

UNCLASSIFIED

Exhibit R-2, RDT&E Budget Item Justification: PB 2013 Air Force	DATE: February 2012
--	----------------------------

APPROPRIATION/BUDGET ACTIVITY 3600: <i>Research, Development, Test & Evaluation, Air Force</i> BA 7: <i>Operational Systems Development</i>	R-1 ITEM NOMENCLATURE PE 0304260F: <i>Airborne SIGINT Enterprise (JMIP)</i>
--	---

COST (\$ in Millions)	FY 2011	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total	FY 2014	FY 2015	FY 2016	FY 2017	Cost To Complete	Total Cost
Total Program Element	159.462	108.248	129.106	-	129.106	128.287	130.577	134.320	135.256	Continuing	Continuing
675180: <i>RC-135 (Airborne SIGINT Development - RC-135 Rivet Joint)</i>	27.328	34.744	40.160	-	40.160	23.393	31.434	7.156	7.040	Continuing	Continuing
675182: <i>MQ-1/MQ-9 (Airborne SIGINT Development - Predator)</i>	44.677	25.874	35.340	-	35.340	32.270	31.433	40.817	41.356	Continuing	Continuing
675183: <i>Common Development (Airborne SIGINT Development - Common Development)</i>	45.031	38.855	45.403	-	45.403	59.569	42.857	63.476	63.614	Continuing	Continuing
675184: <i>RQ-4 (Airborne SIGINT Development - Global Hawk)</i>	12.068	2.108	0.998	-	0.998	4.066	6.004	7.177	7.271	Continuing	Continuing
675185: <i>Compass Bright (Airborne SIGINT Development - Compass Bright)</i>	7.022	6.169	6.324	-	6.324	6.470	6.707	6.893	6.984	Continuing	Continuing
675186: <i>Special Programs (Airborne SIGINT Development - Special Platforms)</i>	23.336	0.498	0.881	-	0.881	2.519	12.142	8.801	8.991	Continuing	Continuing

Note

FY11 funding include \$16.0M for Overseas Contingency Operations.

Totals in FY11 include funding for PRCP program number 375 "ASIP".

A. Mission Description and Budget Item Justification

(U) This PE provides signals intelligence (SIGINT) development efforts for all USAF airborne platforms. The funds in this PE are distributed among all Airborne SIGINT Enterprise (ASE) projects based on the development priorities established by the USAF SIGINT Capabilities Working Group (SCWG) in order to build a total SIGINT capability. As a result, the USAF will move funds between projects periodically to develop the highest priority projects in response to urgent warfighter needs. This PE will participate in the development, integration, testing, and implementation of international standards (to include NATO standardization agreements) to ensure joint, allied, and coalition interoperability. Modernization efforts include sensors for the platforms and their appropriate interfaces with the Air Force Distributed Common Ground System (AF DCGS). This approach will allow a synergistic development effort to be accomplished while developing a true Air Force-wide capability.

UNCLASSIFIED

Exhibit R-2, RDT&E Budget Item Justification: PB 2013 Air Force			DATE: February 2012			
APPROPRIATION/BUDGET ACTIVITY 3600: Research, Development, Test & Evaluation, Air Force BA 7: Operational Systems Development		R-1 ITEM NOMENCLATURE PE 0304260F: Airborne SIGINT Enterprise (JMIP)				
(U) 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 the ASE is to produce an architecture-based, capability-focused SIGINT investment strategy for the USAF. Funds in any project may be used to fund initiatives in other projects within this PE at the discretion of the SCWG. Funds in any project can also cover activities to include studies and analysis to support both current program planning and execution and future program planning.						
This program is in Budget Activity 7, Operational System Development because this budget activity includes development efforts to upgrade systems that have been fielded or have received approval for full rate production and anticipate production funding in the current or subsequent fiscal year.						
B. Program Change Summary (\$ in Millions)		FY 2011	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total
Previous President's Budget		149.268	121.748	126.946	-	126.946
Current President's Budget		159.462	108.248	129.106	-	129.106
Total Adjustments		10.194	-13.500	2.160	-	2.160
• Congressional General Reductions		-	-			
• Congressional Directed Reductions		-	-13.500			
• Congressional Rescissions		-	-			
• Congressional Adds		-	-			
• Congressional Directed Transfers		-	-			
• Reprogrammings		-	-			
• SBIR/STTR Transfer		-	-			
• Other Adjustments		10.194	-	2.160	-	2.160
Change Summary Explanation						
In FY11 net increase of \$10.194M:						
(-) \$5.806M Congressional reductions for Execution rates and general recissions.						
(+) \$16.0M for OCO						
FY12 decrease of \$13.5M due to Congressional reduction:						
(-) \$12.0M due to ASIP 2C contract delays						
(-) \$1.5M due to RQ-4 delays						
FY13 increase of \$2.160 due to inflation rate increase.						

UNCLASSIFIED

Exhibit R-2A, RDT&E Project Justification: PB 2013 Air Force									DATE: February 2012		
APPROPRIATION/BUDGET ACTIVITY				R-1 ITEM NOMENCLATURE				PROJECT			
3600: Research, Development, Test & Evaluation, Air Force BA 7: Operational Systems Development				PE 0304260F: Airborne SIGINT Enterprise (JMIP)				675180: RC-135 (Airborne SIGINT Development - RC-135 Rivet Joint)			
COST (\$ in Millions)	FY 2011	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total	FY 2014	FY 2015	FY 2016	FY 2017	Cost To Complete	Total Cost
675180: RC-135 (Airborne SIGINT Development - RC-135 Rivet Joint)	27.328	34.744	40.160	-	40.160	23.393	31.434	7.156	7.040	Continuing	Continuing
Quantity of RDT&E Articles	0	0	0	0	0	0	0	0	0		

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 RC-135 SIGINT sensors and their associated air and ground components. Through extensive utilization of commercial-off-the-shelf (COTS)-based solutions to fielding of needed capabilities, it also incurs the need for continuous diminishing manufacturing sources integration efforts consistent with the COTS technology cycle. These efforts provide the required engineering for preliminary assessments of technical feasibility, operability, or military utility as well as specific engineering implementations integrated into the various baseline modifications. These funds will be split between the RIVET JOINT, COMBAT SENT, and COBRA BALL programs. Funding reflects the SIGINT Capabilities Working Group (SCWG) priorities and the accomplishment of other ASE initiatives. This program is in Budget Activity 7, Operational System Development because this budget activity includes development efforts to upgrade systems that have been fielded or have received approval for full rate production and anticipate production funding in the current or subsequent fiscal year.

B. Accomplishments/Planned Programs (\$ in Millions)

	FY 2011	FY 2012	FY 2013
Title: SIGINT Development	27.328	34.744	40.160
Description: Non-Recurring Engineering (NRE) for the RC-135 SIGINT Systems. See Classified Budget Exhibits (PE 0305207F)			
FY 2011 Accomplishments: Improved ELINT capabilities, EAN 105 antenna integration efforts and software.			
FY 2012 Plans: Continue SIGINT development efforts for the RC-135 fleet including new signal development.			
FY 2013 Plans: Will continue SIGINT development efforts for the RC-135 fleet to include new signal sets and upgrades to current capabilities.			
Accomplishments/Planned Programs Subtotals	27.328	34.744	40.160

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

Line Item	FY 2011	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total	FY 2014	FY 2015	FY 2016	FY 2017	Cost To Complete	Total Cost
• APAF, PE 0305207F, Manned Recon...: <i>APAF</i>	148.723	201.596	209.361	0.000	209.361	220.324	225.720	229.992	233.776	Continuing	Continuing

UNCLASSIFIED

Exhibit R-2A, RDT&E Project Justification: PB 2013 Air Force		DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 3600: <i>Research, Development, Test & Evaluation, Air Force</i> BA 7: <i>Operational Systems Development</i>	R-1 ITEM NOMENCLATURE PE 0304260F: <i>Airborne SIGINT Enterprise (JMIP)</i>	PROJECT 675180: <i>RC-135 (Airborne SIGINT Development - RC-135 Rivet Joint)</i>
D. Acquisition Strategy (U) Aircraft, aircraft sensor systems, and associated ground support system modifications planned include the procurement, fielding and logistical support for future RIVET JOINT, COMBAT SENT and COBRA BALL baseline configurations. Development and integration is managed by the Big Safari Systems Group. They employ evolutionary acquisition approaches to field incremental capability improvements.		
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.		

UNCLASSIFIED

Exhibit R-4, RDT&E Schedule Profile: PB 2013 Air Force		DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 3600: <i>Research, Development, Test & Evaluation, Air Force</i> BA 7: <i>Operational Systems Development</i>	R-1 ITEM NOMENCLATURE PE 0304260F: <i>Airborne SIGINT Enterprise (JMIP)</i>	PROJECT 675180: <i>RC-135 (Airborne SIGINT Development - RC-135 Rivet Joint)</i>

UNCLASSIFIED

Exhibit R-4A, RDT&E Schedule Details: PB 2013 Air Force		DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 3600: <i>Research, Development, Test & Evaluation, Air Force</i> BA 7: <i>Operational Systems Development</i>	R-1 ITEM NOMENCLATURE PE 0304260F: <i>Airborne SIGINT Enterprise (JMIP)</i>	PROJECT 675180: <i>RC-135 (Airborne SIGINT Development - RC-135 Rivet Joint)</i>

Schedule Details

Events	Start		End	
	Quarter	Year	Quarter	Year
Development of RIVET JOINT mission sensors	1	2011	4	2017
Development of COMBAT SENT mission sensors	1	2011	4	2017
Development of COBRA BALL mission sensors	1	2011	4	2017

UNCLASSIFIED

Exhibit R-2A, RDT&E Project Justification: PB 2013 Air Force									DATE: February 2012		
APPROPRIATION/BUDGET ACTIVITY 3600: Research, Development, Test & Evaluation, Air Force BA 7: Operational Systems Development				R-1 ITEM NOMENCLATURE PE 0304260F: Airborne SIGINT Enterprise (JMIP)				PROJECT 675182: MQ-1/MQ-9 (Airborne SIGINT Development - Predator)			
COST (\$ in Millions)	FY 2011	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total	FY 2014	FY 2015	FY 2016	FY 2017	Cost To Complete	Total Cost
675182: MQ-1/MQ-9 (Airborne SIGINT Development - Predator)	44.677	25.874	35.340	-	35.340	32.270	31.433	40.817	41.356	Continuing	Continuing
Quantity of RDT&E Articles	0	0	0	0	0	0	0	0	0		

Note

FY11 funding totals include \$16.0M appropriated for Overseas Contingency Operations.

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 MQ-1/MQ-9 SIGINT sensors and their associated air and ground components. This RDT&E effort integrates SIGINT capability on to the MQ-1/MQ-9 and other unmanned platforms. The sensors shall be capable of collecting technical data and geolocating signals of interest and providing sensor data to a workstation. The integration effort shall include the use of existing sensor suites to the maximum extent possible to minimize design costs and reduce development time lines.

Design efforts specific to the Predator or Reaper systems may include, but not be limited to, antennas, EMI reduction, encryption techniques, and changes to the aircraft, ground station, data link, and simulator necessary to accommodate a SIGINT payload and its data throughput. Funding will begin efforts on antennas, receivers, processors, software development, aircraft integration and ground station upgrades to allow a persistent reconnaissance, surveillance, targeting, and acquisition capability against mission specific threats. Development of a networked capability to other SIGINT platforms will also be initiated. In accordance with an evolutionary acquisition strategy, a series of Airborne Signals Intelligence Payload (ASIP) 2C capability improvements are planned to begin development in FY13. These upgrades are designed to exploit signals of interest identified as service priorities by the Air Force SIGINT Capabilities Working Group (SCWG). These development activities will continue through future years, to include but not be limited to, integrating capabilities developed under separate efforts.

This project provides the warfighter with near term increased combat capability. Enhancements are implemented as soon as technology and risk achieve satisfactory levels and compatibility improvements are inserted into the ASIP Family of Sensors through individual development efforts that exploit signals of interest identified as Service priorities by the AF SCWG. FY13 funds will continue to develop and integrate the ASIP sensor on the MQ-9 containing an enhanced signal set. Blue Moon development efforts began in FY11.

This program is in Budget Activity 7, Operational System Development because this budget activity includes development efforts to upgrade systems that have been fielded or have received approval for full rate production and anticipate production funding in the current or subsequent fiscal year.

B. Accomplishments/Planned Programs (\$ in Millions)

	FY 2011	FY 2012	FY 2013
Title: MQ-1/9 SIGINT Development	28.677	17.874	34.340

UNCLASSIFIED

Exhibit R-2A, RDT&E Project Justification: PB 2013 Air Force							DATE: February 2012				
APPROPRIATION/BUDGET ACTIVITY 3600: <i>Research, Development, Test & Evaluation, Air Force</i> BA 7: <i>Operational Systems Development</i>			R-1 ITEM NOMENCLATURE PE 0304260F: <i>Airborne SIGINT Enterprise (JMIP)</i>			PROJECT 675182: <i>MQ-1/MQ-9 (Airborne SIGINT Development - Predator)</i>					
B. Accomplishments/Planned Programs (\$ in Millions)							FY 2011	FY 2012	FY 2013		
Description: Develop and test a common/scalable SIGINT system for multiple SIGINT platforms (MQ-1 and MQ-9) using an open system architecture. FY 2011 Accomplishments: Successfully integrated and demonstrated the ASIP-2C on a surrogate platform. Completed Critical Design Review of DCGS for ASIP-2C in 3Q FY11. Completed Preliminary Design Review of ASIP-2C. FY 2012 Plans: Continue current ASIP 2C payload development and integration activities and incorporate upgrades as appropriate. FY 2013 Plans: Will continue ASIP 2C payload development and integration activities and incorporate upgrades as appropriate. Continue Distributed Ground Intercept Facility (DGIF) modification tie line integration and flight test.											
Title: Blue Moon Description: Blue Moon QRC to deliver a new antenna capability to collect against signals of interest. FY 2011 Accomplishments: Began development of Blue Moon capability upgrade for MQ-9. FY 2012 Plans: Finalize development of Blue Moon capability upgrade for MQ-9. Integrate software packages on platforms. FY 2013 Plans: Finalize integration of Blue Moon capability improvements on MQ-9.							16.000	8.000	1.000		
Accomplishments/Planned Programs Subtotals							44.677	25.874	35.340		
C. Other Program Funding Summary (\$ in Millions)											
Line Item	FY 2011	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total	FY 2014	FY 2015	FY 2016	FY 2017	Cost To Complete	Total Cost
• APAF, PE 0205219F, MQ-9: APAF	0.000	1,058.151	919.950	0.000	919.950	1,007.550	1,015.750	799.701	783.640	Continuing	Continuing
D. Acquisition Strategy											
(U) SIGINT capabilities will be integrated onto these platforms using an evolutionary acquisition approach and a sole source contract.											

UNCLASSIFIED

Exhibit R-2A, RDT&E Project Justification: PB 2013 Air Force		DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 3600: <i>Research, Development, Test & Evaluation, Air Force</i> BA 7: <i>Operational Systems Development</i>	R-1 ITEM NOMENCLATURE PE 0304260F: <i>Airborne SIGINT Enterprise (JMIP)</i>	PROJECT 675182: <i>MQ-1/MQ-9 (Airborne SIGINT Development - Predator)</i>

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.

UNCLASSIFIED

Exhibit R-4, RDT&E Schedule Profile: PB 2013 Air Force		DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 3600: <i>Research, Development, Test & Evaluation, Air Force</i> BA 7: <i>Operational Systems Development</i>	R-1 ITEM NOMENCLATURE PE 0304260F: <i>Airborne SIGINT Enterprise (JMIP)</i>	PROJECT 675182: <i>MQ-1/MQ-9 (Airborne SIGINT Development - Predator)</i>

UNCLASSIFIED

Exhibit R-4A, RDT&E Schedule Details: PB 2013 Air Force			DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 3600: <i>Research, Development, Test & Evaluation, Air Force</i> BA 7: <i>Operational Systems Development</i>	R-1 ITEM NOMENCLATURE PE 0304260F: <i>Airborne SIGINT Enterprise (JMIP)</i>	PROJECT 675182: <i>MQ-1/MQ-9 (Airborne SIGINT Development - Predator)</i>	

Schedule Details

Events	Start		End	
	Quarter	Year	Quarter	Year
ASIP-2C Development	1	2011	4	2015
MQ 9 Integration and Group A	1	2011	4	2014
DGIF Integration and Test	3	2012	4	2014
ASIP 2C Upgrades	1	2013	4	2017
Blue Moon Development	3	2011	1	2013

UNCLASSIFIED

Exhibit R-2A, RDT&E Project Justification: PB 2013 Air Force									DATE: February 2012		
APPROPRIATION/BUDGET ACTIVITY				R-1 ITEM NOMENCLATURE				PROJECT			
3600: Research, Development, Test & Evaluation, Air Force BA 7: Operational Systems Development				PE 0304260F: Airborne SIGINT Enterprise (JMIP)				675183: Common Development (Airborne SIGINT Development - Common Development)			
COST (\$ in Millions)	FY 2011	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total	FY 2014	FY 2015	FY 2016	FY 2017	Cost To Complete	Total Cost
675183: Common Development (Airborne SIGINT Development - Common Development)	45.031	38.855	45.403	-	45.403	59.569	42.857	63.476	63.614	Continuing	Continuing
Quantity of RDT&E Articles	0	0	0	0	0	0	0	0	0		

Note

(U) This project supports the development of the Airborne Signals Intelligence Payload (ASIP) sensors for use on multiple platforms as well as projects common to the ASE PE overall to include, but not limited to: Air Force Cryptologic Architecture (AFCA) maintenance, modeling and simulation efforts and NATO Signals Intelligence (SIGINT) efforts.

A. Mission Description and Budget Item Justification

(U) This project supports design studies, engineering analysis, non-recurring engineering, and other efforts associated with the insertion of new capabilities integrated into the ASIP sensors and their associated air and ground components that will be used on/by more than one platform. The common development SIGINT project also supports development of new sensors capabilities and identifies suitable replacements for components affected by diminishing manufacturing sources. New capabilities are developed by separate projects.

(U) The current sensors being developed are the ASIP (which is operational on the U-2 and is being tested on the Global Hawk (RQ-4)), and the scalable ASIP payloads for the MQ-9 (ASIP-2C). The systems' open architecture and Joint Airborne SIGINT Architecture (JASA) compliant design supports streamlined integration of ASIP onto additional ISR platforms. The ASIP Family of Systems (FoS) will design and build a common/scalable SIGINT system designed for maximum coverage of the electromagnetic spectrum through the use of an integrated high and low band system. ASIP-2C will develop a SIGINT sensor for the MQ-9.

(U) Capability improvements will be inserted into the ASIP family of sensors through individual development efforts that exploit signals of interest identified as service priorities by the Air Force SIGINT Capabilities Working Group. This project provides the warfighter with near term increased combat capability. Enhancements are implemented as soon as technology and risk achieve satisfactory levels. Compatability improvements will be inserted into the ASIP Family of Sensors through individual development efforts that exploit signals of interest identified as Service priorities by the AF SCWG. Sensors will be integrated and tested on the various platforms as funding permits. This program is in Budget Activity 7, Operational System Development because this budget activity includes development efforts to upgrade systems that have been fielded or have received approval for full rate production and anticipate production funding in the current or subsequent fiscal year.

(U) Some parts of Baseline ASIP are funded within the Common Development project of this PE and some parts are funded within the RQ-4 Global Hawk project (675184). Parts that have applicability to other platforms such as the U-2 or MQ-9 are funded in Common Development project.

(U) The Baseline ASIP sensor production will be in the RQ-4 PE 0305220F.

UNCLASSIFIED

Exhibit R-2A, RDT&E Project Justification: PB 2013 Air Force									DATE: February 2012		
APPROPRIATION/BUDGET ACTIVITY 3600: Research, Development, Test & Evaluation, Air Force BA 7: Operational Systems Development				R-1 ITEM NOMENCLATURE PE 0304260F: Airborne SIGINT Enterprise (JMIP)				PROJECT 675183: Common Development (Airborne SIGINT Development - Common Development)			
B. Accomplishments/Planned Programs (\$ in Millions)									FY 2011	FY 2012	FY 2013
Title: SIGINT Development									45.031	38.855	45.403
Description: Develop and test a common/scalable SIGINT system for multiple SIGINT platforms (U-2, Global Hawk, MQ-9, etc) using an open system architecture.											
FY 2011 Accomplishments: Completed ASIP RQ-4 IOT&E. Completed analysis of all open/future problems with development/IOT&E. Fixed major deficiencies found during the RQ-4 tests. Began development of Upgrades Increment 1 new signals effort.											
FY 2012 Plans: Begin ASIP Upgrade Increment 1 and Increment 2 to bring new capabilities into the existing sensor. Begin effort for integration on the high altitude platforms.											
FY 2013 Plans: Will continue new signals capabilities and enhancements for the ASIP sensor. Details are classified.											
Accomplishments/Planned Programs Subtotals									45.031	38.855	45.403
C. Other Program Funding Summary (\$ in Millions)											
Line Item	FY 2011	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total	FY 2014	FY 2015	FY 2016	FY 2017	Cost To Complete	Total Cost
• APAF, PE 0305220F, RQ-4 UAV: APAF	777.224	687.771	0.000	0.000	0.000	0.000	0.000	0.000	0.000	Continuing	Continuing
• APAF, PE 0305202F Dragon U-2: APAF	0.000	62.393	53.787	0.000	53.787	67.404	67.121	25.615	52.945	Continuing	Continuing
D. Acquisition Strategy											
Signals Intelligence capabilities will be developed and integrated onto various platforms using an evolutionary acquisition approach.											
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.											

UNCLASSIFIED

Exhibit R-4, RDT&E Schedule Profile: PB 2013 Air Force		DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY	R-1 ITEM NOMENCLATURE	PROJECT
3600: Research, Development, Test & Evaluation, Air Force BA 7: Operational Systems Development	PE 0304260F: Airborne SIGINT Enterprise (JMIP)	675183: Common Development (Airborne SIGINT Development - Common Development)

UNCLASSIFIED

Exhibit R-4A, RDT&E Schedule Details: PB 2013 Air Force			DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 3600: <i>Research, Development, Test & Evaluation, Air Force</i> BA 7: <i>Operational Systems Development</i>	R-1 ITEM NOMENCLATURE PE 0304260F: <i>Airborne SIGINT Enterprise (JMIP)</i>	PROJECT 675183: <i>Common Development (Airborne SIGINT Development - Common Development)</i>	

Schedule Details

Events	Start		End	
	Quarter	Year	Quarter	Year
ASIP IOT&E	1	2011	2	2011
U-2/GH Baseline ASIP Production and Fielding	1	2011	4	2017
ASIP Upgrades Increment 1	1	2012	3	2014
ASIP Upgrades Increment 2	3	2012	4	2015

UNCLASSIFIED

Exhibit R-2A, RDT&E Project Justification: PB 2013 Air Force									DATE: February 2012		
APPROPRIATION/BUDGET ACTIVITY 3600: Research, Development, Test & Evaluation, Air Force BA 7: Operational Systems Development				R-1 ITEM NOMENCLATURE PE 0304260F: Airborne SIGINT Enterprise (JMIP)				PROJECT 675184: RQ-4 (Airborne SIGINT Development - Global Hawk)			
COST (\$ in Millions)	FY 2011	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total	FY 2014	FY 2015	FY 2016	FY 2017	Cost To Complete	Total Cost
675184: RQ-4 (Airborne SIGINT Development - Global Hawk)	12.068	2.108	0.998	-	0.998	4.066	6.004	7.177	7.271	Continuing	Continuing
Quantity of RDT&E Articles	0	0	0	0	0	0	0	0	0		

Note

Totals include funding for the PRCP Project Number 375, Baseline ASIP.

A. Mission Description and Budget Item Justification

(U) RQ-4 Block 30 development has been discontinued in the FY13 Budget. ASIP was designed for both the U-2 and RQ-4. This project will cover the costs of integration for high altitude ISR.

(U) This project supports sensor integration and test, flight test, design studies, engineering analysis and non-recurring engineering of the air and ground components for the High Altitude SIGINT sensors. Also identifies suitable replacements for components affected by diminishing manufacturing sources. This project provides the warfighter with a near-term, increased combat capability. Enhancements are implemented as soon as technology and risk achieve satisfactory levels. Capability improvements will be inserted into the Airborne Signals Intelligence Program (ASIP) family of sensors through individual development efforts that exploit signals of interest identified as service priorities by the Air Force SIGINT Capabilities Working Group. Funding includes completion of developmental logistics tasks associated with the design, development, and integration of ASIP and the ASIP Depot standup. Additional requirements include the Logistics Support Analysis (LSA) Taskings which consists of design and development of support equipment, technical orders, training courses/aids/devices, and shipping containers common to ASIP for U-2 and Global Hawk.

(U) The Baseline ASIP sensor is an ACAT 1D program. Baseline ASIP completed its development in the ASE PE in FY 2011. FY12 and FY13 funds support finalizing logistics and updating technical data and standing up the ASIP depot.

(U) This program is in Budget Activity 7, Operational System Development because this budget activity includes development efforts to upgrade systems that have been fielded or have received approval for full rate production and anticipate production funding in the current or subsequent fiscal year.

B. Accomplishments/Planned Programs (\$ in Millions)

	FY 2011	FY 2012	FY 2013
Title: RQ-4 SIGINT	12.068	2.108	0.998
Description: Design, develop, test SIGINT capabilities for ASIP sensors, support equipment, technical orders, training, shipping containers, and support the ASIP depot stand-up.			
FY 2011 Accomplishments:			

UNCLASSIFIED

Exhibit R-2A, RDT&E Project Justification: PB 2013 Air Force										DATE: February 2012		
APPROPRIATION/BUDGET ACTIVITY 3600: Research, Development, Test & Evaluation, Air Force BA 7: Operational Systems Development				R-1 ITEM NOMENCLATURE PE 0304260F: Airborne SIGINT Enterprise (JMIP)				PROJECT 675184: RQ-4 (Airborne SIGINT Development - Global Hawk)				
B. Accomplishments/Planned Programs (\$ in Millions)										FY 2011	FY 2012	FY 2013
Completed ASIP Global Hawk Initial Operational and Test Evaluation (IOT&E). Continued the Logistics contract effort, including updating technical data and support equipment. Continue supporting the ASIP depot standup.												
FY 2012 Plans: Continue logistics efforts, including updating technical data and support equipment. Supports baseline ASIP depot stand-up and system integration.												
FY 2013 Plans: Will continue logistics efforts, including updating technical data, test and support equipment, and related activities in support of ASIP depot stand-up. Continues system integration.												
Accomplishments/Planned Programs Subtotals										12.068	2.108	0.998
C. Other Program Funding Summary (\$ in Millions)												
Line Item	FY 2011	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total	FY 2014	FY 2015	FY 2016	FY 2017	Cost To Complete	Total Cost	
• APAF, PE 0305220F, RQ-4 UAV: APAF	777.224	687.771	0.000	0.000	0.000	0.000	0.000	0.000	0.000	687.771	1,464.995	
• APAF, PE 0305202F, Dragon U-2: APAF	0.000	62.393	53.787	0.000	53.787	67.404	67.121	25.615	52.945	Continuing	Continuing	
D. Acquisition Strategy												
(U) SIGINT capabilities will be integrated on to this platform using an Evolutionary Acquisition approach utilizing various contracting methods.												
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.												

UNCLASSIFIED

Exhibit R-4, RDT&E Schedule Profile: PB 2013 Air Force		DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 3600: <i>Research, Development, Test & Evaluation, Air Force</i> BA 7: <i>Operational Systems Development</i>	R-1 ITEM NOMENCLATURE PE 0304260F: <i>Airborne SIGINT Enterprise (JMIP)</i>	PROJECT 675184: <i>RQ-4 (Airborne SIGINT Development - Global Hawk)</i>

UNCLASSIFIED

Exhibit R-4A, RDT&E Schedule Details: PB 2013 Air Force			DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 3600: <i>Research, Development, Test & Evaluation, Air Force</i> BA 7: <i>Operational Systems Development</i>	R-1 ITEM NOMENCLATURE PE 0304260F: <i>Airborne SIGINT Enterprise (JMIP)</i>	PROJECT 675184: <i>RQ-4 (Airborne SIGINT Development - Global Hawk)</i>	

Schedule Details

Events	Start		End	
	Quarter	Year	Quarter	Year
Baseline ASIP RQ-4 Integration and Test	1	2011	2	2011
RQ-4 ASIP Logistics Efforts	1	2011	4	2012
ASIP New Signals Integration	3	2012	4	2017

UNCLASSIFIED

Exhibit R-2A, RDT&E Project Justification: PB 2013 Air Force									DATE: February 2012		
APPROPRIATION/BUDGET ACTIVITY				R-1 ITEM NOMENCLATURE				PROJECT			
3600: Research, Development, Test & Evaluation, Air Force BA 7: Operational Systems Development				PE 0304260F: Airborne SIGINT Enterprise (JMIP)				675185: Compass Bright (Airborne SIGINT Development - Compass Bright)			
COST (\$ in Millions)	FY 2011	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total	FY 2014	FY 2015	FY 2016	FY 2017	Cost To Complete	Total Cost
675185: Compass Bright (Airborne SIGINT Development - Compass Bright)	7.022	6.169	6.324	-	6.324	6.470	6.707	6.893	6.984	Continuing	Continuing
Quantity of RDT&E Articles	0	0	0	0	0	0	0	0	0		

A. Mission Description and Budget Item Justification

(U) The COMPASS BRIGHT program develops, demonstrates, and rapidly transitions advanced Air Force-specific 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. 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. 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) FY11 and FY12 activities included (but were not limited to) improving capabilities in the areas of digital SIGINT, cross cueing, audio/speech extraction, and confidence measure improvements.

(U) FY13 will continue to enhance the ability to geo-locate signals of interest, improve the audio quality of signals and improve the collection capabilities of our receivers. We will continue to improve our collection against low probability of detection signals.

(U) This program is in Budget Activity 7, Operational System Development because this budget activity includes development efforts to upgrade systems that have been fielded or have received approval for full rate production and anticipate production funding in the current or subsequent fiscal year.

B. Accomplishments/Planned Programs (\$ in Millions)

	FY 2011	FY 2012	FY 2013
Title: SIGINT Tech Development	7.022	6.169	6.324
Description: Develops projects in the Signals Intelligence and Radio Frequency Measurement & Signature Intelligence areas for transition to platforms.			
FY 2011 Accomplishments: Improved cross cueing, audio/speech extraction, and confidence measure improvements			
FY 2012 Plans:			

UNCLASSIFIED

Exhibit R-2A, RDT&E Project Justification: PB 2013 Air Force							DATE: February 2012				
APPROPRIATION/BUDGET ACTIVITY 3600: <i>Research, Development, Test & Evaluation, Air Force</i> BA 7: <i>Operational Systems Development</i>			R-1 ITEM NOMENCLATURE PE 0304260F: <i>Airborne SIGINT Enterprise (JMIP)</i>			PROJECT 675185: <i>Compass Bright (Airborne SIGINT Development - Compass Bright)</i>					
B. Accomplishments/Planned Programs (\$ in Millions)							FY 2011	FY 2012	FY 2013		
Initiate, continue or complete various SIGINT projects including search and intercept improvements, digital SIGINT, and cross cueing.											
FY 2013 Plans: Will initiate, continue or complete various SIGINT projects to include search and intercept improvements, enhanced ELINT exploitation, single aircraft geolocation, and real time 4G.											
Accomplishments/Planned Programs Subtotals							7.022	6.169	6.324		
C. Other Program Funding Summary (\$ in Millions)											
<u>Line Item</u>	<u>FY 2011</u>	<u>FY 2012</u>	<u>FY 2013</u> <u>Base</u>	<u>FY 2013</u> <u>OCO</u>	<u>FY 2013</u> <u>Total</u>	<u>FY 2014</u>	<u>FY 2015</u>	<u>FY 2016</u>	<u>FY 2017</u>	<u>Cost To Complete</u>	<u>Total Cost</u>
• N/A: N/A	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	Continuing	Continuing
D. Acquisition Strategy (U) Ongoing 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.											
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.											

UNCLASSIFIED

Exhibit R-4, RDT&E Schedule Profile: PB 2013 Air Force		DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY	R-1 ITEM NOMENCLATURE	PROJECT
3600: Research, Development, Test & Evaluation, Air Force BA 7: Operational Systems Development	PE 0304260F: Airborne SIGINT Enterprise (JMIP)	675185: Compass Bright (Airborne SIGINT Development - Compass Bright)

UNCLASSIFIED

Exhibit R-4A, RDT&E Schedule Details: PB 2013 Air Force			DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 3600: <i>Research, Development, Test & Evaluation, Air Force</i> BA 7: <i>Operational Systems Development</i>	R-1 ITEM NOMENCLATURE PE 0304260F: <i>Airborne SIGINT Enterprise (JMIP)</i>	PROJECT 675185: <i>Compass Bright (Airborne SIGINT Development - Compass Bright)</i>	

Schedule Details

Events	Start		End	
	Quarter	Year	Quarter	Year
SIGINT Technologies	1	2011	4	2017
Future Projects	1	2012	4	2017

UNCLASSIFIED

Exhibit R-2A, RDT&E Project Justification: PB 2013 Air Force									DATE: February 2012		
APPROPRIATION/BUDGET ACTIVITY 3600: Research, Development, Test & Evaluation, Air Force BA 7: Operational Systems Development				R-1 ITEM NOMENCLATURE PE 0304260F: Airborne SIGINT Enterprise (JMIP)				PROJECT 675186: Special Programs (Airborne SIGINT Development - Special Platforms)			
COST (\$ in Millions)	FY 2011	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total	FY 2014	FY 2015	FY 2016	FY 2017	Cost To Complete	Total Cost
675186: Special Programs (Airborne SIGINT Development - Special Platforms)	23.336	0.498	0.881	-	0.881	2.519	12.142	8.801	8.991	Continuing	Continuing
Quantity of RDT&E Articles	0	0	0	0	0	0	0	0	0		

A. Mission Description and Budget Item Justification

(U) This project supports special Signals Intelligence (SIGINT) studies as well as the development and integration of advanced SIGINT capabilities for special programs such as Liberty Project Aircraft (MC-12W), Network Centric Collaborative Targeting (NCCT) SIGINT, and other projects approved by the SIGINT Capabilities Working Group (SCWG). Development efforts will include, but limited to such things as antenna improvements, sensitivity upgrades, and radio frequency distribution upgrades. Additionally, these funds will develop the capability to allow networking with other SIGINT assets to increase collection accuracy. 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 various platforms as funding permits.

(U) FY13 will continue to focus development capabilities to collect against signals that are difficult to intercept due to power levels and other characteristics.

(U) This program is in Budget Activity 7, Operational System Development because this budget activity includes development efforts to upgrade systems that have been fielded or have received approval for full rate production and anticipate production funding in the current or subsequent fiscal year.

B. Accomplishments/Planned Programs (\$ in Millions)

	FY 2011	FY 2012	FY 2013
Title: SIGINT Development	23.336	0.498	0.881
Description: Developed SIGINT capabilities for special programs such as Liberty Project Aircraft, Network Centric Collaborative Targeting (NCCT) projects and others.			
FY 2011 Accomplishments: Developed various SIGINT capabilities including wideband receivers, sensor fusion and dissemination and low level detection capabilities.			
FY 2012 Plans: Continue to develop low level signal detection capabilities.			
FY 2013 Plans: Continue to develop low level signal detection capabilities.			
Accomplishments/Planned Programs Subtotals	23.336	0.498	0.881

UNCLASSIFIED

Exhibit R-2A, RDT&E Project Justification: PB 2013 Air Force							DATE: February 2012				
APPROPRIATION/BUDGET ACTIVITY 3600: <i>Research, Development, Test & Evaluation, Air Force</i> BA 7: <i>Operational Systems Development</i>			R-1 ITEM NOMENCLATURE PE 0304260F: <i>Airborne SIGINT Enterprise (JMIP)</i>				PROJECT 675186: <i>Special Programs (Airborne SIGINT Development - Special Platforms)</i>				

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

<u>Line Item</u>	<u>FY 2011</u>	<u>FY 2012</u>	<u>FY 2013</u> <u>Base</u>	<u>FY 2013</u> <u>OCO</u>	<u>FY 2013</u> <u>Total</u>	<u>FY 2014</u>	<u>FY 2015</u>	<u>FY 2016</u>	<u>FY 2017</u>	<u>Cost To</u> <u>Complete</u>	<u>Total Cost</u>
• APAF, PE 0503115F, Tactical Cryp...: APAF	14.841	8.193	7.000	0.000	7.000	0.000	0.000	0.000	0.000	18.434	18.434

D. Acquisition Strategy

(U) Signals Intelligence (SIGINT) capabilities will be integrated on to various classified platforms using an evolutionary acquisition approach.

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.

UNCLASSIFIED

Exhibit R-4, RDT&E Schedule Profile: PB 2013 Air Force		DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 3600: Research, Development, Test & Evaluation, Air Force BA 7: Operational Systems Development	R-1 ITEM NOMENCLATURE PE 0304260F: Airborne SIGINT Enterprise (JMIP)	PROJECT 675186: Special Programs (Airborne SIGINT Development - Special Platforms)

UNCLASSIFIED

Exhibit R-4A, RDT&E Schedule Details: PB 2013 Air Force			DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 3600: <i>Research, Development, Test & Evaluation, Air Force</i> BA 7: <i>Operational Systems Development</i>	R-1 ITEM NOMENCLATURE PE 0304260F: <i>Airborne SIGINT Enterprise (JMIP)</i>	PROJECT 675186: <i>Special Programs (Airborne SIGINT Development - Special Platforms)</i>	

Schedule Details

Events	Start		End	
	Quarter	Year	Quarter	Year
SIGINT Sensor Development 1	1	2011	4	2011
SIGINT Sensor Development 2	1	2011	4	2011
Wideband Receiver	1	2011	4	2011
SIGINT NCCT	1	2011	4	2011
SIGINT Sensor Development 3	1	2011	4	2011
Sensor Fusion/Dissemination	1	2011	4	2011
Low Level Signal Detection	1	2011	4	2013
Future Projects	1	2014	4	2017