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**Exhibit R-2, RDT&E Budget Item Justification:** PB 2023 Air Force **Date:** April 2022

<b>Appropriation/Budget Activity</b> 3600: <i>Research, Development, Test &amp; Evaluation, Air Force / BA 5: System Development &amp; Demonstration (SDD)</i>	<b>R-1 Program Element (Number/Name)</b> PE 0401319F / VC-25B
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COST (\$ in Millions)	Prior Years	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total	FY 2024	FY 2025	FY 2026	FY 2027	Cost To Complete	Total Cost
Total Program Element	2,510.681	720.155	655.665	492.932	0.000	492.932	372.856	161.028	20.359	0.000	0.000	4,933.676
655250: VC-25B	2,510.681	720.155	655.665	492.932	0.000	492.932	372.856	161.028	20.359	0.000	0.000	4,933.676
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-	-	-

**Program MDAP/MAIS Code:** 425

**Note**

FY10-14 Prior Years Funding \$27.29M was executed in PE 0401314F, BPAC 675355

**A. Mission Description and Budget Item Justification**

The VC-25B Program, formerly known as the Presidential Aircraft Recapitalization (PAR) Program, will replace the Presidential VC-25A fleet which faces capability gaps, rising maintenance costs, and parts obsolescence as it ages beyond 30 years. The VC-25B Program Office will deliver a new fleet of aircraft to meet the requirements for the President to execute the duties of Head of State, Chief Executive, and Commander-in-Chief. The VC-25B Program will uniquely modify two Boeing 747-8 commercial aircraft to provide the President, staff, and guests with safe and reliable air transportation with the equivalent level of communications capability and security available in the White House. The modifications to the 747-8 aircraft will include an electrical power upgrade with dual Auxiliary Power Units that are usable in flight, a mission communication system, a work and rest environment, an executive interior, military avionics, a self-defense system, independent enplaning and deplaning, and independent baggage loading. No significant changes to the existing VC-25A Concept of Operations or Concept of Employment are expected.

In August 2012, the Defense Acquisition Executive (DAE), as the VC-25B Milestone Decision Authority, approved the Materiel Development Decision. The Capability Development Document (CDD) was validated by the Joint Requirements Oversight Council in November 2014. In January 2015, the Secretary of the Air Force's Determination and Findings designated the Boeing 747-8 aircraft as the airframe platform, and the DAE's Acquisition Decision Memorandum authorized Pre-Milestone B (Pre-MS B) contracts aimed at improving affordability and reducing program execution risk. In February 2015, the Assistant Secretary of the Air Force for Acquisition approved a Justification and Approval designating Boeing as the sole source for Pre-MS B activities; and Post-MS B design, integration, modification, and test activities. The DAE approved the initial acquisition strategy in September 2015. MS B certification occurred in September 2016. In March 2017, the White House reaffirmed the minimum set of requirements necessary to meet Presidential mission needs; these requirements are codified in the March 2017 CDD. The DAE approved the updated acquisition strategy and the Acquisition Program Baseline (APB) in December 2018.

In April 2021 Boeing submitted an updated Integrated Master Schedule (IMS) and a formal request to extend aircraft contractual delivery dates by 12 months. In August 2021, Boeing submitted an updated request to the program office to extend aircraft contractual delivery dates by 17 months, upon updating their schedule risk assessment (SRA). This delay has resulted in an APB schedule program deviation for the remaining APB milestones (First Flight, Operational Test, Required Asset Availability (RAA) for Initial Operational Capability (IOC), and RAA for Full Operational Capability (FOC)). The APB schedule re-baseline is in staffing to the DAE for approval.

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This budget supports Post-MS B design, integration, modification, and test of two aircraft to make them Presidential mission ready. In FY21 and FY22, the program continued Engineering and Manufacturing development (EMD) activities to include modification, test planning, and initiation of Product Support (PS) activities. In FY23 the program will continue with EMD activities to include modification, test, and PS activities.

Funds may be used to lease test equipment, as well as address emerging and short-notice Diminishing Manufacturing Sources and Material Shortage (DMSMS) issues.

This program element may include necessary civilian pay expenses required to manage, execute, and deliver VC-25B system capability. The use of such programs funds would be in addition to the civilian pay expenses budgeted in program element 0605827F, 0605828F, 0605829F, 0605831F, 0605832F, 0605833F, 0605898F, 0606398F. In FY 2021 \$3.556 million was expended for civilian pay expenses in this program element, and in FY 2022 \$4.200 million is projected for civilian pay expenses in this program element.

This program is in Budget Activity 5, System Development an Demonstration (SDD); however, it will not enter full rate production as stated below.

This program is in Budget Activity 5, System Development and Demonstration (SDD) because it has passed Milestone B approval and is conducting engineering and manufacturing development tasks aimed at meeting validated requirements prior to full rate production.

<b>B. Program Change Summary (\$ in Millions)</b>	<b><u>FY 2021</u></b>	<b><u>FY 2022</u></b>	<b><u>FY 2023 Base</u></b>	<b><u>FY 2023 OCO</u></b>	<b><u>FY 2023 Total</u></b>
Previous President's Budget	799.429	680.665	0.000	0.000	0.000
Current President's Budget	720.155	655.665	492.932	0.000	492.932
Total Adjustments	-79.274	-25.000	492.932	0.000	492.932
• Congressional General Reductions	0.000	0.000			
• Congressional Directed Reductions	0.000	-25.000			
• Congressional Rescissions	0.000	0.000			
• Congressional Adds	0.000	0.000			
• Congressional Directed Transfers	0.000	0.000			
• Reprogrammings	-50.600	0.000			
• SBIR/STTR Transfer	-28.674	0.000			
• Other Adjustments	0.000	0.000	492.932	0.000	492.932

**Change Summary Explanation**

FY 2021 funding was reduced by a total of \$79.274 million which included a \$50.600 million reprogramming action for higher Air Force priorities and \$28.674 million for Small Business Innovation Research.

FY 2022 funding was reduced by \$25.000 million due to a Congressional Directed Reduction for program delays.

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<b>Appropriation/Budget Activity</b> 3600: <i>Research, Development, Test &amp; Evaluation, Air Force / BA 5: System Development &amp; Demonstration (SDD)</i>		<b>R-1 Program Element (Number/Name)</b> PE 0401319F / VC-25B		
The FY 2022 President's Budget submittal did not reflect FY 2023 through FY 2026 funding. Therefore, an explanation of the change between the two budget positions for FY 2023 cannot be made in a relevant manner.				
<b>C. Accomplishments/Planned Programs (\$ in Millions)</b>		<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023</b>
<p><b>Title:</b> VC-25B EMD, Product Support, &amp; Program Support Costs (PSC)</p> <p><b>Description:</b> Execute EMD activities and accomplish PSC to support the Program Office. FY22 will continue EMD activities such as the management, integration, modification, test planning, certification, and product support to deliver two Presidential mission-ready VC-25B Aircraft utilizing modeling and simulation, system integration labs (SILs), and mockups to assist in design/modification.</p> <p><b>FY 2022 Plans:</b> Funds in FY 2022 will continue EMD activities, aircraft modification, test planning and product support activities, as well as support PSC with transition from EMD activities to test planning, and the ramp up of product support activities.</p> <p><b>FY 2023 Plans:</b> Funds in FY 2023 will continue EMD activities, aircraft modification, test and product support activities to include, but not limited to procurement of: initial spares, support equipment, aircraft familiarization training, technical order publications, and airworthiness directives. Continued support of PSC with transition to Developmental Test and Evaluation (DT&amp;E)</p> <p><b>FY 2022 to FY 2023 Increase/Decrease Statement:</b> Funding decreased due to ramping down EMD activities, continued test planning, and transition to Developmental Test and Evaluation (DT&amp;E).</p>		714.122	651.563	488.830
<p><b>Title:</b> VC-25B Government Test</p> <p><b>Description:</b> Government test activities to prepare for, oversee, and conduct test events.</p> <p><b>FY 2022 Plans:</b> Funds in FY 2022 will be used for test planning with participating test organizations and contractors, and to plan for verification testing in SILs, contractor facilities and government facilities.</p> <p><b>FY 2023 Plans:</b> Funds in FY 2023 will be used to prepare for and conduct aircraft functional checkout, as well as SIL, ground, and flight testing with the participating test organizations and contractors.</p> <p><b>FY 2022 to FY 2023 Increase/Decrease Statement:</b></p>		6.033	4.102	4.102

**UNCLASSIFIED**

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<b>C. Accomplishments/Planned Programs (\$ in Millions)</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023</b>
Funding is consistent from FY22 to FY23 as the program continues the flight test planning stage and prepares for entry into checkout, ground and flight test.			
<b>Accomplishments/Planned Programs Subtotals</b>	720.155	655.665	492.932

<b>D. Other Program Funding Summary (\$ in Millions)</b>											
<b>Line Item</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023</b>	<b>FY 2023</b>	<b>FY 2023</b>	<b>FY 2024</b>	<b>FY 2025</b>	<b>FY 2026</b>	<b>FY 2027</b>	<b>Cost To Complete</b>	<b>Total Cost</b>
			<b>Base</b>	<b>OCO</b>	<b>Total</b>						
• OPAF 02 825990: <i>Materials Handling Vehicles</i>	0.000	0.251	0.000	-	0.000	-	-	-	-	0.000	0.251
• OPAF 03 837300: <i>Base Comm Infrastructure</i>	0.000	0.000	0.400	-	0.400	-	-	-	-	0.000	0.400
• OPAF 02 823990: <i>Special Purpose Vehicles</i>	0.499	2.319	3.190	-	3.190	-	-	-	-	0.000	6.008
• O&M O&M: PE 0401319F: <i>PAR Furnishings and Equipment</i>	1.951	-	-	-	-	-	-	-	-	0.000	1.951

**Remarks**

**E. Acquisition Strategy**  
 The Defense Acquisition Executive (DAE), as the VC-25B Milestone Decision Authority, approved the initial VC-25B Acquisition Strategy in September 2015. The DAE approved the updated VC-25B Acquisition Strategy and set the APB in December 2018. The VC-25B Program will integrate technologically mature subsystems into two Government furnished, commercial Boeing 747-8 aircraft. The VC-25B Program will design, integrate, modify, and test two aircraft to make them Presidential mission ready. Boeing is the prime integrator for VC-25B development activities. The VC-25B Program has a single sole-source firm-fixed-price contract with multiple major contract modifications. Modifications include risk reduction activities, 747-8 commercial aircraft purchase, Preliminary Design (PD), Engineering and Manufacturing Development (EMD), and Product Support. The contract for risk reduction activities was awarded in January 2016. The contract modification to purchase two commercial aircraft was awarded in August 2017. The contract modification for PD was awarded in September 2017. The contract modification for EMD was awarded in July 2018. The initial contract modification for Product Support activities was awarded in April 2020.

**UNCLASSIFIED**

**Exhibit R-3, RDT&E Project Cost Analysis: PB 2023 Air Force** **Date:** April 2022

<b>Appropriation/Budget Activity</b> 3600 / 5	<b>R-1 Program Element (Number/Name)</b> PE 0401319F / VC-25B	<b>Project (Number/Name)</b> 655250 / VC-25B
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<b>Product Development (\$ in Millions)</b>				FY 2021		FY 2022		FY 2023 Base		FY 2023 OCO		FY 2023 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
VC-25B EMD Contract Activities	SS/FFP	The Boeing Company : Various	2,453.334	603.537	Oct 2020	566.749	Oct 2021	383.846	Oct 2022	-		383.846	172.610	4,180.076	-
VC-25B Product Support Contract Activities	SS/FFP	The Boeing Company : Various	0.388	88.163	Oct 2020	64.441	Oct 2021	81.399	Oct 2022	-		81.399	242.150	476.541	-
<b>Subtotal</b>			2,453.722	691.700		631.190		465.245		-		465.245	414.760	4,656.617	N/A

<b>Support (\$ in Millions)</b>				FY 2021		FY 2022		FY 2023 Base		FY 2023 OCO		FY 2023 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
Direct Cite Authority Civilian Pay	Various	AFLCMC/WV : WPAFB, OH	5.813	3.556	Nov 2020	4.200	Oct 2021	4.541	Oct 2022	-		4.541	7.433	25.543	-
<b>Subtotal</b>			5.813	3.556		4.200		4.541		-		4.541	7.433	25.543	N/A

<b>Test and Evaluation (\$ in Millions)</b>				FY 2021		FY 2022		FY 2023 Base		FY 2023 OCO		FY 2023 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
VC-25B Developmental Test and Evaluation	MIPR	412 TW, JITC : Various	5.371	6.033	Dec 2020	4.102	Dec 2021	4.102	Oct 2022	-		4.102	34.550	54.158	-
<b>Subtotal</b>			5.371	6.033		4.102		4.102		-		4.102	34.550	54.158	N/A

<b>Management Services (\$ in Millions)</b>				FY 2021		FY 2022		FY 2023 Base		FY 2023 OCO		FY 2023 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
VC-25B Program Support Costs - Other Government Costs	Various	AFLCMC/WV : WPAFB, OH	23.295	3.871	Nov 2020	7.297	Nov 2021	7.091	Nov 2022	-		7.091	88.040	129.594	-
VC-25B Program Support Costs- Contract Services	C/T&M	AFLCMC/WV : WPAFB, OH	22.480	14.995	Feb 2021	8.876	Feb 2022	11.953	Feb 2023	-		11.953	9.460	67.764	-
<b>Subtotal</b>			45.775	18.866		16.173		19.044		-		19.044	97.500	197.358	N/A

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**Exhibit R-3, RDT&E Project Cost Analysis: PB 2023 Air Force** **Date:** April 2022

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	Prior Years	FY 2021	FY 2022	FY 2023 Base	FY 2023 OCO	FY 2023 Total	Cost To Complete	Total Cost	Target Value of Contract
<b>Project Cost Totals</b>	2,510.681	720.155	655.665	492.932	-	492.932	554.243	4,933.676	N/A

**Remarks**  
FY 2010-2014 RDT&E Funding (\$27.3M) was executed in PE 0401314F, Project 675355, BA07.

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**Exhibit R-4, RDT&E Schedule Profile: PB 2023 Air Force** **Date:** April 2022

<b>Appropriation/Budget Activity</b> 3600 / 5	<b>R-1 Program Element (Number/Name)</b> PE 0401319F / VC-25B	<b>Project (Number/Name)</b> 655250 / VC-25B
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FY 2021				FY 2022				FY 2023				FY 2024				FY 2025				FY 2026				FY 2027			
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

<b>VC-25B</b>	
EMD	
Aircraft Modification	
Product Support Activities	
Developmental Test (DT)	
Familiarization and Operational Test (FAM/OT)	
Required Assets Available (RAA) for Initial Operational Capability (IOC)	
RAA for Full Operational Capability (FOC)	

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**Exhibit R-4A, RDT&E Schedule Details:** PB 2023 Air Force **Date:** April 2022

<b>Appropriation/Budget Activity</b> 3600 / 5	<b>R-1 Program Element (Number/Name)</b> PE 0401319F / VC-25B	<b>Project (Number/Name)</b> 655250 / VC-25B
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Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
<b>VC-25B</b>				
EMD	1	2021	4	2026
Aircraft Modification	1	2021	1	2025
Product Support Activities	1	2021	3	2026
Developmental Test (DT)	3	2023	3	2025
Familiarization and Operational Test (FAM/OT)	4	2025	2	2026
Required Assets Available (RAA) for Initial Operational Capability (IOC)	2	2026	2	2026
RAA for Full Operational Capability (FOC)	4	2026	4	2026

**Note**  
EMD, Aircraft Modification, and Product Support Activities all began prior to Q1 2021.