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Exhibit R-2, RDT&E Budget Item Justification: PB 2022 Air Force **Date:** May 2021

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 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total	FY 2023	FY 2024	FY 2025	FY 2026	Cost To Complete	Total Cost
Total Program Element	-	40.177	0.000	0.000	0.000	0.000	-	-	-	-	-	-
674283: <i>Open Skies Treaty Aircraft Recap</i>	-	40.177	0.000	0.000	0.000	0.000	-	-	-	-	-	-

Note
 The United States formally withdrew from the 1992 Open Skies Treaty on Nov. 22, 2020.

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.

In October 2016, the Air Force used a multi-disciplinary High Performance Team to create and validate a series of required capabilities for an Open Skies aircraft, evaluate aircraft that could satisfy the required capabilities, and then consider each of the Doctrine, Organization, Training, materiel, Leadership and Education, Personnel, Facilities and Policy elements as part of a recommended solution. The effort accomplished two main purposes. First, it updated operational requirement and replaced the 1992 Operational Requirements Document to reflect both operational experience and expected Open Skies program needs for the foreseeable future. Second, it recommended an Air Force solution that best satisfied required capabilities within existing materiel solutions. The Joint Capabilities Board adopted the Air Force recommendation and directed acquisition of two small airliner class aircraft for the Open Skies Treaty mission to be acquired in a method consistent with the Federal Acquisition Regulation and other applicable guidance, training using existing contractor training facilities, equipment, and curriculum, and a maintenance concept with military personnel performing unit-level maintenance actions with contractor support for parts supply, and supply chain management, performed under a Low Utilization Maintenance Program.

This effort includes the design, development, and test activities for two OC-135B replacement weapon systems. This effort will modify a Federal Aviation Administration (FAA) certified, commercial-off-the-shelf, small airliner class aircraft. System Development requires structural design, interphone communications systems, flight deck avionics and modification to incorporate the Digital Visual Imaging System (DVIS) system.

This program element may include necessary civilian pay expenses required to manage, execute, and deliver the OC-135B Open Skies Treaty weapon system capability. The use of such programs funds would be in addition to the civilian pay expenses budgeted in program element 0605831F. In FY20 \$0.000M was expended for civilian pay expenses in this program element, and in FY21 \$0.000M is forecasted for civilian pay expenses in this program element.

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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 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total
Previous President's Budget	41.546	0.000	37.543	0.000	37.543
Current President's Budget	40.177	0.000	0.000	0.000	0.000
Total Adjustments	-1.369	0.000	-37.543	0.000	-37.543
• Congressional General Reductions	0.000	0.000			
• Congressional Directed Reductions	0.000	0.000			
• Congressional Rescissions	0.000	0.000			
• Congressional Adds	0.000	0.000			
• Congressional Directed Transfers	0.000	0.000			
• Reprogrammings	0.000	0.000			
• SBIR/STTR Transfer	-1.369	0.000			
• Other Adjustments	0.000	0.000	-37.543	0.000	-37.543

Change Summary Explanation

FY 2020 funding reduced by \$1.369 million for Small Business Innovation Research.

FY 2022 funding request reduced by \$37.543 million due to Office of Secretary of Defense direction to cease all Open Skies Treaty Aircraft Recapitalization activities as a result of the United States formally withdrawing from the 1992 Open Skies Treaty.

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Exhibit R-2A, RDT&E Project Justification: PB 2022 Air Force										Date: May 2021		
Appropriation/Budget Activity 3600 / 7					R-1 Program Element (Number/Name) PE 0305145F / Arms Control Implementation				Project (Number/Name) 674283 / Open Skies Treaty Aircraft Recap			
COST (\$ in Millions)	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total	FY 2023	FY 2024	FY 2025	FY 2026	Cost To Complete	Total Cost
674283: Open Skies Treaty Aircraft Recap	-	40.177	0.000	0.000	0.000	0.000	-	-	-	-	-	-
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

The Open Skies Treaty permits unarmed overflight of the sovereign territory of 34 signatory nations. The Treaty enhances mutual understanding and confidence by giving all participants, regardless of size, a direct role in gathering information through aerial imaging on military forces and activities of concern. Open Skies is one of the most wide-ranging international arms control efforts to date to promote openness and transparency in military forces and activities.

The Department of Defense is responsible for oversight, implementation of, and compliance with, arms control agreements, including the Open Skies Treaty. The United States Air Force has a requirement to execute missions under the Open Skies Treaty and utilizes two OC-135B aircraft as the observation aircraft. All roles and responsibilities are called out in Presidential Policy Directive 15, "Implementation of the Treaty on Open Skies," Mar 1, 2012. The OC-135B fleet has experienced decreasing mission reliability due to age, difficulties with out-of-production parts, and increasing operating costs. Open Skies missions averaged a 65% mission completion rate over the ten-year period from 2007 to 2017 with leading non-mission capable drivers being the engines, fuel system, landing gear, generators, and airframe. Additionally, the OC-135B aircraft's 6,500 km range is insufficient to fully execute mission options within the 96-hour in-country Treaty observation time constraint permitted under Treaty.

The Department of Defense, motivated by operational limitations of the OC-135B experienced during Open Skies missions combined with declining mission capability, prompted program officials to request a Capabilities-Based Assessment in July 2015 to study aircraft issues. The effort which completed in June 2016 indicated that key requirements within the 1992 Open Skies Operational Requirements Document were no longer current, and that the OC-135B had known capability performance gaps in range and mission completion.

In October 2016, the Air Force used a multi-disciplinary High Performance Team to create and validate a series of required capabilities for an Open Skies aircraft, evaluate aircraft that could satisfy the required capabilities, and then consider each of the Doctrine, Organization, Training, materiel, Leadership and Education, Personnel, Facilities and Policy elements as part of a recommended solution. The effort accomplished two main purposes. First, it updated operational requirement and replaced the 1992 Operational Requirements Document to reflect both operational experience and expected Open Skies Treaty program needs for the foreseeable future. Second, it recommended an Air Force solution that best satisfied required capabilities within existing materiel solutions. The Joint Capabilities Board adopted the Air Force recommendation and directed acquisition of two small airliner class aircraft for the Open Skies Treaty Aircraft Recap (OSTAR) mission to be acquired in a method consistent with the Federal Acquisition Regulation and other applicable guidance, training using existing contractor training facilities, equipment, and curriculum, and a maintenance concept with military personnel performing unit-level maintenance actions with contractor support for parts supply, and supply chain management, performed under a Low Utilization Maintenance Program.

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This effort includes the design, development, and test activities for two OC-135B replacement weapon systems. This effort will modify a Federal Aviation Administration (FAA) certified, commercial-off-the-shelf, small airliner class aircraft. System Development requires structural design, interphone communications systems, flight deck avionics and modification to incorporate the Digital Visual Imaging System (DVIS).

This program element may include necessary civilian pay expenses required to manage, execute, and deliver the OC-135B Open Skies Treaty weapon system capability. The use of such programs funds would be in addition to the civilian pay expenses budgeted in program element 0605831F. In FY20 \$0.000M was expended for civilian pay expenses in this program element, and in FY21 \$0.000M is forecasted for civilian pay expenses in this program element.

B. Accomplishments/Planned Programs (\$ in Millions)	FY 2020	FY 2021	FY 2022
<p>Title: Open Skies Treaty Aircraft Recap Development</p> <p>Description: The Open Skies System consists of the missionized aircraft (Digital Visual Imaging System sensor suite, flight deck avionics, and crew workstations) and Digital Ground Processing Station.</p> <p>The budget supports modification and Treaty Certification of two commercial-off-the-shelf, small airliner class OC-135B replacement aircraft. The program includes procurement of two commercial-derivative aircraft and Digital Visual Imaging System kits, design and development for mission system integration (structural design, interphone communications systems, flight deck avionics, and Digital Visual Imaging System hardware), test, and Federal Aviation Administration and Open Skies Treaty certification activities. Additionally, this effort establishes pre-operational support for aircraft, mission systems and Digital Ground Processing Station.</p> <p>FY 2021 Plans: N/A</p> <p>FY 2022 Plans: N/A</p> <p>FY 2021 to FY 2022 Increase/Decrease Statement: N/A</p>	40.177	0.000	0.000
Accomplishments/Planned Programs Subtotals	40.177	0.000	0.000

C. Other Program Funding Summary (\$ in Millions)											
<u>Line Item</u>	<u>FY 2020</u>	<u>FY 2021</u>	<u>FY 2022</u> <u>Base</u>	<u>FY 2022</u> <u>OCO</u>	<u>FY 2022</u> <u>Total</u>	<u>FY 2023</u>	<u>FY 2024</u>	<u>FY 2025</u>	<u>FY 2026</u>	<u>Cost To Complete</u>	<u>Total Cost</u>
• APAF 01 C135B0: C-135B	-	-	-	-	-	-	-	-	-	-	-
Remarks											

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D. Acquisition Strategy

The Air Force Milestone Decision Authority approved the Open Skies Treaty Aircraft Recapitalization Materiel Development Decision (MDD) and revised Acquisition Strategy on 22 January 2020. The program was to award two contracts for aircraft purchase and development with embedded services for Contractor Logistics Support and Engineering Services. The program will utilize Full and Open Competition under Part 12 and Part 14 of the Federal Acquisition Regulation. The program will procure aircraft capable of achieving Open Skies Treaty Missions, integrate new treaty certified commercial-off-the-shelf Digital Visual Imaging Systems, and perform required Developmental Test, Operational Test, and Treaty Certification Data Gathering. The program will establish Pre-operational Support for aircraft, mission systems and the Digital Ground Processing Station necessary to deliver an aircraft, ready for Treaty Certification. The program provided for Engineering Services necessary to support the Treaty Certification process. Contractor Logistics Support elements included worldwide supply chain management, establishment of a Contractor Managed Base Supply, program management, depot maintenance, training services, field support, and engineering services for the aircraft, engines, and mission systems.

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2022 Air Force												Date: May 2021				
Appropriation/Budget Activity				R-1 Program Element (Number/Name)				Project (Number/Name)								
3600 / 7				PE 0305145F / Arms Control Implementation				674283 / Open Skies Treaty Aircraft Recap								
Product Development (\$ in Millions)				FY 2020		FY 2021		FY 2022 Base		FY 2022 OCO		FY 2022 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	
Product Development	C/CPAF	Not specified. : TBD	-	33.848	Aug 2021	-		-		-		-	-	-	-	
Subtotal			-	33.848		-		-		-		-	-	-	N/A	
Support (\$ in Millions)				FY 2020		FY 2021		FY 2022 Base		FY 2022 OCO		FY 2022 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	
Acquisition Support	Allot	Not specified. : TBD	-	3.021	Sep 2020	-		-		-		-	-	-	-	
Subtotal			-	3.021		-		-		-		-	-	-	N/A	
Test and Evaluation (\$ in Millions)				FY 2020		FY 2021		FY 2022 Base		FY 2022 OCO		FY 2022 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	
Tech Orders	TBD	Not specified. : TBD	-	1.900	Mar 2021	-		-		-		-	-	-	-	
Subtotal			-	1.900		-		-		-		-	-	-	N/A	
Management Services (\$ in Millions)				FY 2020		FY 2021		FY 2022 Base		FY 2022 OCO		FY 2022 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	
Government Support Costs	Various	Not specified. : Tinker AFB, OK	-	1.408	Jan 2020	-		-		-		-	-	-	-	
Subtotal			-	1.408		-		-		-		-	-	-	N/A	
Project Cost Totals			-	40.177		0.000		-		-		-	-	-	N/A	

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	Prior Years	FY 2020	FY 2021	FY 2022 Base	FY 2022 OCO	FY 2022 Total	Cost To Complete	Total Cost	Target Value of Contract	

Remarks
 Government Support Cost include costs related to program office travel and government led test.

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Exhibit R-4, RDT&E Schedule Profile: PB 2022 Air Force		Date: May 2021
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	FY 2020				FY 2021				FY 2022				FY 2023				FY 2024				FY 2025				FY 2026			
	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
Open Skies Treaty Aircraft Recap																												
Aircraft Contract Source Selection																												
Aircraft Contract Award																												
Development Contract Source Selection																												
Development Contract Award																												
Design/Integration																												
Install/Test																												
Ready for Treaty Certification																												

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Exhibit R-4A, RDT&E Schedule Details: PB 2022 Air Force		Date: May 2021
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Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
Open Skies Treaty Aircraft Recap				
Aircraft Contract Source Selection	3	2020	4	2020
Aircraft Contract Award	4	2020	4	2020
Development Contract Source Selection	4	2020	4	2021
Development Contract Award	4	2021	4	2021
Design/Integration	4	2021	4	2023
Install/Test	4	2023	2	2024
Ready for Treaty Certification	2	2024	2	2024