totals	Total Prior Years Cost	FY 2010		FY 2011 Base		FY 2011 OCO		FY 2011 Total	Cost To Complete	Total Cost	Target Value of Contract
<b>Project Cost Totals</b>	29.420	31.072		18.171		0.000		18.171			0.000

**Remarks**

Total Prior Years Cost may include only FY 2009 data.

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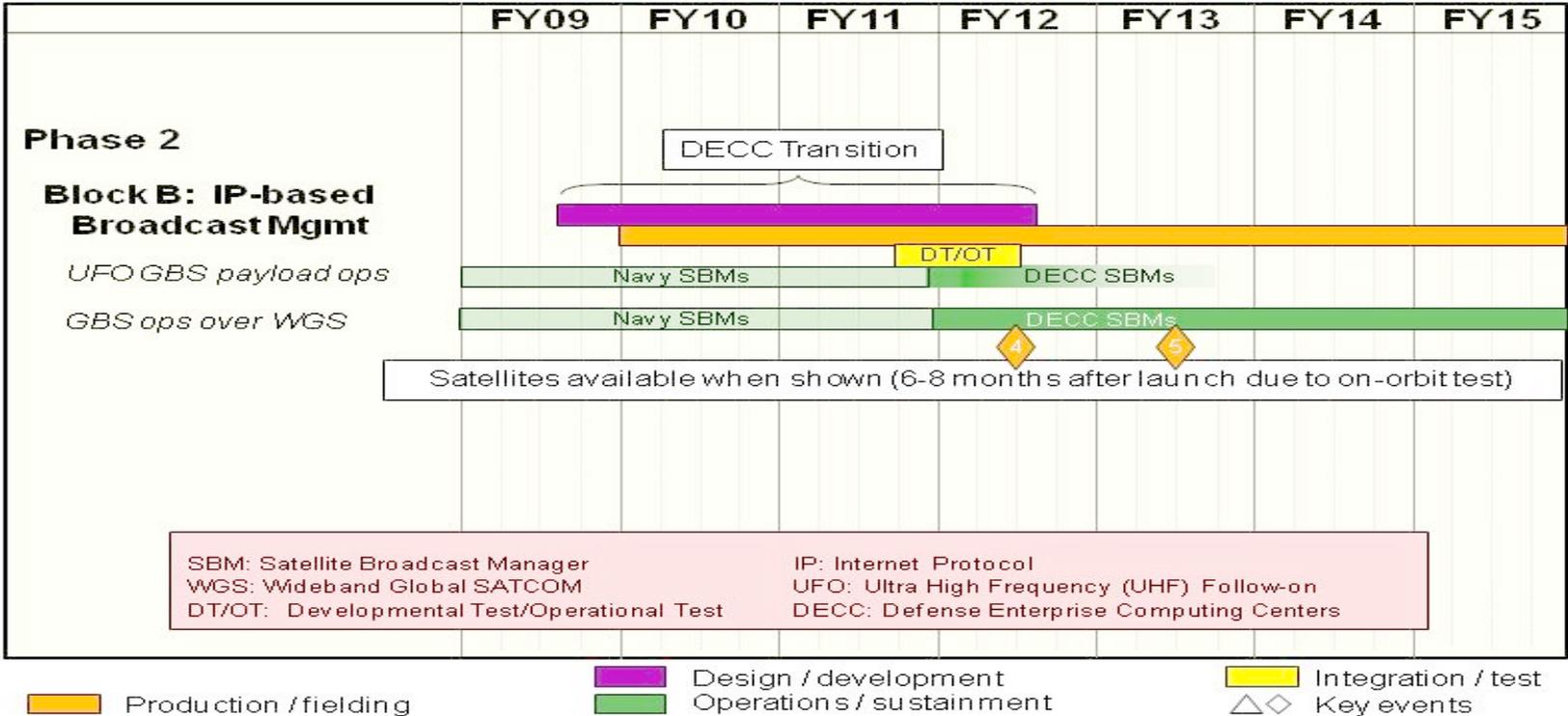
**Exhibit R-4, RDT&E Schedule Profile: PB 2011 Air Force**

**DATE:** February 2010

**APPROPRIATION/BUDGET ACTIVITY**  
 3600: *Research, Development, Test & Evaluation, Air Force*  
 BA 5: *Development & Demonstration (SDD)*

**R-1 ITEM NOMENCLATURE**  
 PE 0603840F: *Global Broadcast Service (GBS)*

**PROJECT**  
 65A023: *Satellite Broadcast Management Transition*



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**Exhibit R-4A, RDT&E Schedule Details: PB 2011 Air Force** **DATE:** February 2010

<b>APPROPRIATION/BUDGET ACTIVITY</b> 3600: <i>Research, Development, Test &amp; Evaluation, Air Force</i> BA 5: <i>Development &amp; Demonstration (SDD)</i>	<b>R-1 ITEM NOMENCLATURE</b> PE 0603840F: <i>Global Broadcast Service (GBS)</i>	<b>PROJECT</b> 65A023: <i>Satellite Broadcast Management Transition</i>
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Schedule Details

Event	Start		End	
	Quarter	Year	Quarter	Year
DECC Transition Contract Award	3	2009	3	2009
Final Design Review	1	2010	1	2010
Systems Acceptance Test	2	2011	2	2011
TSBM Upgrade Contract Award	2	2011	2	2011
Naval Computer and Telecommunications Area Master Station (NCTAMS)-hosted SBMs transition to DECC	4	2011	4	2011

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