Selected Acquisition Report (SAR)

RCS: DD-A&T(Q&A)823-425

VC-25B

As of FY 2020 President's Budget

Defense Acquisition Management
Information Retrieval
(DAMIR)

This document contains information that may be exempt from mandatory disclosure under the FOIA.

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Common Acronyms and Abbreviations for MDAP Programs

Acq O&M - Acquisition-Related Operations and Maintenance
ACAT - Acquisition Category
ADM - Acquisition Decision Memorandum
APB - Acquisition Program Baseline
APPN - Appropriation
APUC - Average Procurement Unit Cost
$B - Billions of Dollars
BA - Budget Authority/Budget Activity
Blk - Block
BY - Base Year
CAPE - Cost Assessment and Program Evaluation
CARD - Cost Analysis Requirements Description
CDD - Capability Development Document
CLIN - Contract Line Item Number
CPD - Capability Production Document
CY - Calendar Year
DAB - Defense Acquisition Board
DAE - Defense Acquisition Executive
DAMIR - Defense Acquisition Management Information Retrieval
DoD - Department of Defense
DSN - Defense Switched Network
EMD - Engineering and Manufacturing Development
EVM - Earned Value Management
FOC - Full Operational Capability
FMS - Foreign Military Sales
FRP - Full Rate Production
FY - Fiscal Year
FYDP - Future Years Defense Program
ICE - Independent Cost Estimate
IOC - Initial Operational Capability
Inc - Increment
JROC - Joint Requirements Oversight Council
$K - Thousands of Dollars
KPP - Key Performance Parameter
LRIP - Low Rate Initial Production
$M - Millions of Dollars
MDA - Milestone Decision Authority
MDAP - Major Defense Acquisition Program
MILCON - Military Construction
N/A - Not Applicable
O&M - Operations and Maintenance
ORD - Operational Requirements Document
OSD - Office of the Secretary of Defense
O&S - Operating and Support
PAUC - Program Acquisition Unit Cost
PB - President's Budget
PE - Program Element
PEO - Program Executive Officer

PM - Program Manager
POE - Program Office Estimate
RDT&E - Research, Development, Test, and Evaluation
SAR - Selected Acquisition Report
SCP - Service Cost Position
TBD - To Be Determined
TY - Then Year
UCR - Unit Cost Reporting
U.S. - United States
USD(AT&L) - Under Secretary of Defense (Acquisition, Technology and Logistics)
USD(A&S) - Under Secretary of Defense (Acquisition and Sustainment)

Program Information

Program Name
VC-25B (VC-25B)

DoD Component
Air Force

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Date Assigned: December 3, 2018

References

SAR Baseline (Development Estimate)

Defense Acquisition Executive (DAE) Approved Acquisition Program Baseline (APB) dated December 03, 2018

Approved APB

Defense Acquisition Executive (DAE) Approved Acquisition Program Baseline (APB) dated December 3, 2018

Mission and Description

The VC-25B Program will replace the United States Air Force 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 two new aircraft to meet the requirements for the President to execute the three roles of Head of State, Chief Executive, and Commander-in-Chief. The Boeing 747-8 aircraft will be uniquely modified to provide the President, staff, and guests with safe and reliable air transportation with an 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, dual auxiliary power units that are usable in flight, a mission communication system, an executive interior, military avionics, a self-defense system, autonomous enplaning and deplaning, and autonomous baggage loading. In addition to the aircraft modifications, this effort will involve VC-25B aircraft design, modification, integration, test, evaluation, and certification; pre-operational support; design and delivery of key end-user items, such as test benches and ground support equipment; aircraft paint; and final aircraft delivery preparations.

Executive Summary

Program Highlights Since Last Report

This is the initial SAR submission for the VC-25B program.

On December 3, 2018, the VC-25B Program successfully completed an In-Progress Review with USD(A&S), receiving approval of the VC-25B APB and updated acquisition strategy. Additionally, on November 30, 2018, the Air Force signed a full-funding endorsement for the program, and the Director, Operational Test and Evaluation approved the VC-25B Test & Evaluation Master Plan. On October 15-19, 2018, the Program Office conducted the System Preliminary Design Review, and on December 13, 2018, formally closed the review. Critical Design Review is on track for fall 2019 to support aircraft modification start in early 2020.

The program has been fully funded to the SCP in the FY 2020 PB. There is a shortfall of $141M in RDT&E for FY 2019; the department is actively working to address this shortfall.

The Program Office awarded an Undefinitized Contract Action (UCA) to Boeing on July 17, 2018 for the EMD contract effort to design, modify, test, and deliver two VC-25B aircraft. The UCA formalized the February 20, 2018 agreement between the President of the United States and the Boeing Chief Executive Officer, for a firm-fixed price contract value of $3.90B, resulting in over $1.4B in savings from Boeing's respective estimates. Boeing submitted their proposal on August 17, 2018 and technical evaluation of the proposal is well underway. Definitization is anticipated by the end of 3rd Quarter CY 2019.

In September 2016, in conjunction with the Milestone B decision, certification of the VC-25B program (formerly the Presidential Aircraft Recapitalization program) was made pursuant to section 2366b of Title 10, United States Code. However, the MDA waived six of the 2366b provisions. In December 2018, the program satisfied four of the six waived provisions -- (a)(1), (a)(3)(A), (a)(3)(B) and (a)(3)(D) - by updating the SCP, approving the APB, fully funding the program in the FYDP reflected in FY 2020 PB, and completing the Preliminary Design Review. The program satisfied the remaining two waived provisions - (a)(2) and (a)(3)(M) – by obtaining approval of the Technology Readiness Assessment and the component's certification of trade-offs. This SAR serves as formal notification that there are no remaining outstanding items for this program's 2366b certification.

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

History of Significant Developments Since Program Initiation

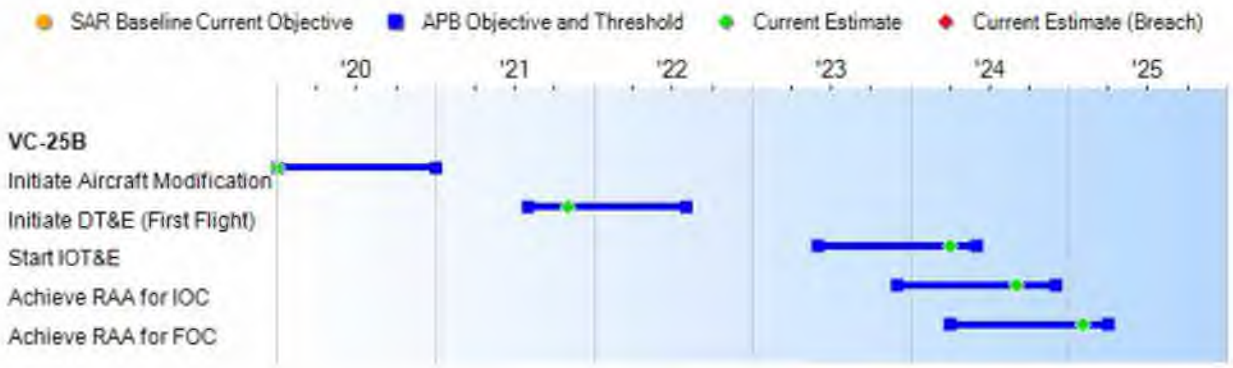
History of Significant Developments Since Program Initiation	
Date	**Significant Development Description**
January 2016	Pre-Milestone B Risk Reduction Studies
August 2017	Purchase of two commercial 747-8 inventory aircraft
September 2017	Preliminary Design Contract Modification
July 2018	EMD Undefinitized Contract Action
November 2018	VC-25B Test Evaluation and Master Plan
December 2018	APB approved on December 3, 2018
December 2018	System Preliminary Design Review Closure

Threshold Breaches

APB Breaches		
Schedule		☐
Performance		☐
Cost	RDT&E	☐
	Procurement	☐
	MILCON	☐
	Acq O&M	☐
O&S Cost		☐
Unit Cost	PAUC	☐
	APUC	☐

Nunn-McCurdy Breaches		
Current UCR Baseline		
	PAUC	None
	APUC	None
Original UCR Baseline		
	PAUC	None
	APUC	None

Schedule



Schedule Events				
Events	**SAR Baseline Development Estimate**	**Current APB Development Objective/Threshold**		**Current Estimate**
Initiate Aircraft Modification	Jan 2020	Jan 2020	Jan 2021	Jan 2020
Initiate DT&E (First Flight)	Aug 2021	Aug 2021	Aug 2022	Nov 2021
Start IOT&E	Jun 2023	Jun 2023	Jun 2024	Apr 2024
Achieve RAA for IOC	Dec 2023	Dec 2023	Dec 2024	Sep 2024
Achieve RAA for FOC	Apr 2024	Apr 2024	Apr 2025	Feb 2025

Change Explanations

None

Notes

1/ The aircraft modification begins after the system design is determined stable by completing CDR and Modification Readiness Review. This milestone signifies the contractual requirements have been achieved to initiate aircraft modification.

2/ The primary purpose of DT&E is to verify the system's design meets all technical specifications and contract requirements have been met. DT&E is sponsored by the Program Office and can be conducted by the Government, by the contractor, or by a mix of both. DT&E employs integrated testing methodologies to the maximum extent possible. Integrated testing is the collaborative planning and execution of test phases and events to provide shared data in support of independent analysis, evaluation, and reporting by all stakeholders.

3/ Operational test is the field test, under realistic operational conditions, of any item (or key component) of the air vehicle, equipment, or support equipment for the purpose of determining the effectiveness and suitability of the system for use by the PAG and the evaluation of the results of such test. IOT&E entrance criteria are as defined in the VC-25B Test and Evaluation Master Plan.

4/ RAA for IOC is defined as the delivery, inspection, and acceptance of one fully PMR VC-25B to the PAG, at Joint Base Andrews, to enable IOC, as defined in the CDD. This mission-ready asset will have the full complement of initial product support elements, including logistics, initial spares, peculiar support equipment, Mission Communication System and Flight Deck test benches, Technical Orders, maintenance systems, and initial aircrew/maintenance training in place to ensure the VC-25B aircraft delivery is fully supportable.

5/ RAA for FOC is defined as the delivery, inspection, and acceptance of the second fully PMR VC-25B to the PAG, at Joint Base Andrews, to enable FOC, as defined in the CDD. FOC is the demonstrated capability to fully provide world-wide transportation to conduct Presidential duties as Commander-in-Chief, Chief Executive, and Head of State. FOC will be achieved once two VC-25B aircraft are fielded, all required manpower is trained and in place, logistics and maintenance systems are mission ready, and facilities exist to house the VC-25B system.

6/ Objective dates are set as a VC-25B program challenge to achieve White House Military Office-desired dates for accelerated delivery of PMR VC-25B aircraft. Trade studies are underway to accelerate the program with the intent of achieving or outperforming the objective dates for IOC and FOC. The program threshold dates align to the congressionally-mandated retirement of VC-25A aircraft by December 31, 2025, while allowing time to complete the transition.

Acronyms and Abbreviations

CDR - Critical Design Review
DT&E - Developmental Test & Evaluation
IOT&E - Initial Operational Test & Evaluation
PAG - Presidential Airlift Group
PMR - Presidential Mission Ready
RAA - Required Assets Available

[redacted]

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[redacted]

[redacted]

[redacted]

[redacted]

[redacted]

[redacted]

[redacted]

[redacted]

(b)(3) 10 USC § 130

Requirements Reference

CDD dated March 24, 2017

Change Explanations

None

Notes

1/ In coordination with Joint Staff J-4/Engineering Division, the mandatory Energy KPP is not applicable for VC-25B. VC-25B is not a combat aircraft nor is it a system where the provision of energy to the system impacts operational reach, or requires protection of energy infrastructure or energy resources in the logistics supply chain. VC-25B does not directly affect the burden on the force to provide and protect critical energy supplies and does not rely upon other military activities or units for sustainment. While it is important to optimize fuel demand in capability solutions, fuel efficiencies are an inherent part of aircraft manufacturers' processes and maximized to meet other performance requirements (e.g., range, performance).

Acronyms and Abbreviations

Am - Materiel Availability
APU - Auxiliary Power Unit
BLOS - Beyond Line of Sight
C2 - Command and Control
CJCSI - Chairman of the Joint Chiefs of Staff Instruction
CSO - Communication System Operator
EA/C2 - Emergency Actions/Command and Control
FMC - Fully Mission Capable
JBA - Joint Base Andrews
LOS - Line of Sight
Mbps - Megabits per Second
MC - Mission Capable
MCS - Mission Communication System
min - minute(s)
NB - narrowband
nm - Nautical Miles
NSA - National Security Agency
O - Objective
ORE - Operational Resource Exchange
PMC - Partially Mission Capable
SBU - Sensitive But Unclassified
sec - second(s)
T - Threshold
TS/SCI - Top Secret/Sensitive Compartmented Information
WB - wideband

Track to Budget

RDT&E

Appn	BA	PE
Air Force 3600	05	0401319F

Project	Name
655250	VC-25B

Procurement

Appn	BA	PE
Air Force 3080	03	0401319F

Line Item	Name
837240	CCTV/Audiovisual Equipment
837300	Base Comm Infrastructure

Appn	BA	PE
Air Force 3080	04	0401319F

Line Item	Name	
843050	Mechanized Material Handling Equipment	(Sunk)

MILCON

Appn	BA	PE
Air Force 3300	01	0401319F

Project	Name
163002	PAR Relocate Haz Cargo Pad and EOD Range
173021	Presidential Aircraft Recap Complex
AJ5003	Operational and Training Facilities

Acq O&M

Appn	BA	PE
Air Force 3400	02	0401319F

Subactivity Group	Name
21A	Presidential Aircraft Recapitalization

Cost and Funding

Cost Summary

Total Acquisition Cost							
Appropriation	BY 2018 $M			BY 2018 $M	TY $M		
	SAR Baseline Development Estimate	Current APB Development Objective/Threshold		Current Estimate	SAR Baseline Development Estimate	Current APB Development Objective	Current Estimate
RDT&E	4557.5	4557.5	5013.3	4433.3	4819.6	4819.6	4702.7
Procurement	51.0	51.0	56.1	50.9	52.9	52.9	52.9
Flyaway	--	--	--	0.0	--	--	0.0
Recurring	--	--	--	0.0	--	--	0.0
Non Recurring	--	--	--	0.0	--	--	0.0
Support	--	--	--	50.9	--	--	52.9
Other Support	--	--	--	50.9	--	--	52.9
Initial Spares	--	--	--	0.0	--	--	0.0
MILCON	403.6	403.6	444.0	395.7	429.3	429.3	422.6
Acq O&M	1.9	1.9	2.1	1.9	2.0	2.0	2.0
Total	5014.0	5014.0	N/A	4881.8	5303.8	5303.8	5180.2

Current APB Cost Estimate Reference

Service Cost Position dated November 27, 2018

Cost Notes

The original FY 2019 budget request was submitted and subsequently approved by Congress prior to the milestone decision. As a result, the FY 2020 PB does not reflect a pending Small Business Innovation Research reduction of $23.599M for RDT&E. Additionally, the program has an RDT&E shortfall in FY 2019; the department is actively working to address this shortfall.

If an Independent Cost Estimate, Component Cost Estimate, or Program Office Estimate has been completed for the program in the previous year, list any program risks identified in the estimates, the potential impacts of the risks on program cost, and approaches to mitigate the risks.

The Air Force Service Cost Position, in support of the December 3, 2018 In-Progress Review, included schedule risk associated with Government analysis of the Boeing provided flight test schedule.

Total Quantity			
Quantity	SAR Baseline Development Estimate	Current APB Development	Current Estimate
RDT&E	2	2	2
Procurement	0	0	0
Total	2	2	2

Cost and Funding

Funding Summary

Appropriation Summary									
FY 2020 President's Budget / December 2018 SAR (TY$ M)									
Appropriation	Prior	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	To Complete	Total
RDT&E	1045.3	657.9	757.9	718.3	585.5	514.5	354.7	68.6	4702.7
Procurement	0.0	44.1	4.0	0.5	2.6	1.7	0.0	0.0	52.9
MILCON	170.5	166.1	86.0	0.0	0.0	0.0	0.0	0.0	422.6
Acq O&M	0.0	0.0	0.0	2.0	0.0	0.0	0.0	0.0	2.0
PB 2020 Total	1215.8	868.1	847.9	720.8	588.1	516.2	354.7	68.6	5180.2
	--	--	--	--	--	--	--	--	--

Quantity Summary										
FY 2020 President's Budget / December 2018 SAR (TY$ M)										
Quantity	Undistributed	Prior	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	To Complete	Total
Development	2	0	0	0	0	0	0	0	0	2
Production	0	0	0	0	0	0	0	0	0	0
PB 2020 Total	2	0	0	0	0	0	0	0	0	2
	--	--	--	--	--	--	--	--	--	--

Cost and Funding

Annual Funding By Appropriation

Annual Funding 3600 | RDT&E | Research, Development, Test, and Evaluation, Air Force							
Fiscal Year	Quantity	TY $M					
		End Item Recurring Flyaway	Non End Item Recurring Flyaway	Non Recurring Flyaway	Total Flyaway	Total Support	Total Program
2010	--	--	--	--	--	--	4.7
2011	--	--	--	--	--	--	4.5
2012	--	--	--	--	--	--	4.0
2013	--	--	--	--	--	--	7.6
2014	--	--	--	--	--	--	6.4
2015	--	--	--	--	--	--	11.0
2016	--	--	--	--	--	--	277.4
2017	--	--	--	--	--	--	311.2
2018	--	--	--	--	--	--	418.5
2019	--	--	--	--	--	--	657.9
2020	--	--	--	--	--	--	757.9
2021	--	--	--	--	--	--	718.3
2022	--	--	--	--	--	--	585.5
2023	--	--	--	--	--	--	514.5
2024	--	--	--	--	--	--	354.7
2025	--	--	--	--	--	--	68.6
Subtotal	2	--	--	--	--	--	4702.7

Annual Funding 3600 | RDT&E | Research, Development, Test, and Evaluation, Air Force							
Fiscal Year	Quantity	BY 2018 $M					
		End Item Recurring Flyaway	Non End Item Recurring Flyaway	Non Recurring Flyaway	Total Flyaway	Total Support	Total Program
2010	--	--	--	--	--	--	5.3
2011	--	--	--	--	--	--	5.0
2012	--	--	--	--	--	--	4.3
2013	--	--	--	--	--	--	8.1
2014	--	--	--	--	--	--	6.7
2015	--	--	--	--	--	--	11.5
2016	--	--	--	--	--	--	284.8
2017	--	--	--	--	--	--	313.1
2018	--	--	--	--	--	--	412.4
2019	--	--	--	--	--	--	635.6
2020	--	--	--	--	--	--	717.9
2021	--	--	--	--	--	--	667.0
2022	--	--	--	--	--	--	533.1
2023	--	--	--	--	--	--	459.2
2024	--	--	--	--	--	--	310.4
2025	--	--	--	--	--	--	58.9
Subtotal	2	--	--	--	--	--	4433.3

Annual Funding 3080 | Procurement | Other Procurement, Air Force							
Fiscal Year	Quantity	TY $M					
		End Item Recurring Flyaway	Non End Item Recurring Flyaway	Non Recurring Flyaway	Total Flyaway	Total Support	Total Program
2019	--	--	--	--	--	44.1	44.1
2020	--	--	--	--	--	4.0	4.0
2021	--	--	--	--	--	0.5	0.5
2022	--	--	--	--	--	2.6	2.6
2023	--	--	--	--	--	1.7	1.7
Subtotal	--	--	--	--	--	52.9	52.9

Annual Funding 3080 | Procurement | Other Procurement, Air Force							
Fiscal Year	Quantity	BY 2018 $M					
		End Item Recurring Flyaway	Non End Item Recurring Flyaway	Non Recurring Flyaway	Total Flyaway	Total Support	Total Program
2019	--	--	--	--	--	42.7	42.7
2020	--	--	--	--	--	3.8	3.8
2021	--	--	--	--	--	0.5	0.5
2022	--	--	--	--	--	2.4	2.4
2023	--	--	--	--	--	1.5	1.5
Subtotal	--	--	--	--	--	50.9	50.9

Annual Funding 3300 | MILCON | Military Construction, Air Force	
Fiscal Year	TY $M Total Program
2016	0.2
2017	27.9
2018	142.4
2019	166.1
2020	86.0
Subtotal	422.6

Annual Funding 3300 | MILCON | Military Construction, Air Force	
Fiscal Year	**BY 2018 $M**
	Total Program
2016	0.2
2017	27.0
2018	135.3
2019	154.7
2020	78.5
Subtotal	395.7

Annual Funding 3400 | Acq O&M | Operation and Maintenance, Air Force	
Fiscal Year	**TY $M** **Total Program**
2021	2.0
Subtotal	2.0

Annual Funding 3400 | Acq O&M | Operation and Maintenance, Air Force	
Fiscal Year	**BY 2018 $M** **Total Program**
2021	1.9
Subtotal	1.9

Low Rate Initial Production

There is no LRIP for this program.

Foreign Military Sales

None

Nuclear Costs

None

Unit Cost

Current UCR Baseline and Current Estimate (Base-Year Dollars)			
Item	BY 2018 $M Current UCR Baseline (Dec 2018 APB)	BY 2018 $M Current Estimate (Dec 2018 SAR)	% Change
Program Acquisition Unit Cost			
Cost	5014.0	4881.8	
Quantity	2	2	
Unit Cost	2507.000	2440.900	-2.64
Average Procurement Unit Cost			
Cost	51.0	50.9	
Quantity	0	0	
Unit Cost	--	--	--

Original UCR Baseline and Current Estimate (Base-Year Dollars)			
Item	BY 2018 $M Original UCR Baseline (Dec 2018 APB)	BY 2018 $M Current Estimate (Dec 2018 SAR)	% Change
Program Acquisition Unit Cost			
Cost	5014.0	4881.8	
Quantity	2	2	
Unit Cost	2507.000	2440.900	-2.64
Average Procurement Unit Cost			
Cost	51.0	50.9	
Quantity	0	0	
Unit Cost	--	--	--

APB Unit Cost History					
Item	Date	BY 2018 $M		TY $M	
		PAUC	APUC	PAUC	APUC
Original APB	Dec 2018	2507.000	N/A	2651.900	N/A
APB as of January 2006	N/A	N/A	N/A	N/A	N/A
Revised Original APB	N/A	N/A	N/A	N/A	N/A
Prior APB	N/A	N/A	N/A	N/A	N/A
Current APB	Dec 2018	2507.000	N/A	2651.900	N/A
Prior Annual SAR	N/A	N/A	N/A	N/A	N/A
Current Estimate	Dec 2018	2440.900	N/A	2590.100	N/A

SAR Unit Cost History

Current SAR Baseline to Current Estimate (TY $M)									
PAUC Development Estimate	Changes								PAUC Current Estimate
	Econ	Qty	Sch	Eng	Est	Oth	Spt	Total	
2651.900	7.050	0.000	0.000	0.000	-68.800	0.000	-0.050	-61.800	2590.100

Current SAR Baseline to Current Estimate (TY $M)									
Initial APUC Development Estimate	Changes								APUC Current Estimate
	Econ	Qty	Sch	Eng	Est	Oth	Spt	Total	
0.000	--	--	--	--	--	--	--	--	0.000

An APUC Unit Cost History is not available, since no Initial APUC Estimate had been calculated due to a lack of defined quantities.

An APUC Unit Cost History is not applicable, because both VC-25B aircraft are RDT&E funded.

SAR Baseline History				
Item	SAR Planning Estimate	SAR Development Estimate	SAR Production Estimate	Current Estimate
Milestone A	N/A	N/A	N/A	N/A
Milestone B	N/A	N/A	N/A	N/A
Milestone C	N/A	N/A	N/A	N/A
IOC	N/A	Dec 2023	N/A	Sep 2024
Total Cost (TY $M)	N/A	5303.8	N/A	5180.2
Total Quantity	N/A	2	N/A	2
PAUC	N/A	2651.900	N/A	2590.100

Cost Variance

Summary TY $M				
Item	**RDT&E**	**Procurement**	**MILCON**	**Total**
SAR Baseline (Development Estimate)	4819.6	52.9	429.3	5303.8
Previous Changes				
Economic	--	--	--	--
Quantity	--	--	--	--
Schedule	--	--	--	--
Engineering	--	--	--	--
Estimating	--	--	--	--
Other	--	--	--	--
Support	--	--	--	--
Subtotal	--	--	--	--
Current Changes				
Economic	+12.3	+0.1	+1.7	+14.1
Quantity	--	--	--	--
Schedule	--	--	--	--
Engineering	--	--	--	--
Estimating	-129.2	--	-8.4	-137.6
Other	--	--	--	--
Support	--	-0.1	--	-0.1
Subtotal	-116.9	--	-6.7	-123.6
Total Changes	-116.9	--	-6.7	-123.6
CE - Cost Variance	4702.7	52.9	422.6	5180.2
CE - Cost & Funding	4702.7	52.9	422.6	5180.2

Summary BY 2018 $M				
Item	RDT&E	Procurement	MILCON	Total
SAR Baseline (Development Estimate)	4557.5	51.0	403.6	5014.0
Previous Changes				
Economic	--	--	--	--
Quantity	--	--	--	--
Schedule	--	--	--	--
Engineering	--	--	--	--
Estimating	--	--	--	--
Other	--	--	--	--
Support	--	--	--	--
Subtotal	--	--	--	--
Current Changes				
Economic	--	--	--	--
Quantity	--	--	--	--
Schedule	--	--	--	--
Engineering	--	--	--	--
Estimating	-124.2	--	-7.9	-132.1
Other	--	--	--	--
Support	--	-0.1	--	-0.1
Subtotal	-124.2	-0.1	-7.9	-132.2
Total Changes	-124.2	-0.1	-7.9	-132.2
CE - Cost Variance	4433.3	50.9	395.7	4881.8
CE - Cost & Funding	4433.3	50.9	395.7	4881.8

Initial SAR - Above variances (if any) reflect changes since the SAR Baseline/APB.

SAR Baseline Reference: Defense Acquisition Executive (DAE) Approved Acquisition Program Baseline (APB) dated December 03, 2018

RDT&E	$M	
Current Change Explanations	Base Year	Then Year
Revised escalation indices. (Economic)	N/A	+12.3
Adjustment for current and prior escalation. (Estimating)	-0.7	-0.8
The department is actively working to address this shortfall (Estimating)	-113.0	-116.9
Revised estimate to reflect application of new outyear inflation indices (Estimating)	-10.5	-11.5
RDT&E Subtotal	-124.2	-116.9

Procurement	$M	
Current Change Explanations	Base Year	Then Year
Revised escalation indices. (Economic)	N/A	+0.1
Adjustment for current and prior escalation. (Support)	-0.1	-0.1
Procurement Subtotal	-0.1	0.0

MILCON	$M	
Current Change Explanations	Base Year	Then Year
Revised escalation indices. (Economic)	N/A	+1.7
Adjustment for current and prior escalation. (Estimating)	-1.3	-1.4
Revised estimate to reflect application of new outyear inflation indices (Estimating)	-6.6	-7.0
MILCON Subtotal	-7.9	-6.7

Contracts

Contract Identification

Appropriation: RDT&E
Contract Name: VC-25B
Contractor: The Boeing Company
Contractor Location: 7755 E. Marginal Way S
Seattle, WA 98108-4002
Contract Number: FA8625-16-C-6599
Contract Type: Firm Fixed Price (FFP)
Award Date: January 04, 2016
Definitization Date:

Contract Price							
Initial Contract Price ($M)			Current Contract Price ($M)			Estimated Price At Completion ($M)	
Target	Ceiling	Qty	Target	Ceiling	Qty	Contractor	Program Manager
25.8	N/A	N/A	3900.0	N/A	N/A	3900.0	3900.0

Target Price Change Explanation

The difference between the Initial Contract Price Target and the Current Contract Price Target is due to scope increases associated with risk reduction studies, purchase of two 747-8 commercial aircraft, Preliminary Design, and Engineering & Manufacturing Development (currently undefinitized).

Cost and Schedule Variance Explanations

Cost and Schedule Variance reporting is not required on this (FFP) contract.

Notes

This is the first time this contract is being reported.

Deliveries and Expenditures

Deliveries				
Delivered to Date	**Planned to Date**	**Actual to Date**	**Total Quantity**	**Percent Delivered**
Development	0	0	2	0.00%
Production	0	0	0	--
Total Program Quantity Delivered	0	0	2	0.00%

Expended and Appropriated (TY $M)			
Total Acquisition Cost	5180.2	Years Appropriated	10
Expended to Date	0.0	Percent Years Appropriated	62.50%
Percent Expended	0.00%	Appropriated to Date	2083.9
Total Funding Years	16	Percent Appropriated	40.23%

The above data is current as of March 11, 2019.

Operating and Support Cost

Cost Estimate Details

Date of Estimate: December 03, 2018
Source of Estimate: SCP
Quantity to Sustain: 2
Unit of Measure: Aircraft
Service Life per Unit: 30.00 Years
Fiscal Years in Service: FY 2025 - FY 2054

Sustainment Strategy

The Product Support Strategy for VC-25B is organic organizational level (O-level) maintenance, and Contractor Logistics Support for depot maintenance in accordance with the Depot Source of Repair assignment.

- Primary Aerospace Vehicle Inventory (PAI): 2
- Operational Availability: Mission Capability Goal: 95.7%
- Materiel Availability Goal: 75%
- Mean Time Between Maintenance - Total: .27 hours
- Service Life: 30 years

Antecedent Information

- PAI: 2
- Operational Availability: Mission Capable Rate: 81%
- Materiel Availability Rate: 62%
- Mean Time Between Maintenance - Total: .17 hours
- Service Life: 35 years

Annual O&S Costs BY2018 $M		
Cost Element	**VC-25B Average Annual Cost Per Aircraft**	**VC-25A (Antecedent)**
Unit-Level Manpower	23.806	20.629
Unit Operations	6.358	6.224
Maintenance	27.332	38.464
Sustaining Support	41.931	28.554
Continuing System Improvements	16.683	18.609
Indirect Support	10.686	7.765
Other	--	--
Total	126.796	120.245

VC-25B assumes full funding of program requirements (unconstrained).

VC-25A costs are based on data from AF Total Ownership Cost database, and estimated for years not represented in the database. VC-25A flight hours were normalized to VC-25B requirement for analogous comparison.

Item	Total O&S Cost $M			
	VC-25B			VC-25A (Antecedent)
	Current Development APB Objective/Threshold		Current Estimate	
Base Year	7640.6	8404.7	7640.6	N/A
Then Year	12294.3	N/A	12294.3	N/A

Values reflect VC-25B SCP and APB estimate

Equation to Translate Annual Cost to Total Cost

The VC-25B O&S annual average cost of $126.796M (BY 2018 $) is calculated with steady state operations beginning in FY 2025 and ending in FY2054 totaling $7,607.76 divided by steady state TAI fleet of 2 aircraft per year beginning in FY 2025 and ending in FY 2054 totaling 60. $7,607.76M/60 = $126.796M per aircraft per year.

It is not possible to extrapolate this cost to a total O&S cost as it does not capture VC-25B hangar security personnel costs prior to FY 2025.

Disposal Estimate Details

Date of Estimate:	December 03, 2018
Source of Estimate:	SCP
Disposal/Demilitarization Total Cost (BY 2018 $M):	0.3

Disposal costs reflect VC-25B SCP estimate for preparation for static display.