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Exhibit R-2, RDT&E Budget Item Justification: PB 2016 Air Force **Date:** February 2015

Appropriation/Budget Activity 3600: <i>Research, Development, Test & Evaluation, Air Force I BA 7: Operational Systems Development</i>	R-1 Program Element (Number/Name) PE 0305145F / <i>Arms Control Implementation</i>
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COST (\$ in Millions)	Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	Cost To Complete	Total Cost
Total Program Element	-	1.430	13.222	12.137	-	12.137	4.892	-	-	-	Continuing	Continuing
675063: <i>OC-135 Open Skies Sensors</i>	-	1.430	13.222	12.137	-	12.137	4.892	-	-	-	Continuing	Continuing

A. Mission Description and Budget Item Justification

This budget line funds the Strategic Stability and CWMD Policy Division (AF/A10-S) Mission which develops future national security strategy concepts including those involving space systems, nuclear weapons and other strategic and high consequence capabilities. Directs, integrates and synchronizes advances in USAF capability to counter Weapons of Mass Destruction. Focal point for USAF arms control policy, implementation and compliance with international treaties and agreements, diplomatic clearances and airspace/aircraft sovereignty issues. Defines and defends the USAF role in ballistic missile defense. Represents USAF in international, interagency, DoD, Joint, inter-Service, COCOM and MAJCOM forums and implementation groups on matters involving national security policy and strategy.

Open Skies Sensors - This budget line funds upgrades to the sensors aboard the OC-135B Open Skies aircraft used for the Treaty on Open Skies observation flights. The Open Skies Treaty allows signatories to conduct observation flights over each other's territory using fixed-wing, unarmed observation aircraft. Mission equipment on the OC-135B includes wet film optical framing and panoramic cameras. Open Skies Sensors program addresses the requirements in the Presidential Policy Directive-15 (PPD-15), which states, "The United States shall begin budgeting no later than FY14 to upgrade the sensors on the current aircraft by replacing film-based cameras with available electro-optical sensors. (U)" Additionally, current cameras are nearly obsolete, unreliable, hard and increasingly expensive to maintain, and repair parts must be individually manufactured. In addition, the web film manufacturers are discontinuing production of the film stock.

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

B. Program Change Summary (\$ in Millions)	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total
Previous President's Budget	1.430	13.222	8.569	-	8.569
Current President's Budget	1.430	13.222	12.137	-	12.137
Total Adjustments	-	-	3.568	-	3.568
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-	-			
• Other Adjustments	-	-	3.568	-	3.568

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Change Summary Explanation

FY16 funding increased based on updated program office estimate to ensure full funding of program

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Exhibit R-2A, RDT&E Project Justification: PB 2016 Air Force										Date: February 2015		
Appropriation/Budget Activity 3600 / 7					R-1 Program Element (Number/Name) PE 0305145F / <i>Arms Control Implementation</i>				Project (Number/Name) 675063 / <i>OC-135 Open Skies Sensors</i>			
COST (\$ in Millions)	Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	Cost To Complete	Total Cost
675063: <i>OC-135 Open Skies Sensors</i>	-	1.430	13.222	12.137	-	12.137	4.892	-	-	-	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

The OC-135B aircraft supports the implementation of the United States Government (USG) Open Skies Treaty. This program addresses the requirements in the Presidential Policy Directive-15 (PPD-15). The Open Skies Treaty allows signatories to conduct observation flights over each other's territory using fixed-wing, unarmed observation aircraft. The aircraft can use optical cameras, video cameras, sideways-looking synthetic aperture radar, and infrared line scanning devices. There are 34 participating states to the Open Skies Treaty. The Air Force is required to allow over flight of USAF bases per multilateral request; to acquire, operate, and maintain the aircraft and equipment utilized during over flights of partner countries; to provide required sensor media and initial media processing; and to provide airfield servicing, logistics, and maintenance for foreign over flights of the US.

Open Skies Sensors - Mission equipment on the OC-135B includes wet film optical framing and panoramic cameras. Open Skies Sensors program addresses the requirements in the Presidential Policy Directive-15 (PPD-15), which states, "The United States shall begin budgeting no later than FY14 to upgrade the sensors on the current aircraft by replacing film-based cameras with available electro-optical sensors. (U)" Additionally, current cameras are nearly obsolete, unreliable, hard and increasingly expensive to maintain, and repair parts must be individually manufactured. In addition, the web film manufacturers are discontinuing production of the film stock. Furthermore, the ultimate imagery product customer desires digital format products. This camera replacement program will replace the wet film cameras with modern, digital cameras. Modern, digital cameras will be more reliable, maintainable and cost effective. The customer will be able to more readily use the imagery products. Equipment service life will be extended significantly.

Test articles will be procured for the purpose of developmental testing and to support Treaty certification of the sensors.

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

	FY 2014	FY 2015	FY 2016
Title: Open Skies Sensors	1.430	13.222	12.137
Description: Replace existing Open Skies aircraft wet film sensors with digital sensors.			
FY 2014 Accomplishments: Developed requirements for the new digital camera system.			
FY 2015 Plans: Conduct research supporting design and intergration of the new digital cameras.			
FY 2016 Plans:			

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Appropriation/Budget Activity 3600 / 7	R-1 Program Element (Number/Name) PE 0305145F / <i>Arms Control Implementation</i>	Project (Number/Name) 675063 / <i>OC-135 Open Skies Sensors</i>

B. Accomplishments/Planned Programs (\$ in Millions)	FY 2014	FY 2015	FY 2016
Procure and install prototype sensor system.			
Accomplishments/Planned Programs Subtotals	1.430	13.222	12.137

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

<u>Line Item</u>	<u>FY 2014</u>	<u>FY 2015</u>	<u>FY 2016 Base</u>	<u>FY 2016 OCO</u>	<u>FY 2016 Total</u>	<u>FY 2017</u>	<u>FY 2018</u>	<u>FY 2019</u>	<u>FY 2020</u>	<u>Cost To Complete</u>	<u>Total Cost</u>
• APAF:BA05: Line Item #1900: <i>Open Skies</i>	-	-	-	-	-	4.537	5.015	5.109	5.201	-	19.952

Remarks

D. Acquisition Strategy

Compete the development and integration of a new digital camera system on the OC-135B and update the Open Skies Medial Processing Facility (OSMPF).

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.

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2016 Air Force												Date: February 2015				
Appropriation/Budget Activity				R-1 Program Element (Number/Name)				Project (Number/Name)								
3600 / 7				PE 0305145F / Arms Control Implementation				675063 / OC-135 Open Skies Sensors								
Product Development (\$ in Millions)				FY 2014		FY 2015		FY 2016 Base		FY 2016 OCO		FY 2016 Total				
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract	
Open Skies Sensors Engineering, Development and Prototype Subtotal Product Development	C/FFP	Various : Various,	-	-		12.704	Aug 2015	10.707		-		10.707	Continuing	Continuing	23.985	
Subtotal			-	-		12.704		10.707		-		10.707	-	-	23.985	
Support (\$ in Millions)				FY 2014		FY 2015		FY 2016 Base		FY 2016 OCO		FY 2016 Total				
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract	
Sub Total Support	Various	Various : Various,	-	1.408	Sep 2014	0.364		0.696		-		0.696	Continuing	Continuing	3.202	
Subtotal			-	1.408		0.364		0.696		-		0.696	-	-	3.202	
Test and Evaluation (\$ in Millions)				FY 2014		FY 2015		FY 2016 Base		FY 2016 OCO		FY 2016 Total				
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract	
Open Skies Sensor development ground and flight testing for imagery collection	PO	Various : Various,	-	-		-		0.685		-		0.685	Continuing	Continuing	4.219	
Subtotal			-	-		-		0.685		-		0.685	-	-	4.219	
Management Services (\$ in Millions)				FY 2014		FY 2015		FY 2016 Base		FY 2016 OCO		FY 2016 Total				
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract	
Open Skies Sensors PMA SubTotal Management Services	Various	Various : Various,	-	0.022	Sep 2014	0.154	Sep 2015	0.049		-		0.049	Continuing	Continuing	0.275	
Subtotal			-	0.022		0.154		0.049		-		0.049	-	-	0.275	

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2016 Air Force								Date: February 2015				
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	Prior Years	FY 2014	FY 2015		FY 2016 Base		FY 2016 OCO		FY 2016 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	-	1.430	13.222		12.137		-		12.137	-	-	31.681

Remarks

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Exhibit R-4, RDT&E Schedule Profile: PB 2016 Air Force			Date: February 2015
Appropriation/Budget Activity 3600 / 7	R-1 Program Element (Number/Name) PE 0305145F / Arms Control Implementation	Project (Number/Name) 675063 / OC-135 Open Skies Sensors	

	FY 2014				FY 2015				FY 2016				FY 2017				FY 2018				FY 2019				FY 2020			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Milestone B								■																				
Contract Award								■																				
Critical Design Review												■																
Test/Certification																■												
Milestone C																				■								
Initial Operational Capability																				■								
Final Operational Capability																												■

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Exhibit R-4A, RDT&E Schedule Details: PB 2016 Air Force		Date: February 2015
Appropriation/Budget Activity 3600 / 7	R-1 Program Element (Number/Name) PE 0305145F / <i>Arms Control Implementation</i>	Project (Number/Name) 675063 / <i>OC-135 Open Skies Sensors</i>

Schedule Details

Events	Start		End	
	Quarter	Year	Quarter	Year
Milestone B	4	2015	4	2015
Contract Award	4	2015	4	2015
Critical Design Review	4	2016	4	2016
Test/Certification	4	2017	4	2018
Milestone C	4	2018	4	2018
Initial Operational Capability	4	2018	4	2018
Final Operational Capability	4	2019	4	2019