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Exhibit R-2, RDT&E Budget Item Justification: PB 2020 Air Force										Date: February 2019		
Appropriation/Budget Activity 3600: Research, Development, Test & Evaluation, Air Force I BA 7: Operational Systems Development					R-1 Program Element (Number/Name) PE 0305145F I Arms Control Implementation							
COST (\$ in Millions)	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	Cost To Complete	Total Cost
Total Program Element	-	0.000	21.374	54.546	0.000	54.546	76.200	37.600	0.000	0.000	0.000	189.720
674283: Open Skies Treaty Aircraft Recap	-	0.000	21.374	54.546	0.000	54.546	76.200	37.600	0.000	0.000	0.000	189.720

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 increased 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 secured permission to develop a Doctrine, Organization, Training, materiel, Leadership and Education, Personnel, Facilities and Policy Change Recommendation for the Open Skies Treaty Aircraft. The process 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 recommend an Air Force solution that best satisfied required capabilities within existing materiel solutions. The Joint Capabilities Board adopted the Air Force recommendation 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.

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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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As directed in the FY 2018 NDAA, Sec 825, amendment to PL 114-92 FY 2016 NDAA, Sec 828 Penalty for Cost Overruns, the FY 2018 Air Force penalty total is \$14.373M. The calculated percentage reduction to each research, development, test and evaluation and procurement account will be allocated proportionally from all programs, projects, or activities under such account.

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 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total
Previous President's Budget	0.000	0.000	0.000	0.000	0.000
Current President's Budget	0.000	21.374	54.546	0.000	54.546
Total Adjustments	0.000	21.374	54.546	0.000	54.546
• 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	21.374			
• Reprogrammings	0.000	0.000			
• SBIR/STTR Transfer	0.000	0.000			
• Other Adjustments	0.000	0.000	54.546	0.000	54.546

Change Summary Explanation

The FY2020 PB requests funding for the purchase of the second of two planned aircraft to be incrementally funded across the FYDP. The FY 2020 FYDP reflects additional RDT&E funding instead of Procurement funding to comply with Department of Defense Financial Management Policies based on the technical requirements.

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Exhibit R-2A, RDT&E Project Justification: PB 2020 Air Force										Date: February 2019		
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 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	Cost To Complete	Total Cost
674283: Open Skies Treaty Aircraft Recap	-	0.000	21.374	54.546	0.000	54.546	76.200	37.600	0.000	0.000	0.000	189.720
Quantity of RDT&E Articles	-	-	-	1	-	1	-	-	-	-		

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This effort includes the design, development, and test activities for two OC-135B replacement prototype weapon systems over a planned 24 month period. 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.				
B. Accomplishments/Planned Programs (\$ in Millions)		FY 2018	FY 2019	FY 2020
Title: Open Skies Treaty Aircraft Recap Development		-	21.374	54.546
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.				
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 over a planned 24-month period. Additionally, this effort establishes pre-operational support for aircraft, mission systems and Digital Ground Processing Station.				
FY 2019 Plans: Planned Activities: Finalized acquisition strategy, began pre-acquisition activities, Request for Proposal Development, Source Selection, and contract award.				
FY 2020 Plans: Planned Activities: Complete competitive source selection, award a contract. Funds will be used to begin preliminary design for integration of the Digital Visual Imaging System to include hardware, software, aircraft structures, observation windows, interior modifications for operations and sustainment of the DVIS system, communications capabilities (UHF, HF, SATCOM), and sensor operator stations workstations. Funds may also be used for preliminary design of modifications to software integration laboratories, image processing facilities and equipment as a result of aircraft integration design.				
Major Milestones: - Contract Award (Feb 2020) - Preliminary Design Review				
FY 2019 to FY 2020 Increase/Decrease Statement: The FY 2020 budget reflects the approved Program Office Estimate from the acquisition strategy. This budget reflects the planned purchase of the second aircraft in FY 2020 and the program's use of Research, Development, Test, and Evaluation funding				

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B. Accomplishments/Planned Programs (\$ in Millions)										FY 2018	FY 2019	FY 2020
to comply with the Department of Defense Instruction 7000.14-R, Department of Defense Financial Management Policy and Procedures, based on the program technical requirements.												
Accomplishments/Planned Programs Subtotals										-	21.374	54.546
C. Other Program Funding Summary (\$ in Millions)												
Line Item	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	Cost To Complete	Total Cost	
• APAF 01 C135B0: C-135B	-	125.000	-	-	-	-	-	-	-	0.000	125.000	
Remarks												
D. Acquisition Strategy												
<p>The Air Force Milestone Decision Authority approved the Open Skies Treaty Aircraft Recapitalization Materiel Development Decision and Acquisition Strategy on 11 September 2018. This acquisition leverages the rapid fielding pathway authorized by section 804 of the National Defense Authorization Act for Fiscal Year 2016 (Public Law 114-92). The program will award a single supply contract with embedded services for Contractor Logistics Support and Engineering Services. The program will utilize Full and Open Competition under Part 15 and Part 12 of the Federal Acquisition Regulation. The program will procure two new aircraft capable of achieving Open Skies Treaty Missions, integrate two 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, by 2022. The program provides for Engineering Services necessary to support the Treaty Certification process. Contractor Logistics Support elements include 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. The program will issue the Request for Proposals by third quarter fiscal year 2019 and award the Development contract by February 2020.</p>												
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 2020 Air Force												Date: February 2019			
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			
Product Development (\$ in Millions)				FY 2018		FY 2019		FY 2020 Base		FY 2020 OCO		FY 2020 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
System Development and Demonstration	C/Various	TBD : TBD	-	-		17.264	Feb 2020	43.446	Jun 2020	-		43.446	Continuing	Continuing	-
Subtotal			-	-		17.264		43.446		-		43.446	Continuing	Continuing	N/A
Management Services (\$ in Millions)				FY 2018		FY 2019		FY 2020 Base		FY 2020 OCO		FY 2020 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	-	-		4.110	Apr 2019	11.100	Jan 2020	-		11.100	Continuing	Continuing	-
Subtotal			-	-		4.110		11.100		-		11.100	Continuing	Continuing	N/A
			Prior Years	FY 2018		FY 2019		FY 2020 Base		FY 2020 OCO		FY 2020 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals			-	-		21.374		54.546		-		54.546	Continuing	Continuing	N/A
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 2020 Air Force			Date: February 2019		
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	FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024			
	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																												
Contract Award																												
Interface Design/NRE																												
Commercial Aircraft 1 Build																												
Commercial Aircraft 2 Build																												
Aircraft 1 Integration/Install																												
Aircraft 2 Integration/Install																												
Developmental & Operational Test																												
Treaty Certification																												

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Exhibit R-4A, RDT&E Schedule Details: PB 2020 Air Force			Date: February 2019
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Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
<i>Open Skies Treaty Aircraft Recap</i>				
Contract Award	2	2020	2	2020
Interface Design/NRE	2	2020	3	2021
Commercial Aircraft 1 Build	2	2020	3	2021
Commercial Aircraft 2 Build	3	2020	3	2021
Aircraft 1 Integration/Install	3	2021	4	2021
Aircraft 2 Integration/Install	3	2021	1	2022
Developmental & Operational Test	1	2022	1	2022
Treaty Certification	2	2022	3	2022