PE NUMBER: 0603840F
PE TITLE: Global Broadcast Service (GBS)

Exhibit R-2, RDT&E Budget Item Justification

DATE **May 2009**

BUDGET ACTIVITY
05 System Development and Demonstration (SDD)

PE NUMBER AND TITLE
0603840F Global Broadcast Service (GBS)

	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	21.373	18.709	31.124	0.000	0.000	0.000	0.000	0.000	Continuing	TBD
4887	Global Broadcast Service (GBS)	0.497	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	154.867
A023	Satellite Broadcast Management Transition	20.876	18.709	31.124	0.000	0.000	0.000	0.000	0.000	Continuing	TBD

(U) 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 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 FY09-11, 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. 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.

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.

The FY08 contract award for the DECC transition has been delayed to FY09 due to an acquistion 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 Operational Requirements Document (ORD) III requirements.

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

Exhibit R-2, RDT&E Budget Item Justification	DATE May 2009
BUDGET ACTIVITY 05 System Development and Demonstration (SDD)	PE NUMBER AND TITLE 0603840F Global Broadcast Service (GBS)

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

		FY 2008	FY 2009	FY 2010
(U)	Previous President's Budget	29.098	18.790	9.416
(U)	Current PBR/President's Budget	21.373	18.709	31.124
(U)	Total Adjustments	-7.725	-0.081	
(U)	Congressional Program Reductions		-0.030	
	Congressional Rescissions		-0.051	
	Congressional Increases			
	Reprogrammings	-5.819		
	SBIR/STTR Transfer	-1.906		

(U) Significant Program Changes:

FY08: Reprogrammed $5.819M for higher priorities

FY10 funds added to fully fund the transition of the GBS broadcast functions to the Defense Information Systems Agency (DISA) Defense Enterprise Computing Centers

Exhibit R-2a, RDT&E Project Justification

DATE: May 2009

BUDGET ACTIVITY: 05 System Development and Demonstration (SDD)

PE NUMBER AND TITLE: 0603840F Global Broadcast Service (GBS)

PROJECT NUMBER AND TITLE: 4887 Global Broadcast Service (GBS)

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
4887 Global Broadcast Service (GBS)	0.497	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	154.867
Quantity of RDT&E Articles	0	0	0	0	0	0	0	0		

(U) 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, augmention 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. The SBMs and PIPs, together known as Transmit Suites, are located at Navy facilities.

	B. Accomplishments/Planned Program ($ in Millions)	FY 2008	FY 2009	FY 2010
(U)	Continue System Development and Test	0.000	0.000	
(U)	Continue Phase 2 Government System Integration	0.464	0.000	
(U)	Continue System Test & Evaluation Support	0.028	0.000	
(U)	Continue Program Office and other related support activities, including Systems Engineering and Integration	0.005	0.000	
(U)	Total Cost	0.497	0.000	0.000

(U) C. Other Program Funding Summary ($ 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 Cost
(U) OPAF, PE 0303601F, Receive Suites/TIPs	1.393	2.943	7.683						Continuing	TBD
(U) RDT&E, PE 030601F, Receive Suites			3.600						0.000	3.600

Note: All the Services and several DoD agencies have many programs which interface with or support GBS. Examples include: Defense Information System Network (DISN); DISA Content Staging; DISA Tactical Service Provider (TSP); DISA-CENTCOM Digital Video Broadcast Return Channel over Satellite (DVB-RCS) Demonstration; Navy UFO Program; Air Force WGS Program; Army Ground Terminal Programs; Navy SATCOM Ship Terminal Program; and Air Force MILSATCOM Terminals (PE 0303601F) (i.e., AF GBS Receive Terminals, Other Procurement; AF Ground Multiband Terminal (GMT) Development; and AF Family of Advanced Beyond Line-of-Sight Terminals (FAB-T)).

(U) D. Acquisition Strategy

The acquisition strategy is a spiral development/incremental build, within discreet blocks, using an Integrated Product Development (IPD)/Integrated Product Team

Exhibit R-2a, RDT&E Project Justification		DATE May 2009
BUDGET ACTIVITY **05 System Development and Demonstration (SDD)**	PE NUMBER AND TITLE **0603840F Global Broadcast Service (GBS)**	PROJECT NUMBER AND TITLE **4887 Global Broadcast Service (GBS)**

(IPT) approach.

Exhibit R-3, RDT&E Project Cost Analysis

DATE **May 2009**

BUDGET ACTIVITY
05 System Development and Demonstration (SDD)

PE NUMBER AND TITLE
0603840F Global Broadcast Service (GBS)

PROJECT NUMBER AND TITLE
4887 Global Broadcast Service (GBS)

(U)	Cost Categories (Tailor to WBS, or System/Item Requirements) ($ in Millions)	Contract Method & Type	Performing Activity & Location	Total Prior to FY 2008 Cost	FY 2008 Cost	FY 2008 Award Date	FY 2009 Cost	FY 2009 Award Date	FY 2010 Cost	FY 2010 Award Date	Cost to Complete	Total Cost	Target Value of Contract
(U)	Product Development												
	Raytheon System Corp	CPAF		89.770								89.770	
	- (FY07: IPv6 Migration/Information Assurance)											0.000	
	IPv6 Migration/Information Assurance	Various		6.416								6.416	
	Robust Architecuture Development	Various										0.000	
	Phase 2 Government System Integration	Various		31.418	0.464	Jan-08						31.882	
	Subtotal Product Development			127.604	0.464		0.000		0.000		0.000	128.068	0.000
	Remarks:												
(U)	Support												
	Program Support - Various			18.119	0.005	Oct-07						18.124	
	Fielding - Various			1.200								1.200	
	Sustainment (Vendor TBD)											0.000	
	Subtotal Support			19.319	0.005		0.000		0.000		0.000	19.324	0.000
	Remarks:												
(U)	Test & Evaluation												
	Various			7.447	0.028	Jan-08						7.475	
	Subtotal Test & Evaluation			7.447	0.028		0.000		0.000		0.000	7.475	0.000
	Remarks:												
(U)	Management												
												0.000	
	Subtotal Management			0.000	0.000		0.000		0.000		0.000	0.000	0.000
	Remarks:												
(U)	Total Cost			154.370	0.497		0.000		0.000		0.000	154.867	0.000

Exhibit R-4, RDT&E Schedule Profile		DATE May 2009
BUDGET ACTIVITY **05 System Development and Demonstration (SDD)**	PE NUMBER AND TITLE **0603840F Global Broadcast Service (GBS)**	PROJECT NUMBER AND TITLE **4887 Global Broadcast Service (GBS)**

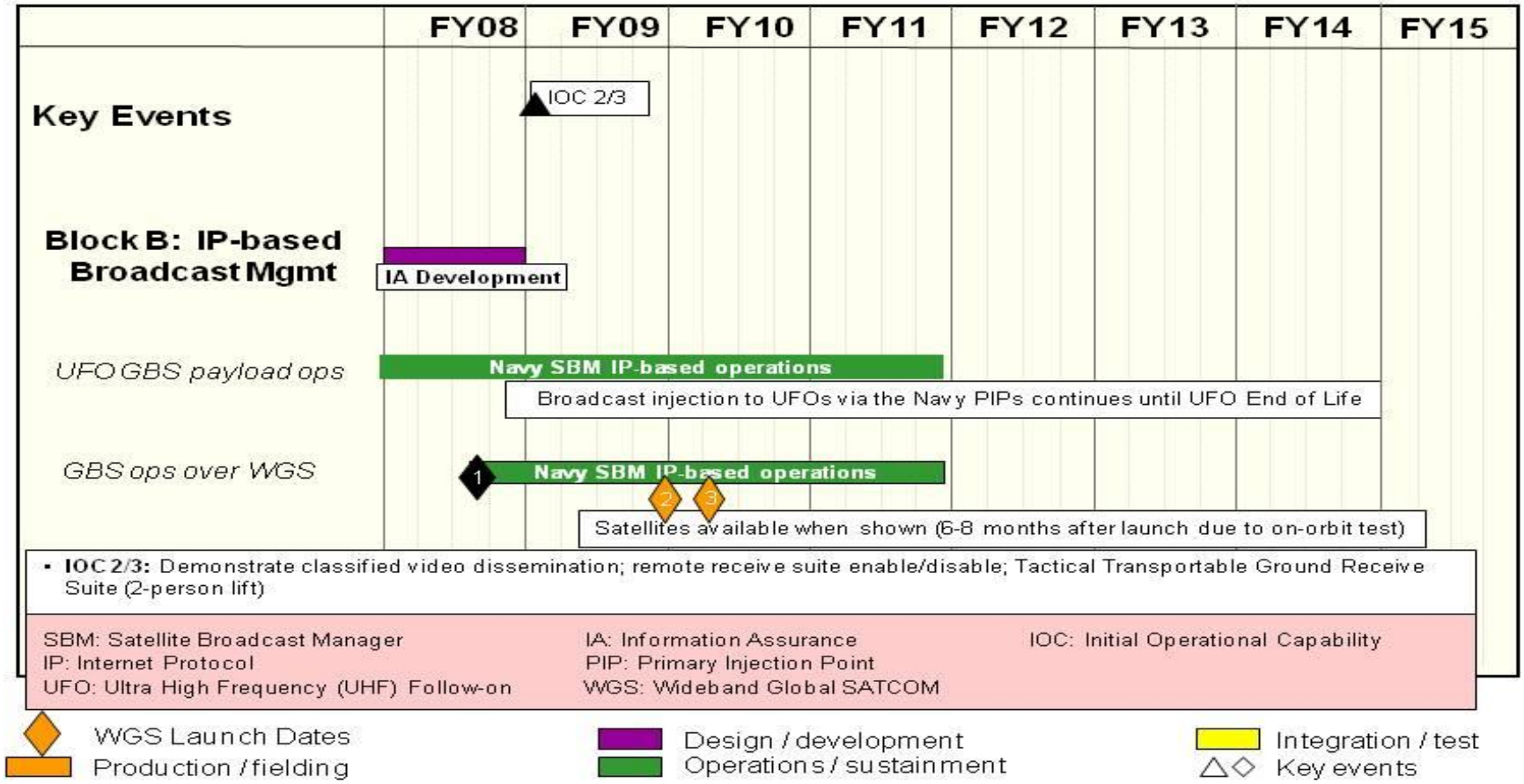

Exhibit R-4a, RDT&E Schedule Detail

DATE
May 2009

BUDGET ACTIVITY	PE NUMBER AND TITLE	PROJECT NUMBER AND TITLE
05 System Development and Demonstration (SDD)	**0603840F Global Broadcast Service (GBS)**	**4887 Global Broadcast Service (GBS)**

(U) Schedule Profile	FY 2008	FY 2009	FY 2010
(U) IOC 2 and 3 (Threshold)		1Q	
(U) GBS operates on WGS SV1	3Q		
(U) GBS operates on WGS SV2		4Q	
(U) GBS operates on WGS SV3			2Q

Exhibit R-2a, RDT&E Project Justification

DATE: May 2009

BUDGET ACTIVITY: 05 System Development and Demonstration (SDD)

PE NUMBER AND TITLE: 0603840F Global Broadcast Service (GBS)

PROJECT NUMBER AND TITLE: A023 Satellite Broadcast Management Transition

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
A023	Satellite Broadcast Management Transition	20.876	18.709	31.124	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		

(U) 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, augmention 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 acquistion 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 2008	FY 2009	FY 2010
(U)	Continue System Development and Test		6.969	19.860
(U)	Continue Phase 2 Government System Integration	6.910	6.559	4.893
(U)	Continue Program Office and other related support activities, including Systems Engineering and Integration	4.383	4.670	5.339
(U)	Continue System Test & Evaluation Support	0.652	0.511	1.032
(U)	Reprogrammed for higher priorities (approved by Congress in FY08 Omnibus)	8.931	0.000	0.000
(U)	Total Cost	20.876	18.709	31.124

(U) C. Other Program Funding Summary ($ 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 Cost
(U)	Other APPN OPAF, PE 0303600F, WGS PIPs	0.000	0.000	1.677						Continuing	TBD
(U)	OPAF, PE 0303601F, Receive	1.393	2.943	7.683						Continuing	TBD

Exhibit R-2a, RDT&E Project Justification		DATE May 2009
BUDGET ACTIVITY **05 System Development and Demonstration (SDD)**	PE NUMBER AND TITLE **0603840F Global Broadcast Service (GBS)**	PROJECT NUMBER AND TITLE **A023 Satellite Broadcast Management Transition**

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

Suites/TIPs								
(U) RDT&E, PE 030601F, Receive Suites	0.000	0.000	3.600				0.000	3.600

(U) 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.

Exhibit R-3, RDT&E Project Cost Analysis

DATE
May 2009

BUDGET ACTIVITY
05 System Development and Demonstration (SDD)

PE NUMBER AND TITLE
0603840F Global Broadcast Service (GBS)

PROJECT NUMBER AND TITLE
A023 Satellite Broadcast Management Transition

(U) Cost Categories (Tailor to WBS, or System/Item Requirements) ($ in Millions)	Contract Method & Type	Performing Activity & Location	Total Prior to FY 2008 Cost	FY 2008 Cost	FY 2008 Award Date	FY 2009 Cost	FY 2009 Award Date	FY 2010 Cost	FY 2010 Award Date	Cost to Complete	Total Cost	Target Value of Contract
(U) Product Development												
DECC Transition	CPFF w/incentive	TBD	0.000	0.000		6.969	May-09	19.860	Oct-09	Continuing	TBD	
Phase 2 Government System Integration	Various		0.000	6.910	Nov-07	6.559	Oct-08	4.893	Oct-09	Continuing	TBD	
Subtotal Product Development			0.000	6.910		13.528		24.753		Continuing	TBD	0.000
Remarks:												
(U) Support												
Program Support (Various)			0.000	4.383	Nov-07	4.670	Nov-08	5.339	Nov-09	Continuing	TBD	
Subtotal Support			0.000	4.383		4.670		5.339		Continuing	TBD	0.000
Remarks:												
(U) Test & Evaluation												
Test and Evalulatin (Various)			0.000	0.652	Nov-07	0.511	Nov-08	1.032	Nov-09	Continuing	TBD	
Subtotal Test & Evaluation			0.000	0.652		0.511		1.032		Continuing	TBD	0.000
Remarks:												
(U) Management												
Reprogrammed for higher priorities				8.931							8.931	
Subtotal Management			0.000	8.931		0.000		0.000		0.000	8.931	0.000
Remarks:												
(U) Total Cost			0.000	20.876		18.709		31.124		Continuing	TBD	0.000

Exhibit R-4, RDT&E Schedule Profile		DATE May 2009
BUDGET ACTIVITY 05 System Development and Demonstration (SDD)	PE NUMBER AND TITLE 0603840F Global Broadcast Service (GBS)	PROJECT NUMBER AND TITLE A023 Satellite Broadcast Management Transition

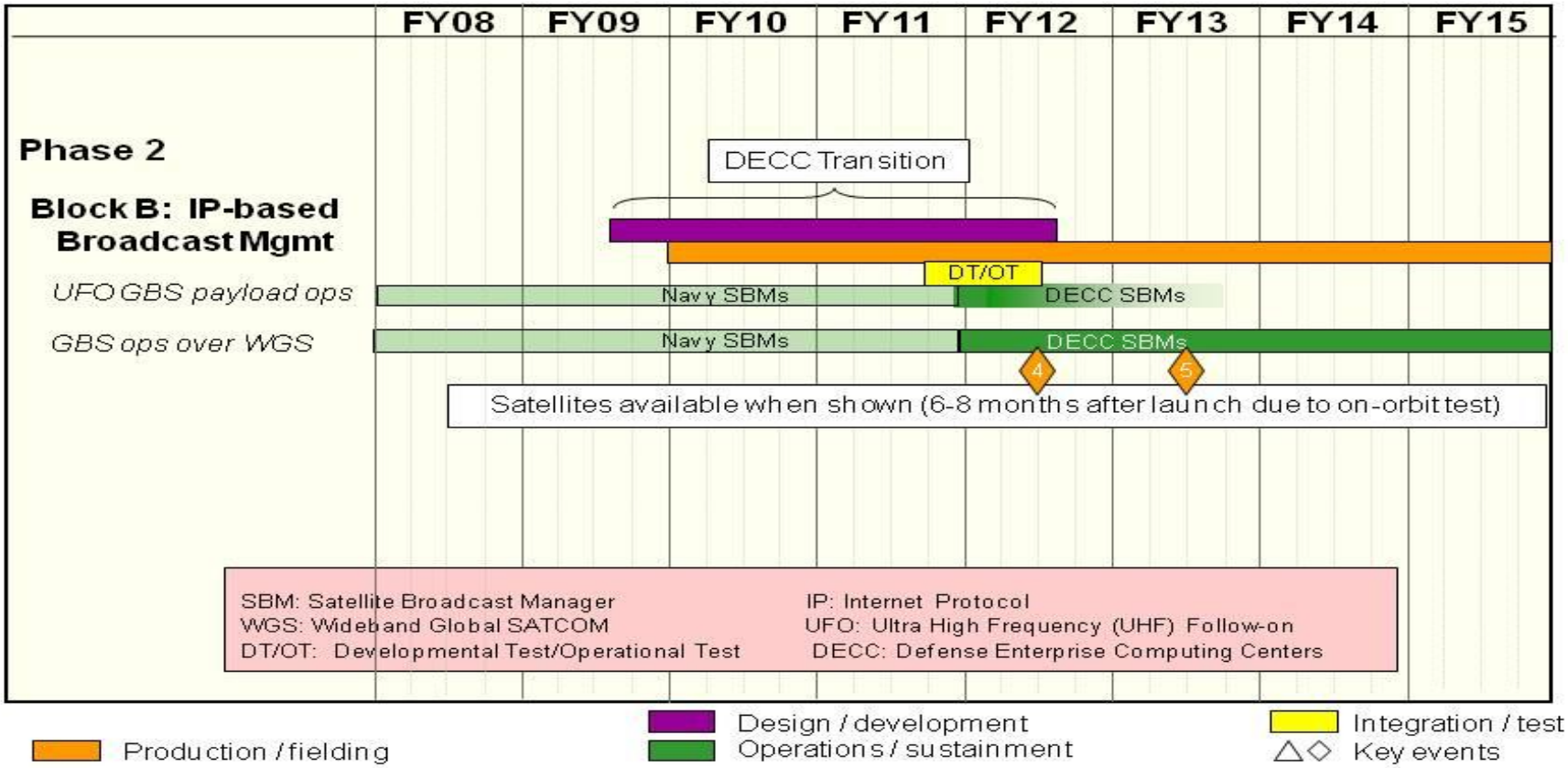

Exhibit R-4a, RDT&E Schedule Detail

DATE
May 2009

BUDGET ACTIVITY	PE NUMBER AND TITLE	PROJECT NUMBER AND TITLE
05 System Development and Demonstration (SDD)	**0603840F Global Broadcast Service (GBS)**	**A023 Satellite Broadcast Management Transition**

(U) Schedule Profile	FY 2008	FY 2009	FY 2010
(U) DECC Transition Contract Award		3Q	
(U) Final Design Review			1Q
(U) Systems Acceptance Test			4Q