

UNCLASSIFIED

Exhibit R-2, RDT&E Budget Item Justification: PB 2011 Air Force									DATE: February 2010		
APPROPRIATION/BUDGET ACTIVITY 3600: Research, Development, Test & Evaluation, Air Force BA 5: Development & Demonstration (SDD)				R-1 ITEM NOMENCLATURE PE 0604443F: Third Generation Infrared Surveillance (3GIRS)							
COST (\$ in Millions)	FY 2009 Actual	FY 2010 Estimate	FY 2011 Base Estimate	FY 2011 OCO Estimate	FY 2011 Total Estimate	FY 2012 Estimate	FY 2013 Estimate	FY 2014 Estimate	FY 2015 Estimate	Cost To Complete	Total Cost
Total Program Element	0.953	73.369	0.000	0.000	0.000	0.000	0.000	0.000	0.000	Continuing	Continuing
65A020: 3G/RS	0.953	73.369	0.000	0.000	0.000	0.000	0.000	0.000	0.000	Continuing	Continuing
A. Mission Description and Budget Item Justification											
(U) The Department of Defense terminated the Third Generation Infrared Surveillance (3GIRS) program beginning in FY11.											
(U) 3GIRS included development efforts for the Commercially Hosted Infrared Payload (CHIRP) demonstration. CHIRP efforts will continue through completion. The FY11 and FY12 funds needed to conduct the CHIRP demonstration for technology maturation of space and ground technologies were moved to the Space Based Infrared Systems (SBIRS) program, PE 0604441F under a separate project number (A040).											
(U) This program is assigned to Budget Activity 5, System Development and Demonstration (SDD), because it funded the development activities for evolving the next generation of missile warning satellites.											
B. Program Change Summary (\$ in Millions)											
	FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total						
Previous President's Budget	0.953	143.169	0.000	0.000	0.000						
Current President's Budget	0.953	73.369	0.000	0.000	0.000						
Total Adjustments	0.000	-69.800	0.000	0.000	0.000						
• Congressional General Reductions		-69.800									
• Congressional Directed Reductions		0.000									
• Congressional Rescissions	0.000	0.000									
• Congressional Adds		0.000									
• Congressional Directed Transfers		0.000									
• Reprogrammings	0.000	0.000									
• SBIR/STTR Transfer	0.000	0.000									
• Other Adjustments	0.000	0.000	0.000	0.000	0.000						

UNCLASSIFIED

R-1 Line Item #73

Page 1 of 9

UNCLASSIFIED

Exhibit R-2, RDT&E Budget Item Justification: PB 2011 Air Force		DATE: February 2010	
APPROPRIATION/BUDGET ACTIVITY 3600: <i>Research, Development, Test & Evaluation, Air Force</i> BA 5: <i>Development & Demonstration (SDD)</i>		R-1 ITEM NOMENCLATURE PE 0604443F: <i>Third Generation Infrared Surveillance (3GIRS)</i>	
<u>Congressional Add Details (\$ in Millions, and Includes General Reductions)</u>		FY 2009	FY 2010
Project: 65A020: 3GIRS			
Congressional Add: <i>Ground demonstration of Ball Aerospace Advanced Staring Infrared Testbed (ASIRT) infrared sensor.</i>		0.953	0.000
Congressional Add Subtotals for Project: 65A020		0.953	0.000
Congressional Add Totals for all Projects		0.953	0.000
<u>Change Summary Explanation</u>			
FY10: Congressional Program Reduction of \$69.8M removed 3GIRS development efforts not associated with CHIRP			
FY11: The FY 2010 President's Budget submittal did not reflect the FY 2011 through FY 2015 funding. Therefore, explanation of changes between the two budget positions cannot be made in a relevant manner. NOTE: FY11 and FY12 CHIRP funds moved to SBIRS PE 0604441F.			

UNCLASSIFIED

R-1 Line Item #73

Page 2 of 9

UNCLASSIFIED

Exhibit R-2A, RDT&E Project Justification: PB 2011 Air Force								DATE: February 2010			
APPROPRIATION/BUDGET ACTIVITY 3600: Research, Development, Test & Evaluation, Air Force BA 5: Development & Demonstration (SDD)				R-1 ITEM NOMENCLATURE PE 0604443F: Third Generation Infrared Surveillance (3GIRS)				PROJECT 65A020: 3GIRS			
COST (\$ in Millions)	FY 2009 Actual	FY 2010 Estimate	FY 2011 Base Estimate	FY 2011 OCO Estimate	FY 2011 Total Estimate	FY 2012 Estimate	FY 2013 Estimate	FY 2014 Estimate	FY 2015 Estimate	Cost To Complete	Total Cost
65A020: 3GIRS	0.953	73.369	0.000	0.000	0.000	0.000	0.000	0.000	0.000	Continuing	Continuing
Quantity of RDT&E Articles	0	0	0	0	0	0	0	0	0		
A. Mission Description and Budget Item Justification											
The Alternative Infrared Satellite System (AIRSS) mission is to provide a missile warning capability to warn of ballistic missile attack on the U.S., its deployed forces, and its allies while also supporting missile defense, battlespace awareness and technical intelligence missions. As a result of the Nunn-McCurdy certification for the Space Based Infrared System High (SBIRS High) program, the USD(AT&L), directed the DoD Executive Agent for Space to plan for a new program for space-based Overhead Non-Imaging Infrared (ONIR) that generates competition for the SBIRS GEO 3 satellite and exploits alternative technologies. This program will pursue an approach with acceptable technical risk that offers, at a minimum, Defense Support Program (DSP)-like missile warning capability and can ensure a launch availability date of FY2015. In FY2007, the program office awarded a number of contracts for system definition, in preparation for the May 2008 Key Decision Point-B for the new AIRSS system, including flight and ground demonstrations. Contract deliverables will define the geosynchronous warning satellite(s) to support missile detection and missile defense; define the ground systems including legacy interfaces. In all cases, particular attention will be given to identifying key enabling technologies, ground system trades, allocation of requirements to sub-systems, identification of risk areas, and major costs.											
This program is assigned to Budget Activity 5, System Development and Demonstration (SDD), because it funds the development activities of an alternative to the SBIRS High program.											
B. Accomplishments/Planned Program (\$ in Millions)											
						FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total	
MAJOR THRUST: Continue contracts for Commercially Hosted Infrared Payload (CHIRP) demonstration.						0.000	73.369	0.000	0.000	0.000	
FY 2009 Accomplishments: In FY 2009: N/A											

UNCLASSIFIED

R-1 Line Item #73

Page 3 of 9

UNCLASSIFIED

Exhibit R-2A, RDT&E Project Justification: PB 2011 Air Force				DATE: February 2010		
APPROPRIATION/BUDGET ACTIVITY 3600: <i>Research, Development, Test & Evaluation, Air Force</i> BA 5: <i>Development & Demonstration (SDD)</i>		R-1 ITEM NOMENCLATURE PE 0604443F: <i>Third Generation Infrared Surveillance (3GIRS)</i>		PROJECT 65A020: <i>3GIRS</i>		
B. Accomplishments/Planned Program (\$ in Millions)						
		FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total
<i>FY 2010 Plans:</i> In FY 2010: Continue CHIRP payload development and integration onto commercial bus. Continue development and test of mission data processing to mature WFOV algorithms and technologies. Continue Program Office and related support activities (to include SETA). Continue Systems Engineering and Integration (SE&I). <i>FY 2011 Base Plans:</i> In FY 2011: N/A (funds moved to SBIRS PE 0604441F) <i>FY 2011 OCO Plans:</i> In FY 2011 OCO: N/A						
Accomplishments/Planned Programs Subtotals		0.000	73.369	0.000	0.000	0.000
		FY 2009	FY 2010			
Congressional Add: Ground demonstration of Ball Aerospace Advanced Staring Infrared Testbed (ASIRT) infrared sensor. <i>FY 2009 Accomplishments:</i> In FY 2009: Continuation of above listed activities <i>FY 2010 Plans:</i> In FY 2010: N/A		0.953	0.000			
Congressional Adds Subtotals		0.953	0.000			

UNCLASSIFIED

R-1 Line Item #73

Page 4 of 9

UNCLASSIFIED

Exhibit R-2A, RDT&E Project Justification: PB 2011 Air Force								DATE: February 2010			
APPROPRIATION/BUDGET ACTIVITY 3600: <i>Research, Development, Test & Evaluation, Air Force</i> BA 5: <i>Development & Demonstration (SDD)</i>				R-1 ITEM NOMENCLATURE PE 0604443F: <i>Third Generation Infrared Surveillance (3GIRS)</i>				PROJECT 65A020: <i>3GIRS</i>			

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

Line Item	FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total	FY 2012	FY 2013	FY 2014	FY 2015	Cost To Complete	Total Cost
• PE 0604441F: <i>Space Based Infrared Systems, BPAC A040, RDT&E</i>	0.000	0.000	18.200	0.000	18.200	16.800	0.000	0.000	0.000	0.000	0.000

D. Acquisition Strategy
CHIRP will perform a launch and on-orbit demonstration starting in FY11. FY11 and FY12 activities will be funded within PE 0604441F, Space Based Infrared Systems (SBIRS).

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

UNCLASSIFIED

Exhibit R-3, RDT&E Project Cost Analysis: PB 2011 Air Force											DATE: February 2010		
APPROPRIATION/BUDGET ACTIVITY 3600: <i>Research, Development, Test & Evaluation, Air Force</i> BA 5: <i>Development & Demonstration (SDD)</i>				R-1 ITEM NOMENCLATURE PE 0604443F: <i>Third Generation Infrared Surveillance (3GIRS)</i>				PROJECT 65A020: <i>3GIRS</i>					
 Product Development (\$ in Millions)													
				FY 2010		FY 2011 Base		FY 2011 OCO		FY 2011 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 Various	96.911	63.714		0.000		0.000		0.000	0.000	160.625	Continuing
Congressional Add: ASIRT	TBD/FFP	Ball Aerospace Boulder, CO	0.953	0.000		0.000		0.000		0.000	0.000	0.953	0.953
System Engineering and Definition	Various/ Various	Various Various	32.153	0.000		0.000		0.000		0.000	0.000	32.153	32.153
Subtotal			130.017	63.714		0.000		0.000		0.000	0.000	193.731	
Remarks													
 Support (\$ in Millions)													
				FY 2010		FY 2011 Base		FY 2011 OCO		FY 2011 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, developmental planning, and technical support including federally funded research and development center (FFRDC/SETA)	Various/ Various	Various Various	13.898	9.655		0.000		0.000		0.000	0.000	23.553	Continuing
Subtotal			13.898	9.655		0.000		0.000		0.000	0.000	23.553	

UNCLASSIFIED

R-1 Line Item #73

Page 6 of 9

UNCLASSIFIED

Exhibit R-3, RDT&E Project Cost Analysis: PB 2011 Air Force											DATE: February 2010		
APPROPRIATION/BUDGET ACTIVITY 3600: Research, Development, Test & Evaluation, Air Force BA 5: Development & Demonstration (SDD)				R-1 ITEM NOMENCLATURE PE 0604443F: Third Generation Infrared Surveillance (3GIRS)				PROJECT 65A020: 3GIRS					
Support (\$ in Millions)													
				FY 2010		FY 2011 Base		FY 2011 OCO		FY 2011 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
Remarks													
			Total Prior Years Cost	FY 2010		FY 2011 Base		FY 2011 OCO		FY 2011 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals			143.915	73.369		0.000		0.000		0.000	0.000	217.284	
Remarks													
Total Prior Years Cost may include only FY 2009 data.													

UNCLASSIFIED

UNCLASSIFIED

Exhibit R-4, RDT&E Schedule Profile: PB 2011 Air Force

DATE: February 2010

APPROPRIATION/BUDGET ACTIVITY

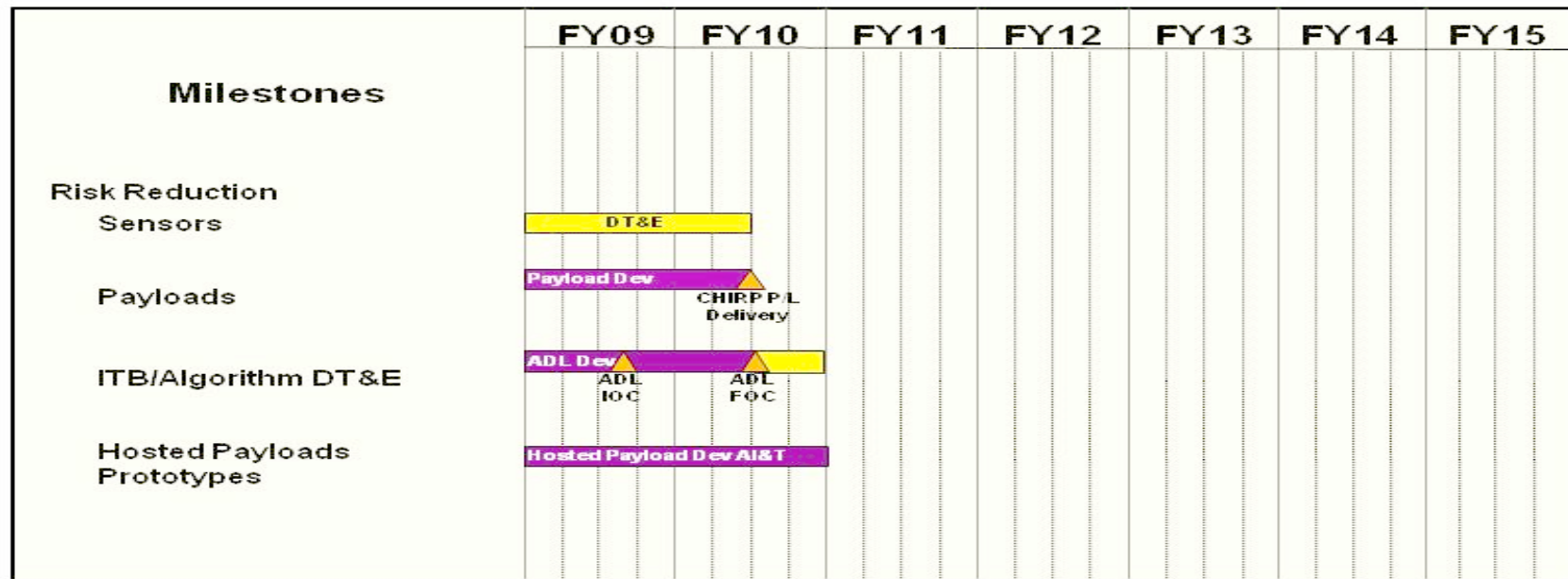
3600: Research, Development, Test & Evaluation, Air Force
BA 5: Development & Demonstration (SDD)

R-1 ITEM NOMENCLATURE

PE 0604443F: Third Generation Infrared
Surveillance (3GIRS)

PROJECT

65A020: 3GIRS



AI&T: Assembly, Integration & Test
DT&E: Development Test & Eval
ADL: Algorithm Development Lab
ICD: Initial Capabilities Document
AoA: Analysis of Alternatives
IOC: Initial Operational Capability
CDD: Capability Development Document
ITB: Integrated Test Bed

Concept activities
Design / development

Integration / test
Operations / sustainment

Production / fielding
Key events

UNCLASSIFIED

R-1 Line Item #73

Page 8 of 9

UNCLASSIFIED

Exhibit R-4A, RDT&E Schedule Details: PB 2011 Air Force			DATE: February 2010	
APPROPRIATION/BUDGET ACTIVITY 3600: <i>Research, Development, Test & Evaluation, Air Force</i> BA 5: <i>Development & Demonstration (SDD)</i>		R-1 ITEM NOMENCLATURE PE 0604443F: <i>Third Generation Infrared Surveillance (3GIRS)</i>		PROJECT 65A020: <i>3GIRS</i>

Schedule Details

Event	Start		End	
	Quarter	Year	Quarter	Year
Risk Reduction Sensors DT&E	1	2009	2	2010
CHIRP Payload Delivery	3	2010	3	2010
Algorithm DT&E Deliveries	3	2009	4	2010

UNCLASSIFIED