Exhibit R-2, RDT&E Budget Item Justification: PB 2012 Air Force										DATE: February 2011	
APPROPRIATION/BUDGET ACTIVITY 3600: *Research, Development, Test & Evaluation, Air Force* BA 7: *Operational Systems Development*				R-1 ITEM NOMENCLATURE PE 0305206F: *Airborne Reconnaissance Systems*							
COST ($ in Millions)	**FY 2010**	**FY 2011**	**FY 2012 Base**	**FY 2012 OCO**	**FY 2012 Total**	**FY 2013**	**FY 2014**	**FY 2015**	**FY 2016**	**Cost To Complete**	**Total Cost**
Total Program Element	169.206	168.963	106.877	-	106.877	135.159	111.591	92.478	105.496	Continuing	Continuing
674818: *Imaging and Targeting Support*	13.930	13.345	30.609	-	30.609	58.942	44.723	13.323	13.516	Continuing	Continuing
674819: *Common Data Link (CDL)*	37.752	37.806	36.001	-	36.001	38.022	38.503	39.350	40.109	Continuing	Continuing
675092: *JTC/SIL MUSE*	3.470	3.374	3.235	-	3.235	3.458	3.472	3.373	3.387	Continuing	Continuing
675291: *Gorgon Stare*	45.984	31.833	16.047	-	16.047	16.328	13.040	16.419	17.408	Continuing	Continuing
675292: *Hyperspectral Sensors*	6.415	3.894	2.760	-	2.760	2.839	2.870	2.741	2.755	Continuing	Continuing
675382: *Broad Area Surveillance Sensors*	61.655	78.711	18.225	-	18.225	15.570	8.983	17.272	28.321	Continuing	Continuing

Note

The program funding includes reductions for Overhead Reduction and 4th Estate Baseline Review efficiencies that are not intended to impact program content. The efficiencies reductions total $1.488M and $.017M, respectively, in FY12.

In FY12, project 675292, is renamed from Airborne Cueing & Exploitation System-Hyperspectral (ACES HY) to Hyperspectral Sensors to better reflect the depth of development efforts and operational need for hyperspectral airborne sensors.

In FY12, project 675382 is renamed from Wide Area Airborne Surveillance Program of Record (WAAS PoR) to Broad Area Surveillance Sensors to better reflect the WAAS PoR termination and continued technical development of Broad Area Surveillance Sensors.

A. Mission Description and Budget Item Justification

The Airborne Reconnaissance Systems program coordinates the development of advanced airborne reconnaissance system technologies (sensors, data links, targeting networks and products, and quick reaction capabilities) in support of multiple airborne reconnaissance platforms, both manned and unmanned. Its objective is to develop, demonstrate, and rapidly transition advanced, interoperable, multi-platform solutions to reduce the find, fix, target, and track kill chain timeline. In addition, it provides for modeling/simulation, training and systems engineering. This program also coordinates the development of common collection, processing, and dissemination solutions for near-real time intelligence, surveillance, and reconnaissance (ISR). 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.

Exhibit R-2, RDT&E Budget Item Justification: PB 2012 Air Force	DATE: February 2011
APPROPRIATION/BUDGET ACTIVITY 3600: *Research, Development, Test & Evaluation, Air Force* BA 7: *Operational Systems Development*	**R-1 ITEM NOMENCLATURE** PE 0305206F: *Airborne Reconnaissance Systems*

B. Program Change Summary ($ in Millions)	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total
Previous President's Budget	145.413	168.963	152.123	-	152.123
Current President's Budget	169.206	168.963	106.877	-	106.877
Total Adjustments	23.793	-	-45.246	-	-45.246
• Congressional General Reductions		-			
• Congressional Directed Reductions		-			
• Congressional Rescissions	-	-			
• Congressional Adds		-			
• Congressional Directed Transfers		-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-	-			
• Other Adjustments	23.793	-	-45.246	-	-45.246

Change Summary Explanation

In FY10, project 675382, Broad Area Surveillance Sensors, increased due to a $22.95M Blue Devil II (SECDEF directed) initiative. Beginning in FY12, the Blue Devil II effort will be transferred to PE 0305205F, project 676019 (High Endurance UAVs, project Blue Devil II) in order to consolidate program content.

The $62.086M reduction across the PE from FY11 to FY12 is primarily due to the termination of Wide Area Airborne Surveillance as a formal Program of Record (WAAS PoR)(project 675382) and subsequent reprogramming of funds to develop additional GORGON STARE QRC pod sets (project 675291) and improved broad area surveillance technical development (project 675382).

Exhibit R-2A, RDT&E Project Justification: PB 2012 Air Force			DATE: February 2011
APPROPRIATION/BUDGET ACTIVITY 3600: *Research, Development, Test & Evaluation, Air Force* BA 7: *Operational Systems Development*	R-1 ITEM NOMENCLATURE PE 0305206F: *Airborne Reconnaissance Systems*	PROJECT 674818: *Imaging and Targeting Support*	

COST ($ in Millions)	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total	FY 2013	FY 2014	FY 2015	FY 2016	Cost To Complete	Total Cost
674818: *Imaging and Targeting Support*	13.930	13.345	30.609	-	30.609	58.942	44.723	13.323	13.516	Continuing	Continuing
Quantity of RDT&E Articles	0	0	0	0	0	0	0	0	0		

Note

The Wide Area Airborne Surveillance Program of Record (WAAS PoR) originated in this project line in FY09, then moved to project 675382 in FY10.

This project has been funded to latest cost estimate, less efficiencies. The reduction for efficiencies are not intended to impact project content.

A. Mission Description and Budget Item Justification

The purpose of the Imaging and Targeting Support (I&TS) program is to develop and demonstrate next-generation, persistent, wide area surveillance and common imagery reconnaissance sensor capabilities (radar and electro-optical systems) for multiple airborne platforms, and sensor products to aid in rapid targeting (geolocation models, sensor-based exploitation tools, sensor networking capabilities). Developmental efforts pursued are improved sensor capabilities (such as hyperspectral imagery [HSI], measurement and signature intelligence [MASINT], polarimetric imaging, ground moving target indication [GMTI], foliage penetration, and other radar and electro-optical modes), increased geolocation accuracy, advanced sensor data correlation, automated target detection, network centric warfare, and other Intelligence, Surveillance, and Reconnaissance (ISR) and associated Tasking Processing Exploitation and Dissemination (TPED) capabilities to reduce both target search and kill chain timelines; as well as, supporting traditional intelligence activities. I&TS will increase interoperability among developed systems by developing common standards and tools.

I&TS focuses on the following areas: Development and integration of common radar and electro-optical sensors (Synthetic Aperture Radar [SAR], Low Frequency SAR, and antennas, Electro-Optical [EO], Infrared [IR], HSI, Low Light, Laser Radar [LADAR], dismount detection radar [DDR], and their operational modes (High Resolution Imagery, Moving Target Indication, Persistent Surveillance, Wide Area Surveillance, Spectral Identification) for multiple airborne platforms. Development and demonstration of advanced airborne tactical sensor and associated TPED processing and tools (including automatic registration, automatic and assisted target detection, network centric warfare). Development of integrated multi-sensor capabilities to detect and identify obscured targets (OT). Development and implementation of imagery standards (Common GMTI and National Imagery Transmission Format (NITF)). These efforts focus on reducing the find, fix and track elements of the time critical targeting kill-chain timeline while improving operator and decision-maker efficiency and effectiveness. Provides for monitoring and enhancement of Imagery Intelligence (IMINT) product quality (radar and EO/IR imagery, GMTI data, and spectral information) and timeliness throughout the image chain (from sensor to user). Supports the development of a sensor testbed platform for technological and integration risk reduction.

Activities also 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.

Exhibit R-2A, RDT&E Project Justification: PB 2012 Air Force		DATE: February 2011
APPROPRIATION/BUDGET ACTIVITY 3600: *Research, Development, Test & Evaluation, Air Force* BA 7: *Operational Systems Development*	**R-1 ITEM NOMENCLATURE** PE 0305206F: *Airborne Reconnaissance Systems*	**PROJECT** 674818: *Imaging and Targeting Support*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total
Title: I&TS	13.930	13.345	30.609	-	30.609
Description: Develop/demonstrate next-generation Hyperspectral (HSI), Foliage/Ground Penetration (FOPEN/GPEN), Obscured Target (OT), advanced laser radar (LADAR) and dismount detection radar (DDR) technologies. ***FY 2010 Accomplishments:*** Developed advanced hyperspectral detection algorithms for SPIRITT sensor, continued development of advanced SAR technologies in support of OT detection, completed annual update of sensor library. ***FY 2011 Plans:*** Continue development of advanced hyperspectral detection algorithms including long-wave and mid-way infrared ranges (LWIR/MWIR), advanced SAR technology development in support of OT detection, sensor library update, complete stand-off imaging analysis of alternatives (SOI AoA) draft report. ***FY 2012 Base Plans:*** Begin advanced SAR sensor demonstration supporting OT and C-IED detection, continue development of LWIR hyperspectral detection algorithms, update sensor library, complete SOI AOA final report, begin development of a large scale dismount detection radar. ***FY 2012 OCO Plans:***					
Accomplishments/Planned Programs Subtotals	13.930	13.345	30.609	-	30.609

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total	FY 2013	FY 2014	FY 2015	FY 2016	Cost To Complete	Total Cost
• Other Government Agency: *(Proc)*	0.000	10.800	0.000	0.000	0.000	0.000	0.000	0.000	0.000	Continuing	Continuing

D. Acquisition Strategy

Acquisition strategy is to maximize commercial and national development efforts and investment through multiple contracting methods; including the use of Engineering Change Proposals (ECP) to modify existing contracts and new contracts that were awarded both competitively or on a sole source basis.

Exhibit R-2A, RDT&E Project Justification: PB 2012 Air Force		DATE: February 2011
APPROPRIATION/BUDGET ACTIVITY 3600: *Research, Development, Test & Evaluation, Air Force* BA 7: *Operational Systems Development*	R-1 ITEM NOMENCLATURE PE 0305206F: *Airborne Reconnaissance Systems*	PROJECT 674818: *Imaging and Targeting Support*

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.

Exhibit R-3, RDT&E Project Cost Analysis: PB 2012 Air Force		DATE: February 2011
APPROPRIATION/BUDGET ACTIVITY 3600: *Research, Development, Test & Evaluation, Air Force* BA 7: *Operational Systems Development*	R-1 ITEM NOMENCLATURE PE 0305206F: *Airborne Reconnaissance Systems*	PROJECT 674818: *Imaging and Targeting Support*

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	FY 2011 Cost	FY 2011 Award Date	FY 2012 Base Cost	FY 2012 Base Award Date	FY 2012 OCO Cost	FY 2012 OCO Award Date	FY 2012 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
SPIRITT	C/CPFF	BAE Systems:Greenlawn, NY	44.165	3.800	Nov 2010	-		-		-	0.000	47.965	TBD
Advanced SAR	C/CPFF	Essex:Columbia, MD	15.997	3.020	Feb 2011	0.891	Feb 2012	-		0.891	Continuing	Continuing	TBD
SOI AoA	C/CPFF	BAH:Norfolk, VA	0.200	3.280	Dec 2010	2.000	Jan 2012	-		2.000	0.000	5.480	TBD
Sensor Library	SS/CPFF	GTRI:Atlanta, GA	0.985	1.518	Dec 2010	1.100	Dec 2011	-		1.100	Continuing	Continuing	TBD
Advanced Hyperspectral Technologies	Various	Not specified.:,	4.440	0.967	Dec 2010	1.780	Dec 2011	-		1.780	Continuing	Continuing	TBD
Dismount Detection Radar	TBD	TBD:TBD,	-	-		23.238	Dec 2011	-		23.238	Continuing	Continuing	TBD
		Subtotal	65.787	12.585		29.009		-		29.009			

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	FY 2011 Cost	FY 2011 Award Date	FY 2012 Base Cost	FY 2012 Base Award Date	FY 2012 OCO Cost	FY 2012 OCO Award Date	FY 2012 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
		Subtotal	-	-		-		-		-	0.000	0.000	0.000

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	FY 2011 Cost	FY 2011 Award Date	FY 2012 Base Cost	FY 2012 Base Award Date	FY 2012 OCO Cost	FY 2012 OCO Award Date	FY 2012 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
		Subtotal	-	-		-		-		-	0.000	0.000	0.000

Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	FY 2011 Cost	FY 2011 Award Date	FY 2012 Base Cost	FY 2012 Base Award Date	FY 2012 OCO Cost	FY 2012 OCO Award Date	FY 2012 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
ASC (I&TS)	Various	Various:Dayton, OH	0.943	0.760	Oct 2010	1.600	Oct 2011	-		1.600	Continuing	Continuing	TBD
		Subtotal	0.943	0.760		1.600		-		1.600			

Exhibit R-3, RDT&E Project Cost Analysis: PB 2012 Air Force			DATE: February 2011
APPROPRIATION/BUDGET ACTIVITY 3600: *Research, Development, Test & Evaluation, Air Force* BA 7: *Operational Systems Development*	R-1 ITEM NOMENCLATURE PE 0305206F: *Airborne Reconnaissance Systems*	PROJECT 674818: *Imaging and Targeting Support*	

	Total Prior Years Cost	FY 2011		FY 2012 Base		FY 2012 OCO		FY 2012 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	66.730	13.345		30.609		-		30.609			

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2012 Air Force		DATE: February 2011
APPROPRIATION/BUDGET ACTIVITY 3600: *Research, Development, Test & Evaluation, Air Force* BA 7: *Operational Systems Development*	**R-1 ITEM NOMENCLATURE** PE 0305206F: *Airborne Reconnaissance Systems*	**PROJECT** 674818: *Imaging and Targeting Support*

Exhibit R-4A, RDT&E Schedule Details: PB 2012 Air Force		DATE: February 2011
APPROPRIATION/BUDGET ACTIVITY 3600: *Research, Development, Test & Evaluation, Air Force* BA 7: *Operational Systems Development*	**R-1 ITEM NOMENCLATURE** PE 0305206F: *Airborne Reconnaissance Systems*	**PROJECT** 674818: *Imaging and Targeting Support*

Schedule Details

	Start		End	
Events	**Quarter**	**Year**	**Quarter**	**Year**
Advanced SAR Development (OT Detection)	1	2010	4	2016
Advanced Hyperspectral Development	1	2010	4	2016
Studies & Analysis	3	2010	4	2016
Dismount Detection Radar (DDR)	1	2012	4	2014

Exhibit R-2A, RDT&E Project Justification: PB 2012 Air Force			DATE: February 2011
APPROPRIATION/BUDGET ACTIVITY 3600: *Research, Development, Test & Evaluation, Air Force* BA 7: *Operational Systems Development*	R-1 ITEM NOMENCLATURE PE 0305206F: *Airborne Reconnaissance Systems*	PROJECT 674819: *Common Data Link (CDL)*	

COST ($ in Millions)	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total	FY 2013	FY 2014	FY 2015	FY 2016	Cost To Complete	Total Cost
674819: *Common Data Link (CDL)*	37.752	37.806	36.001	-	36.001	38.022	38.503	39.350	40.109	Continuing	Continuing
Quantity of RDT&E Articles	0	0	0	0	0	0	0	0	0		

Note

The program has been funded to latest cost estimate, less efficiencies. The reduction for efficiencies are not intended to impact program content. The efficiencies reductions total $0.448M in FY12.

A. Mission Description and Budget Item Justification

Common Data Link (CDL) provides the DoD standard for interoperable, multi-service, multi-agency, wideband datalinks for manned/unmanned platforms performing Intelligence, Surveillance, and Reconnaissance (ISR) missions. As the CDL Executive Agent (EA), the Air Force is responsible for cross-service application of CDL RDT&E funds facilitating compliance to Congressional and DoD mandates. Military Intelligence Program (MIP) funds are used to maintain, distribute, and upgrade the CDL specifications while ensuring design configuration, commonality, and interoperability among ISR platforms. Additionally, funds are used for the management of resources allocated for development and migration of CDL technologies. Updates to the CDL specification and developmental systems impact 10,000+ DoD airborne and ground ISR systems. The CDL program enables compliance with OSD and Congressional mandates to minimize spectrum usage, use of cryptographic equipment, and direct support to current operations. The CDL specifications permit current and future ISR assets to operate worldwide by providing sensor data directly via point-to-point broadcast to ground sites, airborne platforms and dismounted users. CDL is a vital link in DoD's emerging communication architectures. CDL provides the capability to relay data via air-to-air or compatible satellite links when the asset and ground site are not in line-of-sight. CDL provides the largest bandwidth datalink in DoD, accommodating numerous sensors collecting Signals Intelligence (SIGINT), Imagery Intelligence (IMINT), and video data. Research and development activities include high data rate CDL, operations in other spectral bands, and support of large area surveillance missions, while supporting continuous improvements and implementation of line-of-sight platform and CDL terminal Command and Control, plus increased Intelligence, Surveillance, and Reconnaissance (C2ISR) capabilities. CDL terminal designs provide for future technology insertion and reduce non-recurring engineering and life-cycle costs to the user. Activities also include studies and analysis to support current and future program planning and execution. 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 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total
Title: CDL evolutionary terminal development	14.826	9.109	7.963	-	7.963
Description: Utilize MIP funds for CDL evolutionary terminal development per CDL IPT direction to the CDL Executive Agent (CDL EA)					
FY 2010 Accomplishments:					

Exhibit R-2A, RDT&E Project Justification: PB 2012 Air Force		DATE: February 2011
APPROPRIATION/BUDGET ACTIVITY 3600: *Research, Development, Test & Evaluation, Air Force* BA 7: *Operational Systems Development*	R-1 ITEM NOMENCLATURE PE 0305206F: *Airborne Reconnaissance Systems*	PROJECT 674819: *Common Data Link (CDL)*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total
Continued development of Mini-CDL, completed Increment 2 Mini-CDL terminals from both vendors. Finished MIP development of MR-TCDL terminal. Continued Team-Portable CDL pathfinder for future Video Scout terminals. ***FY 2011 Plans:*** Completes development and testing of Increment 3 Mini-CDL terminals from multiple vendors. Completes development of Team Portable CDL terminal. Starts development of High Data Rate terminal and additional Size, Weight and Power (SWaP) improvements. ***FY 2012 Base Plans:*** Will continue development and testing of High Data Rate terminal and additional Size, Weight and Power (SWaP) improvements. ***FY 2012 OCO Plans:***					
Title: CDL specification maintenance, development and distribution ***Description:*** Utilize MIP funds for CDL specification maintenance, development, and distribution per CDL IPT direction to CDL EA. ***FY 2010 Accomplishments:*** Released Revision H of Standard-CDL. Started review of specification upgrades meeting current and projected employment profiles including bandwith efficiency and spectrum flexibility. Continued to maintain configuration control of the CDL architecture, standards, specifications, modules, and the Capstone overarching specification. ***FY 2011 Plans:*** Continue maintenance and configuration control of the CDL architecture, standards, specifications, and modules. Continue updating the Capstone specification and exploring upgrades to support current and future employment profiles. Start High Data Rate specification development. Complete testing and initial release of bandwith efficient waveform specification. ***FY 2012 Base Plans:*** Will continue researching and/or developing upgrades to support current and future specification employment profiles including High Data Rate. Will enhance spectrally efficient CDL waveform specification. Will continue to maintain configuration control of the CDL architecture, standards, specifications, and modules. ***FY 2012 OCO Plans:***	8.934	8.094	7.885	-	7.885

Exhibit R-2A, RDT&E Project Justification: PB 2012 Air Force		DATE: February 2011
APPROPRIATION/BUDGET ACTIVITY 3600: *Research, Development, Test & Evaluation, Air Force* BA 7: *Operational Systems Development*	R-1 ITEM NOMENCLATURE PE 0305206F: *Airborne Reconnaissance Systems*	PROJECT 674819: *Common Data Link (CDL)*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total
Title: CDL advanced technology insertion and studies	13.992	20.603	20.153	-	20.153
Description: Utilize MIP funds for CDL advanced technology insertion, demonstrations, and studies per CDL WIPT direction to CDL EA. ***FY 2010 Accomplishments:*** Completed advanced technology insertion efforts including second-vendor capability to build CDL waveforms and new equipment development, coordinated networking capabilities with other data link programs, studied CDL over phased array antennas, and demonstrated CDL waveforms in other portions of the radio frequency spectrum. ***FY 2011 Plans:*** Technology developments increase; begin development of a High Data Rate capability for CDL. Begin adapting phased array and/or portable antennas, continue development of multispectral flexibility, spectrum efficiency, and integration of improved transmission components. Will begin enhanced CDL-based ISR communications developments, including rapid prototyping and validation that leverage warfighter lessons learned. ***FY 2012 Base Plans:*** Technology developments increase as efforts continue on High Data Rate CDL terminal advancement, adapting/testing phased array and portable antennas, continuation of multispectral flexibility, increased spectrum efficiency, and integration of improved transmission components. Will continue development of enhanced, CDL-based ISR communications capabilities and prototyping. Will begin supporting emerging communication backbone architecture development across space, air, and terrestrial layers including agile high capacity data transport. ***FY 2012 OCO Plans:***					
Accomplishments/Planned Programs Subtotals	37.752	37.806	36.001	-	36.001

Exhibit R-2A, RDT&E Project Justification: PB 2012 Air Force		DATE: February 2011
APPROPRIATION/BUDGET ACTIVITY 3600: *Research, Development, Test & Evaluation, Air Force* BA 7: *Operational Systems Development*	R-1 ITEM NOMENCLATURE PE 0305206F: *Airborne Reconnaissance Systems*	PROJECT 674819: *Common Data Link (CDL)*

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total	FY 2013	FY 2014	FY 2015	FY 2016	Cost To Complete	Total Cost
• N/A: *None*	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	Continuing	Continuing

D. Acquisition Strategy

The CDL Executive Agent, supported by the Aerial Networking Division (ESC/HNA) and in concert with other program offices and laboratories, provides for development of interoperable wideband ISR data links as mandated by Assistant Secretary of Defense (Networks and Information Integration) (ASD(NII)) policy. Once CDL technology development matures, platforms are responsible for program CDL procurement, NSA/JITC certifications, integration, and installation. Acquisition strategy varies by contract. When possible, contracts are awarded under 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.

Exhibit R-3, RDT&E Project Cost Analysis: PB 2012 Air Force		DATE: February 2011
APPROPRIATION/BUDGET ACTIVITY 3600: *Research, Development, Test & Evaluation, Air Force* BA 7: *Operational Systems Development*	R-1 ITEM NOMENCLATURE PE 0305206F: *Airborne Reconnaissance Systems*	PROJECT 674819: *Common Data Link (CDL)*

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	FY 2011 Cost	FY 2011 Award Date	FY 2012 Base Cost	FY 2012 Base Award Date	FY 2012 OCO Cost	FY 2012 OCO Award Date	FY 2012 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Mini-CDL, Multi Spectral, AF High Data Rate, Army VHR	C/CPFF	L-3 Communications:Salt Lake City, UT	15.598	13.018	Dec 2010	12.000	Dec 2010	-		12.000	Continuing	Continuing	TBD
Mini-CDL	SS/CPFF	Rockwell Collins:Cedar Rapids, IA	5.066	-		-		-		-	Continuing	Continuing	TBD
CDL Spec Support Team	SS/CPFF	Centech Group:Salt Lake City, UT	3.187	-		-		-		-	0.000	3.187	3.187
Team Portable, Advanced Waverform Verification, Phased Array (AESA) Demo, Spectrum Diversity, TDLA	C/CPFF	Cubic:San Diego, CA	12.408	7.700	Jan 2011	8.000	Jan 2012	-		8.000	Continuing	Continuing	TBD
CDL Waveform Compliance Tester	C/TBD	LSI:Shrewsbury, NJ	3.842	-		-		-		-	Continuing	Continuing	TBD
CDL Waveform Compliance Tester 2	SS/FFP	AVTEC:Chantilly, VA	3.000	-		-		-		-	0.000	3.000	3.000
Navy LPD/Modem Burst	TBD	TBD:,	-	1.100	Mar 2011	1.100	Mar 2012	-		1.100	Continuing	Continuing	TBD
Under Threshhold Combined	Various	Various:Various,	6.085	5.136	Jan 2011	3.762	Jan 2012	-		3.762	Continuing	Continuing	TBD
		Subtotal	49.186	26.954		24.862		-		24.862			

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	FY 2011 Cost	FY 2011 Award Date	FY 2012 Base Cost	FY 2012 Base Award Date	FY 2012 OCO Cost	FY 2012 OCO Award Date	FY 2012 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Service tech assist & Spec development	MIPR	Various:Various,	9.015	4.684	Nov 2010	4.825	Nov 2012	-		4.825	Continuing	Continuing	TBD
		Subtotal	9.015	4.684		4.825		-		4.825			

Exhibit R-3, RDT&E Project Cost Analysis: PB 2012 Air Force		DATE: February 2011
APPROPRIATION/BUDGET ACTIVITY 3600: *Research, Development, Test & Evaluation, Air Force* BA 7: *Operational Systems Development*	R-1 ITEM NOMENCLATURE PE 0305206F: *Airborne Reconnaissance Systems*	PROJECT 674819: *Common Data Link (CDL)*

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	FY 2011 Cost	FY 2011 Award Date	FY 2012 Base Cost	FY 2012 Base Award Date	FY 2012 OCO Cost	FY 2012 OCO Award Date	FY 2012 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Joint Interoperability Test Center	MIPR	JITC:Fort Huachuca, AZ	1.924	1.300	Dec 2010	1.300	Dec 2011	-		1.300	Continuing	Continuing	TBD
Multi Role Tactical CDL (MR-TCDL) Test	SS/CPFF	Northrop Grumman:Herndon, VA	8.000	-		-		-		-	0.000	8.000	8.000
MR-TCDL co-Test	RO	L-3:Salt Lake City, UT	0.160	-		-		-		-	Continuing	Continuing	TBD
		Subtotal	10.084	1.300		1.300		-		1.300			

Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	FY 2011 Cost	FY 2011 Award Date	FY 2012 Base Cost	FY 2012 Base Award Date	FY 2012 OCO Cost	FY 2012 OCO Award Date	FY 2012 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
MITRE Engineering Support	SS/TBD	MITRE Corp,:Bedford, MA	1.638	2.224	Dec 2010	2.291	Oct 2011	-		2.291	Continuing	Continuing	TBD
PASS Financial and PM Support	C/TBD	PE Systems:Bedford, MA	1.195	1.160	Feb 2011	1.231	Feb 2012	-		1.231	Continuing	Continuing	TBD
Under Threshhold Program Mgmt/Tech Support	Various	Various:Various,	4.109	1.484	Dec 2010	1.492	Dec 2011	-		1.492	Continuing	Continuing	TBD
		Subtotal	6.942	4.868		5.014		-		5.014			

	Total Prior Years Cost	FY 2011		FY 2012 Base		FY 2012 OCO		FY 2012 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	75.227	37.806		36.001		-		36.001			

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2012 Air Force		DATE: February 2011
APPROPRIATION/BUDGET ACTIVITY 3600: *Research, Development, Test & Evaluation, Air Force* BA 7: *Operational Systems Development*	**R-1 ITEM NOMENCLATURE** PE 0305206F: *Airborne Reconnaissance Systems*	**PROJECT** 674819: *Common Data Link (CDL)*

Exhibit R-4A, RDT&E Schedule Details: PB 2012 Air Force		DATE: February 2011
APPROPRIATION/BUDGET ACTIVITY 3600: *Research, Development, Test & Evaluation, Air Force* BA 7: *Operational Systems Development*	**R-1 ITEM NOMENCLATURE** PE 0305206F: *Airborne Reconnaissance Systems*	**PROJECT** 674819: *Common Data Link (CDL)*

Schedule Details

	Start		End	
Events	**Quarter**	**Year**	**Quarter**	**Year**
Team Portable CDL Development & Enhancement	1	2010	4	2011
Miniature CDL Development & Enhancement	1	2010	4	2011
MR-TCDL Development	1	2010	1	2013
MR-TCDL Test & Enhancement (incl. High Data Rate)	2	2011	4	2012
CDL Specification Maintenance, Development, & Control	1	2010	4	2016
Bandwith/Spectrum spec development/documentation	1	2010	4	2014
High Data Rate Spec development	1	2011	1	2013
Standard CDL Revision H	1	2010	4	2010
CDL Waveform RDT&E	1	2010	4	2016
High Data Rate CDL	1	2011	4	2014
CDL Test Equipment Development/Enhancement	1	2010	4	2014
Bandwith/Spectrum Enhancements	1	2010	4	2013
CDL Antenna Enhancements	2	2011	4	2014
Advanced CDL ISR Communications	1	2011	3	2014

Exhibit R-2A, RDT&E Project Justification: PB 2012 Air Force			DATE: February 2011
APPROPRIATION/BUDGET ACTIVITY 3600: *Research, Development, Test & Evaluation, Air Force* BA 7: *Operational Systems Development*	R-1 ITEM NOMENCLATURE PE 0305206F: *Airborne Reconnaissance Systems*	PROJECT 675092: *JTC/SIL MUSE*	

COST ($ in Millions)	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total	FY 2013	FY 2014	FY 2015	FY 2016	Cost To Complete	Total Cost
675092: *JTC/SIL MUSE*	3.470	3.374	3.235	-	3.235	3.458	3.472	3.373	3.387	Continuing	Continuing
Quantity of RDT&E Articles	0	0	0	0	0	0	0	0	0		

Note

The program has been funded to latest cost estimate, less efficiencies. The reductions for efficiencies are not intended to impact program content.

A. Mission Description and Budget Item Justification

The Joint Technology Center/Systems Integration Laboratory (JTC/SIL) is a center of technical excellence to support Unmanned Aircraft Systems (UAS) programs within the services. The mission includes Service-specific and Joint Command, Control, Communications, Computers and Intelligence, Surveillance, and Reconnaissance (C4ISR) programs throughout DoD. The JTC/SIL provides a Government test bed for interoperability, rapid prototyping, technology insertion and transition, systems engineering, modeling/simulation, training and C4ISR optimization. The cornerstone of JTC/SIL's diverse tool set is the Multiple Unified Simulation Environment (MUSE), which is the DoD simulation/training system of choice for many UAS and ISR systems. The MUSE is also known as the Air Force Synthetic Environment for Reconnaissance and Surveillance (AFSERS) in its Air Force application. The MUSE/AFSERS simulates Air Vehicles, Sensors, Datalinks, Takeoff and Landing Systems, and to some degree, surrogate UAS ground stations, when actual UAS ground stations are unavailable.

The Services and Warfighting Commanders have a requirement for the capability to train with a system that provides a real-time simulation environment containing multiple intelligence systems that can be integrated with larger force-on-force simulations. The MUSE creates a realistic operational environment which supports the ability to assess military utility, architecture and CONOPS development, and Tactics, Techniques, and Procedures (TTP) refinement; conduct emerging concepts experimentation; and optimize C4ISR within warfighting exercises and experiments. It is the preferred simulation system used by the Combat Commanders and Joint Services to support command and battle staff C4ISR training.

The MUSE/AFSERS also creates a realistic operational environment that supports: an embedded training capability for multiple Program Managers; tools to minimize acquisition and life cycle cost and schedule impacts; the ability to conduct emerging concepts experimentation, future systems exploration, systems integration, and technology insertion; applications for Joint and Service-specific warfighting exercises; and C4ISR optimization.

MUSE/AFSERS is currently in use within all services and most unified commands simulating Predator, Global Hawk (RQ-4), ERMP, Hunter, and RQ-7 Shadow, national and commercial satellite collectors, P-3, JSTARS, and the U-2. During warfighting exercises, the JTC/SIL integrates imagery simulations with associated C4ISR systems to support execution of critical imagery processes. For those assets normally not available for training, the JTC/SIL provides surrogate systems and interfaces. Distributed training environments, virtually linking participants from various locations worldwide, are routinely supported within the MUSE architecture. The MUSE/AFSERS is also used as a mission rehearsal tool for current, on-going military combat operations.

The JTC/SIL is supporting the OSD Task Force Staff and the Standards and Interoperability IPT, as well as the joint team working the Ground Segment Interface (GSI). The JTC/SIL is the primary custodian of this interface and in that role performs various supporting tasks including development of tools for helping the definition and

Exhibit R-2A, RDT&E Project Justification: PB 2012 Air Force		DATE: February 2011
APPROPRIATION/BUDGET ACTIVITY 3600: *Research, Development, Test & Evaluation, Air Force* BA 7: *Operational Systems Development*	R-1 ITEM NOMENCLATURE PE 0305206F: *Airborne Reconnaissance Systems*	PROJECT 675092: *JTC/SIL MUSE*

execution of open architecture for joint service ground control systems, developing and maintaining STANAG 45 joint interoperability tasks to be defined on an annual basis.

Activities also include studies and analysis supporting current and future program planning and project execution. 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 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total
Title: AFSERS Development ***Description:*** DoD's simulation/training system of choice for ISR systems, sensors, and platforms. Includes AFSERS, Common Ground Station Interface, and infrastructure support. ***FY 2010 Accomplishments:*** Continued AFSERS development for new ISR platforms and sensors. ***FY 2011 Plans:*** Continue AFSERS Development for new ISR platforms and sensors. ***FY 2012 Base Plans:*** Will continue AFSERS Development and OSD Interoperability Support. ***FY 2012 OCO Plans:***	1.470	1.374	1.235	-	1.235
Title: OSD Interoperability Support ***Description:*** JTC/SIL support to OSD interoperability requirements. Air Force portion of joint funding requirement. ***FY 2010 Accomplishments:*** Continued Air Force support to OSD interoperability efforts. ***FY 2011 Plans:*** Continue Air Force support to OSD interoperability efforts. ***FY 2012 Base Plans:*** Will continue Air Force support to OSD interoperability efforts. ***FY 2012 OCO Plans:***	2.000	2.000	2.000	-	2.000
Accomplishments/Planned Programs Subtotals	3.470	3.374	3.235	-	3.235

Exhibit R-2A, RDT&E Project Justification: PB 2012 Air Force		DATE: February 2011
APPROPRIATION/BUDGET ACTIVITY 3600: *Research, Development, Test & Evaluation, Air Force* BA 7: *Operational Systems Development*	R-1 ITEM NOMENCLATURE PE 0305206F: *Airborne Reconnaissance Systems*	PROJECT 675092: *JTC/SIL MUSE*

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total	FY 2013	FY 2014	FY 2015	FY 2016	Cost To Complete	Total Cost
• Army: *RDT&E, PE 0305204A, Tactical Unmanned Aerial Vehicles*	4.388	6.698	4.341	0.000	4.341	4.294	4.212	4.250	0.000	Continuing	Continuing
• Navy: *RDT&E, PE 0603261N, Tactical Airborne Reconnaissance*	3.715	3.661	3.685	0.000	3.685	3.720	3.758	3.796	0.000	Continuing	Continuing

D. Acquisition Strategy

All contracts are awarded after full and open competition and when situations dictate, via sole source.

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.

Exhibit R-3, RDT&E Project Cost Analysis: PB 2012 Air Force			DATE: February 2011
APPROPRIATION/BUDGET ACTIVITY 3600: *Research, Development, Test & Evaluation, Air Force* BA 7: *Operational Systems Development*	R-1 ITEM NOMENCLATURE PE 0305206F: *Airborne Reconnaissance Systems*	PROJECT 675092: *JTC/SIL MUSE*	

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	FY 2011 Cost	FY 2011 Award Date	FY 2012 Base Cost	FY 2012 Base Award Date	FY 2012 OCO Cost	FY 2012 OCO Award Date	FY 2012 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
AFSERS Development	MIPR	Redstone Arsenal:Huntsville, AL	11.729	0.969	Jan 2011	0.829	Jan 2012	-		0.829	Continuing	Continuing	TBD
		Subtotal	11.729	0.969		0.829		-		0.829			

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	FY 2011 Cost	FY 2011 Award Date	FY 2012 Base Cost	FY 2012 Base Award Date	FY 2012 OCO Cost	FY 2012 OCO Award Date	FY 2012 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
OSD Interoperability Support	Allot	Redstone Arsenal:Huntsville, AL	6.000	2.000	Jan 2011	2.000	Jan 2012	-		2.000	Continuing	Continuing	TBD
		Subtotal	6.000	2.000		2.000		-		2.000			

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	FY 2011 Cost	FY 2011 Award Date	FY 2012 Base Cost	FY 2012 Base Award Date	FY 2012 OCO Cost	FY 2012 OCO Award Date	FY 2012 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
		Subtotal	-	-		-		-		-	0.000	0.000	0.000

Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	FY 2011 Cost	FY 2011 Award Date	FY 2012 Base Cost	FY 2012 Base Award Date	FY 2012 OCO Cost	FY 2012 OCO Award Date	FY 2012 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
JTC/SIL	Allot	Redstone Arsenal:Huntsville, AL	4.416	0.405	Jan 2011	0.406	Jan 2012	-		0.406	Continuing	Continuing	TBD
		Subtotal	4.416	0.405		0.406		-		0.406			

	Total Prior Years Cost	FY 2011 Cost	FY 2011 Award Date	FY 2012 Base Cost	FY 2012 Base Award Date	FY 2012 OCO Cost	FY 2012 OCO Award Date	FY 2012 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	22.145	3.374		3.235		-		3.235			

Exhibit R-3, RDT&E Project Cost Analysis: PB 2012 Air Force			DATE: February 2011
APPROPRIATION/BUDGET ACTIVITY 3600: *Research, Development, Test & Evaluation, Air Force* BA 7: *Operational Systems Development*	R-1 ITEM NOMENCLATURE PE 0305206F: *Airborne Reconnaissance Systems*	PROJECT 675092: *JTC/SIL MUSE*	

	Total Prior Years Cost	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total	Cost To Complete	Total Cost	Target Value of Contract

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2012 Air Force		DATE: February 2011
APPROPRIATION/BUDGET ACTIVITY 3600: *Research, Development, Test & Evaluation, Air Force* BA 7: *Operational Systems Development*	**R-1 ITEM NOMENCLATURE** PE 0305206F: *Airborne Reconnaissance Systems*	**PROJECT** 675092: *JTC/SIL MUSE*

Exhibit R-4A, RDT&E Schedule Details: PB 2012 Air Force		DATE: February 2011
APPROPRIATION/BUDGET ACTIVITY 3600: *Research, Development, Test & Evaluation, Air Force* BA 7: *Operational Systems Development*	**R-1 ITEM NOMENCLATURE** PE 0305206F: *Airborne Reconnaissance Systems*	**PROJECT** 675092: *JTC/SIL MUSE*

Schedule Details

	Start		End	
Events	**Quarter**	**Year**	**Quarter**	**Year**
AFSERS Development	1	2010	4	2016
Interoperability Support	1	2010	4	2015

Exhibit R-2A, RDT&E Project Justification: PB 2012 Air Force			DATE: February 2011
APPROPRIATION/BUDGET ACTIVITY 3600: *Research, Development, Test & Evaluation, Air Force* BA 7: *Operational Systems Development*	R-1 ITEM NOMENCLATURE PE 0305206F: *Airborne Reconnaissance Systems*	PROJECT 675291: *Gorgon Stare*	

COST ($ in Millions)	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total	FY 2013	FY 2014	FY 2015	FY 2016	Cost To Complete	Total Cost
675291: *Gorgon Stare*	45.984	31.833	16.047	-	16.047	16.328	13.040	16.419	17.408	Continuing	Continuing
Quantity of RDT&E Articles	0	0	0	0	0	0	0	0	0		

Note

The program has been funded to latest cost estimate, less efficiencies. The reduction for efficiencies are not intended to impact program content.

A. Mission Description and Budget Item Justification

Gorgon Stare Quick Reaction Capability (QRC) suppors the Combatant Commander (COCOM) urgent operational need for wide area airborne surveillance and is managed by the Air Force through the 645th Aeronautical Systems Group (AESG), aka BIG SAFARI, Intelligence, Surveillance, and Reconnaissance and Special Operations Forces (ISR&SOF)Directorate, Aeronautical Systems Center, Air Force Material Command. Develops a podded wide area airborne sensor suite to provide city-sized and similar broad area surveillance capability for the COCOMs. The Joint Requirements Oversight Council Memorandum (JROCM 106-08, dated 27 May 08) approved the Air Force concept for a program plan to address Service requirements for broad area airborne sensors on existing manned and unmanned aircraft system platforms. This plan evolved into the current Gorgon Stare QRC to be followed by a formal program of record beginning near the end of the FYDP. Funding will be allocated to meet COCOM current operational needs. The acquisition strategy for this Air Force QRC includes delivery of capability in multiple increments, with development of each increment expanding the capabilities of previous increments.

Activities also include studies and anlysis to support both current program planning and execution as well as 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. Accomplishments/Planned Programs ($ in Millions)	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total
Title: Gorgon Stare	45.984	31.833	16.047	-	16.047
Description: Gorgon Stare development including Airborne System, C2, Tactical Dissemination, and Fixed Site processing elements.					
FY 2010 Accomplishments: Completed development, test and delivery of Increment 1 capability. Began development of Increment 2 capability expanding on the Increment 1 capability.					
FY 2011 Plans: Continue development and test of Increment 2 capability. Support Increment 1 deployment needs.					
FY 2012 Base Plans:					

Exhibit R-2A, RDT&E Project Justification: PB 2012 Air Force		DATE: February 2011
APPROPRIATION/BUDGET ACTIVITY 3600: *Research, Development, Test & Evaluation, Air Force* BA 7: *Operational Systems Development*	R-1 ITEM NOMENCLATURE PE 0305206F: *Airborne Reconnaissance Systems*	PROJECT 675291: *Gorgon Stare*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total
Will begin pre-planned product improvement (P3I) development to airborne system, C2, tactical dissemination, and fixed site processing elements. Increment 3 capability development, leveraging P3I initiatives.					
FY 2012 OCO Plans:					
Accomplishments/Planned Programs Subtotals	45.984	31.833	16.047	-	16.047

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total	FY 2013	FY 2014	FY 2015	FY 2016	Cost To Complete	Total Cost
• APAF: *PE 0305206F, Airborne Reconnaissance Sytems*	19.550	115.383	74.866	0.000	74.866	106.186	112.365	76.837	81.717	Continuing	Continuing
• AF: *O&M, PE 0305206F, Airborne Reconnaissance Systems*	11.810	23.010	19.301	0.000	19.301	20.849	19.017	11.863	11.410	Continuing	Continuing

D. Acquisition Strategy

In response to a COCOM urgent operational need, the wide area surveillance need will be delivered via the Gorgon Stare QRC program and executed by the 645 AESG (BIG SAFARI Program Office) using an incremental acquisition strategy to mitigate risk, find affordable end-to-end architecture solutions and field needed capabilities quickly. Addresses Service requirements for broad area surveillance using existing manned and unmanned aircraft system platforms.

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.

Exhibit R-3, RDT&E Project Cost Analysis: PB 2012 Air Force			DATE: February 2011
APPROPRIATION/BUDGET ACTIVITY 3600: *Research, Development, Test & Evaluation, Air Force* BA 7: *Operational Systems Development*	R-1 ITEM NOMENCLATURE PE 0305206F: *Airborne Reconnaissance Systems*	PROJECT 675291: *Gorgon Stare*	

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	FY 2011 Cost	FY 2011 Award Date	FY 2012 Base Cost	FY 2012 Base Award Date	FY 2012 OCO Cost	FY 2012 OCO Award Date	FY 2012 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Sensor Development	SS/CPFF	L3:Rockwall, TX	13.361	4.280	Nov 2010	3.560	Dec 2011	-		3.560	Continuing	Continuing	TBD
Sensor Development (Prime)	SS/FFP	Sierra Nevada Corporation:Sparks, NV	55.056	17.875	Oct 2010	7.040	Dec 2011	-		7.040	Continuing	Continuing	TBD
Sensor Integration	SS/CPFF	GA:Grey Butte, CA	3.065	3.800	Jan 2011	2.447	Dec 2011	-		2.447	Continuing	Continuing	TBD
		Subtotal	71.482	25.955		13.047		-		13.047			

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	FY 2011 Cost	FY 2011 Award Date	FY 2012 Base Cost	FY 2012 Base Award Date	FY 2012 OCO Cost	FY 2012 OCO Award Date	FY 2012 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Various	Various	Various:Various,	2.594	4.203	Mar 2011	1.200	Jan 2012	-		1.200	Continuing	Continuing	0.000
		Subtotal	2.594	4.203		1.200		-		1.200			0.000

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	FY 2011 Cost	FY 2011 Award Date	FY 2012 Base Cost	FY 2012 Base Award Date	FY 2012 OCO Cost	FY 2012 OCO Award Date	FY 2012 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
		Subtotal	-	-		-		-		-	0.000	0.000	0.000

Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	FY 2011 Cost	FY 2011 Award Date	FY 2012 Base Cost	FY 2012 Base Award Date	FY 2012 OCO Cost	FY 2012 OCO Award Date	FY 2012 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
645 AESG, AFRL	SS/Various	SNC:Multiple locations,	9.408	1.675	Mar 2011	1.800	Apr 2012	-		1.800	Continuing	Continuing	TBD
		Subtotal	9.408	1.675		1.800		-		1.800			

	Total Prior Years Cost	FY 2011 Cost	FY 2011 Award Date	FY 2012 Base Cost	FY 2012 Base Award Date	FY 2012 OCO Cost	FY 2012 OCO Award Date	FY 2012 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	83.484	31.833		16.047		-		16.047			

Exhibit R-3, RDT&E Project Cost Analysis: PB 2012 Air Force			DATE: February 2011
APPROPRIATION/BUDGET ACTIVITY 3600: *Research, Development, Test & Evaluation, Air Force* BA 7: *Operational Systems Development*	R-1 ITEM NOMENCLATURE PE 0305206F: *Airborne Reconnaissance Systems*	PROJECT 675291: *Gorgon Stare*	

	Total Prior Years Cost	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total	Cost To Complete	Total Cost	Target Value of Contract
Remarks								

Exhibit R-4, RDT&E Schedule Profile: PB 2012 Air Force		DATE: February 2011
APPROPRIATION/BUDGET ACTIVITY 3600: *Research, Development, Test & Evaluation, Air Force* BA 7: *Operational Systems Development*	**R-1 ITEM NOMENCLATURE** PE 0305206F: *Airborne Reconnaissance Systems*	**PROJECT** 675291: *Gorgon Stare*

Exhibit R-4A, RDT&E Schedule Details: PB 2012 Air Force		DATE: February 2011
APPROPRIATION/BUDGET ACTIVITY 3600: *Research, Development, Test & Evaluation, Air Force* BA 7: *Operational Systems Development*	**R-1 ITEM NOMENCLATURE** PE 0305206F: *Airborne Reconnaissance Systems*	**PROJECT** 675291: *Gorgon Stare*

Schedule Details

	Start		End	
Events	**Quarter**	**Year**	**Quarter**	**Year**
Increment 1	1	2010	3	2011
Increment 2	3	2010	2	2014
Increment 3 (Increment 2 w/P3I)	1	2012	1	2015
Retrofits	3	2013	4	2016

Exhibit R-2A, RDT&E Project Justification: PB 2012 Air Force			DATE: February 2011
APPROPRIATION/BUDGET ACTIVITY 3600: *Research, Development, Test & Evaluation, Air Force* BA 7: *Operational Systems Development*	R-1 ITEM NOMENCLATURE PE 0305206F: *Airborne Reconnaissance Systems*	PROJECT 675292: *Hyperspectral Sensors*	

COST ($ in Millions)	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total	FY 2013	FY 2014	FY 2015	FY 2016	Cost To Complete	Total Cost
675292: *Hyperspectral Sensors*	6.415	3.894	2.760	-	2.760	2.839	2.870	2.741	2.755	Continuing	Continuing
Quantity of RDT&E Articles	0	0	0	0	0	0	0	0	0		

Note

In FY12, project 675292, changed names from Airborne Cueing & Exploitation System-Hyperspectral (ACES HY) to Hyperspectral Sensors to better reflect the breadth of the development efforts and operational need for hyperspectral airborne sensors.
The project has been funded to latest cost estimate, less efficiencies. The reduction for effeciencies are not intended to impact project content.

A. Mission Description and Budget Item Justification

The Hyperspectral Sensors project develops Hyperspectral Imagery (HSI) sensors and capabilities for MQ-1/MQ-9 Unmanned Aircraft System (UAS) and other manned or unmanned aircraft. Within this project, the Airborne Cueing & Exploitation System-Hyperspectral (ACES HY) program helps to fulfill a portion of the sponsoring combatant command and Central Command (CENTCOM) current HSI requirements. The ACES HY program develops sensors with a target platform of MQ-1B Predator Block 15 and develops the necessary training, maintenance and fielding plans to support a working architecture. Activities within this project also include studies and analysis supporting current and future program planning and tech development for advanced HSI sensors and capabilities.

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 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total
Title: ACES HY	6.415	3.894	2.760	-	2.760
Description: Develop ACES HY sensor with a targeted platform of MQ-1B Predator Block 15. Provide training and support data to accompany sensors. Tech development for future HSI sensors.					
FY 2010 Accomplishments: Completed development of 3 ACES HY prototype sensors. Began preparation for sensor integration on MQ-1.					
FY 2011 Plans: Integrate 3 prototype ACES HY sensors onboard MQ-1. Prepare for ACES HY initial deployment.					
FY 2012 Base Plans:					

Exhibit R-2A, RDT&E Project Justification: PB 2012 Air Force		DATE: February 2011
APPROPRIATION/BUDGET ACTIVITY 3600: *Research, Development, Test & Evaluation, Air Force* BA 7: *Operational Systems Development*	R-1 ITEM NOMENCLATURE PE 0305206F: *Airborne Reconnaissance Systems*	PROJECT 675292: *Hyperspectral Sensors*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total
Support ACES HY initial deployment. Develop processing improvements for 3 prototype ACES HY sensors. Begin hyperspectral tech development for future HSI capabilities. ***FY 2012 OCO Plans:***					
Accomplishments/Planned Programs Subtotals	6.415	3.894	2.760	-	2.760

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total	FY 2013	FY 2014	FY 2015	FY 2016	Cost To Complete	Total Cost
• APAF: *PE 0305219F, MQ-1 Predator A UAV*	48.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	Continuing	Continuing

D. Acquisition Strategy

Develop industry partners that procure improved, baseline deployable, supportable HSI sensor systems. The systems should support the joint warfighter and ensure spiral upgrade capability. Utilize the Advanced Technology Support Program process developed by OSD DMEA at McClellan, CA. The contractors should provide a disciplined design process that is the lowest risk solution (cost, schedule, and performance) and ensures logistics support with initial test spares and associated source data to support training and TO development. The MQ-1 and MQ-9 developers will be included for interface control and planning for MQ-1B Predator Block 15 integration prior to fielding for ACES HY and other sensor technology efforts as they mature. ACES HY utilizes a competitively selected, cost plus fixed fee prime contract to Raytheon (McKinney TX) for sensor development and leverages the sole source, cost plus fixed fee General Atomics (San Diego, CA) integration contract for sensor integration.

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.

Exhibit R-3, RDT&E Project Cost Analysis: PB 2012 Air Force			DATE: February 2011
APPROPRIATION/BUDGET ACTIVITY 3600: *Research, Development, Test & Evaluation, Air Force* BA 7: *Operational Systems Development*	R-1 ITEM NOMENCLATURE PE 0305206F: *Airborne Reconnaissance Systems*	PROJECT 675292: *Hyperspectral Sensors*	

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	FY 2011 Cost	FY 2011 Award Date	FY 2012 Base Cost	FY 2012 Base Award Date	FY 2012 OCO Cost	FY 2012 OCO Award Date	FY 2012 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Sensor Development	C/CPFF	Raytheon:McKinney, TX	28.792	0.651	Dec 2010	1.118	Dec 2011	-		1.118	Continuing	Continuing	TBD
Sensor Integration	SS/CPFF	General Atomics:San Diego, CA	-	2.501	Jan 2011	0.953	Jan 2012	-		0.953	0.000	3.454	3.918
		Subtotal	28.792	3.152		2.071		-		2.071			

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	FY 2011 Cost	FY 2011 Award Date	FY 2012 Base Cost	FY 2012 Base Award Date	FY 2012 OCO Cost	FY 2012 OCO Award Date	FY 2012 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
		Subtotal	-	-		-		-		-	0.000	0.000	0.000

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	FY 2011 Cost	FY 2011 Award Date	FY 2012 Base Cost	FY 2012 Base Award Date	FY 2012 OCO Cost	FY 2012 OCO Award Date	FY 2012 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
		Subtotal	-	-		-		-		-	0.000	0.000	0.000

Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	FY 2011 Cost	FY 2011 Award Date	FY 2012 Base Cost	FY 2012 Base Award Date	FY 2012 OCO Cost	FY 2012 OCO Award Date	FY 2012 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Management	SS/TBD	Bevilacqua Research Corporation:Huntsville, AL	2.055	0.742	Jan 2011	0.689	Jan 2012	-		0.689	Continuing	Continuing	TBD
		Subtotal	2.055	0.742		0.689		-		0.689			

	Total Prior Years Cost	FY 2011 Cost	FY 2011 Award Date	FY 2012 Base Cost	FY 2012 Base Award Date	FY 2012 OCO Cost	FY 2012 OCO Award Date	FY 2012 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	30.847	3.894		2.760		-		2.760			

Exhibit R-3, RDT&E Project Cost Analysis: PB 2012 Air Force			DATE: February 2011
APPROPRIATION/BUDGET ACTIVITY 3600: *Research, Development, Test & Evaluation, Air Force* BA 7: *Operational Systems Development*	R-1 ITEM NOMENCLATURE PE 0305206F: *Airborne Reconnaissance Systems*	PROJECT 675292: *Hyperspectral Sensors*	

	Total Prior Years Cost	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total	Cost To Complete	Total Cost	Target Value of Contract

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2012 Air Force		DATE: February 2011
APPROPRIATION/BUDGET ACTIVITY 3600: *Research, Development, Test & Evaluation, Air Force* BA 7: *Operational Systems Development*	**R-1 ITEM NOMENCLATURE** PE 0305206F: *Airborne Reconnaissance Systems*	**PROJECT** 675292: *Hyperspectral Sensors*

Exhibit R-4A, RDT&E Schedule Details: PB 2012 Air Force		DATE: February 2011
APPROPRIATION/BUDGET ACTIVITY 3600: *Research, Development, Test & Evaluation, Air Force* BA 7: *Operational Systems Development*	**R-1 ITEM NOMENCLATURE** PE 0305206F: *Airborne Reconnaissance Systems*	**PROJECT** 675292: *Hyperspectral Sensors*

Schedule Details

	Start		End	
Events	**Quarter**	**Year**	**Quarter**	**Year**
ACES HY Prototype Sensor Builds (3)	1	2010	4	2010
ACES HY MQ-1 Integration	4	2010	4	2011
ACES HY Prototype Initial Deployment	4	2011	3	2013
Processing Improvements Spiral 1	4	2012	3	2014
Field Upgrades Spiral 2	2	2014	3	2016
Hyperspectral Sensor Tech Development	1	2012	4	2016

Exhibit R-2A, RDT&E Project Justification: PB 2012 Air Force			DATE: February 2011
APPROPRIATION/BUDGET ACTIVITY 3600: *Research, Development, Test & Evaluation, Air Force* BA 7: *Operational Systems Development*	R-1 ITEM NOMENCLATURE PE 0305206F: *Airborne Reconnaissance Systems*	PROJECT 675382: *Broad Area Surveillance Sensors*	

COST ($ in Millions)	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total	FY 2013	FY 2014	FY 2015	FY 2016	Cost To Complete	Total Cost
675382: *Broad Area Surveillance Sensors*	61.655	78.711	18.225	-	18.225	15.570	8.983	17.272	28.321	Continuing	Continuing
Quantity of RDT&E Articles	0	0	0	0	0	0	0	0	0		

Note

In FY10, project 675382 increased due to a $22.95M Blue Devil II (SECDEF directed) initiative. Beginning in FY12, the Blue Devil II effort will be transferred to PE 0305205F, project 676019 (High Endurance UAVs, project Blue Devil II) to better align the effort within the proper PE.

In FY12, project 675382 was renamed from Wide Area Airborne Surveillance Program of Record (WAAS PoR) to Broad Area Surveillance Sensors to better reflect the WAAS PoR termination and continued technical development of Broad Area Surveillance Sensors.

In FY12, Blue Devil II efforts are transferred to PE0305205F, Endurance Unmanned Aerial Vehicles, in order to consolidate program content.

The program has been funded to latest cost estimate, less efficiencies. The reduction for efficiencies are not intended to impact program content.

A. Mission Description and Budget Item Justification

The Broad Area Surveillance Sensors project develops capabilities in support of Combatant Commands' requirements for end-to-end persistent surveillance to provide broad area airborne sensor suites, data links, and associated ground support elements for city-sized and similar broad area surveillance capabilities on manned and unmanned aircraft. Funding was initiated in FY08 to meet OSD direction (Nov 07) and COCOM urgent needs addressing service requirements for broad area surveillance capability on manned and unmanned aircraft system platforms.

Program aligned to respond to COCOM's greater need for broad area surveillance in current operations and congressional guidance. The restructure delivers more Quick Reaction Capabilities (QRC) capability in the near term while allowing time for the services to incorporate lessons learned from previously initiated QRC activities into a future program of record. Continued development of critical broad area surveillance technologies will feed existing QRCs supporting various aircraft size, weight, and power configurations; sensor performance attributes; Processing, Exploitation, and Dissemination (PED) architectures and operational missions. Pre-program planning activities will continue while incorporating QRC lessons learned into a normalized acquisition program. Funding has been redistributed between project 675291 (GORGON STARE) and project 675382 (Broad Area Surveillance Sensors) to support this program realignment.

Activities also include studies, analysis, and technology development, maturation, and demonstration to support current and future program planning and execution. 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.

Exhibit R-2A, RDT&E Project Justification: PB 2012 Air Force		DATE: February 2011
APPROPRIATION/BUDGET ACTIVITY 3600: *Research, Development, Test & Evaluation, Air Force* BA 7: *Operational Systems Development*	R-1 ITEM NOMENCLATURE PE 0305206F: *Airborne Reconnaissance Systems*	PROJECT 675382: *Broad Area Surveillance Sensors*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total
Title: Broad Area Surveillance ***Description:*** Broad area surveillance sensors technology development, maturation, and capability demonstrations for manned and unmanned aircraft system platforms. ***FY 2010 Accomplishments:*** Advanced EO/IR sensor technology maturation. Improved sensor processing algorithms and working to streamline processing, exploitation, and dissemination (PED) tools and architectures. ***FY 2011 Plans:*** Develop and mature broad area surveillance technologies including advanced on-board imaging processing, advanced night sensor capabilities, improved data fusion algorithms, and improved PED tools. ***FY 2012 Base Plans:*** Continue broad area surveillance sensor processing and data fusion technology development and maturation efforts. ***FY 2012 OCO Plans:***	38.705	78.711	18.225	-	18.225
Title: Blue Devil II ***Description:*** Develop Blue Devil II lighter-than-air (LTA) airship and develop, integrate and test payload integration, infrastructure and sensor suite. ***FY 2010 Accomplishments:*** Initiated Blue Devil II development of LTA airship, and began development, integration and test of payload infrastructure and sensor suite. ***FY 2011 Plans:*** ***FY 2012 Base Plans:*** ***FY 2012 OCO Plans:***	22.950	-	-	-	-
Accomplishments/Planned Programs Subtotals	61.655	78.711	18.225	-	18.225

Exhibit R-2A, RDT&E Project Justification: PB 2012 Air Force		DATE: February 2011
APPROPRIATION/BUDGET ACTIVITY 3600: *Research, Development, Test & Evaluation, Air Force* BA 7: *Operational Systems Development*	R-1 ITEM NOMENCLATURE PE 0305206F: *Airborne Reconnaissance Systems*	PROJECT 675382: *Broad Area Surveillance Sensors*

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total	FY 2013	FY 2014	FY 2015	FY 2016	Cost To Complete	Total Cost
• 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

Acquisition strategy for broad area surveillance tech development efforts maximizes commercial and national development efforts and investment through multiple contracts and contracting methods, including the use of Engineering Change Proposals to modify existing contracts and new contracts that were awarded both competitively or on a sole source basis. A formal program of record, once initiated, will be executed by the Air Force using an incremental acquisition strategy to mitigate risk, find affordable end-to-end architecture solutions and field needed capabilities quickly to satisfy service requirements for broad area surveillance sensors on manned and unmanned aircraft platforms.

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.

Exhibit R-3, RDT&E Project Cost Analysis: PB 2012 Air Force		DATE: February 2011
APPROPRIATION/BUDGET ACTIVITY 3600: *Research, Development, Test & Evaluation, Air Force* BA 7: *Operational Systems Development*	R-1 ITEM NOMENCLATURE PE 0305206F: *Airborne Reconnaissance Systems*	PROJECT 675382: *Broad Area Surveillance Sensors*

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	FY 2011 Cost	FY 2011 Award Date	FY 2012 Base Cost	FY 2012 Base Award Date	FY 2012 OCO Cost	FY 2012 OCO Award Date	FY 2012 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
IR Image Resolution (AFRL-SAFEGUARD)	C/CPFF	Lockheed Martin:Orlando, FL	6.198	14.871	Jun 2011	3.696	Jun 2012	-		3.696	Continuing	Continuing	TBD
Integration (AFRL-SAFEGUARD)	C/CPFF	Northrop Grumman:Baltimore, MD	5.927	14.800	Jun 2011	2.107	Jan 2012	-		2.107	Continuing	Continuing	TBD
Data Links/Fusion (AFRL-SAFEGUARD)	C/CPFF	L-3 Comm:Salt Lake City, UT	5.436	7.600	May 2011	1.200	Jan 2012	-		1.200	Continuing	Continuing	TBD
PED Forward (AFRL-SAFEGUARD)	C/CPFF	BAE:Arlington, VA	2.610	6.802	May 2011	0.800	Jan 2012	-		0.800	Continuing	Continuing	TBD
IR Image Resolution (Office of Naval Research)	C/CPFF	Cincinnati Electronics:Mason, OH	2.950	5.760	Jul 2011	1.200	Jan 2012	-		1.200	Continuing	Continuing	TBD
EO Image Resolution (Office of Naval Research)	C/CPFF	Logos Technology:Arlington, VA	2.815	6.370	Jul 2011	1.000	Jan 2012	-		1.000	Continuing	Continuing	TBD
PED Forward (Office of Naval Research)	C/CPFF	Sarnoff Corporation:Princeton, NJ	1.650	4.780	Jul 2011	0.730	Jan 2012	-		0.730	Continuing	Continuing	TBD
Blue Devil II Payload Development	C/CPFF	MAV-6:Vicksburg, MS	20.950	-		-		-		-	0.000	20.950	0.000
		Subtotal	48.536	60.983		10.733		-		10.733			

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	FY 2011 Cost	FY 2011 Award Date	FY 2012 Base Cost	FY 2012 Base Award Date	FY 2012 OCO Cost	FY 2012 OCO Award Date	FY 2012 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
GFE Hardware	RO	USAF:,	1.384	2.978	May 2011	-		-		-	0.000	4.362	0.000
ARGUS Demo- Data Links	C/CPFF	L-3 Comm:Salt Lake City, UT	0.729	0.900	May 2011	-		-		-	0.000	1.629	0.000
ARGUS Demo- Platform	C/CPFF	Northrop Grumman:Baltimore, MD	0.624	2.500	May 2011	1.000	May 2012	-		1.000	0.000	4.124	0.000
Test Support	Various	Other Govt Agencies:,	0.500	0.850	Mar 2011	0.267	Feb 2012	-		0.267	Continuing	Continuing	TBD

Exhibit R-3, RDT&E Project Cost Analysis: PB 2012 Air Force		DATE: February 2011
APPROPRIATION/BUDGET ACTIVITY 3600: *Research, Development, Test & Evaluation, Air Force* BA 7: *Operational Systems Development*	R-1 ITEM NOMENCLATURE PE 0305206F: *Airborne Reconnaissance Systems*	PROJECT 675382: *Broad Area Surveillance Sensors*

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	FY 2011 Cost	FY 2011 Award Date	FY 2012 Base Cost	FY 2012 Base Award Date	FY 2012 OCO Cost	FY 2012 OCO Award Date	FY 2012 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
		Subtotal	3.237	7.228		1.267		-		1.267			

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	FY 2011 Cost	FY 2011 Award Date	FY 2012 Base Cost	FY 2012 Base Award Date	FY 2012 OCO Cost	FY 2012 OCO Award Date	FY 2012 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
		Subtotal	-	-		-		-		-	0.000	0.000	0.000

Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	FY 2011 Cost	FY 2011 Award Date	FY 2012 Base Cost	FY 2012 Base Award Date	FY 2012 OCO Cost	FY 2012 OCO Award Date	FY 2012 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
ASC/WINPD Program Management Services	Various	Govt/Contractors:,	4.917	6.800	Mar 2011	3.800	Nov 2011	-		3.800	Continuing	Continuing	TBD
AFRL	Various	Govt/Contractors:,	2.580	3.100	Mar 2011	1.625	Nov 2011	-		1.625	Continuing	Continuing	TBD
Office of Naval Research (ONR)	RO	ONR:,	0.385	0.600	Apr 2011	0.800	Apr 2012	-		0.800	Continuing	Continuing	TBD
Blue Devil II Program Management Services	Various	Govt/Contractors:,	2.000	-		-		-		-	0.000	2.000	0.000
		Subtotal	9.882	10.500		6.225		-		6.225			

	Total Prior Years Cost	FY 2011		FY 2012 Base		FY 2012 OCO		FY 2012 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	61.655	78.711		18.225		-		18.225			

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2012 Air Force		DATE: February 2011
APPROPRIATION/BUDGET ACTIVITY 3600: *Research, Development, Test & Evaluation, Air Force* BA 7: *Operational Systems Development*	**R-1 ITEM NOMENCLATURE** PE 0305206F: *Airborne Reconnaissance Systems*	**PROJECT** 675382: *Broad Area Surveillance Sensors*

Exhibit R-4A, RDT&E Schedule Details: PB 2012 Air Force		DATE: February 2011
APPROPRIATION/BUDGET ACTIVITY 3600: *Research, Development, Test & Evaluation, Air Force* BA 7: *Operational Systems Development*	**R-1 ITEM NOMENCLATURE** PE 0305206F: *Airborne Reconnaissance Systems*	**PROJECT** 675382: *Broad Area Surveillance Sensors*

Schedule Details

	Start		End	
Events	**Quarter**	**Year**	**Quarter**	**Year**
EO/IR Sensor Development	3	2010	4	2012
Advanced Processing (Sensor/Data Links/Fusion)	3	2010	4	2013
Processing, Exploitation, Dissemination (PED) Algorithms	3	2010	2	2015
Program of Record - Program Preparation	2	2014	4	2015