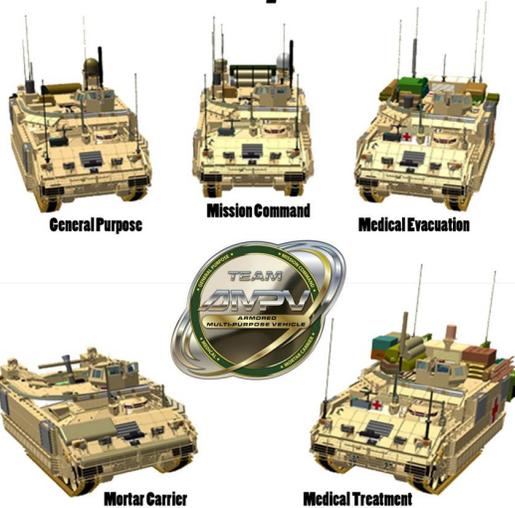




## Selected Acquisition Report (SAR)

RCS: DD-A&T(Q&A)823-471

### AMPV Family of Vehicles



### Armored Multi-Purpose Vehicle (AMPV)

As of FY 2016 President's Budget

Defense Acquisition Management  
Information Retrieval  
(DAMIR)

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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)

## Program Information

**Program Name**

Armored Multi-Purpose Vehicle (AMPV)

**DoD Component**

Army

## Responsible Office

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**Date**

**Assigned:** September 5, 2014

## References

**SAR Baseline (Development Estimate)**

[APB Authority] Approved Acquisition Program Baseline (APB) dated May 09, 2013

## Mission and Description

The AMPV is a materiel solution to support the Armored Brigade Combat Team (ABCT) across the Spectrum of Conflict. The AMPV will replace five M113 Family of Vehicles (FoV) mission roles with the following variants: Mission Command (MCmd), Medical Treatment (MT), Medical Evacuation (ME), General Purpose (GP), and Mortar Carrier (MC). It will integrate the current M113 FoV Mission Equipment Package (MEP) to a Military Vehicle Derivative (MVD). The total projected AMPV quantity is 2,897 vehicles at the ABCT level and below.

## Executive Summary

This is the initial SAR submission for the AMPV program.

AMPV is a post-Milestone (MS) B program in the EMD phase. The AMPV program had a successful MS B DAB on December 9, 2015. The DAE signed the MS B Acquisition Decision Memorandum permitting the program to enter the EMD phase on December 23, 2014. BAE Systems Land & Armaments, LP, Sterling Heights, Michigan, was awarded a \$382,654,403 incrementally funded, cost-plus-incentive-fee contract (W56HZV-15-C-A001) with options, for the AMPV program comprised of five vehicle variants: general purpose, mission command, mortar carrier, medical evaluation, and medical treatment vehicles. Work will be performed in Aiken, South Carolina; Santa Clara, California; Sterling Heights, Michigan; and York, Pennsylvania, with an estimated completion date of May 20, 2019.

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

## Threshold Breaches

### APB Breaches

<b>Schedule</b>		<input type="checkbox"/>
<b>Performance</b>		<input type="checkbox"/>
<b>Cost</b>	RDT&E	<input type="checkbox"/>
	Procurement	<input type="checkbox"/>
	MILCON	<input type="checkbox"/>
	Acq O&M	<input type="checkbox"/>
<b>O&amp;S Cost</b>		<input type="checkbox"/>
<b>Unit Cost</b>	PAUC	<input type="checkbox"/>
	APUC	<input type="checkbox"/>

### Nunn-McCurdy Breaches

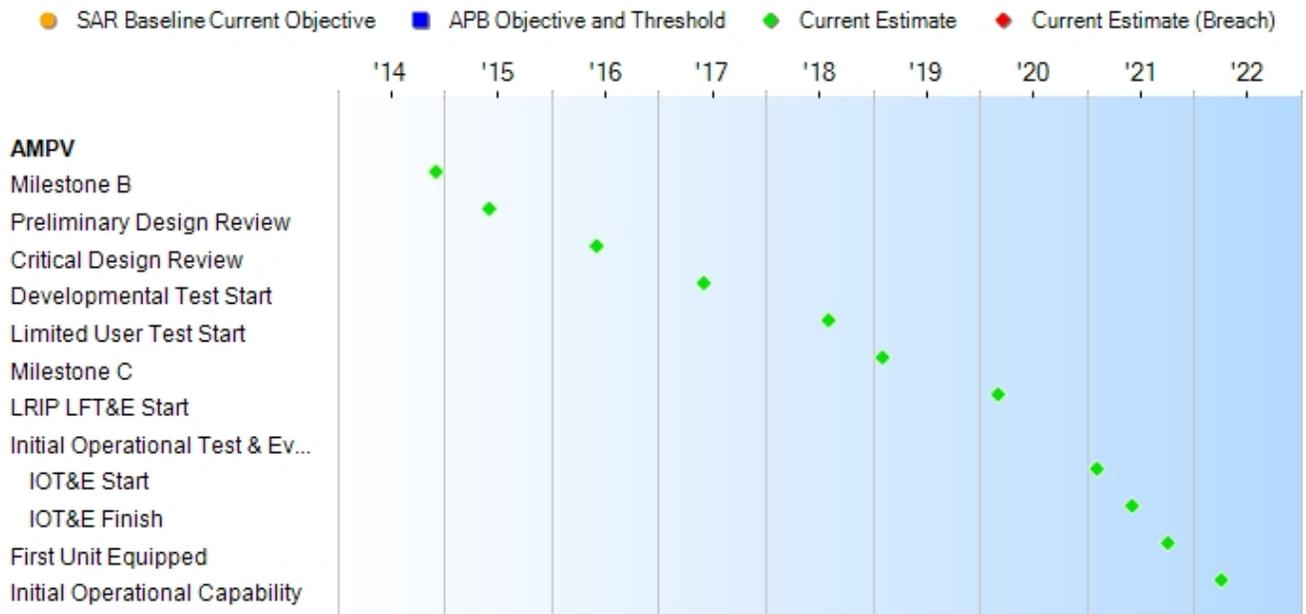
#### Current UCR Baseline

PAUC	None
APUC	None

#### Original UCR Baseline

PAUC	None
APUC	None

### Schedule



Schedule Events				
Events	SAR Baseline Development Estimate	Current APB Objective/Threshold		Current Estimate
Milestone B	Dec 2014	N/A	N/A	Dec 2014
Preliminary Design Review	Jun 2015	N/A	N/A	Jun 2015
Critical Design Review	Jun 2016	N/A	N/A	Jun 2016
Developmental Test Start	Jun 2017	N/A	N/A	Jun 2017
Limited User Test Start	Aug 2018	N/A	N/A	Aug 2018
Milestone C	Feb 2019	N/A	N/A	Feb 2019
LRIP LFT&E Start	Mar 2020	N/A	N/A	Mar 2020
Initial Operational Test & Evaluation				
IOT&E Start	Feb 2021	N/A	N/A	Feb 2021
IOT&E Finish	Jun 2021	N/A	N/A	Jun 2021
First Unit Equipped	Oct 2021	N/A	N/A	Oct 2021
Initial Operational Capability	Apr 2022	N/A	N/A	Apr 2022

#### Change Explanations

None

**Acronyms and Abbreviations**

IOT&E - Initial Operational Test & Evaluation

LFT&E - Live Fire Test & Evaluation

LRIP - Low Rate Initial Production

## Performance

Performance Characteristics				
SAR Baseline Development Estimate	Current APB Objective/Threshold		Demonstrated Performance	Current Estimate
<b>KPP 1 Net Ready</b>				
The capability, system, and/or service must fully support execution of all operational activities and information exchanges identified in DoD Enterprise Architecture and solution architectures based on integrated DoDAF content, and must satisfy the technical requirements for transition to Net-Centric military operations to include: 1) Solution architecture products compliant with DoD Enterprise Architecture based on integrated DoDAF content, including specified operationally effective information exchanges 2) Compliant with Net-Centric Data Strategy and Net-Centric Services Strategy, and the principles and rules identified in the DoD IEA, excepting tactical and non-IP communications 3) Compliant with GIG Technical Guidance to include IT standards identified in the TV-1 and implementation guidance of GESPs, necessary to meet all operational requirements specified in the DoD Enterprise Architecture and solution architecture views 4) IA requirements including availability, integrity, authentication, confidentiality, and non-repudiation, and issuance of an ATO by the DAA, and 5) Supportability requirements to include SAASM, spectrum, and JTRS requirements.	N/A	N/A	TBD	The capability, system, and/or service must fully support execution of all operational activities and information exchanges identified in DoD Enterprise Architecture and solution architectures based on integrated DoDAF content, and must satisfy the technical requirements for transition to Net-Centric military operations to include: 1) Solution architecture products compliant with DoD Enterprise Architecture based on integrated DoDAF content, including specified operationally effective information exchanges 2) Compliant with Net-Centric Data Strategy and Net-Centric Services Strategy, and the principles and rules identified in the DoD IEA, excepting tactical and non-IP communications 3) Compliant with GIG Technical Guidance to include IT standards identified in the TV-1 and implementation guidance of GESPs, necessary to meet all operational requirements specified in the DoD Enterprise Architecture and solution architecture views 4) IA requirements including availability, integrity, authentication, confidentiality, and non-repudiation, and issuance of an ATO by the DAA, and 5) Supportability requirements to include SAASM, spectrum, and JTRS requirements.
<b>KPP 3 Force Protection</b>				
Objective values listed in Table 6.1 and shall provide for spall reducing floor material or spall blanket.	N/A	N/A	TBD	Objective values listed in Table 6.1 and shall provide for spall reducing floor material or spall blanket.
<b>KPP 4 Sustainment</b>				
The AMPV, at full combat configuration (excluding failures and	N/A	N/A	TBD	The AMPV, at full combat configuration (excluding failures and

maintenance of the Government directed GFE/GFM MEP), shall achieve an Ao of at least 93.3% when measured continuously over a three-day mission (consistent with the General Purpose M113A3 Mission Profile defined in the HBCT OMS/MP) with only SA failures factored into the Ao assessment. The AMPV FDSC shall include all provisions necessary to fully address each vehicle variant with GFE/GFM MEP integrated therein, to support the supplementary assessment/evaluation of total vehicle system availability and hold accountable vehicle development for proper functional integration of the MEP (MEP failures caused by integration issues are chargeable to the host vehicle). Accordingly, availability of the MEP is not reduced (degraded or lessened) beyond that of its current performance as a result of integration into the host AMPV chassis. The AMPV at full combat configuration (excluding Department of the Army directed GFE/GFM MEP will achieve an Am of not less than 86.5% when assessed at the Army fleet level.

maintenance of the Government directed GFE/GFM MEP), shall achieve an Ao of at least 93.3% when measured continuously over a three-day mission (consistent with the General Purpose M113A3 Mission Profile defined in the HBCT OMS/MP) with only SA failures factored into the Ao assessment. The AMPV FDSC shall include all provisions necessary to fully address each vehicle variant with GFE/GFM MEP integrated therein, to support the supplementary assessment/evaluation of total vehicle system availability and hold accountable vehicle development for proper functional integration of the MEP (MEP failures caused by integration issues are chargeable to the host vehicle). Accordingly, availability of the MEP is not reduced (degraded or lessened) beyond that of its current performance as a result of integration into the host AMPV chassis. The AMPV at full combat configuration (excluding Department of the Army directed GFE/GFM MEP will achieve an Am of not less than 86.5% when assessed at the Army fleet level.

**KPP 5 Energy**

Energy objective values are developed at a vehicle weight meeting the Survivability KPP and Force Protection KPP objectives and other performance KPP objectives while ensuring the vehicle can operate within fuel apportioned for the AMPV during the 72-hour mission cycle of HBCT OMS/MP (for each individual mission role). The AMPV, using standard (JP8) fuel, will consume fuel at, or better than, the level identified in Table 6.2 (O) at full combat configuration, when evaluated at sustained speeds of 30-MPH on primary roads, maneuvering the distance outlined in the HBCT OMS/MP for the 72-hour mission cycle without refueling, and while providing power sustained loads to support all electronic equipment with

N/A

N/A

TBD

Energy objective values are developed at a vehicle weight meeting the Survivability KPP and Force Protection KPP objectives and other performance KPP objectives while ensuring the vehicle can operate within fuel apportioned for the AMPV during the 72-hour mission cycle of HBCT OMS/MP (for each individual mission role). The AMPV, using standard (JP8) fuel, will consume fuel at, or better than, the level identified in Table 6.2 (O) at full combat configuration, when evaluated at sustained speeds of 30-MPH on primary roads, maneuvering the distance outlined in the HBCT OMS/MP for the 72-hour mission cycle without refueling, and while providing power sustained loads to support all electronic equipment with

<p>a 50% spare electrical capacity for all variants. The AMPV will consume fuel at, or better than, the level identified in Table 6.2 for stationary operations (Idle/GPH) when evaluated at providing power at sustained loads to support all electronic equipment with a 50% spare electrical capacity for all variants.</p>				<p>a 50% spare electrical capacity for all variants. The AMPV will consume fuel at, or better than, the level identified in Table 6.2 for stationary operations (Idle/GPH) when evaluated at providing power at sustained loads to support all electronic equipment with a 50% spare electrical capacity for all variants.</p>
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**KPP 6 Mobility**

<p>(T=O) The AMPV mobility is aligned with Survivability and Force Protection KPP requirements. The vehicle must be capable of traversing steep hills, valleys, and man-made objects typical in cross-country and urban terrain. The AMPV must be able to maintain mobility threshold as outlined in the HBCT OMS/MP. The platform must have the speed and mobility to successfully fulfill its role in the BCT and maintain its doctrinal positioning within the ABCT formation.</p>	<p>N/A</p>	<p>N/A</p>	<p>TBD</p>	<p>(T=O) The AMPV mobility is aligned with Survivability and Force Protection KPP requirements. The vehicle must be capable of traversing steep hills, valleys, and man-made objects typical in cross-country and urban terrain. The AMPV must be able to maintain mobility threshold as outlined in the HBCT OMS/MP. The platform must have the speed and mobility to successfully fulfill its role in the BCT and maintain its doctrinal positioning within the ABCT formation.</p>
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**KPP 7 Training**

<p>Upon completion of FUE NET the soldier, both operator and maintainer, will successfully accomplish &gt;99% (O) of the critical tasks and &gt;80% (O) of the non-critical tasks required to operate and maintain the AMPV. Further, institutional and sustainment training will be IAW AR 71-70 &amp; AR 350-1.</p>	<p>N/A</p>	<p>N/A</p>	<p>TBD</p>	<p>Upon completion of FUE NET the soldier, both operator and maintainer, will successfully accomplish &gt;99% (O) of the critical tasks and &gt;80% (O) of the non-critical tasks required to operate and maintain the AMPV. Further, institutional and sustainment training will be IAW AR 71-70 &amp; AR 350-1.</p>
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**KPP 8 Lethality**

<p>(T=O) The Lethality KPP addresses the GCV ICD Capability 3, Lethality. The AMPV MC will host and integrate the current M121 120-mm mortar system to provide indirect fires in support of maneuver units. The mortar system must accommodate a smoothbore 120-mm mortar system, which must be capable of firing the full family of mortar ammunition: HE, illumination, IR illumination, smoke, precision munitions, and future extended range munitions. The system will integrate the current M95 Mortar Fire Control System-Mounted and carry current</p>	<p>N/A</p>	<p>N/A</p>	<p>TBD</p>	<p>(T=O) The Lethality KPP addresses the GCV ICD Capability 3, Lethality. The AMPV MC will host and integrate the current M121 120-mm mortar system to provide indirect fires in support of maneuver units. The mortar system must accommodate a smoothbore 120-mm mortar system, which must be capable of firing the full family of mortar ammunition: HE, illumination, IR illumination, smoke, precision munitions, and future extended range munitions. The system will integrate the current M95 Mortar Fire Control System-Mounted and carry current</p>
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ground mounting and firing equipment as utilized on the M1064 MC. The AMPV MC's lethality, responsiveness and accuracy will be equal to or greater than the M1064 MC.						ground mounting and firing equipment as utilized on the M1064 MC. The AMPV MC's lethality, responsiveness and accuracy will be equal to or greater than the M1064 MC.
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Classified Performance information is provided in the classified annex to this submission.

#### Change Explanations

None

#### Notes

Detailed KPP information is available in the approved Armored Multi-Purpose Vehicle CDD, dated June 21, 2013, including Table 6.1 and Table 6.2 referenced in the Performance Characteristics above.

## Acronyms and Abbreviations

% - percent  
ABCT - Armor Brigade Combat Team  
Am - Materiel Availability  
Ao - Operational Availability  
AR - Army Regulation  
ARL - Army Research Laboratory  
ATO - Authorization To Operate  
BCT - Brigade Combat Team  
DAA - Designated Accrediting Authority  
DoDAF - Department of Defense Architecture Framework  
EFP - Explosively Formed Penetrator  
FDSC - Failure Definition and Scoring Criteria  
FUE - First Unit Equipped  
GESP - GIG Enterprise Service Profile  
GFE - Government Furnished Equipment  
GFM - Government Furnished Material  
GIG - Global Information Grid  
GPH - Gallons Per Hour  
HBCT - Heavy Brigade Combat Team  
HE - High Explosive  
IA - Information Assurance  
IATO - Interim Authority To Operate  
IAW - In Accordance With  
ICD - Initial Capability Document  
IEA - Information Enterprise Architecture  
IED - Improvised Explosive Device  
IP - Internet Protocol  
IR - InfraRed  
IT - Information Technology  
JTRS - Joint Tactical Radio System  
MC - Mortar Carrier  
MEP - Mission Equipment Package  
mm - millimeter  
MPH - Miles Per Hour  
NET - New Equipment Training  
O - Objective  
OMS/MP - Operational Mode Summary/Mission Profile  
RPG - Rocket Propelled Grenade  
SA - System Abort  
SAASM - Selective Availability Anti-Spoofing Module  
SLAD - Survivability/Lethality Analysis Directorate  
T - Threshold  
TV - Technical View

## Track to Budget

### RDT&E

Appn	BA	PE
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Army 2040 05 0605028A

Project	Name
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EB5 Armored Multi-Purpose Vehicle (AMPV)

### Procurement

Appn	BA	PE
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Army 2033 01 0211708A

Line Item	Name
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2944G80819 Armored Multi Purpose Vehicle (AMPV)

## Cost and Funding

### Cost Summary

Total Acquisition Cost							
Appropriation	BY \$M			BY 2015 \$M	TY \$M		
	SAR Baseline Development Estimate	Current APB Objective/Threshold		Current Estimate	SAR Baseline Development Estimate	Current APB Objective	Current Estimate
RDT&E	988.2	--	--	988.2	1073.8	--	1073.8
Procurement	9736.6	--	--	9736.6	12871.0	--	12871.0
Flyaway	--	--	--	9185.0	--	--	12148.1
Recurring	--	--	--	9146.4	--	--	12104.9
Non Recurring	--	--	--	38.6	--	--	43.2
Support	--	--	--	551.6	--	--	722.9
Other Support	--	--	--	370.3	--	--	483.0
Initial Spares	--	--	--	181.3	--	--	239.9
MILCON	0.0	--	--	0.0	0.0	--	0.0
Acq O&M	0.0	--	--	0.0	0.0	--	0.0
Total	10724.8	--	--	10724.8	13944.8	--	13944.8

#### Cost Notes

Per the December 22, 2014 Milestone B ADM, the following affordability caps were set for AMPV:

- Average Procurement Unit Cost less than or equal to \$3.62M (BY 2015 \$M) at a production rate of not less than 180 vehicles per year.
- Operations and Sustainment (O&S) costs less than or equal to \$0.495M (BY 2015 \$M) per vehicle per year.

The ADM directs the Army to fund the AMPV program to the Director, CAPE ICE in the FY 2016 President's Budget Request.

To support the development phase a total of 39 AMPVs are required: 29 AMPV prototype vehicles for the Engineering and Manufacturing Development phase and 10 production representative AMPVs for Full Up System Level live fire tests. The 10 live fire test assets are RDTE-funded Low-Rate Initial Production.

AMPV O&S costs are defined in accordance with the OSD CAPE O&S Cost Estimating Guide (2007), which calls for the inclusion of procurement-funded training ammunition and modifications.

For reporting purposes, the antecedent system for this program is the M113 Family of Vehicles.

Total Quantity			
Quantity	SAR Baseline Development Estimate	Current APB	Current Estimate
RDT&E	39	0	39
Procurement	2897	0	2897
Total	2936	0	2936

## Cost and Funding

### Funding Summary

Appropriation Summary									
FY 2016 President's Budget / December 2014 SAR (TY\$ M)									
Appropriation	Prior	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	To Complete	Total
RDT&E	66.4	71.7	231.9	186.9	201.0	124.4	96.1	95.4	1073.8
Procurement	0.0	0.0	0.0	0.0	195.2	400.5	499.5	11775.8	12871.0
MILCON	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Acq O&M	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PB 2016 Total	66.4	71.7	231.9	186.9	396.2	524.9	595.6	11871.2	13944.8
	--	--	--	--	--	--	--	--	--

Quantity Summary										
FY 2016 President's Budget / December 2014 SAR (TY\$ M)										
Quantity	Undistributed	Prior	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	To Complete	Total
Development	39	0	0	0	0	0	0	0	0	39
Production	0	0	0	0	0	42	107	130	2618	2897
PB 2016 Total	39	0	0	0	0	42	107	130	2618	2936
	--	--	--	--	--	--	--	--	--	--

## Cost and Funding

### Annual Funding By Appropriation

Annual Funding							
2040   RDT&E   Research, Development, Test, and Evaluation, Army							
Fiscal Year	Quantity	TY \$M					
		End Item Recurring Flyaway	Non End Item Recurring Flyaway	Non Recurring Flyaway	Total Flyaway	Total Support	Total Program
2012	--	--	--	--	--	--	12.3
2013	--	--	--	--	--	--	26.8
2014	--	--	--	--	--	--	27.3
2015	--	--	--	--	--	--	71.7
2016	--	--	--	--	--	--	231.9
2017	--	--	--	--	--	--	186.9
2018	--	--	--	--	--	--	201.0
2019	--	--	--	--	--	--	124.4
2020	--	--	--	--	--	--	96.1
2021	--	--	--	--	--	--	95.4
Subtotal	39	--	--	--	--	--	1073.8

Annual Funding 2040   RDT&E   Research, Development, Test, and Evaluation, Army							
Fiscal Year	Quantity	BY 2015 \$M					
		End Item Recurring Flyaway	Non End Item Recurring Flyaway	Non Recurring Flyaway	Total Flyaway	Total Support	Total Program
2012	--	--	--	--	--	--	12.7
2013	--	--	--	--	--	--	27.1
2014	--	--	--	--	--	--	26.9
2015	--	--	--	--	--	--	69.2
2016	--	--	--	--	--	--	219.4
2017	--	--	--	--	--	--	173.4
2018	--	--	--	--	--	--	182.8
2019	--	--	--	--	--	--	110.9
2020	--	--	--	--	--	--	84.0
2021	--	--	--	--	--	--	81.8
Subtotal	39	--	--	--	--	--	988.2

Annual Funding							
2033   Procurement   Procurement of Weapons and Tracked Combat Vehicles, Army							
Fiscal Year	Quantity	TY \$M					
		End Item Recurring Flyaway	Non End Item Recurring Flyaway	Non Recurring Flyaway	Total Flyaway	Total Support	Total Program
2018	42	167.6	3.6	18.3	189.5	5.7	195.2
2019	107	352.0	7.4	14.6	374.0	26.5	400.5
2020	130	414.7	38.4	6.6	459.7	39.8	499.5
2021	180	596.9	47.1	3.7	647.7	48.8	696.5
2022	180	574.6	68.2	--	642.8	55.6	698.4
2023	180	578.6	70.2	--	648.8	51.0	699.8
2024	180	585.3	72.3	--	657.6	36.2	693.8
2025	180	656.3	74.4	--	730.7	38.5	769.2
2026	180	668.5	76.6	--	745.1	39.8	784.9
2027	180	681.6	78.9	--	760.5	39.8	800.3
2028	180	695.6	81.2	--	776.8	40.6	817.4
2029	180	710.3	83.6	--	793.9	41.4	835.3
2030	180	725.6	86.1	--	811.7	42.3	854.0
2031	180	741.6	88.7	--	830.3	43.3	873.6
2032	180	758.2	91.3	--	849.5	44.2	893.7
2033	180	775.4	79.9	--	855.3	45.2	900.5
2034	180	793.2	61.7	--	854.9	46.2	901.1
2035	98	470.2	27.3	--	497.5	38.0	535.5
2036	--	--	21.8	--	21.8	--	21.8
Subtotal	2897	10946.2	1158.7	43.2	12148.1	722.9	12871.0

Annual Funding							
2033   Procurement   Procurement of Weapons and Tracked Combat Vehicles, Army							
Fiscal Year	Quantity	BY 2015 \$M					
		End Item Recurring Flyaway	Non End Item Recurring Flyaway	Non Recurring Flyaway	Total Flyaway	Total Support	Total Program
2018	42	152.2	3.3	16.6	172.1	5.2	177.3
2019	107	313.4	6.6	13.0	333.0	23.6	356.6
2020	130	362.0	33.6	5.8	401.4	34.7	436.1
2021	180	510.9	40.2	3.2	554.3	41.8	596.1
2022	180	482.1	57.3	--	539.4	46.6	586.0
2023	180	476.0	57.8	--	533.8	41.9	575.7
2024	180	472.0	58.3	--	530.3	29.2	559.5
2025	180	518.9	58.9	--	577.8	30.4	608.2
2026	180	518.2	59.4	--	577.6	30.8	608.4
2027	180	518.0	60.0	--	578.0	30.2	608.2
2028	180	518.3	60.5	--	578.8	30.2	609.0
2029	180	518.9	61.1	--	580.0	30.2	610.2
2030	180	519.6	61.7	--	581.3	30.3	611.6
2031	180	520.7	62.3	--	583.0	30.4	613.4
2032	180	521.9	62.8	--	584.7	30.5	615.2
2033	180	523.3	53.9	--	577.2	30.5	607.7
2034	180	524.8	40.9	--	565.7	30.5	596.2
2035	98	305.0	17.7	--	322.7	24.6	347.3
2036	--	--	13.9	--	13.9	--	13.9
Subtotal	2897	8276.2	870.2	38.6	9185.0	551.6	9736.6

Cost Quantity Information		
2033   Procurement   Procurement of Weapons and Tracked Combat Vehicles, Army		
Fiscal Year	Quantity	End Item Recurring Flyaway (Aligned With Quantity) BY 2015 \$M
2018	42	152.2
2019	107	313.4
2020	130	362.1
2021	180	510.9
2022	180	482.1
2023	180	476.0
2024	180	472.0
2025	180	518.9
2026	180	518.2
2027	180	518.0
2028	180	518.3
2029	180	518.8
2030	180	519.6
2031	180	520.7
2032	180	521.9
2033	180	523.3
2034	180	524.8
2035	98	305.0
2036	--	--
Subtotal	2897	8276.2

## Low Rate Initial Production

Item	Initial LRIP Decision	Current Total LRIP
<b>Approval Date</b>	6/25/2019	
<b>Approved Quantity</b>	289	
<b>Reference</b>	Milestone B ADM approved 23Dec2014. Contract W56HZV-15-C-A001 with LRIP CLINS 004 through 006.	
<b>Start Year</b>	2019	
<b>End Year</b>	2022	

## **Foreign Military Sales**

None

## **Nuclear Costs**

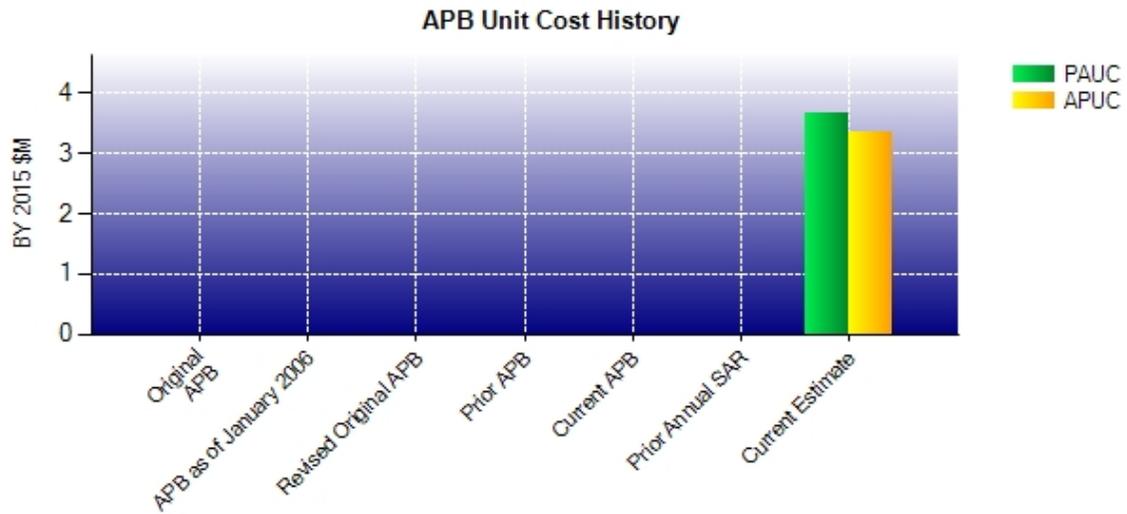
None

## Unit Cost

### Unit Cost Report

Item	BY 2015 \$M	BY 2015 \$M	% Change
	Current UCR Baseline	Current Estimate (Dec 2014 SAR)	
<b>Program Acquisition Unit Cost</b>			
Cost	--	10724.8	
Quantity	--	2936	
Item	--	3.653	--
<b>Average Procurement Unit Cost</b>			
Cost	--	9736.6	
Quantity	--	2897	
Unit Cost	--	3.361	--

**Unit Cost History**



Item	Date	BY 2015 \$M		TY \$M	
		PAUC	APUC	PAUC	APUC
Original APB	N/A	N/A	N/A	N/A	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	N/A	N/A	N/A	N/A	N/A
Prior Annual SAR	N/A	N/A	N/A	N/A	N/A
Current Estimate	Dec 2014	3.653	3.361	4.750	4.443

**SAR Unit Cost History**

Current SAR Baseline to Current Estimate (TY \$M)									
Initial PAUC Development Estimate	Changes								PAUC Current Estimate
	Econ	Qty	Sch	Eng	Est	Oth	Spt	Total	
4.750	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	4.750

Current SAR Baseline to Current Estimate (TY \$M)									
Initial APUC Development Estimate	Changes								APUC Current Estimate
	Econ	Qty	Sch	Eng	Est	Oth	Spt	Total	
4.443	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	4.443

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	Dec 2014	N/A	Dec 2014
Milestone C	N/A	Feb 2019	N/A	Feb 2019
IOC	N/A	Apr 2022	N/A	Apr 2022
Total Cost (TY \$M)	N/A	13944.8	N/A	13944.8
Total Quantity	N/A	2936	N/A	2936
PAUC	N/A	4.750	N/A	4.750

## Cost Variance

Summary TY \$M				
Item	RDT&E	Procurement	MILCON	Total
SAR Baseline (Development Estimate)	1073.8	12871.0	--	13944.8
Previous Changes				
Economic	--	--	--	--
Quantity	--	--	--	--
Schedule	--	--	--	--
Engineering	--	--	--	--
Estimating	--	--	--	--
Other	--	--	--	--
Support	--	--	--	--
Subtotal	--	--	--	--
Current Changes				
Economic	--	--	--	--
Quantity	--	--	--	--
Schedule	--	--	--	--
Engineering	--	--	--	--
Estimating	--	--	--	--
Other	--	--	--	--
Support	--	--	--	--
Subtotal	--	--	--	--
Total Changes	--	--	--	--
CE - Cost Variance	1073.8	12871.0	--	13944.8
CE - Cost & Funding	1073.8	12871.0	--	13944.8

Summary BY 2015 \$M				
Item	RDT&E	Procurement	MILCON	Total
SAR Baseline (Development Estimate)	988.2	9736.6	--	10724.8
Previous Changes				
Economic	--	--	--	--
Quantity	--	--	--	--
Schedule	--	--	--	--
Engineering	--	--	--	--
Estimating	--	--	--	--
Other	--	--	--	--
Support	--	--	--	--
Subtotal	--	--	--	--
Current Changes				
Economic	--	--	--	--
Quantity	--	--	--	--
Schedule	--	--	--	--
Engineering	--	--	--	--
Estimating	--	--	--	--
Other	--	--	--	--
Support	--	--	--	--
Subtotal	--	--	--	--
Total Changes	--	--	--	--
CE - Cost Variance	988.2	9736.6	--	10724.8
CE - Cost & Funding	988.2	9736.6	--	10724.8

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

SAR Baseline Reference: [APB Authority] Approved Acquisition Program Baseline (APB) dated May 09, 2013

## Contracts

### Contract Identification

**Appropriation:** RDT&E  
**Contract Name:** AMPV EMD Contract with LRIP Options  
**Contractor:** BAE SYSTEMS LAND & ARMAMENTS, L.P.  
**Contractor Location:** 34201 VAN DYKE AVENUE  
 STERLING HEIGHTS, MI 48312-4648  
**Contract Number:** W56HZV-15-C-A001  
**Contract Type:** Cost Plus Incentive Fee (CPIF)  
**Award Date:** December 23, 2014  
**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
383.0	N/A	N/A	N/A	N/A	N/A		

### Target Price Change Explanation

The difference between the Initial Contract Price Target and the Current Contract Price Target is due to

Contract Variance			
Item	Cost Variance		Schedule Variance
Cumulative Variances To Date	0.0		0.0
Previous Cumulative Variances	--		--
Net Change	+0.0		+0.0

### Cost and Schedule Variance Explanations

None

### General Contract Variance Explanation

Cost and schedule variances are not reported for this contract, because earned value management reporting has not yet commenced due to the reporting not being required until the first Integrated Program Management Report (IPMR) requires this until April 2015. Cost and Schedule Variance reporting will commence in April 2015 when the first Integrated Program Management Report (IPMR) is submitted.

### 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	--	--	39	--
Production	--	--	2897	--
Total Program Quantity Delivered	--	--	2936	--

Expended and Appropriated (TY \$M)			
Total Acquisition Cost	13944.8	Years Appropriated	4
Expended to Date	--	Percent Years Appropriated	16.00%
Percent Expended	--	Appropriated to Date	138.1
Total Funding Years	25	Percent Appropriated	0.99%

## Operating and Support Cost

**Cost Estimate Details**

**Date of Estimate:** February 12, 2015  
**Source of Estimate:** Program Office Estimate  
**Quantity to Sustain:** 2897  
**Unit of Measure:** Vehicle  
**Service Life per Unit:** 26.00 Years  
**Fiscal Years in Service:** FY 2021 - FY 2062

The following AMPV O&S costs are per vehicle, per year, and are shown in BY15\$M:

\$0.262	1.0 Unit Level Manpower
\$0.033	2.0 Unit Operations
\$0.074	3.0 Maintenance
\$0.023	4.0 Sustaining Support
\$0.012	5.0 Continuing System Improvements
\$0.055	6.0 Indirect Support
=====	=====
\$0.459	Total AMPV O&S Costs Per Vehicle Per Year in BY15\$M

**Sustainment Strategy**

The AMPV sustainment concept will leverage existing organic structures for maintenance and supply support to maximize commonality and minimize the logistics footprint. By using an existing base platform materiel solution, the common and unique LRUs will be sustained with the Two Level Maintenance (TLM) and sustainment repair concepts. Field-level maintenance will maintain, handle, and support the LRUs with the same concept as the existing ABCT structure. Sustainment-level maintenance will use common repair programs, facilities, and depots wherever economical and feasible. Newly developed maintenance tasks and support will be determined and supported by results from the Logistic Support Analysis (LSA), Level of Repair Analysis (LORA), Source of Repair Analysis (SORA), and Business Case Analysis (BCA) and/or Management Analysis, as required.

Any new operator and maintainer training requirements will be determined by task analysis and results from the Logistics Demonstration (LD), Limited User Test (LUT), and other vehicle tests. Pd AMPV will provide Operator New Equipment Training (OPNET) and Field Maintenance New Equipment Training (FMNET) to each gaining unit. Mission equipment training will be provided by the corresponding equipment representatives.

Program Executive Office Ground Combat Systems (PEO GCS) determined that the requirements of 10 United States Code (U.S.C.) 2464 are applicable to the AMPV. PM AMPV is committed to developing the detailed requirements for core depot-level maintenance and repair capabilities as well as the associated sustaining workloads required to support such requirements when the vehicle configuration is solidified. A preliminary estimate of core depot hours, using an existing tracked vehicle as the baseline, was included in the 10 U.S.C. 2366b certification. The LRIP option Scope of Work (SOW) contains the development of a National Maintenance Work Requirement (NMWR), which will be in place within four years after Initial Operational Capability (IOC).

**Antecedent Information**

The following M113 O&S costs are per vehicle, per year, and are shown in BY15\$M:

\$0.263	1.0 Unit Level Manpower
\$0.030	2.0 Unit Operations
\$0.058	3.0 Maintenance
\$0.027	4.0 Sustaining Support
\$0.002	5.0 Continuing System Improvements
\$0.055	6.0 Indirect Support
=====	=====
\$0.436	Total M113 O&S Costs Per Vehicle Per Year in BY15\$M

Annual O&S Costs BY2015 \$M		
Cost Element	AMPV Average Annual Cost Per Vehicle	M113 (Antecedent) Vehicle
Unit-Level Manpower	--	--
Unit Operations	--	--
Maintenance	--	--
Sustaining Support	--	--
Continuing System Improvements	--	--
Indirect Support	--	--
Other	--	--
Total	--	--

Item	Total O&S Cost \$M			
	AMPV			M113 (Antecedent)
	APB Objective/Threshold	Current Estimate		
Base Year	N/A	N/A	N/A	N/A
Then Year	N/A	N/A	N/A	N/A

O&S Cost Variance		
Category	BY 2015 \$M	Change Explanations
Prior SAR Total O&S Estimates -	0.0	
Programmatic/Planning Factors	0.0	
Cost Estimating Methodology	0.0	
Cost Data Update	0.0	
Labor Rate	0.0	
Energy Rate	0.0	
Technical Input	0.0	
Other	0.0	
Total Changes	0.0	
Current Estimate	0.0	

**Disposal Estimate Details**

**Date of Estimate:**

**Source of Estimate:**

**Disposal/Demilitarization Total Cost (BY 2015 \$M):**