Selected Acquisition Report (SAR)

B-52 Commercial Engine Replacement Program Rapid Virtual Prototype (B-52 CERP RVP)

FY 2024 President's Budget

Defense Acquisition Visibility Environment (DAVE)

Table of Contents

Common Acronyms and 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
APB - Acquisition Program Baseline
APPN - Appropriation
APUC - Average Procurement Unit Cost
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
FMS - Foreign Military Sales
FOC - Full Operational Capability
FRP - Full Rate Production
FY - Fiscal Year
FYDP - Future Years Defense Program
ICE - Independent Cost Estimate
Inc - Increment
IOC - Initial Operational Capability
JROC - Joint Requirements Oversight Council
KPP - Key Performance Parameter
LRIP - Low Rate Initial Production
MDA - Milestone Decision Authority
MDAP - Major Defense Acquisition Program
MILCON - Military Construction
N/A - Not Applicable
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
RDT&E - Research, Development, Test, and Evaluation
SAR - Selected Acquisition Report
SCP - Service Cost Position
TBD - To Be Determined
TY - Then Year
U.S. - United States
UCR - Unit Cost Reporting
USD(A&S) - Under Secretary of Defense (Acquisition and Sustainment)
USD(AT&L) - Under Secretary of Defense (Acquisition, Technology and Logistics)

Program Information

Program Name

B-52 Commercial Engine Replacement Program (B-52 CERP)

DoD Component

Air Force

Responsible Office

Program Manager

Name: Lt. Col Connor Benedict
Date Assigned: April 27, 2021
Address: 3001 Staff Drive
Tinker AFB, OK 73145
Phone: (405) 394-0488

Mission and Description

The B-52 Commercial Engine Replacement Program (CERP) supports nuclear and conventional operations by replacing the current TF33-PW-103 engine on the B-52H aircraft. The TF33-PW-103 engine is increasingly difficult to sustain due to diminished manufacturing sources and obsolescent technologies; the Air Force Propulsion Directorate projects the engine will become unsustainable by 2030. This sustainment program will replace the current TF33-PW-103 engine with new military derivative commercial Rolls-Royce F130 engines of similar size, weight, and thrust characteristics. Along with the new engines, CERP will replace associated subsystems, such as engine struts and nacelles, the electrical power generation system, and cockpit displays. The development, production, and installation of new engines and related subsystems will replace the legacy equipment on all 76 B-52H aircraft. The CERP modified aircraft will be designated as B-52J. B-52 CERP will take advantage of advances in technology and ongoing development efforts to acquire engines and integrate them into the B-52. The use of new technology will increase both the overall reliability/maintainability of the propulsion system and produce additional electrical power generation capabilities for emerging requirements. The B-52 CERP will allow the operational command (Air Force Global Strike Command) to fully utilize the capabilities of the B-52J aircraft to employ an array of nuclear and conventional weapons while saving fuel and extending the range/loiter capabilities of the aircraft. In addition, applicable training devices must also be developed, modified and/or upgraded in conjunction with the aircraft modifications. This upgrade will also require the corresponding modification of a B-52 Weapon System Trainer. As CERP brings the additional capability to the B-52, emerging security/certification requirements (nuclear hardening, cyber security, program protection, etc.) will also need to be addressed

Executive Summary

B-52 CERP RVP

Program Highlights Since Last Report

Significant Accomplishments: This is an early SAR submission in advance of Milestone B for the B-52 CERP as directed by the FY 2022 National Defense Authorization Act (NDAA). The FY 2022 NDAA established an original baseline estimate for CERP set to the FY 2020 program estimate. This is prior to the program completing the Preliminary Design Review (PDR) and Milestone B projected for FY 2023. Establishing a cost baseline before PDR adds risk to the program as the baseline estimate is not based on an established allocated baseline system design, which could create future program issues. The program plans to establish the Acquisition Program Baseline (APB) and associated program certification in accordance with Title 10 United States Code Section 4252 at Milestone B, planned in the fourth quarter of FY 2023. The Baseline estimate used for the Current and Original APB in this program's SAR reflect the FY 2020 Program Office Estimate (POE) per the FY 2022 NDAA; values will be updated at Milestone B.

Rapid Prototype Material contracts 0 and 1 (RPM0, RPM1) were awarded by the program as undefinitized contract actions in March and October 2021, respectively, for the development and delivery of long-lead material to support the test aircraft. The program was unable to definitize these contracts as expected in CY 2022 due to difficulties encountered (e.g. extended evaluation of Boeing Commercial Airplanes, major commercial subcontractors due to lack of other-than-certified data, and proposal update delays). The program recently received updated rate recommendations from the Defense Contract Management Agency and expects to definitize RPM0 in the fourth quarter of FY2023 and RPM1 in the third quarter of FY 2023.

The program achieved a major event in CY 2022 by conducting the System Preliminary Design Review (PDR) in October 2022. The System PDR was preceded by a series of component and subsystem PDRs. The program adjudicated action items from PDR and formally entered critical design in March 2023.

Integrated test and evaluation continued with system performance testing. CERP completed High-Speed Wind Tunnel testing at the Boeing Transonic Wind Tunnel in Seattle on July 19, 2022. The data from this testing will be used to further refine and substantiate the High-Speed Computational Fluid Dynamics model. CERP also completed Low-Speed Wind Tunnel testing on September 2, 2022, at the QinetiQ Five Metre Wind Tunnel in Farnborough, England. Data from this testing allowed the program to successfully evaluate mitigation options for buffet, stall, and maximum coefficient of lift issues. Data recorded is feeding aerodynamics analyses to determine specific impacts of the CERP modification. The Rapid Twin Pod Test (RTPT) began at the National Aeronautics and Space Administration's Stennis Space Center in Mississippi in December 2022 and will run through April 2023. The objective of the RTPT is to conduct early risk reduction testing to inform key integration decisions. All Build 1 test objectives, including running both engines simultaneously, were completed successfully as scheduled.

In FY 2019, B-52 CERP received a $2.6M Congressional mark due to the delayed new start. In FY 2020, Congress rescinded $10M based on funding execution. In FY 2021, Congress marked B-52 CERP $25.5M with the rationale of "excess to need." In FY 2022, Congress marked B-52 CERP $55M due to the Rapid Prototyping Material Contract delay. In FY 2023, Congress marked B-52 CERP $16.3M due to under-execution. The program has made adjustments to align execution with funding changes due to marks.

The B-52 System Program Manager requested approval from the Senior Acquisition Executive (SAE) to adapt the Acquisition Strategy (AS) and plan to transition the program to a Major Capability Acquisition (MCA) effort at Milestone B before the completion of the current Rapid Virtual Prototype (RVP) Middle Tier Acquisition (MTA). The SAE approved the transition to an MCA pathway and documented the decision in an Acquisition Decision Memorandum, dated March 29, 2022. B-52 CERP updated the AS and developed Milestone B entrance criteria in March 2023.

During the proposal evaluation of the PDR to CDR transition contract modification, the program identified budget constraints in FY 2023 and FY 2024. As a result, the program extended the development schedule by one year to fit within the FY 2023 and FY 2024 President's Budget. The program is assessing cost and funding constraints in future years. The certification at Milestone B and the associated APB will establish the cost, schedule, and affordability baseline.

Risks reported in previous SAR have been mitigated or realized. The CERP Baseline risk is now being handled as an issue, and the program has taken action to procure two Radar Modernization Program kits and install them on the two test aircraft during the CERP modification. The Cybersecurity risk was mitigated by flowing down requirements to all the suppliers and requesting their impacts. No significant cost/schedule impacts were identified due to the cyber requirements. The Total Program Schedule risk was accepted because of schedule re-baseline activities.

The program is actively mitigating and/or monitoring the following key risks: Engineering and Manufacturing Development (EMD) aircraft modification timeline, wing leading edge ignition potential due to Auxiliary Start Air Start Unit discharge temperature, and engine fan flutter.

History of Significant Developments Since Program Initiation

History of Significant Developments Since Program Initiation

Date	Significant Development Description
Nov - 2022	The B-52 CERP awarded the PDR to CDR Transition Undefinitized Contract Action to Boeing
Oct - 2022	The B-52 CERP conducted the Preliminary Design Review.
Oct - 2021	The B-52 CERP awarded the Rapid Prototype Material Phase 1 Undefinitized Contract Action to Boeing.
Sep - 2021	Boeing delivered the B-52 CERP Virtual System Prototype Increment 1.
Sep - 2021	The B-52 CERP awarded the Engine contract to Rolls-Royce.
Mar - 2021	The B-52 CERP awarded the Rapid Prototype Material Phase 0 Undefinitized Contract Action to Boeing.
Feb - 2020	The B-52 CERP awarded the Rapid Prototyping 1 contract to Boeing.
Feb - 2020	The B-52 CERP conducted the System Functional Review.
Dec - 2019	The SAE approved the award of the Rapid Prototyping 1 contract.
Oct - 2019	The B-52 CERP conducted the System Requirements Review.
Dec - 2018	The B-52 CERP awarded the Risk Reduction Requirements contract to Boeing.
Sep - 2018	The SAE approved B-52 CERP as a Rapid Prototype Section 804 program with two distinct prototype deliveries, virtual and physical and delegated Source Selection Authority for the B-52 CERP engine contract to the PEO for Fighters and Bombers.
Mar - 2018	The SAE approved the B-52 CERP Materiel Development Decision.

Schedule

B-52 CERP RVP

Events	Milestone Baseline Objective	Current Baseline Objective/Threshold		Current Estimate/Actual	Deviation
Materiel Development Decision	Mar 2018	Mar 2018	Mar 2018	Mar 2018	
Middle Tier Acquisition (MTA) Designation Date	Sep 2018	Sep 2018	Sep 2018	Sep 2018	
MTA Funds First Obligated	Dec 2018	Dec 2018	Dec 2018	Dec 2018	
Virtual System Prototype Decision Point (MTA)	Dec 2019	Dec 2019	Dec 2019	Dec 2019	
MTA Operational Demonstration	Sep 2021	Sep 2021	Sep 2021	Sep 2021	
Milestone B	May 2023	May 2023	Dec 2023	Sep 2023	
MTA Program Completion Date	Dec 2023	Dec 2023	Dec 2023	Dec 2023	

Schedule Note

The B-52 CERP was directed by the FY 2022 National Defense Authorization Act to submit a SAR in advance of Milestone B. The Milestone B dates in the schedule table represent proposed dates based on AS transition planning and are not yet established by the Milestone Decision Authority (MDA) in a formal APB process.

The B-52 CERP is in the process of revising its AS and planning to transition CERP to a program under the MCA pathway versus entering a second MTA. The program plans to enter Milestone B before the completion of the current RVP MTA. The program schedule will be updated in a subsequent SAR submission when a formal Acquisition Program Baseline (APB) is approved by the MDA.

Performance

B-52 CERP RVP

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.

Requirement Reference

Capability Development Document (CDD) for B-52H Commercial Engine Replacement Program (CERP), Approved by AF/CV on May 20, 2020. The CDD is being updated for Joint Requirements Oversight Council (JROC) approval in preparation for the Milestone B review.

Performance Note

The B-52 CERP was directed by the FY 2022 National Defense Authorization Act to submit a SAR in advance of Milestone B.

Acquisition Budget Estimate
B-52 CERP RVP

Total Acquisition Cost

		Milestone APB	Current Baseline		Budget Estimate PB 2024		
Category	**Base Year**	**Objective (BY$M)**	**Objective (BY$M)**	**Threshold (BY$M)**	**BY$M**	**TY$M**	**Deviation**
RDT&E	2019	2,201.6	2,201.6	2,421.8	3,505.4	4,300.7	
Procurement	2019	6,757.4	6,757.4	7,433.1	5,645.0	8,065.9	
MILCON							
Acq. O&M							
Total		8,959.0	8,959.0		9,150.4	12,366.6	
PAUC	2019	117.882	117.882	129.670	120.400	162.718	
APUC	2019	91.316	91.316	100.447	76.283	108.998	

Budget Note

The B-52 CERP was directed by the FY 2022 National Defense Authorization Act (NDAA) to submit a SAR in advance of Milestone B. The NDAA established an original baseline estimate for CERP prior to the program completing the Preliminary Design Review (PDR) and Milestone B projected for FY 2023. The values above represent proposed APB cost objectives and thresholds and are approved by the Milestone Decision Authority in a formal APB.

The Development APB and Current APB are from the Air Force Cost Analysis Agency's cost estimate dated March 11, 2020 and are based on analogous systems to determine the most probable weapon system cost.

The Current Estimate (CE) is based on budgetary actuals for FY 2018 – FY 2022 (decreased budget authority by program realignments and marks), FY 2024 President's Budget alignment for FY 2023 – FY 2024, and the 2022 Program Office Estimate excursion dated October 2022 for FY 2025 – FY 2035.

The 2023 inflation indices have been applied to the Current estimate for the base year dollar calculation.

Total End Item Quantity

Quantity Category	Current APB Quantity	Current Estimate Quantity
Development	2	2
Procurement	74	74
O&M-Acquired	--	--

Unit Cost
B-52 CERP RVP

Current UCR Baseline and Current Estimate (Base-Year Dollars)			
Category ($M) Base Year:2019	**Current UCR Baseline**	**Current Estimate**	**% Change**
Program Acquisition Unit Cost			
Cost	8,959.0	9,150.4	
Quantity	76	76	
Unit Cost	117.882	120.400	2.14%
Average Procurement Unit Cost			
Cost	6,757.4	5,645.0	
Quantity	74	74	
Unit Cost	91.316	76.283	-16.46%

Original UCR Baseline and Current Estimate (Base-Year Dollars)			
Category ($M) Base Year:2019	**Original UCR Baseline**	**Current Estimate**	**% Change**
Program Acquisition Unit Cost			
Cost	8,959.0	9,150.4	
Quantity	76	76	
Unit Cost	117.882	120.400	2.14%
Average Procurement Unit Cost			
Cost	6,757.4	5,645.0	
Quantity	74	74	
Unit Cost	91.316	76.283	-16.46%

Cost Growth Details

Unit Cost Note

The B-52 CERP was directed by the FY 2022 National Defense Authorization Act to submit a SAR in advance of Milestone B. The values in the table represent the most current cost information and are not yet established by the Milestone Decision Authority in a formal APB process.

Risks

B-52 CERP RVP

Risk and Sensitivity Analysis

Risk and Sensitivity Analysis
Current Procurement Cost (December - 2022)

1. There are no significant risks to the program at this time. The estimate for B-52 CERP is based upon analogous historical re-engine programs and takes inherited risks/issues from those programs into account.

Original Baseline Estimate (March - 2020)

1. The B-52 CERP is Pre-Milestone B. There were no significant risks to the program at the time of the FY 2020 Air Force Cost Analysis Agency's cost estimate. The estimate for B-52 CERP was based upon analogous historical re-engine programs and took inherited risks/issues from those programs into account.

Current Baseline Estimate (March - 2020

1. The B-52 CERP is Pre-Milestone B. There were no significant risks to the program at the time of the FY 2020 Air Force Cost Analysis Agency's cost estimate. The estimate for B-52 CERP was based upon analogous historical re-engine programs and took inherited risks/issues from those programs into account.

Significant Schedule Risks

Significant Schedule Risks
Current Estimate (December - 2022)

1. EMD Aircraft Modification Timeline: If the EMD aircraft modification timeline exceeds 18 months, then Integrated Test-3 activities will be delayed and will delay IOC day-for-day beyond 18 months.

Technologies and Systems Engineering

Significant Technical Risks
Current Estimate (December - 2022)

1. Wing Leading Edge Ignition Potential: If the elevated bleed air temperatures introduced by the Auxiliary Start Air Unit and potentially from the external air carts can't be reduced, then these elevated air temperatures may reduce the level of safety in the wing leading edge resulting in cost and schedule impacts.
2. Engine Fan Flutter: If engine fan flutter is detected during full scale dual engine pod testing, then additional effort will be required to incorporate an inlet flutter liner and/or define and implement keep out zones and/or adjust the nozzle design.

Low Rate Initial Production

B-52 CERP RVP

LRIP Note

An official LRIP will be approved by the MDA upon transition to a Major Capability Acquisition program at Milestone B FY 2023.

Contracts & Efforts

Contract Data	
Contract Number	FA8626-19-D-1000
Effort Number	
Modification Number	
Award Date	02/14/2020
Definitization Date	02/14/2020
Order Number	FA8107-20-F-0001
CAGE Code/CAGE Legal Name	1N929/The Boeing Company
Contract Title	B-52 Commercial Engine Replacement Program (CERP) Rapid Prototyping 1 (RP1)
Contract Address	Oklahoma City, OK
Contracting Office	
Supported Phase	Development
Contract Strategy	
Contract Type	Cost-Plus-Incentive-Fee
Modification Date	
Work Start Date	
Technical Data Rights	
Work Completed	89.23%

Contracts/Effort Price, Quantity, and Performance (TY$M)		
Initial Target Price	Current Target Price	
$281.6	$398.6	
Initial Ceiling Price	Current Ceiling Price	
N/A	N/A	
Contractor EAC	PM EAC	
$366.1	$390.3	
Initial Quantity	Current Quantity	Delivered Quantity
1	1	0
BAC	BCWP	ACWP

$367.6	$328	$348.6
BCWS	Cost Variance	Schedule Variance
$322.6	-$20.6	$5.3

Contract Notes:
The recent modification for the PDR to CDR Transition increased the current target price but those costs are not yet baselined into Boeing's earned value system so the data above does not reflect those updates. This modification is part of the transition from a Middle Tier Acquisition program to a Major Capability Acquisition program. Also, due to recent contract changes that have yet to be baselined, Boeing's estimate at completion is currently understated.

Factors Contributing to Cost Variance:
Unfavorable cost variance is primarily due to electrical subsystems (underestimated the cost of in-scope tasks), requirements (underestimated cost of in-scope tasks), mocks ups (more effort expended than anticipated before engine source selection), and volatility of design before preliminary design review.

Factors Contributing to Schedule Variance:
Favorable schedule variance is driven by an early invoice. Discounting the early invoice, the actual variance is approximately -$6M. This is primarily driven by the late completion of pin-to-pin schematics for the lab which delayed the start of the wiring diagrams.

Contract Data	
Contract Number	FA8626-19-D-1000
Effort Number	
Modification Number	
Award Date	03/31/2021
Definitization Date	
Order Number	FA8107-21-F-0008
CAGE Code/CAGE Legal Name	1N929/The Boeing Company
Contract Title	B-52 Commercial Engine Replacement Program (CERP) Rapid Prototyping Material Phase 0 (RPM0)
Contract Address	Oklahoma City, OK
Contracting Office	
Supported Phase	Development
Contract Strategy	
Contract Type	Cost-Plus-Incentive-Fee
Modification Date	
Work Start Date	
Technical Data Rights	
Work Completed	14.47%

Contracts/Effort Price, Quantity, and Performance (TY$M)		
Initial Target Price	Current Target Price	
$665.3	$665.3	
Initial Ceiling Price	Current Ceiling Price	
N/A	N/A	
Contractor EAC	PM EAC	
$502.0	$502.0	
Initial Quantity	Current Quantity	Delivered Quantity
1	1	0
BAC	BCWP	ACWP
$665.3	$96.3	$97.0

BCWS	Cost Variance	Schedule Variance
$118.4	-$0.7	-$22.1

Contract Note:
Rapid Prototype Material contract 0 (RPM0) was awarded by the program as an undefinitized contract action in March 2021 for the development and delivery of long-lead material to support the test aircraft. The program expects to definitize RPM0 no later than the fourth quarter of FY 2023.

Factors Contributing to Cost Variance:
The unfavorable cost variance is primarily due to delays in Boeing getting the Electrical Power Generation System vendor, Collins, on contract.

Factors Contributing to Schedule Variance:
The unfavorable schedule variance is primarily due to inconsistent or lagging supplier billing compared to spend plan for Electrical Power Generation System and the Environmental Control System vendors.

Contract Data	
Contract Number	FA8626-19-D-1000
Effort Number	
Modification Number	
Award Date	10/15/2021
Definitization Date	
Order Number	FA8107-22-F-0002
CAGE Code/CAGE Legal Name	1N929/The Boeing Company
Contract Title	B-52 Commercial Engine Replacement Program (CERP) Rapid Prototyping Material Phase 1 (RPM1)
Contract Address	Oklahoma City, OK
Contracting Office	
Supported Phase	Development
Contract Strategy	
Contract Type	Cost-Plus-Incentive-Fee
Modification Date	
Work Start Date	
Technical Data Rights	
Work Completed	4.17%

Contracts/Effort Price, Quantity, and Performance (TY$M)		
Initial Target Price	Current Target Price	
$295.6	$295.6	
Initial Ceiling Price	Current Ceiling Price	
Contractor EAC	PM EAC	
$187.8	$187.8	
Initial Quantity	Current Quantity	Delivered Quantity
1	1	0
BAC	BCWP	ACWP
$294.8	$12.3	$11.5

BCWS	Cost Variance	Schedule Variance
$21	$0.8	-$8.7

Contract Note:
Rapid Prototype Material contract 1 (RPM1) was awarded by the program as an undefinitized contract action in October 2021 for the development and delivery of long-lead material to support the test aircraft. The program expects to definitize RPM1 no later than the third quarter of FY 2023.

Factors Contributing to Cost Variance:
The favorable cost variance is primarily due to material ordering not yet started for major suppliers and less than anticipated technical subcontract management support at this stage in the contract.

Factors Contributing to Schedule Variance:
The unfavorable schedule variance is primarily due to inconsistent or lagging supplier billing compared to the spend plan for strut and nacelle materials and delayed drawing releases and part ordering for the system integration lab.

Contract Data	
Contract Number	FA8107-21-D-0001
Effort Number	
Modification Number	
Award Date	09/24/2021
Definitization Date	09/24/2021
Order Number	FA8107-21-F-0009
CAGE Code/CAGE Legal Name	63005/Rolls-Royce Corporation
Contract Title	B-52 CERP Engine Contract
Contract Address	Indianapolis, IN
Contracting Office	
Supported Phase	Development
Contract Strategy	
Contract Type	Firm-Fixed-Price
Modification Date	
Work Start Date	
Technical Data Rights	
Work Completed	

Contracts/Effort Price, Quantity, and Performance (TY$M)		
Initial Target Price	Current Target Price	
$2,604.3	$2,604.3	
Initial Ceiling Price	Current Ceiling Price	
N/A	N/A	
Contractor EAC	PM EAC	
$2,604.3	$2,604.3	
Initial Quantity	Current Quantity	Delivered Quantity
652	652	0

Deliveries and Expenditures

B-52 CERP RVP

Deliveries				
Delivered to Date	Planned to Date	Actual to Date	Total Quantity	Percent Delivered
Development	0	0	2	0.00%
Production	0	0	74	0.00%
Total Program Quantity Delivered	0	0	76	0.00%

Expended and Appropriated (TY $M)

Years Appropriated to date: 6

Total Years Appropriated Funding (Current Baseline): 18

Percent Years Appropriated: 33.33%

Then-Year Funding Appropriated as Percentage of Total Acquisition Estimate: 10.20%

Then-Year Funding Expended as Percentage of Total Acquisition Estimate: 5.20%

Total Acquisition Cost: $12,366.58

Operating and Support Costs

B-52 CERP RVP

O&S Cost Breakdown:

Category (BY2019$ Million)	B-52 CERP – RVP
Unit-Level Manpower	
Unit Operations	
Maintenance	
Sustaining Support	
Continued System Improvements	
Other	
Total	

Total Program O&S Cost Compared with Baseline					
	Current Baseline				
	Objective (BY$M)	Threshold (BY$M)	Current Estimate (BY$M)	Current Estimate (TY$M)	Deviation
Total O&S					

Note: O&S costs are currently not tracked separately for B-52 CERP. O&S costs are included in the overall operational costs for the existing B-52 fleet managed by the program office at Tinker Air Force Base. The program will continue to improve the O&S estimates for B-52 CERP with future iterations seeking to provide the net delta that the CERP modification will have on the legacy B-52 O&S cost baseline.

Operating and Support Costs - Disposal and Unitized Costs

Annual Unitized O&S Cost Definition and Calculation Relative to Total O&S Cost:

O&S costs are not tracked separately for B-52 CERP. O&S costs are included in the overall operational costs for the existing B-52 fleet managed by the program office at Tinker Air Force Base. The program will continue to improve the O&S estimates for B-52 CERP with future iterations seeking to provide the net delta that the CERP modification will have on the legacy B-52 O&S cost baseline.