

UNCLASSIFIED

Exhibit R-2, RDT&E Budget Item Justification: PB 2012 Air Force **DATE:** February 2011

APPROPRIATION/BUDGET ACTIVITY				R-1 ITEM NOMENCLATURE							
3600: <i>Research, Development, Test & Evaluation, Air Force</i> BA 5: <i>Development & Demonstration (SDD)</i>				PE 0604441F: <i>Spaced Based Infrared System (SBIRS) High</i>							
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	521.470	530.047	621.629	-	621.629	572.960	427.234	29.552	299.134	Continuing	Continuing
653616: <i>SBIRS High Element EMD</i>	521.470	511.847	605.111	-	605.111	572.960	427.234	29.552	299.134	Continuing	Continuing
65A040: <i>Commercially Hosted Infrared Payload (CHIRP)</i>	-	18.200	16.518	-	16.518	-	-	-	-	Continuing	Continuing

Note

The program funding includes overhead reductions for efficiencies that are not intended to impact program content. The efficiencies reductions total \$12.499 in FY12.

Totals include funding for PRCP Program (PNO) 210 SBIRS High.

A. Mission Description and Budget Item Justification

(U) The Space-Based Infrared Systems (SBIRS) primary mission is to provide initial warning of a ballistic missile attack on the US, its deployed forces, and its allies. SBIRS will incorporate new technologies to enhance detection and improve reporting of intercontinental ballistic missile launches, submarine launched ballistic missile launches, and tactical ballistic missile launches. SBIRS supports Missile Defense, Battlespace Awareness, and Technical Intelligence missions by providing reliable, accurate, and timely data to Unified Combatant Commanders, Joint Task Force (JTF) Commanders, the intelligence community, and other users. SBIRS provides increased detection and tracking performance in order to meet requirements in US Strategic Command's Capstone Requirements Document and Air Force Space Command's Operational Requirements Document. The SBIRS system includes both space and ground elements. The space segment consists of Geosynchronous Earth Orbit (GEO) satellites, payloads hosted on satellites in Highly Elliptical Orbit (HEO), and Defense Support Program (DSP) satellites. The ground segment consists of both fixed and mobile data processing elements, communications infrastructure, and relay ground stations serving all SBIRS space elements. The HEO-1 and HEO-2 payloads are accepted and certified for Integrated Tactical Warning/Attack Assessment (ITW/AA) missile warning operations and technical intelligence operations. Concept studies/activities may be implemented to investigate obsolescence issues, Overhead Persistent Infrared (OPIR) solutions to potential operational concerns, and future evolution paths of the ground and/or space segment.

(U) The Department of Defense terminated the Third Generation Infrared Surveillance (3GIRS) program (PE 0604443F) beginning in FY11. 3GIRS included development efforts for the Commercially Hosted Infrared Payload (CHIRP) demonstration. FY11 and FY12 funds supporting the CHIRP demonstration for technology maturation of space and ground technologies was moved to the SBIRS RDT&E PE under a separate project number. CHIRP will perform risk reduction and evaluation of Wide-Field-of-View (WFOV) IR staring and data processing technology to potentially evolve future SBIRS staring sensors and processing algorithms. An on-orbit demonstration will quantify performance levels of a WFOV sensor in an operational environment. CHIRP sensor testing will also provide Focal Plane Array (FPA) performance/calibration characteristics, validate WFOV staring algorithm performance in an operational environment, and investigate compatibility with current Overhead Persistent Infrared (OPIR) ground systems for missile warning, missile defense, and other mission areas.

(U) SBIRS GEO-5 and 6 satellites will be procured through the Department of Defense's Evolutionary Acquisition for Space Efficiency (EASE). EASE is a procurement approach which seeks stable production and strategic subtier management through the block buy of two space vehicles employing fixed-priced contracting (please

UNCLASSIFIED

UNCLASSIFIED

Exhibit R-2, RDT&E Budget Item Justification: PB 2012 Air Force	DATE: February 2011
--	----------------------------

APPROPRIATION/BUDGET ACTIVITY 3600: <i>Research, Development, Test & Evaluation, Air Force</i> BA 5: <i>Development & Demonstration (SDD)</i>	R-1 ITEM NOMENCLATURE PE 0604441F: <i>Spaced Based Infrared System (SBIRS) High</i>
--	---

see SBIRS P-40 Exhibit). In addition to block-buy procurement, EASE includes RDT&E funding for a Capability and Affordability Improvement Program (CAIP). CAIP seeks to improve manufacturability and lower recurring costs by addressing parts obsolescence through sustaining engineering. CAIP also provides opportunities for competition to develop potential technology upgrades at the component and system level for future spacecraft. CAIP funding is included within the EMD funding shown at top however will be broken out into a separate budget program activity code (BPAC) by the next budget cycle. CAIP funding levels are: FY12=\$0M, FY13=\$125.476, FY14=\$126.452, FY15=\$127.153, FY16=\$127.412M.

(U) This program is assigned to Budget Activity 5, System Development and Demonstration (SDD), because it funds the development activities for the SBIRS High program, CHIRP demonstration, and CAIP.

B. Program Change Summary (\$ in Millions)	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total
Previous President's Budget	521.156	530.047	504.409	-	504.409
Current President's Budget	521.470	530.047	621.629	-	621.629
Total Adjustments	0.314	-	117.220	-	117.220
• Congressional General Reductions		-			
• Congressional Directed Reductions		-			
• Congressional Rescissions	-	-			
• Congressional Adds		-			
• Congressional Directed Transfers		-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-	-			
• Other Adjustments	0.314	-	117.220	-	117.220

Change Summary Explanation

EMD Space: +\$131.8M FY12 (+\$207M FYDP total) increase for EMD Space segment completion as a result of flight software delays to GEO-1 and also impacting GEO-2 schedule.

CAIP: The CAIP program was added as described above.

Efficiencies: The program funding includes PMA reductions for efficiencies that are not intended to impact program content. The efficiencies reductions total \$12.499 in FY12.

Economic Assumptions: FY12 prescribed inflation adjustments are -\$2.026M.

UNCLASSIFIED

UNCLASSIFIED

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 5: Development & Demonstration (SDD)				R-1 ITEM NOMENCLATURE PE 0604441F: Spaced Based Infrared System (SBIRS) High				PROJECT 653616: SBIRS High Element EMD			
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
653616: SBIRS High Element EMD	521.470	511.847	605.111	-	605.111	572.960	427.234	29.552	299.134	Continuing	Continuing
Quantity of RDT&E Articles	0	1	1	0	1	0	0	0	0		
Note Quantity of RDT&E articles above reflect delivery of GEO-1 in FY11 and GEO-2 in FY12. Both were developed under this BPAC.											
A. Mission Description and Budget Item Justification Totals include funding for PRCP Program (PNO) 210 SBIRS High. (U) The Space-Based Infrared Systems (SBIRS) primary mission is to provide initial warning of a ballistic missile attack on the US, its deployed forces, and its allies. SBIRS will incorporate new technologies to enhance detection and improve reporting of intercontinental ballistic missile launches, submarine launched ballistic missile launches, and tactical ballistic missile launches. SBIRS supports Missile Defense, Battlespace Awareness, and Technical Intelligence missions by providing reliable, accurate, and timely data to Unified Combatant Commanders, Joint Task Force (JTF) Commanders, the intelligence community, and other users. SBIRS provides increased detection and tracking performance in order to meet requirements in US Strategic Command's Capstone Requirements Document and Air Force Space Command's Operational Requirements Document. The SBIRS system includes both space and ground elements. The space segment consists of Geosynchronous Earth Orbit (GEO) satellites, payloads hosted on satellites in Highly Elliptical Orbit (HEO), and Defense Support Program (DSP) satellites. The ground segment consists of both fixed and mobile data processing elements, communications infrastructure, and relay ground stations serving all SBIRS space elements. The HEO-1 and HEO-2 payloads are accepted and certified for Integrated Tactical Warning/Attack Assessment (ITW/AA) missile warning operations and technical intelligence operations. Concept studies/activities may be implemented to investigate obsolescence issues, Overhead Persistent Infrared (OPIR) solutions to potential operational concerns, and future evolution paths of the ground and/or space segment. (U) This program is assigned to Budget Activity 5, System Development and Demonstration (SDD), because it funds the development and integration of mature systems, and the test, evaluation, and demonstration of those systems.											
B. Accomplishments/Planned Programs (\$ in Millions)							FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total
Title: SBIRS EMD							521.470	511.847	605.111	-	605.111
Description: Continue EMD contracts for Space and Ground segment development, concept studies/activities for obsolescence issues.											
FY 2010 Accomplishments:											

UNCLASSIFIED

UNCLASSIFIED

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 5: Development & Demonstration (SDD)				R-1 ITEM NOMENCLATURE PE 0604441F: Spaced Based Infrared System (SBIRS) High			PROJECT 653616: SBIRS High Element EMD				
B. Accomplishments/Planned Programs (\$ in Millions)							FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total
<p>Continued GEO development, GEO 1&2 integration, assembly and test, design activities, proposal preparation, Ground System Development, System Engineering and Program Management, Host program office support, Technical Intelligence activities, Data Processing/Exploitation/ground integration activities, Combined Task Force (CTF) support activities, and continuation of systems integration and test studies. Implemented Ground segment restructure (Block 10 hardware/software to address obsolescence issues, information assurance, and improve data fusion). Continued Program Office and related support activities (to include SETA), technical analysis and independent verification and validation of contractor. Initiate Systems Engineering and Integration (SE&I).</p> <p>FY 2011 Plans: Continue GEO development. Complete final GEO-1 flight software verification and hardware installs, execute GEO-1 launch campaign. Continue GEO-2 integration, assembly and test, design activities, proposal preparation, Ground System Development (Block 10), System Engineering and Program Management, Host program office support, Technical Intelligence activities, Data Processing/ Exploitation/ground integration activities, Combined Task Force (CTF) support activities, and continuation of systems integration and test studies. Continue Program Office and related support activities (to include SETA), technical analysis and independent verification and validation of contractor. Continue Systems Engineering and Integration (SE&I).</p> <p>FY 2012 Base Plans: Continue GEO development. Continue GEO-1 on-orbit testing. Continue GEO-2 integration, assembly and test, design activities, proposal preparation, Ground System Development (Block 10), System Engineering and Program Management, Host program office support, Technical Intelligence activities, Data Processing/ Exploitation/ground integration activities, Combined Task Force (CTF) support activities, and continuation of systems integration and test studies. Execute GEO-2 launch campaign. Continue Program Office and related support activities (to include SETA), technical analysis and independent verification and validation of contractor. Continue Systems Engineering and Integration (SE&I).</p> <p>FY 2012 OCO Plans:</p>											
Accomplishments/Planned Programs Subtotals							521.470	511.847	605.111	-	605.111
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
• OPAF: PE 0305915F, SBIRS	1.994	24.804	50.518	0.000	50.518	47.000	28.227	25.888	7.617	Continuing	Continuing

UNCLASSIFIED

UNCLASSIFIED

Exhibit R-2A, RDT&E Project Justification: PB 2012 Air Force	DATE: February 2011
---	----------------------------

APPROPRIATION/BUDGET ACTIVITY 3600: <i>Research, Development, Test & Evaluation, Air Force</i> BA 5: <i>Development & Demonstration (SDD)</i>	R-1 ITEM NOMENCLATURE PE 0604441F: <i>Spaced Based Infrared System (SBIRS) High</i>	PROJECT 653616: <i>SBIRS High Element EMD</i>
--	---	---

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

<u>Line Item</u>	<u>FY 2010</u>	<u>FY 2011</u>	<u>FY 2012</u> <u>Base</u>	<u>FY 2012</u> <u>OCO</u>	<u>FY 2012</u> <u>Total</u>	<u>FY 2013</u>	<u>FY 2014</u>	<u>FY 2015</u>	<u>FY 2016</u>	<u>Cost To</u> <u>Complete</u>	<u>Total Cost</u>
• MPAF: <i>PE 0305915F, SBIRS High</i>	463.895	970.704	324.889	0.000	324.889	448.770	504.468	492.568	493.839	Continuing	Continuing

D. Acquisition Strategy

The pre-SDD SBIRS contracts were competed in full and open competition. Two contracts were awarded to Lockheed/Loral/Aerojet and Hughes/TRW in 1995 for the pre-SDD phase. A single contract was awarded to Lockheed Martin in 1996 for the SDD phase.

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-3, RDT&E Project Cost Analysis: PB 2012 Air Force **DATE:** February 2011

APPROPRIATION/BUDGET ACTIVITY 3600: Research, Development, Test & Evaluation, Air Force BA 5: Development & Demonstration (SDD)	R-1 ITEM NOMENCLATURE PE 0604441F: Spaced Based Infrared System (SBIRS) High	PROJECT 653616: SBIRS High Element EMD
--	---	--

Product Development (\$ in Millions)				FY 2011		FY 2012 Base		FY 2012 OCO		FY 2012 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Pre-EMD (LMMS & Hughes)	C/CPFF	Hughes Aircraft Company:El Segundo, CA	159.600	-		-		-		-	0.000	159.600	159.600
SBIRS EMD	Various	Prime: Lockheed Martin Sunnyvale; Sub: Northrup Grumman:,	7,072.009	452.183	Oct 2010	557.884	Oct 2011	-		557.884	Continuing	Continuing	TBD
Systems engineering and Integration (SEI)	C/CPAF	The Analytical Sciences Corporation:Andover, MA	5.947	12.086	Dec 2010	9.665	Dec 2011	-		9.665	17.936	45.634	45.634
SBIRS Pre-SDD Contract Adjustment	Various	Not specified.:	4.780	-		-		-		-	0.000	4.780	4.780
Technology	Various	Not specified.:	11.600	-		-		-		-	0.000	11.600	11.600
Phenomenology	Various	Not specified.:	17.350	-		-		-		-	0.000	17.350	17.350
Sensor Technology (Sandia Nat'l Lab)	Various	Not specified.:	10.000	-		-		-		-	0.000	10.000	10.000
Subtotal			7,281.286	464.269		567.549		-		567.549			

Remarks

SBIRS EMD includes SBIRS EMD prime contract with Lockheed Martin, Program/Mission Support and Host SPO efforts. Award dates represent date of first award of the fiscal year.

Support (\$ in Millions)				FY 2011		FY 2012 Base		FY 2012 OCO		FY 2012 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Technical Support (FFRDC)	Various	Not specified.:	356.679	29.348	Nov 2010	23.270	Nov 2011	-		23.270	43.701	452.998	452.998
Program Management Support	Various	Not specified.:	170.511	18.230	Oct 2010	14.292	Oct 2011	-		14.292	29.477	232.510	232.510
Subtotal			527.190	47.578		37.562		-		37.562	73.178	685.508	685.508

Remarks

Award dates represent date of first award of the fiscal year.

UNCLASSIFIED

UNCLASSIFIED

Exhibit R-3, RDT&E Project Cost Analysis: PB 2012 Air Force											DATE: February 2011		
APPROPRIATION/BUDGET ACTIVITY 3600: <i>Research, Development, Test & Evaluation, Air Force</i> BA 5: <i>Development & Demonstration (SDD)</i>				R-1 ITEM NOMENCLATURE PE 0604441F: <i>Spaced Based Infrared System (SBIRS) High</i>				PROJECT 653616: <i>SBIRS High Element EMD</i>					

Test and Evaluation (\$ in Millions)				FY 2011		FY 2012 Base		FY 2012 OCO		FY 2012 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Subtotal			-	-		-		-		-	0.000	0.000	0.000

Management Services (\$ in Millions)				FY 2011		FY 2012 Base		FY 2012 OCO		FY 2012 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Subtotal			-	-		-		-		-	0.000	0.000	0.000

			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			7,808.476	511.847		605.111		-		605.111			

Remarks
<p>The total program cost estimate (to include to-complete cost)is pending the Service Cost Position to be completed spring 2011.</p>

UNCLASSIFIED

UNCLASSIFIED

Exhibit R-4, RDT&E Schedule Profile: PB 2012 Air Force		DATE: February 2011
APPROPRIATION/BUDGET ACTIVITY 3600: <i>Research, Development, Test & Evaluation, Air Force</i> BA 5: <i>Development & Demonstration (SDD)</i>	R-1 ITEM NOMENCLATURE PE 0604441F: <i>Spaced Based Infrared System (SBIRS) High</i>	PROJECT 653616: <i>SBIRS High Element EMD</i>

UNCLASSIFIED

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 5: *Development & Demonstration (SDD)*

R-1 ITEM NOMENCLATURE

PE 0604441F: *Spaced Based Infrared System (SBIRS) High*

PROJECT

653616: *SBIRS High Element EMD*

Schedule Details

Events	Start		End	
	Quarter	Year	Quarter	Year
GEO-1 TVAC Closed Door Test	1	2010	1	2010
GEO Interim Operations (GIO) Software Delivery for Launch	2	2010	2	2010
GEO-1 FIST Complete	1	2011	1	2011
GEO-2 BIST-2	1	2011	2	2011
GEO-1 Satellite Delivery	2	2011	2	2011
GEO-2 Acoustic Test	3	2011	3	2011
GEO-1 P/L Calibration and Tuning	3	2011	3	2012
GEO Interim Operations (GIO) Software Final Delivery	3	2011	3	2011
GEO-2 TVAC Closed Door Test	4	2011	4	2011
Block 10 Code and Unit Test	1	2012	2	2013
GEO-2 Satellite Delivery	2	2012	2	2012
Block 10 Critical Design Review (CDR) Complete	3	2012	3	2012
GEO Message Cert	4	2012	4	2012

UNCLASSIFIED

UNCLASSIFIED

Exhibit R-2A, RDT&E Project Justification: PB 2012 Air Force									DATE: February 2011		
APPROPRIATION/BUDGET ACTIVITY				R-1 ITEM NOMENCLATURE				PROJECT			
3600: Research, Development, Test & Evaluation, Air Force BA 5: Development & Demonstration (SDD)				PE 0604441F: Spaced Based Infrared System (SBIRS) High				65A040: Commercially Hosted Infrared Payload (CHIRP)			
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
65A040: Commercially Hosted Infrared Payload (CHIRP)	-	18.200	16.518	-	16.518	-	-	-	-	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 Department of Defense terminated the Third Generation Infrared Surveillance (3GIRS) program (PE 0604443F) beginning in FY11. 3GIRS included development efforts for the Commercially Hosted Infrared Payload (CHIRP) demonstration. FY11 and FY12 funds supporting the CHIRP demonstration for technology maturation of space and ground technologies were moved to the SBIRS RDT&E PE under a separate project number.

(U) CHIRP will perform risk reduction and evaluation of Wide-Field-of-View (WFOV) IR staring and data processing technology to potentially evolve future SBIRS staring sensors and processing algorithms. An on-orbit demonstration will quantify performance levels of a prototype WFOV sensor in an operational environment. CHIRP sensor testing will also provide Focal Plane Array (FPA) performance/calibration characteristics, validate WFOV staring algorithm performance in an operational environment, and investigate compatibility with current Overhead Persistent Infrared (OPIR) ground systems for missile warning, missile defense, and other mission areas.

(U) This program is assigned to Budget Activity 5, System Development and Demonstration (SDD) because it funds the development activities for the CHIRP demonstration.

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

	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total
Title: CHIRP	-	18.200	16.518	-	16.518
Description: Continue contracts for Commercially Hosted Infrared Payload (CHIRP) demonstration and related support activities.					
FY 2010 Accomplishments:					
FY 2011 Plans: Continue CHIRP payload integration and testing onto commercial host spacecraft. Continue development and test of mission data processing and ground infrastructure to mature WFOV algorithms and technologies. Demonstrate CHIRP on-orbit capabilities to include fusion of CHIRP data with other OPIR systems. Collect, archive and analyze on-orbit data against cooperative targets and continue to mature WFOV algorithms. Continue Program Office and related support activities.					
FY 2012 Base Plans:					

UNCLASSIFIED

UNCLASSIFIED

Exhibit R-2A, RDT&E Project Justification: PB 2012 Air Force				DATE: February 2011							
APPROPRIATION/BUDGET ACTIVITY 3600: <i>Research, Development, Test & Evaluation, Air Force</i> BA 5: <i>Development & Demonstration (SDD)</i>		R-1 ITEM NOMENCLATURE PE 0604441F: <i>Spaced Based Infrared System (SBIRS) High</i>		PROJECT 65A040: <i>Commercially Hosted Infrared Payload (CHIRP)</i>							
B. Accomplishments/Planned Programs (\$ in Millions)											
	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total						
Continue CHIRP on-orbit demonstration to include fusion of CHIRP data with other OPIR systems. Collect, archive and analyze on-orbit data against cooperative targets and continue to mature WFOV algorithms. Continue Program Office and related support activities.											
<i>FY 2012 OCO Plans:</i>											
Accomplishments/Planned Programs Subtotals	-	18.200	16.518	-	16.518						
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
• 3GIRS: <i>PE 0604443F</i>	78.420	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	Continuing	Continuing
D. Acquisition Strategy											
Continuation of risk reduction and evaluation of WFOV IR staring and data processing technology within CHIRP will be performed through contracts previously funded and initiated by the Third Generation Infrared Surveillance (3GIRS) program. In FY2010, within the 3GIRS program, CHIRP completed and delivered the flight demonstration payload to commercial host for integration and testing.											
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-3, RDT&E Project Cost Analysis: PB 2012 Air Force											DATE: February 2011			
APPROPRIATION/BUDGET ACTIVITY 3600: Research, Development, Test & Evaluation, Air Force BA 5: Development & Demonstration (SDD)				R-1 ITEM NOMENCLATURE PE 0604441F: Spaced Based Infrared System (SBIRS) High				PROJECT 65A040: Commercially Hosted Infrared Payload (CHIRP)						
Product Development (\$ in Millions)				FY 2011		FY 2012 Base		FY 2012 OCO		FY 2012 Total				
Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract	
WFOV IR staring technologies risk reduction activities	Various	Various:Various,	-	12.200	Nov 2010	11.530	Nov 2011	-		11.530	0.000	23.730	23.730	
Subtotal			-	12.200		11.530		-		11.530	0.000	23.730	23.730	
Support (\$ in Millions)				FY 2011		FY 2012 Base		FY 2012 OCO		FY 2012 Total				
Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract	
Program office, data analysis and reporting, and technical support including federally funded research and development center (FFRDC/ SETA)	Various	Various:Various,	-	6.000	Nov 2010	4.988	Nov 2011	-		4.988	0.000	10.988	11.043	
Subtotal			-	6.000		4.988		-		4.988	0.000	10.988	11.043	
Test and Evaluation (\$ in Millions)				FY 2011		FY 2012 Base		FY 2012 OCO		FY 2012 Total				
Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract	
Subtotal			-	-		-		-		-	0.000	0.000	0.000	
Management Services (\$ in Millions)				FY 2011		FY 2012 Base		FY 2012 OCO		FY 2012 Total				
Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract	
Subtotal			-	-		-		-		-	0.000	0.000	0.000	
			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			-	18.200		16.518		-		16.518	0.000	34.718	34.773	

UNCLASSIFIED

UNCLASSIFIED

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 5: Development & Demonstration (SDD)			R-1 ITEM NOMENCLATURE PE 0604441F: Spaced Based Infrared System (SBIRS) High			PROJECT 65A040: Commercially Hosted Infrared Payload (CHIRP)			
	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

UNCLASSIFIED

Exhibit R-4, RDT&E Schedule Profile: PB 2012 Air Force		DATE: February 2011
APPROPRIATION/BUDGET ACTIVITY	R-1 ITEM NOMENCLATURE	PROJECT
3600: Research, Development, Test & Evaluation, Air Force	PE 0604441F: Spaced Based Infrared System	65A040: Commercially Hosted Infrared Payload
BA 5: Development & Demonstration (SDD)	(SBIRS) High	(CHIRP)

UNCLASSIFIED

Exhibit R-4A, RDT&E Schedule Details: PB 2012 Air Force			DATE: February 2011
APPROPRIATION/BUDGET ACTIVITY 3600: <i>Research, Development, Test & Evaluation, Air Force</i> BA 5: <i>Development & Demonstration (SDD)</i>	R-1 ITEM NOMENCLATURE PE 0604441F: <i>Spaced Based Infrared System (SBIRS) High</i>	PROJECT 65A040: <i>Commercially Hosted Infrared Payload (CHIRP)</i>	

Schedule Details

Events	Start		End	
	Quarter	Year	Quarter	Year
Algorithm Development and Deliveries	1	2011	2	2011
Algorithm Integration and Test	3	2011	4	2012
Commercially Hosted IR Payload (CHIRP) Launch	4	2011	4	2011
CHIRP Flight Demo	4	2011	4	2012

UNCLASSIFIED