

UNCLASSIFIED

PE NUMBER: 0304260F

PE TITLE: Airborne SIGINT Enterprise (JMIP)

Exhibit R-2, RDT&E Budget Item Justification

DATE

February 2005

BUDGET ACTIVITY

07 Operational System Development

PE NUMBER AND TITLE

0304260F Airborne SIGINT Enterprise (JMIP)

Cost (\$ in Millions)	FY 2004 Actual	FY 2005 Estimate	FY 2006 Estimate	FY 2007 Estimate	FY 2008 Estimate	FY 2009 Estimate	FY 2010 Estimate	FY 2011 Estimate	Cost to Complete	Total
Total Program Element (PE) Cost	0.000	0.000	78.920	71.843	81.385	100.454	105.183	105.941	Continuing	TBD
5181 U-2 (Airborne SIGINT Development - U-2)	0.000	0.000	2.000	5.200	5.305	5.424	5.544	5.632	Continuing	TBD
5183 Common Development (Airborne SIGINT Development - Common Development)	0.000	0.000	71.499	53.286	62.409	81.010	85.266	85.666	Continuing	TBD
5184 RQ-4 (Airborne SIGINT Development - Global Hawk)	0.000	0.000	5.029	5.200	5.305	5.424	5.544	5.632	Continuing	TBD
5185 Compass Bright (Airborne SIGINT Development - Compass Bright)	0.000	0.000	0.392	8.157	8.366	8.596	8.829	9.011	Continuing	TBD

(U) In FY 2006, this is a new PE, but this effort is not a new start. This PE combines SIGINT development efforts previously being accomplished in multiple USAF PEs. The funds in this PE came from USAF SIGINT RDT&E efforts previously resident in three other PEs: Global Hawk (0305220F); U-2 (0305202F); and Airborne Reconnaissance Systems (0305206F) Project 4882 Compass Bright. The funds were then redistributed (with inflation adjustment) among all seven ASE BPACs based on new development priorities established by the USAF SIGINT Capabilities Working Group in order to build a total capability. Global Hawk SIGINT RDT&E funds were the Joint SIGINT Avionics Family (JSAF) funds that were placed in that PE when JSAF was terminated in 2001. These funds made up all of the dedicated SIGINT RDT&E funds in the USAF. This program element will participate in the development, testing, and implementation of international standards (to include NATO standardization agreements) to ensure joint, allied, and coalition interoperability.

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

(U) This Program Element (PE) funds efforts associated with the Airborne SIGINT (Signals Intelligence) Enterprise (ASE). ASE is the SIGINT modernization framework for all USAF airborne SIGINT collection platforms and their appropriate interfaces with the Air Force Distributed Common Ground System (AF DCGS). Funds for this PE were previously resident in other USAF PEs doing SIGINT development. These funds were moved to one PE to allow a synergistic development effort to be accomplished while developing a true Air Force-wide capability. This enterprise will use the Air Force Cryptologic Architecture (AFCA) for planning and decision-making and, in turn, employ the Joint Airborne SIGINT Architecture (JASA) open architecture standards to allow maximum ease of future upgrades and system interoperability. The primary goal of ASE is to produce an architecture-based, capability-focused SIGINT investment strategy for the USAF.

(U) This program is Budget Activity 7, Operational Systems Development, because it involves the development of SIGINT capabilities and integration with operational systems such as the RC-135, U-2, MQ-1/MQ-9, RQ-4, Special Programs (Senior Scout and others as required) their associated ground stations and data links, and Compass Bright programs.

Exhibit R-2, RDT&E Budget Item Justification

DATE

February 2005

BUDGET ACTIVITY

07 Operational System Development

PE NUMBER AND TITLE

0304260F Airborne SIGINT Enterprise (JMIP)

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

	<u>FY 2004</u>	<u>FY 2005</u>	<u>FY 2006</u>	<u>FY 2007</u>
(U) Previous President's Budget			0.000	0.000
(U) Current PBR/President's Budget	0.000	0.000	78.920	116.500
(U) Total Adjustments	0.000	0.000		
(U) Congressional Program Reductions				
Congressional Rescissions				
Congressional Increases				
Reprogrammings				
SBIR/STTR Transfer				

(U) **Significant Program Changes:**

(U) This is a new program element established for the Airborne SIGINT Enterprise (ASE). The funds in this PE came from USAF SIGINT RDT&E effort previously resident in three other PEs: Global Hawk (0305220F); U-2 (0305202F); and Airborne Reconnaissance Systems (0305206F) Project 4882 Compass Bright. Global Hawk SIGINT RDT&E funds were the Joint SIGINT Avionics Family (JSAF) funds that were placed in that PE when JSAF was terminated in 2001. These funds made up all of the dedicated SIGINT RDT&E funds in the USAF. In order to develop an Air Force-wide SIGINT capability, a new SIGINT PE was established and these funds were moved into this PE. The funds were then redistributed (with inflation adjustment) among all seven BPACs based on new development priorities established by the USAF SIGINT Capabilities Working Group in order to build a total capability.

Previous years funds PB (in millions) for Global Hawk/U-2 SIGINT and Compass Bright are as follows:

	FY04	FY05	
Global Hawk (ASIP)	66.733	62.767	
U-2 (ASIP)	34.327*	64.300	* after an 8.0M Congressional reduction
Compass Bright	4.9	5.1	

(U) The amount of funds (in millions) moved from each of these was as follows (Note: these amounts were moved in FY04 prior to inflation adjustments being made for FY06 and out. That is why these figures do not add exactly to the amounts above):

	FY06	FY07	FY08	FY09	FY10	FY11
SIGINT Funds in Global Hawk	27.0	107.7	113.8	131.8	134.4	137.1
SIGINT Funds in U-2	54.2	1.4				
Compass Bright	5.2	5.3	5.4	5.4	5.5	5.6

(U) The funds moved from PE 0305206F, Project 4882, Compass Bright was reduced in FY06 due to higher USAF priorities. The USAF determined that additional amounts for Compass Bright would be required in the future and the amounts in Project 675185 above for FY07 and out reflect this.

(U) The growth in funds reflects the fact that FY06 completes the baseline Airborne Signals Intelligence Program (ASIP) for the Global Hawk/U-2 and the continuation of

UNCLASSIFIED

Exhibit R-2, RDT&E Budget Item Justification		DATE February 2005
BUDGET ACTIVITY 07 Operational System Development	PE NUMBER AND TITLE 0304260F Airborne SIGINT Enterprise (JMIP)	
<p>Compass Bright. Beginning in FY07, SIGINT development projects will add work for the RC-135s, MQ-1/9, and Senior Scout.</p>		

UNCLASSIFIED

Exhibit R-2a, RDT&E Project Justification

DATE

February 2005

BUDGET ACTIVITY 07 Operational System Development					PE NUMBER AND TITLE 0304260F Airborne SIGINT Enterprise (JMIP)			PROJECT NUMBER AND TITLE 5181 U-2 (Airborne SIGINT Development - U-2)		
Cost (\$ in Millions)	FY 2004 Actual	FY 2005 Estimate	FY 2006 Estimate	FY 2007 Estimate	FY 2008 Estimate	FY 2009 Estimate	FY 2010 Estimate	FY 2011 Estimate	Cost to Complete	Total
5181 U-2 (Airborne SIGINT Development - U-2)	0.000	0.000	2.000	5.200	5.305	5.424	5.544	5.632	Continuing	TBD
Quantity of RDT&E Articles	0	0	0	0	0	0	0	0		

(U) The source for these funds was the redistribution of SIGINT funds moved into the ASE PE from other USAF SIGINT projects as explained above.

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

(U) This project supports design studies, engineering analysis, non-recurring engineering, and other efforts associated with the integration and modification of the U-2 SIGINT sensors and their associated air and ground components.

(U) This project provides the warfighter with a near term combat capability with increased capability improvements accomplished as soon as technology and risk achieve satisfactory levels. Sensors will be integrated and tested on the U-2 platform as funding permits. The current sensor being developed for U-2 SIGINT is ASIP, which is common with the Global Hawk. The baseline ASIP sensor is scheduled to start testing in FY06. The sensor will then be incrementally upgraded to meet the emerging threat.

(U) Budget Activity Justification This program effort is equivalent to RDT&E budget activity 7, Operational Systems Development, because it involves Air Force R&D necessary to field essential operational capabilities.

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

	<u>FY 2004</u>	<u>FY 2005</u>	<u>FY 2006</u>	<u>FY 2007</u>
(U) Signals Intelligence (SIGINT) Sensor Integration			2.000	5.200
(U) Total Cost	0.000	0.000	2.000	5.200

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

	<u>FY 2004</u> <u>Actual</u>	<u>FY 2005</u> <u>Estimate</u>	<u>FY 2006</u> <u>Estimate</u>	<u>FY 2007</u> <u>Estimate</u>	<u>FY 2008</u> <u>Estimate</u>	<u>FY 2009</u> <u>Estimate</u>	<u>FY 2010</u> <u>Estimate</u>	<u>FY 2011</u> <u>Estimate</u>	<u>Cost to</u> <u>Complete</u>	<u>Total Cost</u>
Airborne Signals Intelligence										
(U) Program (ASIP) development in 0305202F	34.327	63.413								
(U) ASIP development for FY05 and before resides in the U-2 and Global Hawk PEs										

(U) **D. Acquisition Strategy**

(U) Signals Intelligence (SIGINT) capabilities will be integrated on to this platform using an spiral acquisition approach.

UNCLASSIFIED

Exhibit R-3, RDT&E Project Cost Analysis

DATE

February 2005

BUDGET ACTIVITY

07 Operational System Development

PE NUMBER AND TITLE

0304260F Airborne SIGINT Enterprise
(JMIP)

PROJECT NUMBER AND TITLE

5181 U-2 (Airborne SIGINT
Development - U-2)

(U) Cost Categories (Tailor to WBS, or System/Item Requirements) (\$ in Millions)	<u>Contract</u> <u>Method &</u> <u>Type</u>	<u>Performing</u> <u>Activity &</u> <u>Location</u>	<u>Total</u> <u>Prior to FY</u> <u>2004</u> <u>Cost</u>	<u>FY 2004</u> <u>Cost</u>	<u>FY 2004</u> <u>Award</u> <u>Date</u>	<u>FY 2005</u> <u>Cost</u>	<u>FY 2005</u> <u>Award</u> <u>Date</u>	<u>FY 2006</u> <u>Cost</u>	<u>FY 2006</u> <u>Award</u> <u>Date</u>	<u>FY 2007</u> <u>Cost</u>	<u>FY 2007</u> <u>Award</u> <u>Date</u>	<u>Cost to</u> <u>Complete</u>	<u>Total Cost</u>	<u>Target</u> <u>Value of</u> <u>Contract</u>
(U) <u>Product Development</u>														
SIGINT Sensors Integration	TBD	TBD		0.000				2.000	Jan-06	5.200	Jan-07	Continuing	TBD	TBD
Subtotal Product Development			0.000	0.000		0.000		2.000		5.200		Continuing	TBD	TBD
Remarks:														
(U) Total Cost			0.000	0.000		0.000		2.000		5.200		Continuing	TBD	TBD

Exhibit R-4, RDT&E Schedule Profile

DATE

February 2005

BUDGET ACTIVITY

07 Operational System Development

PE NUMBER AND TITLE

0304260F Airborne SIGINT Enterprise (JMIP)

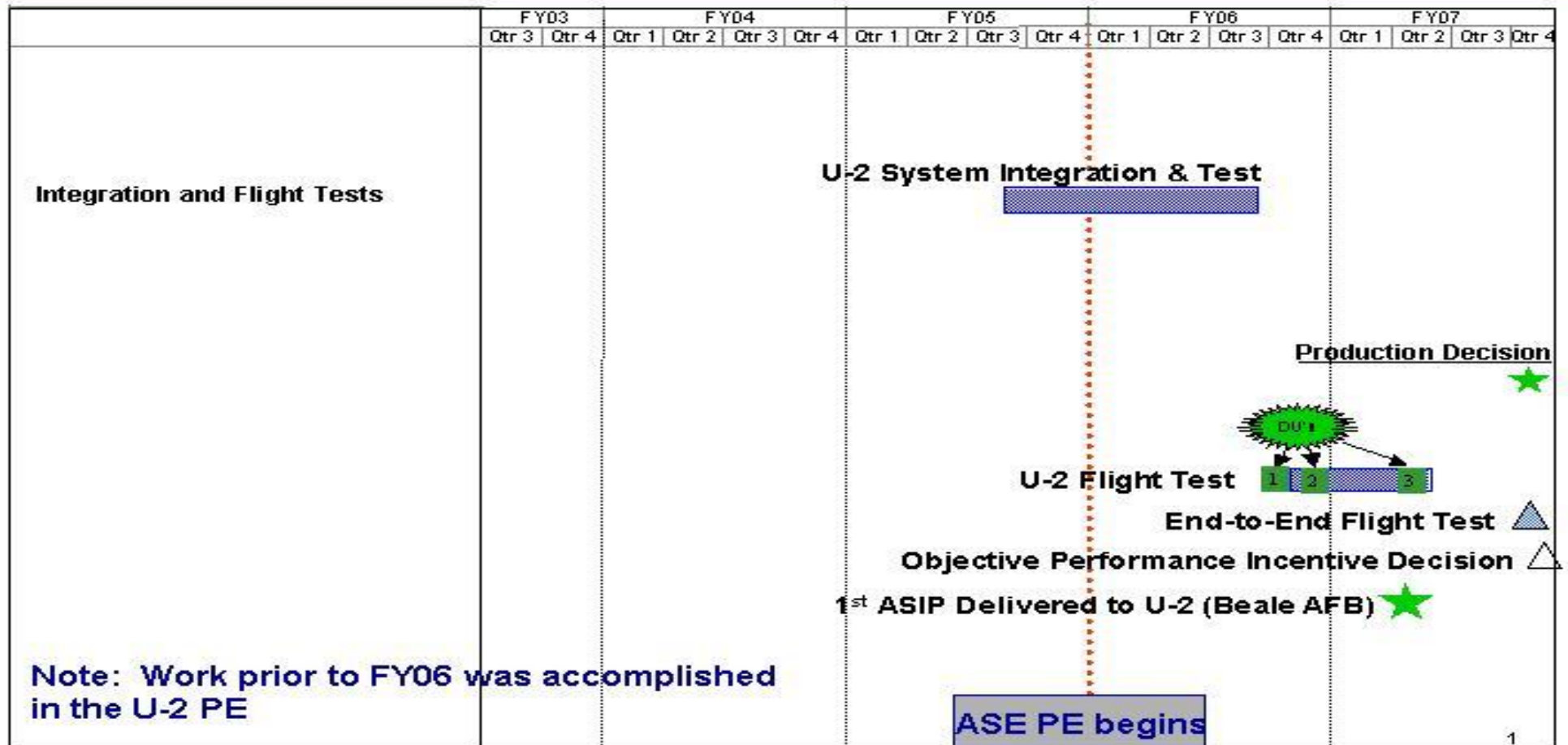
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5181 U-2 (Airborne SIGINT Development - U-2)



U.S. AIR FORCE

U-2 SIGINT Integration



UNCLASSIFIED

Exhibit R-4a, RDT&E Schedule Detail

DATE

February 2005

BUDGET ACTIVITY

07 Operational System Development

PE NUMBER AND TITLE

0304260F Airborne SIGINT Enterprise
(JMIP)

PROJECT NUMBER AND TITLE

5181 U-2 (Airborne SIGINT
Development - U-2)(U) **Schedule Profile**FY 2004FY 2005FY 2006FY 2007

(U) U-2 flight test of baseline ASIP sensor

3Q

(U) End-to-end flight test of ASIP sensor

4Q

(U) Sensor integration efforts of capabilities developed under Project 675183 of this PE
and of any quick reaction capabilities that are developed for the U-2

4Q

2-4Q

UNCLASSIFIED

Exhibit R-2a, RDT&E Project Justification

DATE

February 2005

BUDGET ACTIVITY 07 Operational System Development					PE NUMBER AND TITLE 0304260F Airborne SIGINT Enterprise (JMIP)			PROJECT NUMBER AND TITLE 5183 Common Development (Airborne SIGINT Development - Common Development)		
Cost (\$ in Millions)	FY 2004 Actual	FY 2005 Estimate	FY 2006 Estimate	FY 2007 Estimate	FY 2008 Estimate	FY 2009 Estimate	FY 2010 Estimate	FY 2011 Estimate	Cost to Complete	Total
5183 Common Development (Airborne SIGINT Development - Common Development)	0.000	0.000	71.499	53.286	62.409	81.010	85.266	85.666	Continuing	TBD
Quantity of RDT&E Articles	0	0	0	0	0	0	0	0		

(U) The source for these funds was the redistribution of SIGINT funds moved into the ASE PE from other USAF SIGINT projects as explained above.

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

(U) This project supports design studies, engineering analysis, non-recurring engineering, and other efforts associated with the integration and modification of sensors and their associated air and ground components that will be used on/by more than one platform. The common development SIGINT Program develops new sensors and maintains present capability by developing replacements for current components affected by diminishing manufacturing sources as well as enhancing capability to exploit evolving signals of interest to meet emerging operational requirements. The current sensor being developed is the Airborne Signals Intelligence Program (ASIP), to be used by both the Global Hawk and U-2.

(U) This program will design, develop, and build a common/scalable modernized SIGINT system with a low-band subsystem integrated with a high-band system. ASIP prototype Developmental Units (DUs) will be delivered for system integration and testing on the U-2 and Global Hawk.

(U) This strategy provides the warfighter with a near term combat capability with increased capability improvements accomplished as soon as technology and risk achieve satisfactory levels. Sensors will be integrated and tested on the various platforms as funding permits.

(U) Budget Activity Justification This program effort is equivalent to RDT&E budget activity 7, Operational Systems Development, because it involves Air Force R&D necessary to field essential operational capabilities.

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

	<u>FY 2004</u>	<u>FY 2005</u>	<u>FY 2006</u>	<u>FY 2007</u>
(U) Signals Intelligence (SIGINT) Sensor Development/Integration			71.499	53.286
(U) Complete Baseline ASIP development. Begin ASIP upgrades to meet the evolving threat				
(U) Total Cost	0.000	0.000	71.499	53.286

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

	<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>FY 2010</u>	<u>FY 2011</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>Estimate</u>	<u>Complete</u>	
(U) RDT&E, 0305205F - ASIP Development	62.833	62.767								125.600
(U) RDT&E, 0305202F - ASIP Development	34.327	63.413								97.740

Project 5183

R-1 Shopping List - Item No. 177-9 of 177-23

Exhibit R-2a (PE 0304260F)

UNCLASSIFIED

Exhibit R-2a, RDT&E Project Justification

DATE

February 2005

BUDGET ACTIVITY

07 Operational System Development

PE NUMBER AND TITLE

0304260F Airborne SIGINT Enterprise
(JMIP)

PROJECT NUMBER AND TITLE

5183 Common Development
(Airborne SIGINT Development -
Common Development)(U) **C. Other Program Funding Summary (\$ in Millions)**

(U)	APAF, 0305220F - ASIP	4.700	6.400	84.100	48.300	49.600	55.500	248.600
	Production BP10							
(U)	APAF, 0305220F - ASIP			29.400	49.500	43.900	43.800	1.100
	Production BP11							

(U) **D. Acquisition Strategy**

Signals Intelligence (SIGINT) capabilities will be developed and integrated on to various platforms using an Evolutionary Acquisition approach.

UNCLASSIFIED

Exhibit R-3, RDT&E Project Cost Analysis

DATE

February 2005

BUDGET ACTIVITY

07 Operational System Development

PE NUMBER AND TITLE

0304260F Airborne SIGINT Enterprise
(JMIP)

PROJECT NUMBER AND TITLE

5183 Common Development
(Airborne SIGINT Development -
Common Development)

(U) Cost Categories (Tailor to WBS, or System/Item Requirements) (\$ in Millions)	<u>Contract</u> <u>Method &</u> <u>Type</u>	<u>Performing</u> <u>Activity &</u> <u>Location</u>	<u>Total</u> <u>Prior to FY</u> <u>2004</u> <u>Cost</u>	<u>FY 2004</u> <u>Cost</u>	<u>FY 2004</u> <u>Award</u> <u>Date</u>	<u>FY 2005</u> <u>Cost</u>	<u>FY 2005</u> <u>Award</u> <u>Date</u>	<u>FY 2006</u> <u>Cost</u>	<u>FY 2006</u> <u>Award</u> <u>Date</u>	<u>FY 2007</u> <u>Cost</u>	<u>FY 2007</u> <u>Award</u> <u>Date</u>	<u>Cost to</u> <u>Complete</u>	<u>Total Cost</u>	<u>Target</u> <u>Value of</u> <u>Contract</u>
(U) <u>Product Development</u>														
SIGINT Sensor Development and Integration				0.000				71.499	Jan-06	53.286	Jan-07	Continuing	TBD	TBD
Subtotal Product Development			0.000	0.000		0.000		71.499		53.286		Continuing	TBD	TBD
Remarks: Contractors are those listed above														
(U) Total Cost			0.000	0.000		0.000		71.499		53.286		Continuing	TBD	TBD

Exhibit R-4, RDT&E Schedule Profile

DATE

February 2005

BUDGET ACTIVITY
07 Operational System DevelopmentPE NUMBER AND TITLE
0304260F Airborne SIGINT Enterprise
(JMIP)PROJECT NUMBER AND TITLE
5183 Common Development
(Airborne SIGINT Development -
Common Development)

U.S. AIR FORCE

Common Development ASE Schedule

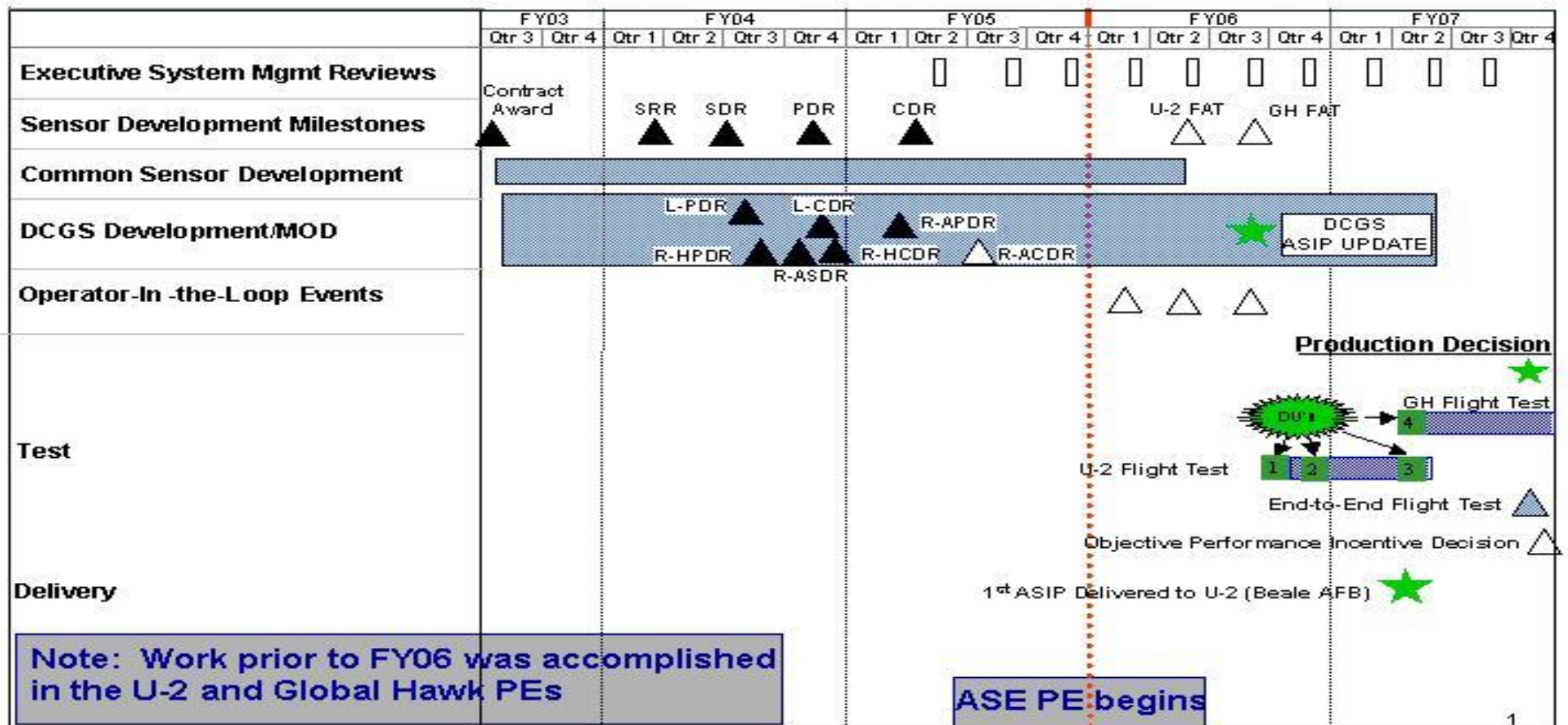


Exhibit R-4, RDT&E Schedule Profile

DATE

February 2005

BUDGET ACTIVITY

07 Operational System Development

PE NUMBER AND TITLE

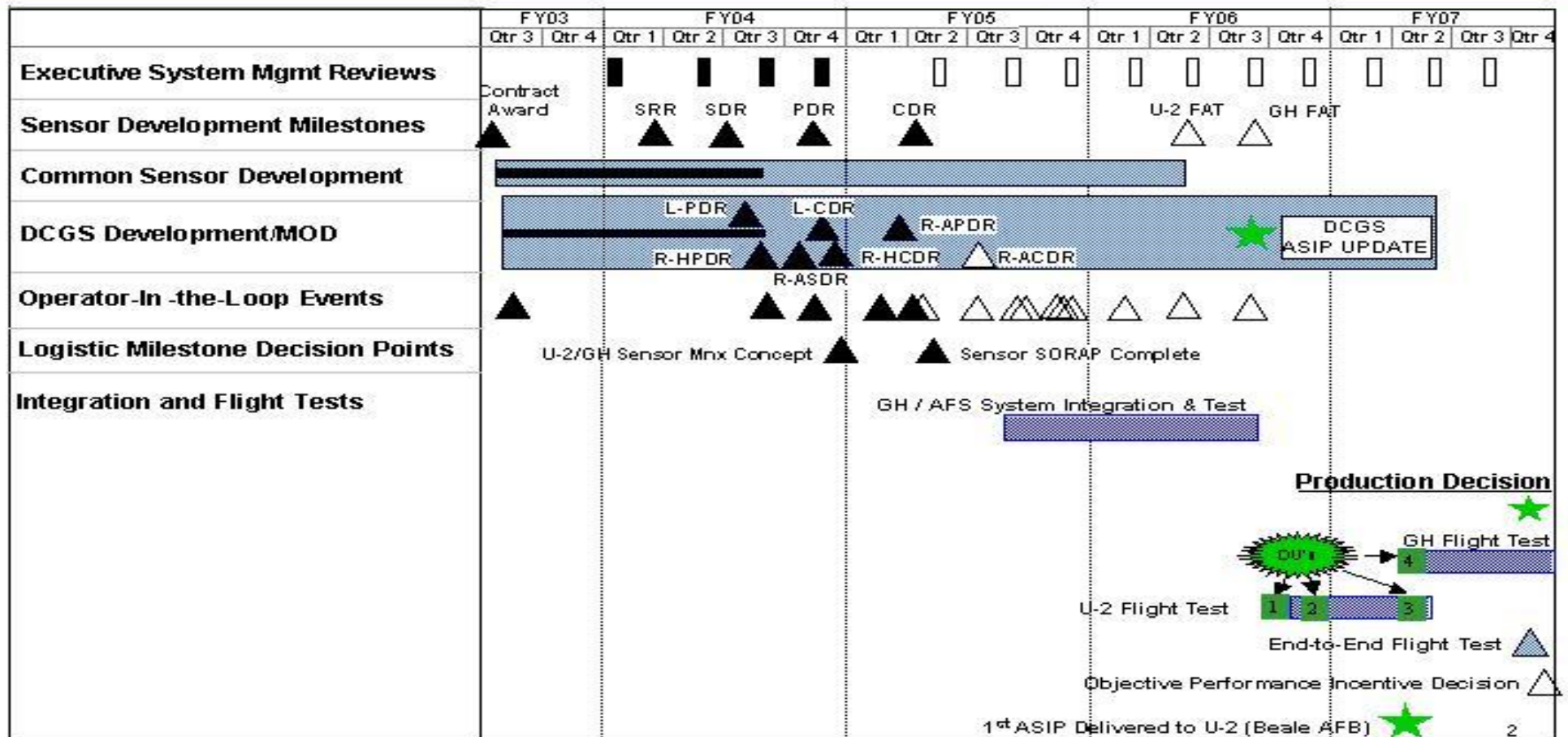
0304260F Airborne SIGINT Enterprise
(JMIP)

PROJECT NUMBER AND TITLE

5183 Common Development
(Airborne SIGINT Development -
Common Development)

U.S. AIR FORCE

Overall ASIP Schedule



UNCLASSIFIED

Exhibit R-4a, RDT&E Schedule Detail			DATE	
			February 2005	
BUDGET ACTIVITY	PE NUMBER AND TITLE		PROJECT NUMBER AND TITLE	
07 Operational System Development	0304260F Airborne SIGINT Enterprise (JMIP)		5183 Common Development (Airborne SIGINT Development - Common Development)	
(U) <u>Schedule Profile</u>	<u>FY 2004</u>	<u>FY 2005</u>	<u>FY 2006</u>	<u>FY 2007</u>
(U) Sensor Development	1-4Q	1-4Q	1-4Q	1-4Q
(U) - SRR	1Q			
(U) - SDR	3Q			
(U) - PDR	4Q			
(U) - CDR		2Q		
(U) DCGS Development	3-4Q			
(U) - L-PDR	3Q			
(U) - R-HPDR	3Q			
(U) - L-CDR	4Q			
(U) - R-ASDR	4Q			
(U) - R-HCDR	4Q			
(U) - R-APDR		2Q		
(U) - R-ACDR		3Q		
(U) Global Hawk FAT			3Q	
(U) U-2 FAT			2Q	
(U) DCGS ASIP Update			3Q	
(U) Global Hawk Flight Test				2Q
(U) U-2 Flight Test			3Q	
(U) End-to-End Flight Test				4Q
(U) Note: FY04 and 05 efforts were accomplished in the Global Hawk 0305220F and U-2 0305202F PEs.				

UNCLASSIFIED

Exhibit R-2a, RDT&E Project Justification

DATE

February 2005

BUDGET ACTIVITY

07 Operational System Development

PE NUMBER AND TITLE

0304260F Airborne SIGINT Enterprise
(JMIP)

PROJECT NUMBER AND TITLE

5184 RQ-4 (Airborne SIGINT
Development - Global Hawk

Cost (\$ in Millions)	FY 2004 Actual	FY 2005 Estimate	FY 2006 Estimate	FY 2007 Estimate	FY 2008 Estimate	FY 2009 Estimate	FY 2010 Estimate	FY 2011 Estimate	Cost to Complete	Total
5184 RQ-4 (Airborne SIGINT Development - Global Hawk	0.000	0.000	5.029	5.200	5.305	5.424	5.544	5.632	Continuing	TBD
Quantity of RDT&E Articles	0	0	0	0	0	0	0	0		

(U) The source for these funds was the redistribution of SIGINT funds moved into the ASE PE from other USAF SIGINT projects as explained above.

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

(U) This project supports design studies, engineering analysis, non-recurring engineering, and other efforts associated with the integration and modification of the Global Hawk SIGINT sensors and their associated air and ground components.

(U) This project provides the warfighter with a near term combat capability with increased capability improvements accomplished as soon as technology and risk achieve satisfactory levels. Sensors will be integrated and tested on the RQ-4 platform as funding permits.

(U) Budget Activity Justification This program effort is equivalent to RDT&E budget activity 7, Operational Systems Development, because it involves Air Force R&D necessary to field essential operational capabilities.

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

	<u>FY 2004</u>	<u>FY 2005</u>	<u>FY 2006</u>	<u>FY 2007</u>
(U) Signals Intelligence (SIGINT) Sensor Integration			5.029	5.200
(U) Total Cost	0.000	0.000	5.029	5.200

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

	<u>FY 2004</u> <u>Actual</u>	<u>FY 2005</u> <u>Estimate</u>	<u>FY 2006</u> <u>Estimate</u>	<u>FY 2007</u> <u>Estimate</u>	<u>FY 2008</u> <u>Estimate</u>	<u>FY 2009</u> <u>Estimate</u>	<u>FY 2010</u> <u>Estimate</u>	<u>FY 2011</u> <u>Estimate</u>	<u>Cost to</u> <u>Complete</u>	<u>Total Cost</u>
Sensor Integration										
(U) 0305205/030220F - Sensor	62.833	62.767								
Development										
(U) ASIP development for FY05 and before resides in the U-2 and Global Hawk PEs										

(U) **D. Acquisition Strategy**

(U) Signals Intelligence (SIGINT) capabilities will be integrated on to this platform using an Evolutionary Acquisition approach.

UNCLASSIFIED

Exhibit R-3, RDT&E Project Cost Analysis

DATE

February 2005

BUDGET ACTIVITY

07 Operational System Development

PE NUMBER AND TITLE

0304260F Airborne SIGINT Enterprise
(JMIP)

PROJECT NUMBER AND TITLE

5184 RQ-4 (Airborne SIGINT
Development - Global Hawk)

(U) <u>Cost Categories</u> (Tailor to WBS, or System/Item Requirements) (\$ in Millions)	<u>Contract</u> <u>Method &</u> <u>Type</u>	<u>Performing</u> <u>Activity &</u> <u>Location</u>	<u>Total</u> <u>Prior to FY</u> <u>2004</u> <u>Cost</u>	<u>FY 2004</u> <u>Cost</u>	<u>FY 2004</u> <u>Award</u> <u>Date</u>	<u>FY 2005</u> <u>Cost</u>	<u>FY 2005</u> <u>Award</u> <u>Date</u>	<u>FY 2006</u> <u>Cost</u>	<u>FY 2006</u> <u>Award</u> <u>Date</u>	<u>FY 2007</u> <u>Cost</u>	<u>FY 2007</u> <u>Award</u> <u>Date</u>	<u>Cost to</u> <u>Complete</u>	<u>Total Cost</u>	<u>Target</u> <u>Value of</u> <u>Contract</u>
(U) <u>Product Development</u> SIGINT Sensor Integration	TBD	Northrop Grumman Mission Sys		0.000		0.000		5.029	Jan-06	5.200	Jan-07	Continuing	TBD	TBD
Subtotal Product Development			0.000	0.000		0.000		5.029		5.200		Continuing	TBD	TBD
Remarks:														
(U) Total Cost			0.000	0.000		0.000		5.029		5.200		Continuing	TBD	TBD

Exhibit R-4, RDT&E Schedule Profile

DATE

February 2005

BUDGET ACTIVITY

07 Operational System Development

PE NUMBER AND TITLE

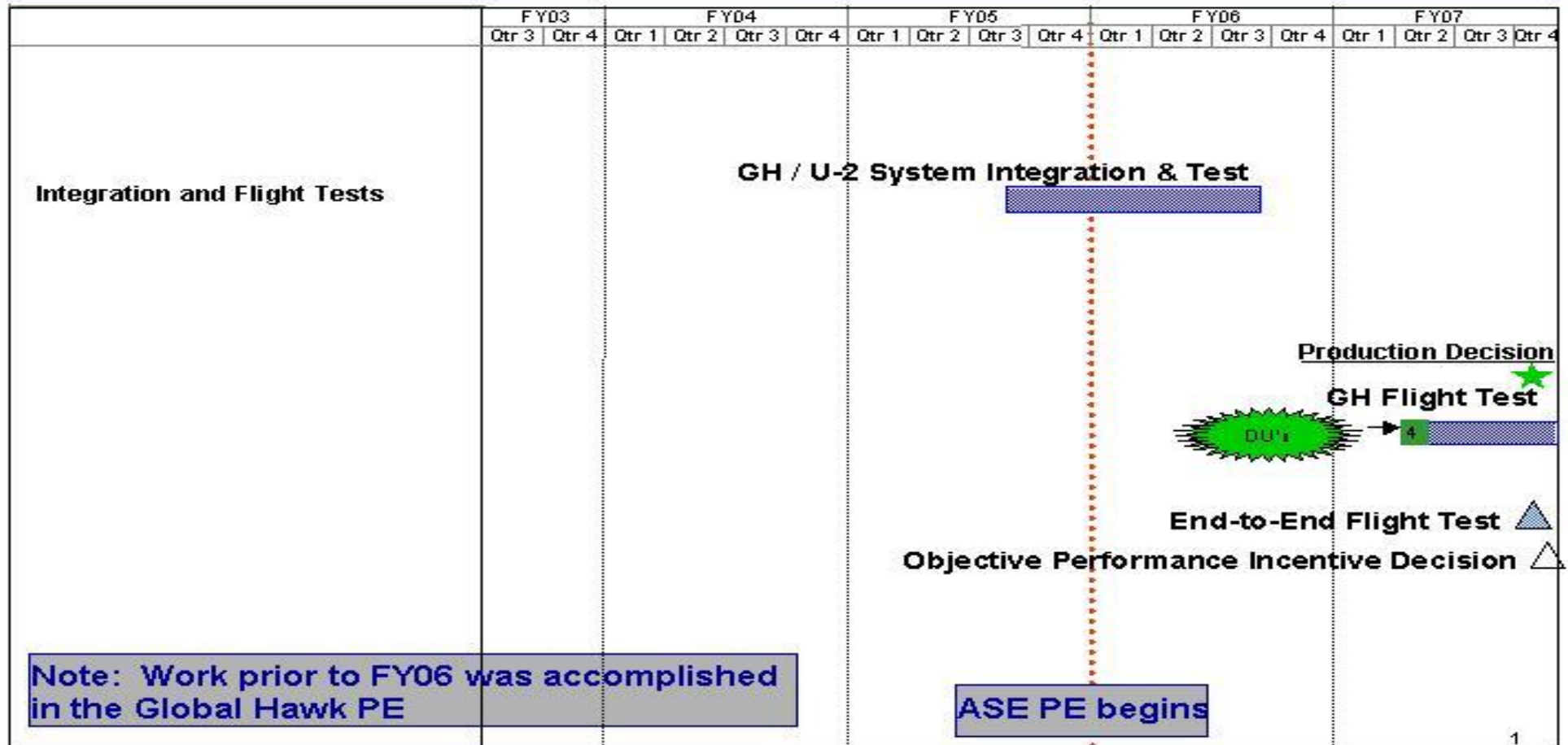
0304260F Airborne SIGINT Enterprise
(JMIP)

PROJECT NUMBER AND TITLE

5184 RQ-4 (Airborne SIGINT
Development - Global Hawk

U.S. AIR FORCE

Global Hawk SIGINT Integration



UNCLASSIFIED

Exhibit R-4a, RDT&E Schedule Detail

DATE

February 2005

BUDGET ACTIVITY

07 Operational System Development

PE NUMBER AND TITLE

0304260F Airborne SIGINT Enterprise
(JMIP)

PROJECT NUMBER AND TITLE

5184 RQ-4 (Airborne SIGINT
Development - Global Hawk)(U) Schedule ProfileFY 2004FY 2005FY 2006FY 2007

(U) GH flight test of baseline ASIP sensor

2Q

(U) End-to-end flight test of ASIP sensor

4Q

(U) Sensor integration efforts of capabilities developed under Project 675183 of this PE
and of any quick reaction capabilities that are developed for the RQ-4

4Q

2-4Q

UNCLASSIFIED

Exhibit R-2a, RDT&E Project Justification

DATE

February 2005

BUDGET ACTIVITY 07 Operational System Development					PE NUMBER AND TITLE 0304260F Airborne SIGINT Enterprise (JMIP)			PROJECT NUMBER AND TITLE 5185 Compass Bright (Airborne SIGINT Development - Compass Bright)		
Cost (\$ in Millions)	FY 2004 Actual	FY 2005 Estimate	FY 2006 Estimate	FY 2007 Estimate	FY 2008 Estimate	FY 2009 Estimate	FY 2010 Estimate	FY 2011 Estimate	Cost to Complete	Total
5185 Compass Bright (Airborne SIGINT Development - Compass Bright)	0.000	0.000	0.392	8.157	8.366	8.596	8.829	9.011	Continuing	TBD
Quantity of RDT&E Articles	0	0	0	0	0	0	0	0		

(U) All funds in Compass Bright are 3600 RDT&E. The source for these funds was the redistribution of SIGINT funds moved into the ASE PE from other USAF SIGINT projects as explained above.

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

(U) The COMPASS BRIGHT program develops, demonstrates, and rapidly transitions advanced Air Force-specific signal intelligence (SIGINT) and radio frequency (RF) measurement and signature intelligence (MASINT) capabilities against emerging and future target signals. It is the only USAF program that pursues SIGINT and RF MASINT technology transition. Funds were reduced in FY from previous submissions due to higher USAF priorities.

(U) The COMPASS BRIGHT program objective is to develop technologies for application in SIGINT and RF MASINT systems/subsystems. Acquisition and production of these developed technologies will occur within the appropriate platform programs.

(U) Compass Bright projects are selected through a data call process whereby the USAF evaluates proposals from the labs and industry to select those projects that are most promising. This process is completed the year prior to award.

(U) This program is categorized as Budget Activity 7 because it provides for development of technologies and capabilities in support of operational system development.

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

	<u>FY 2004</u>	<u>FY 2005</u>	<u>FY 2006</u>	<u>FY 2007</u>
(U) Continue COMPASS BRIGHT development projects in the signal intelligence (SIGINT) and radio frequency (RF) measurement and signature intelligence (MASINT) areas				7.193
(U) Mission Support, Program Management Activities			0.392	0.964
(U)				
(U) Total Cost	0.000	0.000	0.392	8.157

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

	<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>FY 2010</u>	<u>FY 2011</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>Estimate</u>	<u>Complete</u>	
RDT&E, PE 0305206F,										
(U) BPAC 674882 - Compass	4.796	2.105							7.020	7.020
Bright Development										
Compass Bright Funds for FY06 and out were moved from the above PE to the ASE PE										

Project 5185

R-1 Shopping List - Item No. 177-19 of 177-23

Exhibit R-2a (PE 0304260F)

UNCLASSIFIED

Exhibit R-2a, RDT&E Project Justification		DATE February 2005
BUDGET ACTIVITY 07 Operational System Development	PE NUMBER AND TITLE 0304260F Airborne SIGINT Enterprise (JMIP)	PROJECT NUMBER AND TITLE 5185 Compass Bright (Airborne SIGINT Development - Compass Bright)
<p>(U) <u>D. Acquisition Strategy</u></p> <p>(U) On-going COMPASS BRIGHT technology development and demonstration contracts will continue through existing laboratory relationships and other existing contractual vehicles, with future development projects emphasizing full and open competition.</p>		
Project 5185		
R-1 Shopping List - Item No. 177-20 of 177-23		
Exhibit R-2a (PE 0304260F)		

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Exhibit R-3, RDT&E Project Cost Analysis

DATE

February 2005

BUDGET ACTIVITY

07 Operational System Development

PE NUMBER AND TITLE

0304260F Airborne SIGINT Enterprise
(JMIP)

PROJECT NUMBER AND TITLE

5185 Compass Bright (Airborne
SIGINT Development - Compass
Bright)

(U) Cost Categories (Tailor to WBS, or System/Item Requirements) (\$ in Millions)	<u>Contract Method & Type</u>	<u>Performing Activity & Location</u>	<u>Total Prior to FY 2004 Cost</u>	<u>FY 2004 Cost</u>	<u>FY 2004 Award Date</u>	<u>FY 2005 Cost</u>	<u>FY 2005 Award Date</u>	<u>FY 2006 Cost</u>	<u>FY 2006 Award Date</u>	<u>FY 2007 Cost</u>	<u>FY 2007 Award Date</u>	<u>Cost to Complete</u>	<u>Total Cost</u>	<u>Target Value of Contract</u>
(U) <u>Product Development</u>														
Various	TBD	AFRL						0.000	Jan-06	7.193	Jan-07	Continuing	TBD	TBD
Subtotal													0.000	
Subtotal Product Development			0.000	0.000		0.000		0.000		7.193		Continuing	TBD	TBD
Remarks:														
(U) <u>Management</u>														
Various. FY06 Management funds will be used to manage previously funded projects still under work			0.000	0.000		0.000		0.392		0.964		Continuing	TBD	TBD
Subtotal Management			0.000	0.000		0.000		0.392		0.964		Continuing	TBD	TBD
Remarks:														
(U) Total Cost			0.000	0.000		0.000		0.392		8.157		Continuing	TBD	TBD

Exhibit R-4, RDT&E Schedule Profile

DATE

February 2005

BUDGET ACTIVITY

07 Operational System Development

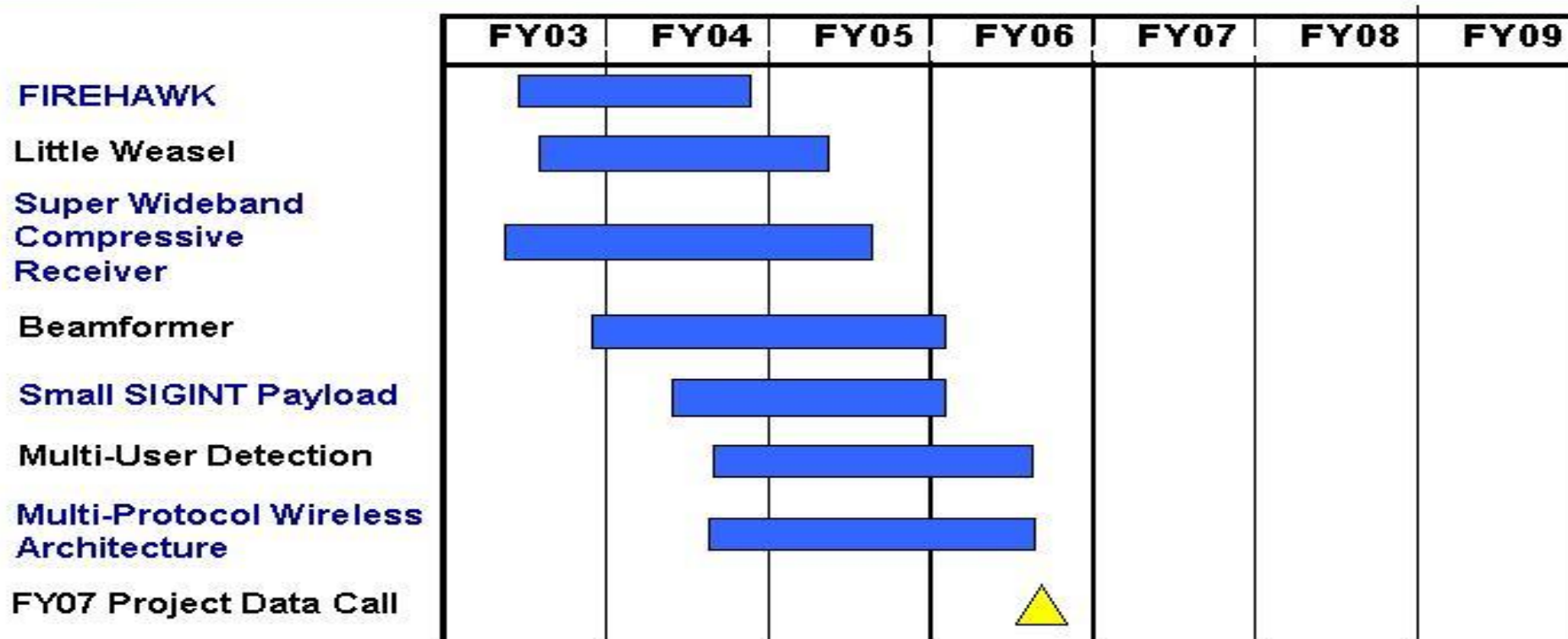
PE NUMBER AND TITLE

0304260F Airborne SIGINT Enterprise
(JMIP)

PROJECT NUMBER AND TITLE

5185 Compass Bright (Airborne
SIGINT Development - Compass
Bright)

COMPASS BRIGHT Project Schedules



Note1: COMPASS BRIGHT Projects are 1-2 years in duration, thus no outyear projects are shown

Note 2: Efforts previous to FY 06 were funded from PE 0305206F, Project 4882

1

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Exhibit R-4a, RDT&E Schedule Detail

DATE

February 2005

BUDGET ACTIVITY

07 Operational System Development

PE NUMBER AND TITLE

0304260F Airborne SIGINT Enterprise
(JMIP)

PROJECT NUMBER AND TITLE

5185 Compass Bright (Airborne
SIGINT Development - Compass
Bright)(U) **Schedule Profile**FY 2004FY 2005FY 2006FY 2007

(U) Multi-User Detection Demo

2Q

(U) Multi-Protocol Wireless Architecture Demo

2Q

(U) Beamformer Demo

1Q

(U) SSP Demo

1Q

(U) FY07 Proposal Call

3Q

(U) FY07 Proposals Evaluated and Approved

4Q

(U) FY07 Proposals Authorized to Proceed

1Q

(U) FY08 Proposal Call

3Q

(U) FY08 Proposals Evaluated and Approved

4Q