

UNCLASSIFIED



CLEARED
For Open Publication

Sep 26, 2024

Department of Defense
OFFICE OF PREPUBLICATION AND SECURITY REVIEW

Modernized Selected Acquisition Report (MSAR) Armored Multi-Purpose Vehicle (AMPV)

FY 2025 President's Budget

Effective: December 31, 2023

Defense Acquisition Visibility Environment

UNCLASSIFIED

Table of Contents

Common DoD Abbreviations	3
Program Description	5
Responsible Office	6
Executive Summary	7
Schedule	10
Performance	11
Acquisition Budget Estimate	14
Unit Costs	16
Life-Cycle Costs	18
Technologies and Systems Engineering	21
Performing Activities and Contracts	22
Production	24
Deliveries and Expenditures	25
International Program Aspects	26

(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
Armored Multi-Purpose Vehicle

Short Name
AMPV

PNO
471

Milestone Decision Authority
Component Acquisition Executive

Lead Component
Department of the Army

Program Executive Office
PEO Ground Combat Systems (GCS)

Joint Program
No

Acquisition Type
Major Defense Acquisition Program

Adaptive Acquisition Pathway
Major Capability Acquisition

Acquired Systems
AMPV

Acquisition Category
IC

Acquisition Status
Active Acquisition

Mission

The Armored Multi-Purpose Vehicle (AMPV) is the materiel solution for replacement of the Army's Armored Personnel Carrier (M113) Family of Vehicles (FoV) within the Armored Brigade Combat Team (ABCT). It mitigates capability gaps in force protection, mobility, reliability, and interoperability.

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

PEO Ground Combat Systems (GCS)

BG Glenn Dean

glenn.a.dean.mil@army.mil (primary)

(586) 282-6662 (commercial)

Program Manager

Mounted Armored Vehicles PMO

COL Daniel Ramos

daniel.o.ramos4.mil@army.mil (primary)

(586) 282-0968 (commercial)

(U) Executive Summary

Program Highlights Since Last Report

The AMPV program requirements are stable, and funding is adequate to meet cost, schedule, and performance objectives.

The AMPV program achieved multiple APB schedule milestones since the last SAR with the completion of First United Equipped in March 2023, declaration of Initial Operation Capability in May 2023, and a successful FRP Decision in August 2023. Contractually, as of March 31, 2024, BAE has delivered 367 of a required 361 LRIP vehicles. The PM is closely watching BAE's ability to sustain vehicle delivery at the contractual rate.

The Army Acquisition Executive (AAE) conducted a FRP Decision Review on July 31, 2023, and subsequently, signed the FRP ADM on August 21, 2023, authorizing procurement of AMPVs to the Army Acquisition Objective (AAO) and funding to the Army Cost Position (ACP). As a result of the successful FRP decision, the AAE approved and signed the AMPV FRP APB on October 27, 2023.

Since the last SAR, the program experienced a significant Nunn-McCurdy breach against the original and current baselines of the Milestone (MS) C APB. The final definitized price of the production contract awarded to BAE Systems on August 31, 2023, confirmed the ACP estimate, and identified the significant breach to the APUC and PAUC against the program's original and current APB cost baselines established at MS B & C respectively. The main drivers of the increased cost were due to 1) unforeseeable escalation of labor and material costs as the world emerged from the shutdowns in response to the global pandemic; 2) changes in assumed production rate, original baseline (2015) assumed production rates of 180 AMPVs per year while the current estimate assumes a production rate of 131 AMPVs per year. Congress was notified of the breach on February 5, 2024. The AAE's approval of the updated FRP APB resolved the current baseline breach. However, the breach against the original baseline remains.

The program also experienced a schedule deviation to the FRP Decision APB event since the last SAR. The program missed the March 2023 estimated FRP date reported in the 2023 SAR due to unit price uncertainty during FRP contract negotiations. The program submitted a Program Deviation Report to the AAE on March 30, 2023, requesting a revised APB FRP decision date of May 2023 (Objective) and October 2023 (Threshold). The AAE approved this revision on May 17, 2023. The FRP decision occurred in August 2023 within the revised trade space, and the revised dates are included in the updated FRP APB.

From a contractual standpoint, the program continues to oversee BAE's execution of the following contracts: Non-Recurring Engineering; LRIP; AMPV/M113 System Technical Support (STS), Sustainment System Technical Support (SSTS) and Post-Production Technical Support (PPTS); and FRP. The USG awarded Option Year 2 of the STS/STSS/PPTS contract July 2023. The Army Contracting Command awarded an Undefinitized Contract Action for the AMPV FRP contract on March 3, 2023, and definitized the contract on August 31, 2023. Finally, Option Year 2 was awarded to the FRP contract on March 13, 2024. To date, 394 AMPVs are on the FRP contract.

There was one mark against the AMPV program in the FY 2024 Defense Appropriations Bill. The procurement funding line was marked \$162.678M due to "program adjustment". Additionally, the Army distributed \$800.658M in FY 2023 Emergency Ukraine Supplemental funding for the AMPV to support replacing M113s from the Ukraine-related Presidential Drawdown Directive.

The AMPV program made considerable test progress, and has successfully completed its

formal Developmental Testing, Initial Operational Testing, and the Full Up System Level Live Fire Title X test programs. Army and OSD stakeholders have agreed with the Army Test and Evaluation Command and Director, Operational Test & Evaluation assessment that AMPV is Operationally Effective, Suitable, and Survivable. The testing and evaluations supported the successful FRP decision review. Testing and data collection to address fixes to issues and concerns coming out of LRIP testing is ongoing. These efforts support the AMPV Full Materiel Release.

The AMPV program's Defense Cost and Resource Center Cost and Software Data Reporting compliance rating is Red-Critical due to a system issue with file size limitations. The EMD WBS dictionary submitted by the contractor was delivered to DCARC but has not been uploaded to the system due to file size limitations, the PM considers the submission approved as the requirements of the WBS Dictionary have been met.

For overall program system performance, requirements are stable, and the program meets all APB KPP threshold requirements. There was no change to the AAO or performance requirements since the last report.

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

(U) History of Significant Developments Since Program Inception

Date	Description
October 2023	FRP APB Approved.
August 2023	Army Acquisition Executive signed the FRP ADM authorizing AMPV to enter full rate production. The ADM directs the Army to fund the AMPV program to the Army Cost Position.
May 2023	Initial Operational Capability completed.
March 2023	First Unit Equipped completed.
July 2022	AMPV Initial Operational Test & Evaluation (IOT&E) completed.
January 2022	AMPV IOT&E Started.
July 2021	AMPV System Technical Support (STS) contract awarded.
February 2021	Low Rate Initial Production (LRIP) Live Fire Test & Evaluation started.
January 2021	AMPV APB re-baseline approved.
August 2020	First LRIP vehicle delivered.
January 2020	LRIP Option Year 3 exercised to BAE Systems.
January 2019	AMPV CPD approved.
January 2019	Army Acquisition Executive signed the Milestone C ADM authorizing AMPV to enter LRIP. The ADM directs the Army to fund the AMPV program to the OSD CAPE ICE.
January 2019	LRIP Option Year 1 and the first increment of LRIP Option Year 2 exercised to BAE Systems Land & Armaments to begin LRIP production.
December 2018	AMPV Milestone C Army Systems Acquisition Review Council approved entrance into LRIP.
October 2018	Production Readiness Review completed.
September 2018	Limited User Test completed.
August 2018	Functional Configuration Audit and System Verification Review completed.
March 2018	Final Engineering and Manufacturing Development (EMD) Prototype delivered.
September 2017	AMPV Milestone B ADM was amended to increase LRIP quantities from 289 to 551

Date	Description
	vehicles.
July 2017	Developmental Test started.
January 2017	First AMPV Prototype delivered.
December 2016	Roll-out ceremony for first AMPV prototype.
October 2016	Capability Development Document (CDD) revised to incorporate changes to KPP 2 - Survivability.
June 2016	Completed Critical Design Review demonstrating that the program was ready to proceed to prototype production. Performance risks were understood and will be characterized with prototype testing.
June 2015	Completed the Preliminary Design Review ensuring the allocated baseline was properly documented, assessed to be consistent with Capability Development Document (CDD) requirements and under configuration control.
May 2015	Development APB approved.
March 2015	The System Requirements Review (SRR) was completed. The SRR deemed the program ready to proceed into preliminary design.
December 2014	The Defense Acquisition Executive (DAE) Acquisition Decision Memorandum (ADM) authorizes AMPV to enter the acquisition lifecycle at Milestone B. The ADM directs the Army to fund the AMPV program to the OSD Cost Assessment and Program Evaluation (CAPE) Independent Cost Estimate (ICE).
December 2014	AMPV Milestone B Defense Acquisition Board (DAB).
December 2014	BAE Systems Land & Armaments is awarded a Cost Plus Incentive Fee EMD contract.
June 2013	AMPV CDD approved.

(U) Schedule**(U) Schedule Events**

Events		Production APB (Current) 10/27/2023 Objective / Threshold		Current Estimate 12/31/2023	Actual
Milestone B	MS B	Dec 2014	Dec 2014	-	31 Dec 2014
Preliminary Design Review	PDR	Jun 2015	Jun 2015	-	30 Jun 2015
Critical Design Review	CDR	Jun 2016	Jun 2016	-	30 Jun 2016
Developmental Test Start	DT&E	Jul 2017	Jul 2017	-	31 Jul 2017
Limited User Test	Other	Aug 2018	Aug 2018	-	31 Aug 2018
Milestone C	MS C	Jan 2019	Jan 2019	-	31 Jan 2019
LRIP LFT&E Start	Other	Feb 2021	Feb 2021	-	28 Feb 2021
IOT&E Start	IOT&E	Jan 2022	Jan 2022	-	31 Jan 2022
First Unit Equipped	Other	Mar 2023	Mar 2023	-	14 Mar 2023
Initial Operational Capability	IOC	May 2023	May 2023	-	12 May 2023
Full Rate Production	FRP Decision	Aug 2023	Aug 2023	-	21 Aug 2023
Full Operational Capability	FOC	Dec 2042	Jun 2043	Dec 2042	-

Notes

This MSAR reflects the FRP APB signed by the AAE on October 27, 2023. There are no current or previous schedule risks.

Schedule Baseline Deviation Explanation

FRP Decision was delayed due to unit price uncertainty. A Program Deviation Report Acquisition Decision Memorandum was signed by the AAE on May 17, 2023 concurring with the revised APB FRP decision date of May 2023 (Objective) and October 2023 (Threshold). A revised APB will be submitted upon completion of the FRP decision.

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

None

(U) Performance

Additional information for this section is provided in the classified annex to this submission.

(U) Performance Attributes

KPP 1 Net Ready		KPP
Current Estimate 12/31/2023	Will Meet Threshold	
Demonstrated Performance 7/23/2022	MET - The AMPV enabled a Net-Centric military capability by providing sufficient SWaP capacity to integrate information and communication systems ensuring command and control (C2) and situational awareness (SA).	
Production APB (Current) 10/27/2023	Objective	The AMPV will enable a net-centric military capability by providing sufficient SWaP capacity to integrate information and communication systems ensuring C2 and SA. The capability, system, and/or service must be able to enter and be managed in the network, and exchange data in a secure manner to enhance mission effectiveness. The capability, system, and/or service must continuously provide survivable, interoperable, secure, and operationally effective information exchanges to enable a net-centric military capability. This capability is achieved through hosting and or integrating Joint and Service C4I systems installed or mounted on the platform. The AMPV will be scalable across the family of vehicles based on individual mission roles' respective mission equipment package needs and support execution of joint information and system exchanges identified in Table 5.1.
	Threshold	(T=0) The AMPV will enable a net-centric military capability by providing sufficient SWaP capacity to integrate information and communication systems ensuring C2 and SA. The capability, system, and/or service must be able to enter and be managed in the network, and exchange data in a secure manner to enhance mission effectiveness. The capability, system, and/or service must continuously provide survivable, interoperable, secure, and operationally effective information exchanges to enable a net-centric military capability. This capability is achieved through hosting and or integrating Joint and Service C4I systems installed or mounted on the platform. The AMPV will be scalable across the family of vehicles based on individual mission roles' respective mission equipment package needs and support execution of joint information and system exchanges identified in Table 5.1.
KPP 3 Force Protection		KPP
Current Estimate 12/31/2023	Will Meet Threshold	
Demonstrated Performance 5/26/2022	MET - AMPV is capable of surviving the required classified threats	
Production APB (Current)	Objective	The AMPV will provide a coordinated suite of preemptive, active, reactive, passive, or a combination thereof, protection capabilities against identified, emerging, and

10/27/2023		future threats, and will provide for spall reducing floor material or spall blanket.
	Threshold	AMPV will protect the crew and vehicle occupants (non-supine) from the threats outlined in the classified appendix. The most recent injury criteria thresholds provided by the ARL SLAD determine the protection level from ballistic engagements. At a minimum, the AMPV will provide protection for the crew and occupants from serious or greater injuries due to on-board fires, various blast, shock, overpressure, fragments, and accelerative effects of attack by the threshold threats. The AMPV will minimize spall from overmatching threats.
KPP 4 Sustainment		KPP
Current Estimate 12/31/2023		Will Meet Threshold
Demonstrated Performance 8/22/2022		Ao-94%, Am-80.2%
Production APB (Current) 10/27/2023	Objective	Ao - 93.3%; Am - 83%
	Threshold	Ao - The AMPV, at full combat configuration (excluding failures and maintenance of the Government directed GFE/GFM MEP), will achieve an A $\bar{0}$ of at least 91.8% when measured continuously over a three day mission (consistent with the General Purpose Mission Profile defined in the AMPV OMS/MP) with only system abort (SA) failures factored into the A $\bar{0}$ assessment. Availability of the MEP is not reduced (degraded or lessened) beyond that of its current performance because of integration into the host AMPV chassis. Am - The AMPV at full combat configuration (excluding directed Government Furnished Equipment [GFE/GFM] Mission Equipment Package) will achieve an Am of not less than 80% when assessed at the Army fleet level.
KPP 5 Energy		KPP
Current Estimate 12/31/2023		Will Meet Threshold
Demonstrated Performance 7/19/2021		249.2 miles without refueling at an average sustained speed of 29.6 MPH.
Production APB (Current) 10/27/2023	Objective	30 MPH on primary roads. The AMPV must be able to use alternative energy and/or fuels (future fuel types) and will complete an entire 72-hour mission cycle IAW AMPV OMS/MP without allocated refuels.
	Threshold	The AMPV, at full combat configuration, will consume fuel at a level necessary to complete 225 miles without refueling, when evaluated at sustained speeds of 25 MPH on primary roads.
KPP 6 Mobility		KPP
Current Estimate 12/31/2023		Will Meet Threshold
Demonstrated Performance 8/24/2021		1) Hard level surface road speed = MET- Achieved a speed range of 39.4 mph to 41.2 mph (across the 5 variants. 2) Ascend and Descend 60% grades = MET. 3) Laterally

		traversing 30% grade = MET. 4) Dash speed = MET- Achieved a time range of 20.3 seconds to 23.6 seconds to reach 30mph (across the 5 variants). 5) Traverse 24 inch obstacle forward = MET. 6) Traverse an 18 inch obstacle in reverse = MET.
Production APB (Current)	Objective	The AMPV will be capable of traversing the terrains, objects, and obstacles typical in primary roads, cross-country and urban terrain required to maintain mobility thresholds as outlined in the AMPV OMS/MP and successfully fulfill its role in the BCT by maintaining its doctrinal positioning within the formation.
	Threshold	(T=0) The AMPV will be capable of traversing the terrains, objects, and obstacles typical in primary roads, cross-country and urban terrain required to maintain mobility thresholds as outlined in the AMPV OMS/MP and successfully fulfill its role in the BCT by maintaining its doctrinal positioning within the formation.
10/27/2023		

(U) Requirement Source:

Sponsor(s): United States Army

1. Capability Production Document, *Capability Production Document for AMPV*

Validated By: Army Requirements Oversight Council, January 23, 2019

Notes

Detailed KPP information is available in the AMPV CPD, including Table 5.1 referenced in the Performance Characteristics above. This reflects the FRP APB signed by the AAE on October 27, 2023.

Performance Deviation Explanation

None

(U) Acquisition Budget Estimate

(U) Total Acquisition Estimates and Quantities

Category (\$M) Base Year: 2023	Production APB (Current) 10/27/2023 CY\$ obs Objective / Threshold		Current Estimate PB 2025 CY\$ obs / TY\$ obs	
	RDT&E	1,199.8	1,319.8	1,197.5
Procurement	16,691.9	18,361.0	16,501.8	20,137.8
MILCON	0.0	0.0	0.0	0.0
O&M	198.1	217.9	199.1	237.2
R&MF	0.0	0.0	-	-
Total Acquisition	18,089.7	-	17,898.4	21,402.6
Program Acquisition Unit Cost	6.168	6.784	6.102	7.297
Average Procurement Unit Cost	5.762	6.338	5.696	6.951
Program End-Item Quantity				
Development	36		36	
Procurement	2897		2897	
O&M-Acquired	-		-	

Budget Notes

This MSAR reflects the FRP APB signed by the AAE on October 27, 2023.

Quantity Notes

To support the development phase, a total of 36 AMPVs were required: 29 AMPV prototype vehicles for the EMD phase and 7 production representative AMPVs for the Full Up System live fire tests. The 7 live fire test assets are RDT&E funded LRIP articles.

Cost Baseline Deviation Explanation

None

(U) Risk and Sensitivity Analysis

Current Procurement Estimate Risks (12/31/2023)	
1	The Current Procurement Cost risk and sensitivity is the same as the Current Baseline Estimate. Refer to the Current Baseline Estimate for additional information.
Current Baseline Risks (10/27/2023)	
None	
Original Baseline Risks (5/12/2015)	

The AMPV ICE generated in support of the Milestone B in December 2014 was used to establish the Development APB. It is difficult to calculate mathematically the precise confidence levels associated with cost estimates prepared for MDAP programs. Based on the rigor in methods used in building the estimate, the strong adherence to the collection and use of historical cost information and the review of applied assumptions CAPE projects that it is about equally likely that the estimate will prove too low or too high for execution of the program. The most significant cost driver in the AMPV cost estimate is the recurring manufacturing cost for vehicles. This recurring manufacturing cost estimate assumes high component design maturity and reflects the usage of Optional Exchange Vehicles (OEV) (i.e., excess Bradley Fighting Vehicles and M113s in inventory). Selected parts are planned to be recovered from these existing exchange vehicles and used on the program, thereby reducing the number of new parts that must be procured during AMPV production. The cost estimate would increase if changes in the planned design result in less mature components or if the assumed quantity of OEVs is not available for harvest of common components. The AMPV Family of Vehicles (FoV) is comprised of five vehicle configurations with unique unit prices. The AMPV APUC and PAUC values reflected in the APB are calculated as the weighted average values based on the planned densities of each of the five vehicle configurations across the Army. Accordingly, the APUC and PAUC are sensitive to the configuration mix within an Armored Brigade Combat Team.

(U) Unit Costs

(U) Current Estimate Compared with Current Baseline

Category (CY\$M) Base Year: 2023	Current Baseline 10/27/2023	Current Estimate PB 2025	% Change
Program Acquisition Unit Cost			
Acquisition Cost	18,089.7	17,898.4	
Program Quantity	2,933	2,933	
PAUC	6.168	6.102	-1.06%
Average Procurement Unit Cost			
Procurement Cost	16,691.9	16,501.8	
Procurement Quantity	2,897	2,897	
APUC	5.762	5.696	-1.14%

(U) Current Estimate Compared with Original Baseline

Category (CY\$M) Base Year: 2015	Original Baseline 05/12/2015	Current Estimate PB 2025	% Change
Program Acquisition Unit Cost			
Acquisition Cost	10,724.8	14,271.5	
Program Quantity	2,936	2,933	
PAUC	3.653	4.866	33.21%
Average Procurement Unit Cost			
Procurement Cost	9,736.6	13,157.8	
Procurement Quantity	2,897	2,897	
APUC	3.361	4.542	35.14%

Significant Cost Growth

Significant Cost Growth

The Current Estimate's constant-year dollars have been converted from Base Year 2023 to Base Year 2015 using the National Defense Budget Estimates for FY 2015 (Green Book).

(U) Significant Cost Growth Details

Original Baseline PAUC Breach Explanation

The root causes of the significant breach were primarily from: (1) unforeseeable escalation of labor and material costs as the world emerged from the shutdowns in response to the global pandemic; (2) changes in assumed production rate, original baseline (2015) assumed production rates of 180 AMPVs per year while the current estimate assumes a production rate of 131 AMPVs per year.

Original Baseline APUC Breach Explanation

The root causes of the significant breach were primarily from: (1) unforeseeable escalation of labor and material costs as the world emerged from the shutdowns in response to the global pandemic; (2) changes in assumed production rate, original baseline (2015) assumed production rates of 180 AMPVs per year while the current estimate assumes a production rate of 131 AMPVs per year.

Impacts of Schedule Changes on Unit Cost

N/A

Impacts of Performance Changes on Unit Cost

N/A

Actions taken or Proposed to Control Future Cost Growth

N/A

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: 2023	Production APB (Current) 10/27/2023 CY\$ obs Objective / Threshold		Current Estimate CY\$ obs / TY\$ obs	
	Total O&S	34,504.3	37,954.8	34,404.8
Total Disposal	-	-	67.1	159.3

(U) Current Cost Estimate Sources

Operating and Support Cost

Type: Component Cost Position

Approved by: Army Acquisition Executive, August 21, 2023

Disposal/Demilitarization Cost

Type: Component Cost Position

Approved by: Army Acquisition Executive, August 21, 2023

Operating and Support Baseline Deviation Explanation

None

Cost Notes

None

(U) Operating and Support Variance with Prior Estimate

(CY\$M) Base Year: 2023	Estimate	
Prior Estimate (8/21/2023)	34,404.8	
Current Estimate	34,404.8	
Category		
	Variance	Explanation
Unit-Level Manpower	0.0	N/a
Unit Operations	0.0	N/A
Maintenance	0.0	N/A
Sustaining Support	0.0	N/A
Continuing System Improvements	0.0	N/A
Other	0.0	N/A

(CY\$M) Base Year: 2023	Estimate	
Not Categorized		
	0.0	

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

(CY\$M) Base Year: 2023							
System	Unit-Level Manpower	Unit Operations	Maintenance	Sustaining Support	Continuing System Improvements	Other	Total
AMPV	16,905.1	3,049.9	11,041.7	1,198.3	2,209.8	-	34,404.8
Program	16,905.1	3,049.9	11,041.7	1,198.3	2,209.8	-	34,404.8

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

(CY\$M) Base Year: 2023							
System	Unit-Level Manpower	Unit Operations	Maintenance	Sustaining Support	Continuing System Improvements	Other	Total
AMPV	0.2	0.0	0.1	0.0	0.0	-	0.4
M113 FoVs (Antecedent)	0.2	0.0	0.1	0.0	0.0	-	0.3

(U) Operating and Support Cost Estimate Assumptions

System	Quantity to Sustain	Unit Expected Service Life (Years)	Unit of Measure	Fiscal Years Operational
AMPV	2,897	30.0	Cost per Vehicle per Year	2023 - 2072
M113 FoVs (Antecedent)	2,897	30.0	Cost per Vehicle per Year	2023 - 2072

Additional O&S Estimate Assumptions

Program was baselined to the Army Cost Position approved at the FRP decision for AMPV. The above Current Base Year Objective and Threshold includes \$67.1M in Demilitarization costs; the Current estimate does not include Demilitarization costs.

Antecedent Estimate Assumptions

N/A

O&S Annual Cost Calculation Memo

Annual Unitized O&S costs by Category are calculated by dividing the total cost for each element by

the # of systems and the service life per system. (Annual Unitized Cost = Cost Element Total / 30 Years / 2,897 Vehicles).

Total Cost numbers were set to match the new Milestone C APB Objective values.

Total Cost= #of systems x service life per system x average annual cost

\$29,917,290.117 = 2897 x 26 x \$397.192 (BY 2019 \$K)

	AMPV	M113 (Antecedent)
1.0 Unit Manpower Total	\$193.215	\$165.292
2.0 Unit Operations Total	\$36.598	\$41.597
3.0 Maintenance Total	\$73.844	\$53.303
4.0 Sustaining Support Total	\$16.476	\$20.046
5.0 Continuing System Improvements	\$30.636	\$4.968
6.0 Indirect Support	N/A	N/A
Other	\$46.424	\$66.366
Total O&S cost per vehicle per year	\$397.192	\$351.572 BY2019\$K

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

Event	Date	Description
MS B	9/26/2014	Risk: The Handheld, Manpack and Small Form Fit (HMS) Acquisition Strategy increases competition but may cause additional delays in deliveries for AMPV EMD which increases the likelihood of this risk. Risk mitigated through PM AMPV creating a "Revert to Single Channel Ground and Airborne Radio System (SINCGARS) Strategy" that will change the vehicle design to accept the SINCGARS in place of the new HMS Radio. Any future Engineering Change Proposals to modify the vehicle to accept HMS Radios would be fully funded by PM HMS.
MS B	9/25/2014	Risk: If there is insufficient electrical growth margins for Size, Weight and Power-Cooling (SWaP-C), then the AMPV will be unable to accommodate future power demand of Command, Control, Communications, Computers, Intelligence, Surveillance and Reconnaissance (C4ISR) equipment and mobility growth. Risk is mitigated by PM engineers performing a high-level power study prior to source selection to ensure that an appropriate solution which meets the 20% growth requirement is available. PM estimated a minimum power growth of 15% is required.
MS B	9/25/2014	Risk: If adequate powertrain cooling is not provided, then the vehicle will experience automotive performance degradation. Risk is mitigated by using modeling and simulation to evaluate the proposed solutions during source selection. At each phase in the design process the powertrain cooling model will be refined based on test data from components, subsystem and system level evaluation. Simulation will be used to reduce the test-fix-test cycle to ensure adequate cooling performance within the SWaP-C envelope.
MS B	9/25/2014	Risk: If a contractor is selected for the AMPV that did not previously integrate the M121 Mortar system on their Military Vehicle Derivative additional integration risks may occur. Risk is mitigated by evaluating design maturity during source selection. The contractor will conduct early structural analysis to inform prototype development. Mortar Carrier firing will be conducted during early testing to validate firing tables and structural analysis.

(U) Performing Activities and Contracts

(U) External Government Activities

None

(U) Contracts and Efforts

Contract Title	Contract Number / Effort	Contractor	Phase
AMPV Full Rate Production	W56HZV-23-C-0024	BAE Systems Land & Armaments, L.P.	Production
AMPV LRIP Options	W56HZV-15-C-A001 / 2	BAE Systems Land & Armaments, L.P.	Production

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

Contract Number: W56HZV-23-C-0024 **Order Number:** -
Contract Title: AMPV Full Rate Production **Strategy:** FAR 15: Negotiated Contracts
CAGE: 7B726 - BAE Systems Land & Armaments, L.P. **Contracting Office:** ACC-DTA; DCMA Detroit
City, State/Province: Sterling Heights, MI

Effort Number: - **Supported Phase:** Production
Type: Fixed-Price Incentive (Firm Target) **Award Date:** March 3, 2023
Latest Modification Date: September 21, 2023 **Definitization Date:** August 31, 2023
Latest Modification No.: P00004 **Work Start Date:** March 3, 2023
Technical Data Rights: Limited Rights
Notes: No singular Technical Data Rights category applies.

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
797.9 -	821.6 826.9	721.9 721.0	197	197	-

Work Completed (%): 2.11%
Cost Variance (TY\$M): +2.5
Schedule Variance (TY\$M): -6.7

Factors Contributing to Cost Variance and Projected Effects on Program Costs

Positive cost variance due to slower than baselined ramp of level of effort work, i.e. Engineering Support in Production, Logistics Support in Production and Program Management.

Factors Contributing to Schedule Variance and Projected Effects on Program Schedule

Negative schedule variance due to the BAE York facilitization paint booth expansion effort being behind schedule. Work arounds are in place to phase in new paint booths and outsource if needed to keep production on schedule.

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

Contract Number:	W56HZV-15-C-A001	Order Number:	2
Contract Title:	AMPV LRIP Options	Strategy:	FAR 15: Negotiated Contracts
CAGE:	7B726 - BAE Systems Land & Armaments, L.P.	Contracting Office:	ACC-DTA; DCMA Detroit
City, State/Province:	Sterling Heights, MI		
Effort Number:	2	Supported Phase:	Production
Type:	Fixed-Price Incentive (Successive Targets)	Award Date:	December 23, 2014
Latest Modification Date:	November 29, 2023	Definitization Date:	December 23, 2014
Latest Modification No.:	P00172	Work Start Date:	January 25, 2019
Technical Data Rights:	Limited Rights		
Notes:	No singular Technical Data Rights category applies.		

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
1,277.0	0.0	1,359.1	1,419.0	1,654.4	1,650.0	297	467	355

Work Completed (%): 81.37%

Cost Variance (TY\$M): -50.9

Schedule Variance (TY\$M): -24.4

Factors Contributing to Cost Variance and Projected Effects on Program Costs

The unfavorable cost variance is due to vehicles costing more than planned due to rework and expending more effort to recoup schedule. Also contributing are overhead rate increases. While the cost overrun is not ideal the program's obligation is limited to the contract ceiling of \$1,418.98M which is within the program budget.

Factors Contributing to Schedule Variance and Projected Effects on Program Schedule

The unfavorable schedule variance is due vehicles that are currently being built on the line being behind schedule to baseline. As of end of February 2024, BAE has delivered 355 of 349 required vehicles.

(U) Production

(U) Low-Rate Initial Production

	Original LRIP Determination	Current LRIP Determination
Total LRIP Quantity	289	551
Date	12/23/2014	9/26/2017
Reference	Milestone B ADM	Milestone B ADM Amendment
LRIP Period	FY 2014 - 2014	FY 2017 - 2017
Total Procurement Quantity	2,987	2,987
LRIP Percentage of Total	9.7%	18.4%

Rationale if LRIP Quantity Exceeds 10% of Total Procurement Quantity (Current Determination)

The current total LRIP quantity is more than 10% of the total production quantity due to an amendment to the AMPV Milestone B ADM on September 26, 2017. This amendment increased the LRIP quantity from 289 to 551 vehicles. The increased AMPV LRIP quantity was in support of the European Deterrence Initiative and in response to an U.S. Army Europe (USAREUR) Operational Needs Statement (ONS).

LRIP Notes

LRIP vehicle deliveries will conclude in December 2024. AMPV is now in the FRP phase with the successful FRP decision in August 2023 and the AAE approved FRP APB in October 2023.

(U) Deliveries and Expenditures

(U) Acquisition Funding

	Total Estimate	Actual to Date	Actual, Percent Complete
Years Appropriated	32	13	40.6%
Appropriations (TY, \$M)	21,402.6	4,722.2	22.1%
Expenditures (TY, \$M)	21,402.6	2,513.5	11.7%

(U) End Items Delivered

	Total Required	Planned to Date	Actual to Date	Actual, Percent Complete
Development	36			
AMPV		36	36	
Procurement	2,897			
AMPV		354	360	
Total	2,933	390	396	13.5%

Notes

Data as of March 31, 2024

(U) International Program Aspects

General Memo

Currently there are no international agreements for the AMPV program.

Exportability and Business Issues

No issues

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 Approved		

Program Protection: Technology Security and Foreign Disclosure Issues

No issues

(U) Agreements

No International Agreements have been defined for AMPV



UNCLASSIFIED

Modernized Selected Acquisition Report Supplement

Armored Multi-Purpose Vehicle (AMPV)

FY 2025 President's Budget
Effective: 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

Armored Multi-Purpose Vehicle

Short Name

AMPV

PNO

471

Lead Component

Army

AAF Pathway

MCA

Acquisition Type

MDAP

Acquired Systems

AMPV

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

Armored Multi-Purpose Vehicle

Major Software Efforts

Title	Status	Fielding Date	Description
No Major Software Efforts over \$50M			

Major Engineering Changes

Title	Original Need Date	Fielding Date	Description, Rationale and Program Impacts
No Major Engineering Changes over \$50M			

Funding Sources (Acquisition)

Acquisition Funding Notes

Armored Multi-Purpose Vehicle

Category	Account	BA	Line Item	Program Element	RDT&E Project	Shared	Sunk
Procurement	2033A	01	2944G80819 - Armored Multi Purpose Vehicle (AMPV)	0211708A	-		
RDT&E	2040A	07	0203735A - Combat Vehicle Improvement Programs	0203735A	DD4 - AMPV Improvement Program		

Funding Sources (Operating and Support)

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

Operating and Support Funding Notes

PM AMPV does not have Operating and Support (O&S) funding in the President's Budget for O&S activities.

Armored Multi-Purpose Vehicle

Category	Account	BA	Line Item	Program Element	RDT&E Project	Shared	Sunk
----------	---------	----	-----------	-----------------	---------------	--------	------

Acquisition Estimate and Quantity Summary

Armored Multi-Purpose Vehicle

Acquisition Estimates

Category	PB 2025	TY (\$M)	Current Base Year	Original Base Year	Report Fiscal Year
			CY2023 (\$M)	CY2015 (\$M)	CY2024 (\$M)
RDT&E		1,027.6	1,197.5	954.9	1,226.2
Procurement		20,137.8	16,501.8	13,157.8	16,897.2
MILCON		-	-	-	-
O&M		237.2	199.1	158.8	203.9
Total Acquisition		21,402.6	17,898.4	14,271.5	18,327.3
PAUC		7.297	6.102	4.866	6.249
APUC		6.951	5.696	4.542	5.833

Acquisition End-Item Quantities

System	PB 2025	Development	Procurement
AMPV		36	2,897
Total		36	2,897

Unit Description

Armored Multi-Purpose Vehicle

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

Appropriation	Prior	2024	2025	2026	2027	2028	2029	To Complete	Total
RDT&E	1,027.6	-	-	-	-	-	-	-	1,027.6
Procurement	3,682.0	392.1	515.3	871.5	890.7	931.9	687.4	12,166.9	20,137.8
MILCON	-	-	-	-	-	-	-	-	-
O&M	40.4	9.5	9.7	9.9	10.1	10.3	10.6	136.7	237.2
PB 2025 Total	4,750.0	401.6	525.0	881.4	900.8	942.2	698.0	12,303.6	21,402.6

Annual Acquisition Estimates by Appropriation Account

(Aligned to Budget Position: PB 2025)

Armored Multi-Purpose Vehicle

Source for TY\$-CY\$ Conversion: ASN FMB-6 Inflation Rates and Outlay Factors for DA, DoN and DW accounts: 17 Jan 2024

2040A - Research, Development, Test & Eval, Army					
fiscal year		Other/ Unallocated	Total TY(\$M)	Weighted Rate	Total CY2023 (\$M)
Total		1,027.6	1,027.6	-	1,197.5
2012		12.264	12.3	0.778869	15.7
2013		26.647	26.6	0.792113	33.6
2014		27.345	27.3	0.807373	33.9
2015		88.797	88.8	0.820928	108.2
2016		213.034	213.0	0.829650	256.8
2017		177.133	177.1	0.847309	209.1
2018		184.225	184.2	0.862643	213.6
2019		107.361	107.4	0.876820	122.4
2020		80.381	80.4	0.905169	88.8
2021		76.140	76.1	0.943252	80.7
2022		34.300	34.3	0.986755	34.8

Annual Acquisition Estimates by Appropriation Account

(Aligned to Budget Position: PB 2025)

Armored Multi-Purpose Vehicle

Source for TY\$-CY\$ Conversion: ASN FMB-6 Inflation Rates and Outlay Factors for DA, DoN and DW accounts: 17 Jan 2024

2033A - Procurement of W&TCV, Army									
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 CY2023 (\$M)
Total	18,020.2	1,589.1	-	47.5	-	481.0	20,137.8	-	16,501.8
2012							-	0.788269	-
2013							-	0.802061	-
2014							-	0.810024	-
2015							-	0.822398	-
2016							-	0.839789	-
2017							-	0.856966	-
2018	554.100	2.300					556.4	0.876502	634.8
2019	606.500	11.000				7.700	625.2	0.904830	691.0
2020	219.100	21.100		13.000		3.800	257.0	0.944314	272.2
2021	18.600	22.100				15.300	56.0	0.988184	56.7
2022	876.500	48.900		0.800		24.200	950.4	1.022523	929.5
2023	1,136.400	68.300		0.300		32.000	1,237.0	1.051026	1,176.9
2024	303.700	61.100		0.500		26.800	392.1	1.073705	365.2
2025	459.800	40.600		0.800		14.100	515.3	1.096297	470.0
2026	782.800	69.200		1.400		18.100	871.5	1.119320	778.6
2027	800.200	70.900		1.500		18.100	890.7	1.142825	779.4
2028	835.100	76.600		1.600		18.600	931.9	1.166825	798.7
2029	616.200	56.600		1.200		13.400	687.4	1.191328	577.0
2030	872.100	79.700		1.600		19.800	973.2	1.216346	800.1
2031	890.500	80.900		1.700		20.800	993.9	1.241889	800.3
2032	909.200	82.200		1.700		20.200	1,013.3	1.267969	799.2
2033	928.300	83.400		1.700		21.800	1,035.2	1.294596	799.6
2034	947.700	84.700		1.800		21.100	1,055.3	1.321783	798.4
2035	967.700	86.100		1.800		21.100	1,076.7	1.349540	797.8
2036	988.000	87.200				20.200	1,095.4	1.377880	795.0
2037	1,008.700	88.500		1.900		23.200	1,122.3	1.406816	797.8
2038	1,029.900	89.900		1.900		23.000	1,144.7	1.436359	796.9
2039	1,051.500	91.200		2.000		24.600	1,169.3	1.466523	797.3
2040	1,172.500	92.600		4.000		24.900	1,294.0	1.497320	864.2
2041	22.300	46.700		2.100		21.700	92.8	1.528763	60.7
2042	22.800	47.300		4.200		26.500	100.8	1.560867	64.6

Annual Acquisition Estimates by Appropriation Account

(Aligned to Budget Position: PB 2025)

Armored Multi-Purpose Vehicle

Source for TY\$-CY\$ Conversion: ASN FMB-6 Inflation Rates and Outlay Factors for DA, DoN and DW accounts: 17 Jan 2024

2020A - Operation & Maintenance, Army					
fiscal year		Other/ Unallocated	Total TY(\$M)	Weighted Rate	Total CY2023 (\$M)
Total		237.2	237.2	-	199.1
2012			-	0.776700	-
2013			-	0.787426	-
2014			-	0.799850	-
2015			-	0.807840	-
2016			-	0.822297	-
2017			-	0.836144	-
2018			-	0.852906	-
2019		5.681	5.7	0.872310	6.5
2020		6.375	6.4	0.896199	7.1
2021		8.449	8.4	0.940037	9.0
2022		10.879	10.9	0.986606	11.0
2023		9.002	9.0	1.022131	8.8
2024		9.458	9.5	1.046253	9.0
2025		9.720	9.7	1.068594	9.1
2026		9.921	9.9	1.091035	9.1
2027		10.130	10.1	1.113946	9.1
2028		10.342	10.3	1.137339	9.1
2029		10.559	10.6	1.161223	9.1
2030		10.583	10.6	1.185609	8.9
2031		10.581	10.6	1.210507	8.7
2032		10.597	10.6	1.235928	8.6
2033		10.585	10.6	1.261882	8.4
2034		10.568	10.6	1.288382	8.2
2035		10.570	10.6	1.315438	8.0
2036		10.543	10.5	1.343062	7.8
2037		10.535	10.5	1.371266	7.7
2038		10.523	10.5	1.400063	7.5
2039		10.479	10.5	1.429464	7.3
2040		10.428	10.4	1.459483	7.1
2041		10.370	10.4	1.490132	7.0
2042		10.334	10.3	1.521425	6.8

Acquired System Annual End-Item Quantities by Appropriation Account

(Aligned to Budget Position: PB 2025)

Armored Multi-Purpose Vehicle

2040A - Research, Development, Test & Eval, Army				
fiscal year	AMPV			Total
Total	36			36
Undistributed				-
2016	29			29
2017				-
2018	7			7

Acquired System Annual End-Item Quantities by Appropriation Account

(Aligned to Budget Position: PB 2025)

Armored Multi-Purpose Vehicle

2033A - Procurement of W&TCV, Army				
fiscal year	AMPV			Total
Total	2,897			2,897
Undistributed				-
2016				-
2017				-
2018	166			166
2019	209			209
2020	75			75
2021	-			-
2022	181			181
2023	213			213
2024	57			57
2025	81			81
2026	122			122
2027	122			122
2028	131			131
2029	87			87
2030	131			131
2031	131			131
2032	131			131
2033	131			131
2034	131			131
2035	131			131
2036	131			131
2037	131			131
2038	131			131
2039	131			131
2040	143			143

Nuclear Costs

Armored Multi-Purpose Vehicle

Program's Use of Department of Energy Resources

No data for 2023 MSAR

Operational Fielding Plan

Armored Multi-Purpose Vehicle

System: AMPV

Fielding and Inventory Notes

Projected fielding numbers across the FYDP.

AMPV Fielding Plan and Inventory

fiscal year	Store	Field	Expend/Loss	Decommission	Inventory
2023					151
2024		47			198
2025		221			419
2026		172			591
2027		221			812
2028		108			920
2029		154			1,074

O&S Independent Cost Estimate

Armored Multi-Purpose Vehicle

Independent and Current Cost Estimate Comparison

Category	CY2023 (\$M)	Independent Cost Estimate 8/21/2023	Current Estimate 8/21/2023	Variance with ICE (%)
Unit-Level Manpower		16,919.4	16,905.1	0%
Unit Operations		3,047.2	3,049.9	0%
Maintenance		11,053.8	11,041.7	0%
Sustaining Support		1,200.5	1,198.3	0%
Continued System Improvements		2,216.2	2,209.8	0%
Other		-	-	-
Total O&S		34,437.1	34,404.8	0%

Independent Cost Estimate Source

Event: AMPV FRP Milestone
 Type: Component Cost Position
 Approved by: Army Acquisition Executive, August 21, 2023
 Note: The Independent Cost Estimate was approved as the Army Cost Position on 08/21/2023 by the Army Acquisition Executive as part of the AMPV FRP Milestone.

Current Cost Estimate Source

Type: Component Cost Position
 Approved by: Army Acquisition Executive, August 21, 2023
 Note: The current Cost Estimate was approved as the Army Cost Position on 08/21/2023 by the Army Acquisition Executive as part of the AMPV FRP Milestone. This was updated on 03/27/2024 to utilize PB25 Inflation Indices.

Cost Estimate Variance Explanation

Annual Operating and Support Estimates by Cost Element

Armored Multi-Purpose Vehicle

System: AMPV

Source for TY-CY Conversion: Green Book Table 5-9 for CY-CY conversions as of May 2023

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 CY2023 (\$M)
Total	16,905.1	3,049.9	11,041.7	1,198.3	2,209.8	-	34,404.8
2014	-	-	-	0.790	-	-	0.8
2015	-	-	-	0.790	-	-	0.8
2016	-	-	-	1.061	-	-	1.1
2017	-	-	-	1.061	-	-	1.1
2018	-	-	-	1.061	-	-	1.1
2019	-	-	-	1.061	-	-	1.1
2020	-	-	-	0.625	-	-	0.6
2021	-	-	-	0.625	-	-	0.6
2022	-	-	-	0.625	-	-	0.6
2023	44.624	8.902	16.697	1.663	3.610	-	75.5
2024	89.249	16.186	33.672	1.992	7.549	-	148.6
2025	94.851	18.911	35.716	2.032	10.620	-	162.1
2026	139.475	25.885	59.255	2.361	13.691	-	240.7
2027	184.100	32.860	67.863	2.690	16.762	-	304.3
2028	228.724	39.835	83.936	3.020	19.833	-	375.3
2029	228.724	41.730	84.514	3.020	22.904	-	380.9
2030	273.348	46.911	100.587	3.349	25.975	-	450.2
2031	317.973	54.375	117.546	3.678	29.750	-	523.3
2032	323.575	57.183	119.591	3.717	32.821	-	536.9
2033	368.199	64.158	135.664	4.047	35.892	-	608.0
2034	373.801	67.322	137.708	4.086	38.963	-	621.9
2035	373.801	69.218	138.286	4.086	42.034	-	627.4
2036	373.801	67.698	138.286	4.086	42.034	-	625.9
2037	418.426	74.398	154.359	4.415	45.105	-	696.7
2038	463.050	81.373	424.518	4.744	48.176	-	1,021.9
2039	507.674	88.348	463.690	5.074	51.247	-	1,116.0
2040	507.674	90.775	404.100	5.074	55.092	-	1,062.7
2041	552.299	95.563	420.173	24.031	58.163	-	1,150.2
2042	563.503	103.453	424.262	24.360	64.305	-	1,179.9
2043	563.503	100.333	424.262	47.752	74.760	-	1,210.6
2044	563.503	100.333	427.850	47.494	74.760	-	1,213.9
2045	563.503	100.333	424.262	46.343	74.760	-	1,209.2
2046	563.503	100.333	473.759	45.438	74.760	-	1,257.8

System: AMPV

Source for TY-CY Conversion: Green Book Table 5-9 for CY-CY conversions as of May 2023

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 CY2023 (\$M)
2047	563.503	100.333	424.262	44.784	74.760		1,207.6
2048	563.503	100.333	424.262	44.480	74.760		1,207.3
2049	563.503	100.333	424.262	43.456	74.760		1,206.3
2050	563.503	100.333	427.850	42.855	74.760		1,209.3
2051	563.503	100.333	462.210	42.540	74.760		1,243.3
2052	563.503	100.333	424.262	41.542	74.760		1,204.4
2053	518.879	93.265	407.565	40.632	71.015		1,131.4
2054	474.254	86.147	390.591	39.926	66.928		1,057.8
2055	468.652	82.983	446.581	38.921	63.742		1,100.9
2056	424.028	76.008	372.473	38.029	60.556		971.1
2057	379.404	69.033	572.537	37.254	57.370		1,115.6
2058	334.779	62.058	124.188	36.097	54.183		611.3
2059	334.779	61.957	123.611	35.335	50.997		606.7
2060	290.155	54.982	107.538	34.689	47.811		535.2
2061	245.530	47.875	90.579	33.443	43.895		461.3
2062	239.928	44.710	88.534	32.753	40.709		446.6
2063	195.304	37.736	72.461	32.152	37.522		375.2
2064	189.702	34.571	70.416	31.092	34.336		360.1
2065	189.702	34.469	69.839	30.413	31.150		355.6
2066	189.702	34.469	69.839	30.131	31.150		355.3
2067	145.077	27.495	53.765	28.819	27.963		283.1
2068	100.453	20.520	37.692	27.928	24.777		211.4
2069	55.829	13.545	21.619	27.224	21.591		139.8
2070	55.829	13.304	20.162	26.244	17.602		133.1
2071	11.204	6.330	4.089	25.334	14.416		61.4
2072	-	-	-	5.941	-		5.9