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Department of Defense
OFFICE OF PREPUBLICATION AND SECURITY REVIEW

Modernized Selected Acquisition Report (MSAR) VC-25B (VC-25B)

FY 2025 President's Budget

Effective: December 31, 2023

Defense Acquisition Visibility Environment

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(U) Common DoD Abbreviations

\$B	Billions of Dollars
\$K	Thousands of Dollars
\$M	Millions of Dollars
ACAT	Acquisition Category
Acq O&M	Acquisition-Related Operations and Maintenance
ADM	Acquisition Decision Memorandum
APA	Additional Performance Attribute
APB	Acquisition Program Baseline
APPN	Appropriation
APUC	Average Procurement Unit Cost
BA	Budget Authority or Budget Activity
Blk	Block
BY	Base Year
CAE	Component Acquisition Executive
CAPE	Cost Assessment and Program Evaluation
CARD	Cost Analysis Requirements Description
CCE	Component Cost Estimate
CCP	Component Cost Position
CDD	Capability Development Document
CLIN	Contract Line Item Number
CPD	Capability Production Document
CY	Calendar Year or Constant Year
DAB	Defense Acquisition Board
DAE	Defense Acquisition Executive
DAES	Defense Acquisition Executive Summary
DAVE	Defense Acquisition Visibility Environment
DoD	Department of Defense
DSN	Defense Switched Network
EMD	Engineering and Manufacturing Development
EVM	Earned Value Management
FD	Full Deployment
FDD	Full-Deployment Decision
FMS	Foreign Military Sales
FOC	Full Operational Capability
FRP	Full-Rate Production
FY	Fiscal Year
FYDP	Future Years Defense Program
ICD	Initial Capabilities Document
ICE	Independent Cost Estimate
Inc	Increment
IOC	Initial Operational Capability
IT	Information Technology
JROC	Joint Requirements Oversight Council
KPP	Key Performance Parameter
KSA	Key System Attribute

LRIP	Low-Rate Initial Production
MDA	Milestone Decision Authority
MDAP	Major Defense Acquisition Program
MILCON	Military Construction
N/A	Not Applicable
O	Objective
O&M	Operations and Maintenance
O&S	Operating and Support
ORD	Operational Requirements Document
OSD	Office of the Secretary of Defense
PAUC	Program Acquisition Unit Cost
PB	President's Budget
PE	Program Element
PEO	Program Executive Officer
PM	Program Manager
POE	Program Office Estimate
R&MF	Revolving and Management Funds
RDT&E	Research, Development, Test, and Evaluation
SAR	Selected Acquisition Report
SCP	Service Cost Position
T	Threshold
TBD	To Be Determined
TY	Then Year
U.S.	United States
U.S.C	United States Code
UCR	Unit Cost Reporting
USD(A&S)	Under Secretary of Defense (Acquisition and Sustainment)

(U) Program Description**Full Name**

VC-25B

Short Name

VC-25B

PNO

425

Milestone Decision Authority

Defense Acquisition Executive

Lead Component

Department of the Air Force

Program Executive OfficePresidential & Executive Airlift Directorate
(AFPEO/PE)**Joint Program**

No

Acquisition Type

Major Defense Acquisition Program

Adaptive Acquisition Pathway

Major Capability Acquisition

Acquired Systems

VC-25B

Acquisition Category

ID

Acquisition Status

Active Acquisition

Mission

The VC-25B Program will acquire and modify two Boeing 747-8 aircraft to enable the President to execute the duties of Head of State, Chief Executive, and Commander in Chief. 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, work and rest environment, executive interior, military avionics, self-defense system, autonomous enplaning and deplaning, and autonomous baggage loading.

(U) Responsible Office**Program Executive Officer**

Presidential & Executive Airlift Directorate
(AFPEO/PE)

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(U) Executive Summary

Program Highlights Since Last Report

On April 13, 2023, Weight on Wheels Ready was achieved on Aircraft 2. On October 25, 2023, Boeing declared another VC-25B loss at \$482M during their 3rd Quarter FY 2023 Earnings Call. Boeing reported a total loss of \$2.4B on the VC-25B. This will impact phasing of program funds and schedule. The program is assessing schedule impacts and will report impacts once identified.

The most recent program schedule from January 2023 incorporated high confidence planning dates for customer and test community which included 16 months of schedule margin. To date, performance continues to lag expectations, with approximately 6 months of schedule margin already consumed. Boeing's Integrated Master Schedule (IMS) reflects aircraft delivery dates of May 2027 (Required Asset Availability (RAA) for IOC) and July 2027 (RAA Full Operational Capability (FOC)); both fall within the June 2022 APB Objective and Threshold dates. DCMA and the Program Office (PO) Schedule Risk Assessment (SRA) conducted May 2023, indicates additional schedule risk due to wiring, interiors, modification manpower, and test execution. Program continues to monitor the schedule risk and will submit a Program Deviation Report if the APB thresholds are exceeded.

Boeing completed their new IMS for the VC-25B program on February 01, 2024. The program office is analyzing the new IMS and assessing overall impacts. The PO will conduct an independent SRA in FY 2024. The program continues to monitor Boeing's progress against the new IMS and is diligently working to build a position for updating the contract and the VC-25B APB schedule. The Air Force remains postured to keep the VC-25A aircraft available and mission-ready until the VC-25B aircraft deliver.

Defense Cost and Resource Center and Cost and Software Data Reporting (CSDR) Compliance Rating: Not Applicable. CSDR Reporting is not required under the following conditions:

- Contracts on programs with anticipated acquisition expenditures less than \$100 million, then-year dollars.
- Contracts priced below \$20 million, then-year dollars.
- PM requests and obtains approval from the DDCA for a reporting waiver (e.g., procurement of commercial systems).

There are no significant software-related issues with this program at this time.

(U) History of Significant Developments Since Program Inception

Date	Description
September 2016	DAE approved Milestone B decision.
March 2017	JROC approved Capability Development Document (CDD).

Date	Description
August 2017	Purchased two (2) 747-8 commercial aircraft from Boeing.
September 2017	Awarded Preliminary Design Contract.
February 2018	POTUS and Boeing CEO informally agree to \$3.9B FFP deal.
July 2018	Awarded EMD Undefined Contract Action (UCA).
December 2018	Closed out Preliminary Design Review (PDR).
December 2018	Defense Acquisition Executive approved Acquisition Program Baseline.
March 2019	Ferried Aircraft #1 to the San Antonio modification facility.
April 2019	Ferried Aircraft #2 to the San Antonio modification facility.
December 2019	Conducted Modification Readiness Review (MRR).
December 2019	Definitized Engineering & Manufacturing Development (EMD) Undefined Contract Action (UCA).
January 2020	Conducted System Critical Design Review (CDR).
February 2020	Commenced modification on Aircraft #1.
March 2020	Closed out Critical Design Review.
April 2020	Awarded Technical Publications Contract.
June 2020	Commenced modification on Aircraft #2.
September 2020	Awarded Initial Training Contract.
December 2020	Awarded Peculiar Support Equipment contract.
March 2021	Achieved Decrib for Aircraft #1.
May 2021	Submitted Program Deviation Report for schedule to the Defense Acquisition Executive (DAE).
September 2021	Awarded Initial Spares Phase 1a (Long-Lead) Contract.
October 2021	Achieved Weight on Wheels Aircraft #1.
January 2022	Achieved Decrib for Aircraft #2.
June 2022	APB Rebaseline, Schedule, and Acq O&M funding approved by Dr. LaPlante, USD(A&S).
August 2022	Updated USAF Airworthiness Plan, Version 4.
October 2022	Received Stringer Crack Independent Review Team Report.
October 2022	Received updated Boeing IMS.
April 2023	Aircraft #2 achieved Weight on Wheels Ready.

(U) Schedule

(U) Schedule Events

Schedule Events for this program are Controlled Unclassified Information (CUI) and have been removed per paragraph (i) of title 10 United States Code 4351 which required the SAR be submitted without any designation related to dissemination control.

Notes

None

Schedule Baseline Deviation Explanation

None

(U) Current Significant Schedule Risks and Risks Identified at Milestones/Decisions

Event	Date	Description
Current	12/31/2023	Risk: Commercial 747-8 has zero spares. Boeing Commercial Airplanes has contracted PPG to manufacture spares when the previous supplier shut down their factory. Poor performance by PPG has only now started to produce a commercial spare drawing that still needs to be certified. Boeing Defense, Space & Security (BDS) has contracted PPG to produce the VC-25B window. PPG is pursuing a modification the commercial window being developed with a plan to get certification by similarity. BDS contract does not have that as a requirement. Mitigation: Develop the commercial window in parallel in order to not put the schedule at risk.
Current	12/31/2023	Risk: By 8/21, high turnover of structures mechanics with insufficient hiring led to significant staffing shortfall during structures mod milestones of Decrib, Weight on Wheels and Wires Ready. This created a backlog of Jobs Behind Schedule (JBS) and, in turn, an higher number of mechanics were required to recover JBS and achieve milestone dates. Additionally, higher than planned rework amplified the risk. To mitigate similar risk for Electrician staffing, we have hired ahead of plan and placed electricians on other site programs until wiring begins. Mitigation: Rapid increase in Contract and Direct Structures mechanic hiring, training and onboarding. Work with Air Force to expedite YW clearance paperwork.

Current	12/31/2023	<p>Title: Qualification Test Performance</p> <p>Risk: If qualification tests are not performed in a timely manner and not executed with a defined process, there will be downstream impact to Flight Test and Delivery timelines. An efficient and risk mitigated qualification test program is required to execute the program efficiently.</p> <p>Mitigation: Develop equipment manager training, utilize E-UM metrics to prevent bottle neck of compliance documentation approval, standardize test and qualification plans, conduct workshop with interiors team.</p>
Current	12/31/2023	<p>Title: Material Availability (Am) Improvement Plan</p> <p>Risk: If the Scheduled Maintenance Program for SL002 and SL003 does not include non-recurring engineering and pull ahead maintenance during the EMD phase, Then the Logistics Composite Model life-cycle ground rules and assumptions being used for maintenance planning, clock stoppage and stringer inspection/repair may not be realized, and our customer may receive an aircraft at DD250 that could have overlapping depot maintenance intervals, and negatively impact Am such that two aircraft could be out of service simultaneously during in-service support.</p> <p>Mitigation: Identify requirements for clean aircraft at DD250, schedule crosstalk with United States Air Force, perform Obeya optimization for O-level maintenance and existing EMD work statement.</p>
Current	12/31/2023	<p>Title: VC-25B Comprehensive Stringer Visual Repairs</p> <p>Risk: 28 door surround stringers have confirmed cracks and six stringers with suspect cracks at splice locations. This drove engineering to release a coordination sheet for additional visual re-inspections at specific stringer splice locations on previously repaired and unrepaired stringers. Total number of inspections across both aircraft is 1592 splice locations (796 per airplane).</p> <p>Mitigation: Quality Assurance (QA) to perform detailed visual inspections (DVI) at all locations and DCMA to be notified for witness. QA to document suspected cracks and other non-conformances found during DVI and Engineering to disposition NCRs for Non-destructive Inspection (NDI) for suspect cracks; NDI to confirm cracks at all suspected locations and the NCR will be resubmitted to engineering for repair next steps</p>
Current	12/31/2023	<p>Title: Buckets 3-4 Fabrication Flows</p> <p>Risk: If the overall level of change does not decline and fabrication flows for racks, panels and shelves are not reduced, then deliveries will not support Program critical path installation dates. Late installation dates will impact downstream critical path events and ultimately associated milestones.</p> <p>Mitigation: November 2023 approved to Open and escalate to Program visibility in February 2024 - Mitigated - The risk mitigation plan was successful and the risk has been eliminated. Will request closure at next Joint Risk, Issue, and Opportunity Review Board.</p>
Current	12/31/2023	<p>Title: Interior Noise</p> <p>Risk: This risk is intended to track the development of the airplane's interior noise attenuation design per the Passenger Service System requirements for cabin noise, speech intelligibility and broadcast noise. The risk centers on two areas of focus: 1) the aircraft's decompression design, and 2) the Environmental Control System (ECS) subsystem design. The aforementioned requirements are at risk of not being met due to the potential changes to systems and structure associated with decompression.</p> <p>Mitigation: Once the decompression design has been solidified, impacts of the ECS subsystem design will need to be assessed focus: 1) the aircraft's decompression design, and 2) the ECS subsystem design. The aforementioned requirements are at risk of not being met due to the potential changes to systems and structure associated with decompression. Once the decompression design has been solidified, impacts of the ECS subsystem design will need to be assessed by the Noise Team, and coordination between</p>

		the ECS and Noise Teams will be required to mitigate as much of the inherent risk to ECS noise prior to aircraft verification testing. This risk will status decompression design solutions, the ECS subsystem design and interior noise assessments from Aerocon. It will also cover planning and execution of the noise/ECS airflow balance ground test scheduled for Block 20.
Current	12/31/2023	Title: Aircraft Test Schedule Execution Rates Risk: Given the test team has planned for a challenging test schedule, if enablers are not put in place or the aircraft is not test ready without sufficient program capacity/efficiency to absorb non-standard work then there is risk that the program will not meet commitments. Mitigation: Ability to achieve baseline test execution rates is dependent on having a full-kit aircraft for first flight. Efficient ground and flight testing requires that aircraft to be in expected test configuration with all factory functional testing completed, no blocking test problems or limitations, and an adequately trained and YW cleared team in place to support the test program.
Current	12/31/2023	Title: Build Performance - Blankets Installation Risk: Blankets installation will take longer than planned if we have additional templating and modification effort due to airplane configuration differences from engineering, increased penetrations, part & installation conformities, and drawing revisions by blankets supplier. Current conformity plan has one request for change (RFC) per blanket modification and one RFC per installation drawing. Without having a partial conformity plan allowance in place, one installation RFC could end up covering 450+ acoustic blankets (in one drawing) which is difficult to manage on the production floor. Mitigation: Blanket Corrective Action Team completed for better utilization of design engineering shipside during the installation process. This process will allow for quick change redline releases when engineering requires updating over utilizing NCR's.
Current	12/31/2023	Title: GKN Contractor Window Risk Risk: If GKN cannot meet strict defect requirements for passenger windows, then delivery delays will have impact on the aircraft schedule and will impact pressurization testing (Hi-Blo), Interior installations, and ground and flight testing. Mitigation Plan: Refine clean room environment, isolate HALO effect, determine if there is foreign objects in mesh material, isolate cause of tiger striping, and continue to work with GKN to develop acceptable window.
Current	12/31/2023	Title: Low-Speed Aerodynamics Stability & Control and Flight Control Law Risk: If Engineering-Cabin piloted sessions and desktop simulation analysis (both based upon the high speed wind tunnel/parent flight test base), indicate that the outer mold line changes adversely impact the handling characteristics of the airplane this could prevent certification by analysis. Mitigation: Conduct flight control analysis using engineering simulator, file Equivalent Level Of Safety with Federal Aviation Administration (FAA) for approval, do a reverse thrust cutback speed alteration, get final FAA certification.
Current	12/31/2023	Title: Very Important Person (VIP) Interior Certification Execution Risk: Successful execution of VIP Interior certification activities relies upon coordinated design reviews, showing of compliance agreements, review and approval of the VIP Interior design, data and specifications between both GTI and Boeing engineering along with rostering NAT engineering unit members to the Boeing Organization Designation Authorization to support finding of compliance. Mitigation: Initial process for developing showing of compliance for Materials & Specifications and Flammability developed via workshop in December 2022. Process details to be approved by both companies via coordination sheet. Draft coordination sheet developed and in review. Second workshop in January 2023

		at GTI to review process and actions as well as work through similar process for structures, electrical and mechanical systems. Also need to complete work on process and plan for cabin safety compliance and qual.
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(U) Performance

(U) Performance Attributes

Performance Characteristics for this program are Controlled Unclassified Information (CUI) and have been removed per paragraph (i) of title 10 United States Code 4351 which required the SAR be submitted without any designation related to dissemination control.

(U) Performance Attributes (continued)

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(U) Performance Attributes (continued)

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(U) Requirement Source:

Sponsor(s): United States Air Force

1. Capability Development Document, *CDD for Presidential Aircraft Recapitalization Version B.12*
Validated By: Joint Requirements Oversight Council, March 1, 2017
2. Capability Development Document, *CDD for Presidential Aircraft Recapitalization*
Validated By: Joint Requirements Oversight Council, November 5, 2014

Notes

None

Performance Deviation Explanation

None

(U) Acquisition Budget Estimate

(U) Total Acquisition Estimates and Quantities

Category (\$M) Base Year: 2018	Development APB (Milestone) 12/3/2018 CY\$ obs Objective	Development Chg 1 (Current) 6/28/2022 CY\$ obs Objective / Threshold		Current Estimate PB 2025 CY\$ obs / TY\$ obs	
RDT&E	4,557.5	4,557.5	5,013.3	4,719.4	5,281.0
Procurement	51.0	50.7	55.8	20.2	21.5
MILCON	403.6	403.6	444.0	389.0	424.6
O&M	1.9	8.8	9.7	2.3	2.6
Total Acquisition	5,014.0	5,020.6	-	5,130.9	5,729.6
Program Acquisition Unit Cost	2,507.000	2,510.300	2,761.330	2,565.466	2,864.810
Average Procurement Unit Cost	-	-	-	-	-
Program End-Item Quantity					
Development	2	2		2	
Procurement	0	0		0	
O&M-Acquired	-	-		0	

Budget Notes

None

Quantity Notes

None

Cost Baseline Deviation Explanation

None

(U) Risk and Sensitivity Analysis

Current Procurement Estimate Risks (12/31/2023)	
1	<p>Title: GKN Contractor Window Risk Risk: If GKN cannot meet strict defect requirements for passenger windows, then delivery delays will have impact on the aircraft schedule and will impact pressurization testing (Hi-Blo), Interior installations, and ground and flight testing. Mitigation Plan: Refine clean room environment, isolate HALO effect, determine if there is foreign objects in mesh material, isolate cause of tiger striping, and continue to work with GKN to develop acceptable window.</p>

2	<p>Title: Build Performance - Structures</p> <p>Risk: Covers financial impacts (Airplane 1 (AC1), Airplane 2 (AC2), Prod Ops support, and Escorting) due to impacts to build performance from mechanic efficiency, engineering changes, long Non-conformance Report (NCR) flow times, late parts, high rework, and long conformity processes. The risk mitigation plan is to improve cost per job (CPJ) efficiency to reduce potential impact. This risk does not cover Blankets installation (Boeing Opportunity and Risk System risk #676), Door Surround (#700), Wires Installation (#704) or any future milestones. Impacts are based on delta forecast to previous 4/23 baseline.</p> <p>Mitigation: 11/7/23 (Boselly): Incorporated execution strategy actions, schedule, and improvements aligned to scenario 62R5. AC1 efficiency increases forecast from starting CPJ of 57.3, reducing to 54.2 by January 2024, 49.7 by April 2024, and 48.2 by June 2024. AC2 efficiency increases forecast from starting CPJ of 46.6, reducing to 44.1 by January 2024, 40.4 by April 2024, and 39.2 by June 2024.</p>
Current Baseline Risks (6/28/2022)	
<p>1- Contractor has pulled certification plan approvals with Federal Aviation Administration (FAA) early in process to reduce risk of certification delays later. Program Office, contractor, and suppliers are working proactive plans to reduce certification risk.</p> <p>2- Addressed via Limitation of Government Obligations Clause updated on contract at Definitization, FY 2019 Above Threshold Reprogramming funding, and realignment in FY 2021 PB.</p> <p>3- Program Office, Air Force, and Contractor are proactively engaging with Defense Counterintelligence Security Agency (DCSA) to track and prioritize Yankee White approval packages for VC-25B workforce.</p>	
Original Baseline Risks (12/3/2018)	
<p>(1) Contractor has pulled certification plan approvals with Federal Aviation Administration (FAA) early in process to reduce risk of certification delays later. Program Office, contractor, and suppliers are working proactive plans to reduce certification risk. (2) Addressed via Limitation of Government Obligations Clause updated on contract at Definitization, FY 2019 Above Threshold Reprogramming funding, and realignment in FY 2021 PB. (3) Program Office, Air Force, and Contractor are proactively engaging with Defense Counterintelligence Security Agency (DCSA) to track and prioritize Yankee White approval packages for VC-25B workforce.</p>	

(U) Unit Costs

(U) Current Estimate Compared with Current Baseline

Category (CY\$M) Base Year: 2018	Current Baseline 06/28/2022	Current Estimate PB 2025	% Change
Program Acquisition Unit Cost			
Acquisition Cost	5,020.6	5,130.9	
Program Quantity	2	2	
PAUC	2,510.300	2,565.466	2.20%
Average Procurement Unit Cost			
Procurement Cost	50.7	20.2	
Procurement Quantity	0	0	
APUC	-	-	-

(U) Current Estimate Compared with Original Baseline

Category (CY\$M) Base Year: 2018	Original Baseline 12/03/2018	Current Estimate PB 2025	% Change
Program Acquisition Unit Cost			
Acquisition Cost	5,014.0	5,130.9	
Program Quantity	2	2	
PAUC	2,507.000	2,565.466	2.33%
Average Procurement Unit Cost			
Procurement Cost	51.0	20.2	
Procurement Quantity	0	0	
APUC	-	-	-

(U) Cost Growth Details

Impacts of Schedule Changes on Unit Cost

Not Applicable.

Impacts of Performance Changes on Unit Cost

Not Applicable.

Actions taken or Proposed to Control Future Cost Growth

Not Applicable.

Status of Each Major Contract and Significant Factors Contributing to Cost and Schedule Variance; Projected Effects on Future Program Costs

See Contracts section.

Notes

None

(U) Life-Cycle Costs

(U) Operating and Support and Disposal Cost Estimates Compared with Baseline

Category (\$M) Base Year: 2018	Development APB (Milestone) 12/3/2018 CY\$ obs Objective	Development Chg 1 (Current) 6/28/2022 CY\$ obs Objective / Threshold		Current Estimate CY\$ obs / TY\$ obs	
Total O&S	7,640.6	7,640.6	8,404.7	8,074.4	14,736.7
Total Disposal	-	-	-	-	-

(U) Current Cost Estimate Sources

Operating and Support Cost

Type: Budget

Approved by: FY 2025 PB, March 01, 2024

Disposal/Demilitarization Cost

Type: Budget

Approved by: FY 2025 PB, March 01, 2024

Operating and Support Baseline Deviation Explanation

None

Cost Notes

FY25 PB DAES: Budgetary Estimate, 2025PB SAR: 3010 BP16 additional O&S spare buys are shown under the procurement line of Spruill chart (~\$193M) and are included under the Maintenance CAPE cost element total above, not under our acquisition cost total. Budgetary Estimate, 2025PB SAR: 3010 BP16 additional O&S spare buys are shown under the procurement line of Spruill chart (~\$193M) and are included under the Maintenance CAPE cost element total above, not under our acquisition cost total.

O&S and Disposal Cost Sources: For Programs with an O&S Cost estimate or Disposal Cost estimate the O&S Cost Source and Disposal Cost Source listed in the MSAR are inaccurate due to a system limitation. See MSAR Supplement for corrected source(s).

(U) Operating and Support Variance with Prior Estimate

(CY\$M) Base Year: 2018	Estimate	
Prior Estimate (12/31/2022)	7,624.8	
Current Estimate	8,074.4	

(CY\$M) Base Year: 2018		
Category	Estimate	Explanation
Unit-Level Manpower	533.8	The variance between the December 2022 SAR O&S POE and the FY 2023 O&S POE is primarily driven by the 5% year-over-year Military Pay escalation rate change.
Unit Operations	28.7	Estimate incorporates fact of life changes, rate adjustments, and incorporation of new indices.
Maintenance	23.8	Estimate incorporates fact of life changes, rate adjustments, and incorporation of new indices.
Sustaining Support	-288.2	Estimating methodology changes which resulted in a decrease for the cost element.
Continuing System Improvements	108.4	Estimate increase is driven by the incorporation of the Mission Communications System/Flight Deck mods.
Other	43.0	Estimate incorporates fact of life changes, rate adjustments, and incorporation of new indices.
Not Categorized	0.0	

(U) Operating and Support Cost Element Structure Estimates by Acquired System

(CY\$M) Base Year: 2018							
System	Unit-Level Manpower	Unit Operations	Maintenance	Sustaining Support	Continuing System Improvements	Other	Total
VC-25B	2,264.1	407.2	1,621.7	2,025.9	1,031.1	724.4	8,074.4
Program	2,264.1	407.2	1,621.7	2,025.9	1,031.1	724.4	8,074.4

(U) Annual Operating and Support Costs per Unit Compared with Antecedent System

(CY\$M) Base Year: 2018							
System	Unit-Level Manpower	Unit Operations	Maintenance	Sustaining Support	Continuing System Improvements	Other	Total
VC-25B	37.7	6.8	27.0	33.8	16.6	12.1	134.0

(U) Operating and Support Cost Estimate Assumptions

System	Quantity to Sustain	Unit Expected Service Life (Years)	Unit of Measure	Fiscal Years Operational
VC-25B	2	30.0	Aircraft	2026 - 2056

Additional O&S Estimate Assumptions

Antecedent Estimate Assumptions

None

O&S Annual Cost Calculation Memo

None

(U) Technologies and Systems Engineering**(U) Current Significant Technical Risks and Risks Identified at Milestones/Decisions**

Event	Date	Description
Current	12/31/2023	Title: VC-25B Comprehensive Stringer Visual Repairs Risk: 28 door surround stringers have confirmed cracks and six stringers with suspect cracks at splice locations. This drove engineering to release a coordination sheet for additional visual re-inspections at specific stringer splice locations on previously repaired and unrepaired stringers. Total number of inspections across both aircraft is 1592 splice locations (796 per airplane). Mitigation: Quality Assurance (QA) to perform detailed visual inspections (DVI) at all locations and DCMA to be notified for witness. QA to document suspected cracks and other non-conformances found during DVI and Engineering to disposition NCRs for Non-destructive Inspection (NDI) for suspect cracks; NDI to confirm cracks at all suspected locations and the NCR will be resubmitted to engineering for repair next steps
Current	12/31/2023	Title: Aircraft Mass Optimization Risk: GTI has identified several significant weight increases in the interiors design. Taken together, they threaten the program's ability to meet the 180 minute contingency endurance KPP, range KPP, ability to certify the aircraft for an altitude of 40,100 ft., and the Maximum Mission Zero Fuel Weight. Taken separately, these increases would use up most of the remaining weight margin at the aircraft level, thus leaving little margin for future discoveries. These are primarily in the areas of: Fwd and Aft galleys; Aerocon Acoustic Treatments (blankets, carpet pads & monuments). Mitigation: Overall aircraft-level mitigation efforts will include prioritizing released engineering weight calculations, Lower Lobe design engagement, Lower Lobe acoustic blanket designs, and weighing aircraft wiring when available.
Current	12/31/2023	Title: Airplane Level Decompression Impacts Risk: Decompression testing in 12/21 discovered assumptions on ceiling panel opening times were too low in the decompression model. The increased opening times drove increased decompression pressures at an airplane level. Decompression Study 70 provided a set of design-to pressures for the program and changes are being developed to accommodate the increased pressures. Further increases in pressures would drive additional engineering analysis and may further impact the aircraft build. Mitigation: Stress to complete negative margin (NM) assessment to determine which NMs can be scrubbed and which require a redesign. 1.0-Study 75 Decompression pressures assessed and released. Make required modifications.
Current	12/31/2023	Title: Monuments/Airframe Negative Margins Risk: GTI has identified risks with both Monument and Interface stress exceedances due to decompression and 9G load requirements. There is a need to evaluate the interface points between the monuments and airframe to establish and mitigate design and build risk. Changes being driven by Electrical Design Integration baseline finalization, blankets ready, and decompression. Mitigation: Tiger Team has been established to evaluate the maturity of the interface loads and capability of the airframe structure to evaluate margins and determine if design changes are required.
Current	12/31/2023	Title: Very Important Person (VIP) Interior Certification Execution Risk: Successful execution of VIP Interior certification activities relies upon

		<p>coordinated design reviews, showing of compliance agreements, review and approval of the VIP Interior design, data and specifications between both GTI and Boeing engineering along with rostering NAT engineering unit members to the Boeing Organization Designation Authorization to support finding of compliance.</p> <p>Mitigation: Initial process for developing showing of compliance for Materials & Specifications and Flammability developed via workshop in December 2022. Process details to be approved by both companies via coordination sheet. Draft coordination sheet developed and in review. Second workshop in January 2023 at GTI to review process and actions as well as work through similar process for structures, electrical and mechanical systems. Also need to complete work on process and plan for cabin safety compliance and qual.</p>
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(U) Performing Activities and Contracts

(U) External Government Activities

None

(U) Contracts and Efforts

Contract Title	Contract Number / Effort	Contractor	Phase
VC-25B EMD	FA8625-16-C-6599	Boeing: Defense, Space and Security	Development

(U) Contract and Effort Identification, Price, Quantity and Performance

Contract Number: FA8625-16-C-6599 **Order Number:** -
Contract Title: VC-25B EMD **Strategy:** -
CAGE: -- Boeing: Defense, Space and Security **Contracting Office:** AFLCMC/WVB - VC-25B Division
City, State/Province: Seattle, WA

Effort Number: - **Supported Phase:** Development
Type: Multiple Types **Award Date:** January 29, 2016
Latest Modification Date: - **Definitization Date:** June 30, 2019
Latest Modification No.: PX0119 **Work Start Date:** January 4, 2016
Technical Data Rights: -

Notes: This is a combination contract: FFP - 93% and CPFF - 7%. The EVM Reporting for this contract is handled within the FA8625-16-C-6599 CLIN 48 which does not meet the CSDR reporting requirement for the MSAR.

Target Price Change Explanation

The difference between the Initial Target Price and Current Target Price is the award of the CPFF type contract with the Boeing Company for Phase 1 Pre-Milestone B activities. Awarded a CPAF type contract with the Boeing Company for Preliminary Design but then was converted to an FFP type contract.

Initial Price (TY\$M) Target / Ceiling	Current Price (TY\$M) Target / Ceiling	Estimate at Completion (TY\$M) Contractor / PM	Initial Quantity	Current Quantity	Delivered Quantity
25.8 -	4,230.7 -	- 4,877.9	2	2	-

(U) Deliveries and Expenditures

(U) Acquisition Funding

	Total Estimate	Actual to Date	Actual, Percent Complete
Years Appropriated	-	-	-
Appropriations (TY, \$M)	5,729.6	5,729.6	100.0%
Expenditures (TY, \$M)	5,729.6	2,959.8	51.7%

(U) End Items Delivered

	Total Required	Planned to Date	Actual to Date	Actual, Percent Complete
Development	2			
Total	2	-	-	-

Notes

None

(U) International Program Aspects**General Memo**

Not Applicable

Exportability and Business Issues

Not Applicable

Is design for international exportability planned?	No	Industry/Partner Exportability Cost-Sharing?	No
If not, has the MDA approved an exportability waiver for a U.S.-only design?	Not Applicable		

Program Protection: Technology Security and Foreign Disclosure Issues

Not Applicable

(U) Agreements

No International Agreements have been defined for VC-25B



UNCLASSIFIED

**Modernized
Selected Acquisition Report
Supplement**

**VC-25B
(VC-25B)**

FY 2025 President's Budget
As of: December 31, 2023

UNCLASSIFIED

MSAR Supplement Sections

Program Description

Program Use of the Adaptive Acquisition Framework

Technologies and Systems Engineering

Funding Sources (Acquisition)

Funding Sources (Operating and Support)

Acquisition Estimate and Quantity Summary

Annual Acquisition Estimates by Appropriation Account

Acquired System Annual End-Item Quantities by Appropriation Account

Nuclear Costs

Operational Fielding Plan

O&S Independent Cost Estimate

Annual Operating and Support Estimates by Cost Element

Program Description

Full Name

VC-25B

Short Name

VC-25B

PNO

425

Lead Component

Air Force

AAF Pathway

MCA

Acquisition Type

MDAP

Acquired Systems

VC-25B

Related Programs

Full Name	PNO	Pathway	Type	ACAT/ BCAT	Acquisition Status	Costs in SAR?	
						Acq	O&S

Program Use of the Adaptive Acquisition Framework

This acquisition is accomplished by a single program in the Major Capability Acquisition Pathway.

Technologies and Systems Engineering

VC-25B

Major Software Efforts

Title	Status	Fielding Date	Description

Major Engineering Changes

Title	Original Need Date	Fielding Date	Description, Rationale and Program Impacts

Funding Sources (Acquisition)**Acquisition Funding Notes**

MILCON and Acq O&M funding is included in the APB but not direct administered at the Program Office level and at this time those budget lines are sunk.

VC-25B

Category	Account	BA	Line Item	Program Element	RDT&E Project	Shared	Sunk
RDT&E	3600F	07	0401314F - Operational Support Airlift	0401314F	675355 - President Aircraft Recapitalization		x
RDT&E	3600F	05	0401319F - VC-25B	0401319F	655250 - Presidential Aircraft Recap (PAR)		
Procurement	3080F	03	837240 - CCTV/Audiovisual Equipment	0401319F	-		
Procurement	3080F	03	837300 - Base Comm Infrastructure	0401319F	-		
Procurement	3080F	04	843050 - Mechanized Material Handling Equip	0401319F	-		

Funding Sources (Operating and Support)

Note: Budget lines fund activities executed by the Program Office or Sustainment Office.

Operating and Support Funding Notes

Program is still in development and has no O&S accounting lines defined.

VC-25B

Category	Account	BA	Line Item	Program Element	RDT&E Project	Shared	Sunk
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Acquisition Estimate and Quantity Summary**VC-25B****Acquisition Estimates**

Category	PB 2025	TY (\$M)	Current Base Year	Original Base Year	Report Fiscal Year
			CY2018 (\$M)	CY2018 (\$M)	CY2024 (\$M)
RDT&E		5,281.0	4,719.4	4,719.4	5,761.8
Procurement		21.5	20.2	20.2	24.7
MILCON		424.6	389.0	389.0	474.9
O&M		2.6	2.3	2.3	2.8
Total Acquisition		5,729.6	5,130.9	5,130.9	6,264.1
PAUC		2,864.810	2,565.466	2,565.466	3,132.054
APUC		n/a	n/a	n/a	n/a

Acquisition End-Item Quantities

System	PB 2025	Development	Procurement
VC-25B		2	-
Total		2	-

Unit Description

VC-25B unit of measure is an aircraft. The VC-25B Program will acquire and modify two Boeing 747-8 aircraft to enable the President to execute the duties of Head of State, Chief Executive, and Commander in Chief.

Current and Future Years Defense Program Summary, TY(\$M)

Appropriation	Prior	2024	2025	2026	2027	2028	2029	To Complete	Total
RDT&E	3,705.2	133.0	433.9	425.8	453.4	94.0	35.6	-	5,281.0
Procurement	21.5	-	-	-	-	-	-	-	21.5
MILCON	424.6	-	-	-	-	-	-	-	424.6
O&M	2.6	-	-	-	-	-	-	-	2.6
PB 2025 Total	4,153.9	133.0	433.9	425.8	453.4	94.0	35.6	-	5,729.6

Annual Acquisition Estimates by Appropriation Account

(Aligned to Budget Position: PB 2025)

VC-25B

Source for TY\$-CY\$ Conversion: SAF/FMCE Raw and Weighted Inflation Indices for DAF Accounts: 23 Feb 2024

3600F - Research, Development, Test & Eval, AF					
fiscal year		Other/ Unallocated	Total TY(\$M)	Weighted Rate	Total CY2018 (\$M)
Total		5,281.0	5,281.0	-	4,719.4
2010		4.730	4.7	0.888892	5.3
2011		4.530	4.5	0.905693	5.0
2012		3.990	4.0	0.921474	4.3
2013		7.640	7.6	0.937047	8.2
2014		6.400	6.4	0.950111	6.7
2015		11.010	11.0	0.959655	11.5
2016		277.420	277.4	0.974330	284.7
2017		310.694	310.7	0.994718	312.3
2018		427.200	427.2	1.015629	420.6
2019		753.390	753.4	1.034511	728.3
2020		730.200	730.2	1.061118	688.1
2021		718.200	718.2	1.110972	646.5
2022		397.796	397.8	1.170571	339.8
2023		52.043	52.0	1.212176	42.9
2024		133.001	133.0	1.243051	107.0
2025		433.943	433.9	1.269728	341.8
2026		425.800	425.8	1.296392	328.5
2027		453.400	453.4	1.323616	342.5
2028		94.000	94.0	1.351412	69.6
2029		35.600	35.6	1.379792	25.8

Annual Acquisition Estimates by Appropriation Account

(Aligned to Budget Position: PB 2025)

VC-25B

Source for TY\$-CY\$ Conversion: SAF/FMCE Raw and Weighted Inflation Indices for DAF Accounts: 23 Feb 2024

3080F - Other Procurement, Air Force									
fiscal year	End Item Recurring Flyaway	Non-End Item Recurring Flyaway	Non-Recurring Flyaway	Initial Spares	Depot Activation	Other/ Unallocated	Total TY(\$M)	Weighted Rate	Total CY2018 (\$M)
Total	-	-	-	-	-	21.5	21.5	-	20.2
2010							-	0.888778	-
2011							-	0.905396	-
2012							-	0.921818	-
2013							-	0.935403	-
2014							-	0.947932	-
2015							-	0.959515	-
2016							-	0.973583	-
2017							-	0.992303	-
2018							-	1.014256	-
2019						12.710	12.7	1.034486	12.3
2020						4.010	4.0	1.054144	3.8
2021						0.482	0.5	1.094024	0.4
2022						2.617	2.6	1.159605	2.3
2023						1.698	1.7	1.205811	1.4

Annual Acquisition Estimates by Appropriation Account

(Aligned to Budget Position: PB 2025)

VC-25B

Source for TY\$-CY\$ Conversion: SAF/FMCE Raw and Weighted Inflation Indices for DAF Accounts: 23 Feb 2024

3300F - Military Construction, Air Force					
fiscal year		Other/ Unallocated	Total TY(\$M)	Weighted Rate	Total CY2018 (\$M)
Total		424.6	424.6	-	389.0
2010			-	0.904278	-
2011			-	0.922904	-
2012			-	0.939501	-
2013			-	0.961626	-
2014			-	0.976425	-
2015			-	0.994505	-
2016		0.186	0.2	1.016323	0.2
2017		29.103	29.1	1.039949	28.0
2018		143.104	143.1	1.064927	134.4
2019		166.416	166.4	1.097757	151.6
2020		85.745	85.7	1.145621	74.8

Annual Acquisition Estimates by Appropriation Account

(Aligned to Budget Position: PB 2025)

VC-25B

Source for TY\$-CY\$ Conversion: SAF/FMCE Raw and Weighted Inflation Indices for DAF Accounts: 23 Feb 2024

3400F - Operation & Maintenance, Air Force					
fiscal year		Other/ Unallocated	Total TY(\$M)	Weighted Rate	Total CY2018 (\$M)
Total		2.6	2.6	-	2.3
2010			-	0.892363	-
2011			-	0.908211	-
2012			-	0.922083	-
2013			-	0.941372	-
2014			-	0.947514	-
2015			-	0.960952	-
2016			-	0.975211	-
2017			-	0.995573	-
2018			-	1.018116	-
2019			-	1.036364	-
2020			-	1.067260	-
2021		2.562	2.6	1.115713	2.3

Acquired System Annual End-Item Quantities by Appropriation Account

(Aligned to Budget Position: PB 2025)

VC-25B

3600F - Research, Development, Test & Eval, AF				
fiscal year	VC-25B			Total
Total	2			2
Undistributed	2			2

Nuclear Costs

VC-25B

Program's Use of Department of Energy Resources

None

Operational Fielding Plan

VC-25B

System: VC-25B

Fielding and Inventory Notes

Operational Fielding Plan represents Initial Operational Capability and Full Operational Capability in FY 2027.

VC-25B Fielding Plan and Inventory

fiscal year	Store	Field	Expend/Loss	Decommission	Inventory
2023					-
2024					-
2025					-
2026					-
2027		2			2
2028					2
2029	-	-	-	-	2

O&S Independent Cost Estimate

VC-25B

Independent and Current Cost Estimate Comparison

Category	CY2018 (\$M)	Independent Cost Estimate 11/30/2018	Current Estimate 5/22/2023	Variance with ICE (%)
Unit-Level Manpower		1,489.0	2,264.1	52%
Unit Operations		388.0	407.2	5%
Maintenance		3,357.0	1,621.7	-52%
Sustaining Support		570.0	2,025.9	255%
Continued System Improvements		978.0	1,031.1	5%
Other		651.0	724.4	11%
Total O&S		7,433.0	8,074.4	9%

Independent Cost Estimate Source

Event: Milestone B
 Type: Independent Cost Estimate
 Approved by: OSD Cost Assessment & Program Evaluation, November 30, 2018

Current Cost Estimate Source

Type: Program Office Estimate
 Approved by: AFLCMC Cost Staff, May 22, 2023

Cost Estimate Variance Explanation

The variance between the FY 2018 Milestone B ICE and the FY 2023 POE is primarily driven by the 5% year-over-year Military Pay escalation rate change; adjustments to future POE will accommodate a 2% year-over-year Military Pay escalation rate change.

Annual Operating and Support Estimates by Cost Element

VC-25B

System: VC-25B

Source for TY-CY Conversion: USAF Raw Inflation Indices, FY2018, 2023 Release

Operating and Support Cost Elements							
fiscal year	1.0 Unit-Level Manpower	2.0 Unit Operations	3.0 Maintenance	4.0 Sustaining Support	5.0 Continuing System Improvements	Other	Total CY2018 (\$M)
Total	2,264.1	407.2	1,621.7	2,025.9	1,031.1	724.4	8,074.4
2026	-	-	-	-	42.426	-	42.4
2027	32.154	8.317	81.108	31.948	52.125	13.917	219.6
2028	51.457	13.166	93.216	66.677	95.665	21.890	342.1
2029	52.847	13.207	28.578	66.814	64.474	22.033	248.0
2030	54.277	13.248	29.497	66.952	53.089	22.179	239.2
2031	55.748	13.289	20.143	67.091	13.545	22.329	192.1
2032	57.260	13.330	39.574	67.232	20.683	22.484	220.6
2033	58.815	13.371	40.624	67.373	12.530	22.643	215.4
2034	60.414	13.413	22.949	67.516	44.919	22.806	232.0
2035	62.059	13.454	34.675	67.660	35.292	22.974	236.1
2036	63.751	13.496	35.841	67.805	27.119	23.147	231.2
2037	65.490	13.538	26.146	67.951	1.241	23.325	197.7
2038	67.279	13.580	88.773	68.099	81.063	23.508	342.3
2039	69.119	13.623	90.827	68.248	72.931	23.696	338.4
2040	71.011	13.665	29.788	68.398	105.820	23.889	312.6
2041	72.957	13.708	42.425	68.550	48.586	24.088	270.3
2042	74.958	13.750	43.910	68.703	40.341	24.293	266.0
2043	77.015	13.793	33.937	68.858	1.256	24.503	219.4
2044	79.132	13.837	55.389	69.014	21.175	24.720	263.3
2045	81.308	13.880	57.084	69.172	12.827	24.942	259.2
2046	83.546	13.923	38.665	69.332	45.986	25.171	276.6
2047	85.848	13.967	52.318	69.493	36.131	25.406	283.2
2048	88.215	14.011	54.218	69.655	27.763	25.648	279.5
2049	90.650	14.055	44.053	69.820	1.270	25.897	245.7
2050	93.153	14.099	117.766	69.986	21.425	26.153	342.6
2051	95.728	14.143	120.688	70.154	12.979	26.416	340.1
2052	98.376	14.187	50.191	70.324	1.278	26.687	261.0
2053	101.099	14.232	64.989	70.496	21.551	26.965	299.3
2054	103.899	14.277	67.426	70.669	13.055	27.251	296.6
2055	106.779	14.322	57.184	70.845	1.285	27.546	278.0
2056	109.741	14.367	59.726	71.023	1.288	27.849	284.0