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The Army's Armored Multi-Purpose Vehicle (AMPV): Background and Issues for Congress

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Summary

The Armored Multi-Purpose Vehicle (AMPV) is the Army's replacement for the Vietnam-era M-113 personnel carriers, which are still in service in a variety of support capacities in Armored Brigade Combat Teams (ABCTs). While M-113s no longer serve as infantry fighting vehicles, five variants of the M-113 are used as command and control vehicles, general purpose vehicles, mortar carriers, and medical treatment and evacuation vehicles.

The AMPV is a nondevelopmental program (candidate vehicles would be either existing vehicles or modified existing vehicles—not vehicles that are specially designed and not currently in service). Some suggest a nondevelopmental vehicle might make it easier for the Army to eventually field this system to the force, as most of the Army's past developmental programs, such as the Ground Combat Vehicle (GCV), the Future Combat System (FCS), the Crusader self-propelled artillery system, and the Comanche helicopter, were cancelled before they could be fully developed and fielded.

On November 26, 2013, the Army issued a Request for Proposal (RFP) for the AMPV. This RFP stipulated the Army planned to award a five-year Engineering and Manufacturing Development (EMD) contract in May 2014 worth $458 million to a single contractor for 29 prototypes. While the March 2013 RFP established an Average Unit Manufacturing Cost Ceiling for each AMPV at $1.8 million, this was rescinded to permit vendors greater flexibility. The EMD phase was scheduled to run between FY2015 and FY2019, followed by three years of low-rate initial production (LRIP) starting in 2020. As of 2018, the Army planned to procure 2,936 AMPVs to replace M-113s in ABCTs. The Army also has plans to replace 1,922 M-113s at Echelons Above Brigade (EAB), and the Department of Defense (DOD) estimates that if the M-113s are replaced by AMPVs at EAB, total program costs could be increased by an additional $6.5 billion. While the Army would like a pure fleet of AMPVs, budgetary constraints could preclude this.

On December 23, 2014, the Army announced it had selected BAE Systems Land and Armaments L.P. as the winner of the EMD contract. The initial award was for 52 months, valued at about $382 million. In addition, the award provided for an optional low-rate initial production (LRIP) phase. The EMD contract did not include EAB AMPV variants. The AMPV reportedly successfully completed its Critical Design Review (CDR) on June 23, 2016. On December 15, 2016, BAE delivered the first general purpose AMPV to the Army for testing. In September 2017, the Army began AMPV reliability, availability, and maintainability (RAM) testing. Also in 2017, based on budgetary constraints, the Army decided it would upgrade a number of EAB M-113s instead of replacing them with AMPVs. In May 2018, the Army decided to put the EAB M-113 upgrade effort on hold. On March 13, 2019, Army leadership reportedly announced the Army had decided to cut funding over the next five years for 93 programs—including the AMPV—to increase available funding for its new modernization strategy. This cut is not expected to affect the overall AMPV requirement but could slow the AMPV production rate.

Other program issues include DOD Inspector General (IG) concerns regarding performance and design concerns, as well as inaccurate procurement quantities, which could result in inaccurate program costs. The Government Accountability Office (GAO) in 2018 expressed concerns regarding cost growth, difficulties meeting a variety of developmental requirements, and dependencies on other programs that are experiencing developmental challenges.

Potential issues for Congress include a "way ahead" for upgraded M-113s at EAB, DOD Inspector General (IG) and GAO concerns, and the potential revised AMPV procurement rate.

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Background

In 1956, the Army began the development of a family of air-transportable, armored multi-purpose vehicles intended to provide a lightweight, amphibious armored personnel carrier for armor and mechanized infantry units.[1] Known as the M-113, it entered production in 1960 and saw extensive wartime service in Vietnam. Considered a reliable and versatile vehicle, a number of different variations of the M-113 were produced to fulfill such roles as a command and control vehicle, mortar carrier, and armored ambulance, to name but a few. The Army began replacing the M-113 infantry carrier version in the early 1980s with the M-2 Bradley Infantry Fighting Vehicle, but many non-infantry carrier versions of the M-113 were retained in service.

The Armored Multi-Purpose Vehicle (AMPV)[2]

According to the Army

> The Armored Multi-Purpose Vehicle (AMPV) is the proposed United States Army program for replacement of the M-113 Family of Vehicles (FOV) to mitigate current and future capability gaps in force protection, mobility, reliability, and interoperability by mission role variant within the Heavy Brigade Combat Team (HBCT) [now known as the Armored Brigade Combat Team – ABCT]. The AMPV will have multiple variants tailored to specific mission roles within HBCT. Mission roles are as follows: General Purpose, Medical Evacuation, Medical Treatment, Mortar Carrier, and Mission Command. AMPV is a vehicle integration program.

The Army's AMPV Requirements[3]

Regarding the decision to replace remaining M-113s, the Army notes the following:

- The M-113 lacks the force protection and mobility needed to operate as part of combined arms teams within complex operational environments. For example, "commanders will not allow them to leave Forward Operating Bases (FOBs) or enter contested areas without extensive mission protection and route clearance."[4]
- The use of other vehicles for M-113 mission sets (casualty evacuations, for example) reduces unit combat effectiveness.

The majority of the Army's M-113s are found in Armored Brigade Combat Teams (ABCTs), where they comprise 32% of the tracked armored vehicles organic to that organization. The 114 M-113 variants in the ABCT are distributed as follows:

[1] Information in this section is taken from Christopher F. Foss, *Jane's Armour and Artillery, 2011-2012*, 32nd Edition, pp. 470-478.

[2] From the Army's AMPV Program website, https://contracting.tacom.army.mil/majorsys/ampv/ampv.htm, accessed September 13, 2013.

[3] Information in this section is taken from an Army briefing: "AMPV Industry Day," April 23, 2013.

[4] Ibid., p. 13.

Table 1. M-113 Distribution in ABCTs, by Variant

M-113 Variant Type	Number of M-113s
M-113A3 General Purpose (GP)	19
M-1068A3 Mission Command (MCmd)	41
M-1064 Mortar Carrier (MC)	15
M-113A3 Medical Evacuation (ME)	31
M-577 Medical Treatment (MT)	8

Source: Information in this table is taken from an Army briefing: "AMPV Industry Day," April 23, 2013, p. 13.

AMPVs at Echelons Above Brigade (EAB)[5]

In addition to the AMPV requirement in the ABCTs, the Army also planned to procure an additional 1,922 AMPVs to replace M-113s in Echelons Above Brigade (EAB).[6] The Army notes that these AMPVs might have different requirements than the ABCT AMPVs. DOD estimates if the M-113s are replaced by AMPVs at EAB, total program costs could be increased by an additional $6.5 billion.[7]

Program Overview[8]

According to the Government Accountability Office (GAO), in March 2012, the Under Secretary of Defense for Acquisition, Technology, and Logistics (USD, AT&L) approved a materiel development decision for AMPV and authorized the Army's entry into the materiel solution analysis phase. The Army completed the AMPV analysis of alternatives (AoA) in July 2012 and proposed a nondevelopmental vehicle (the candidate vehicle will be either an existing vehicle or a modified existing vehicle—not a vehicle that is specially designed and not in current service). Because the AMPV is to be a nondevelopmental vehicle, DOD decided the program would start at Milestone B, Engineering and Manufacturing Development (EMD) Phase and skip the Milestone A, Technology Development Phase.

The Army planned for a full and open competition and aimed to award one industry bidder a 42-month EMD contract to develop all five AMPV variants. A draft Request for Proposal (RFP) released in March 2013 stated the EMD contract would be worth $1.46 billion, including $388 million for 29 EMD prototypes for testing between 2014 and 2017 and $1.08 billion for 289 low-rate initial production (LRIP) models between 2018 and 2020. The Army had planned on releasing the formal RFP in June 2013 but instead slipped the date until mid-September 2013,

[5] Information in this section is from PEO Ground Combat Systems, AMPV Program's EMD Contract Awarded to BAE, December 24, 2014.

[6] Echelon Above Brigade (EAB) refers to Army combat units larger than brigades—generally division and corps sized—as well as non-ABCT support brigades. Examples of EAB units that have M-113s that will be replaced with AMPVs include Armored Division and Corps headquarters and Combat Engineer Brigades.

[7] Inspector General, U.S. Department of Defense, Army is Effectively Managing the Armored Multi-Purpose Vehicle, but There Are Concerns That Could Impact Program Cost, Schedule, and Performance, April 28, 2017, p. 17.

[8] Information in this section is taken from the U.S. Government Accountability Office, Defense Acquisitions: Assessments of Selected Weapon Programs, GAO-13-294SP, March 2013, p. 133, and an Army briefing: "AMPV Industry Day," April 23, 2013 and Tony Bertuca, "Optimism Emerges for AMPV Program Though Pre-RFP Work Remains," *InsideDefense.com*, August 16, 2013.

citing a delayed Defense Acquisition Board review attributed in part to Department of Defense civilian furloughs.[9] The EMD contract award was originally planned for late 2014. The Army planned for an average unit manufacturing cost (AUMC) of $1.8 million per vehicle.

Department of Defense (DOD) Approves AMPV Program[10]

On November 26, 2013, DOD issued an Acquisition Decision Memorandum (ADM) officially approving the Army's entry into the Milestone B, Engineering and Manufacturing Development (EMD) Phase. The ADM directed the Army to impose an Average Procurement Unit Cost less than or equal to $3.2 million at a production rate of not less than 180 vehicles per year. In addition, operations and sustainment costs were to be less than or equal to $400,000 per vehicle per year. The Army was also directed to down select to a single prime contractor at the completion of Milestone B.

Army Issues AMPV Draft Request for Proposal (RFP)[11]

Also on November 26, 2013, the Army issued a new draft Request for Proposal (RFP) for the AMPV. This RFP stipulated the Army planned to award a five-year EMD contract in May 2014 worth $458 million to a single contractor for 29 prototypes. While the March 2013 RFP established an Average Unit Manufacturing Cost Ceiling for each AMPV at $1.8 million, this was rescinded to permit vendors greater flexibility. The EMD phase was scheduled to run between FY2015 and FY2019, followed by three years of low-rate initial production (LRIP) starting in 2020.

Selected Program Activities

Army Awards ABCT AMPV Contract to BAE[12]

On December 23, 2014, the Army announced it had selected BAE Systems Land and Armaments L.P. as the winner of the EMD contract. The initial award was for 52 months valued at about $382 million. During this period of performance, BAE was to produce 29 vehicles, which would be put through "rigorous developmental and operational testing." In addition, the award provided for an optional low-rate initial production (LRIP) phase award in the future. If this phase is awarded, BAE would produce an additional 289 vehicles for a total contract value of $1.2 billion. The Army, in its announcement, emphasized the BAE EMD contract did not pertain to the 1,922 EAB AMPVs.

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[9] Tony Bertuca, "Army's Armored Multi-Purpose Vehicle RFP Scheduled for Mid-September," *InsideDefense.com,* August 9, 2013.

[10] Information in this section is taken from Department of Defense, "Armored Multi-Purpose Vehicle Pre-Engineering and Manufacturing Development Request for Proposals Acquisition Decision Memorandum," November 26, 2013 and Tony Bertuca, "DOD Officially OKs Army's Armored Multi-Purpose Vehicle Program; RFP Hits the Street," *InsideDefense.com,* November 26, 2013.

[11] Information in this section is taken from Solicitation, Offer, and Award: Armored Multi-Purpose Vehicle, Number: W56HZV-13-R-0022, November 26, 2013 and Tony Bertuca, "DOD Officially OKs Army's Armored Multi-Purpose Vehicle Program; RFP Hits the Street," *InsideDefense.com,* November 26, 2013.

[12] Information in this section is from PEO Ground Combat Systems, AMPV Program's EMD Contract Awarded to BAE, December 24, 2014.

AMPV Completes Critical Design Review

According to reports, the AMPV successfully completed its Critical Design Review (CDR)[13] on June 23, 2016.[14] Successful completion of a CDR demonstrates the AMPV's design is stable, can be expected to meet established performance standards, and the program can be accomplished within its established budget.

Roll Out of First AMPV for Testing[15]

On December 15, 2016, BAE delivered the first general purpose AMPV to the Army for testing. The Army plans for six months of contractor tests, followed by one year of government testing and then Limited User Testing. In April 2018, BAE reportedly delivered all 29 AMPVs to the Army for testing.[16]

AMPV Begins Developmental Testing[17]

In September 2017, the Army reportedly started reliability, availability, and maintainability (RAM) testing for the AMPV. DOD defines RAM as follows:

- Reliability is the probability of an item to perform a required function under stated conditions for a specified period of time. Reliability is further divided into mission reliability and logistics reliability.
- Availability is a measure of the degree to which an item is in an operable state and can be committed at the start of a mission when the mission is called for at an unknown (random) point in time. Availability as measured by the user is a function of how often failures occur and corrective maintenance is required, how often preventive maintenance is performed, how quickly indicated failures can be isolated and repaired, how quickly preventive maintenance tasks can be performed, and how long logistics support delays contribute to down time.
- Maintainability is the ability of an item to be retained in, or restored to, a specified condition when maintenance is performed by personnel having specified skill levels, using prescribed procedures and resources, at each prescribed level of maintenance and repair.[18]

[13] According to AcqNotes: "A Critical Design Review (CDR) is a multi-disciplined technical review to ensure that a system can proceed into fabrication, demonstration, and test and can meet stated performance requirements within cost, schedule, and risk." http://www.acqnotes.com/acqnote/acquisitions/critical-design-review, accessed September 13, 2016.

[14] Jason Sherman, "Armored Multi-Purpose Vehicle Program Clears Key EMD Milestone," *InsideDefense.com*, July 1, 2016.

[15] Connie Lee, "BAE Rolls Out First Armored Multi-Purpose Vehicle for Testing," *InsideDefense.com*, December 19, 2016.

[16] Allen Cone, "BAE Delivers Armored Multi-Purpose Vehicles to the Army for Testing," *United Press International*, April 4, 2018.

[17] Jason Sherman, "Following July Launch of AMPV Developmental Testing, Army to Begin RAM Testing," *InsideDefense.com*, September 15, 2017.

[18] DOD Guide for Achieving Reliability, Availability, and Maintainability, August 3, 2005, p. 1-1.

Army EAB Upgraded M-113 Effort Put on Hold

Due to budgetary constraints, the Army reportedly planned to provide upgraded EAB M-113s to a small number of units outside the continental United States and in South Korea and Europe. In August 2017, Army officials reportedly noted "that the amount of time and resources it would take to achieve a pure fleet solution for both ABCTs and EAB units would likely push fielding into FY 2040 and beyond, which is not a suitable course of action."[19] Officials also suggested that upgrading M-113s for EAB use was "an interim solution until we can get to the optimal solution."[20]

The Army had planned to issue a request for proposal (RFP) for upgraded M-113s in the summer of 2018. A number of vendors, including General Dynamics Land Systems (GDLS), BAE Systems, and Science Applications International Corporation (SAIC), reportedly planned to respond to the RFP.[21]

Reportedly, on May 21, 2018, the Army indefinitely postponed its plans to upgrade EAB M-113s and also put on hold plans to issue an RFP for upgraded M-113s.[22]

AMPV Becomes Part of the Army's Next Generation Combat Vehicle (NGCV) Program[23]

In October 2018, Army leadership reportedly made the AMPV part of the Army's NGCV program, which is to be overseen by the Army's Futures Command (AFC).[24] Previously, AMPV was overseen by the Program Executive Officer (PEO) for Ground Combat Systems (GCS), but program authority is now shared with the AFC's NGCV Cross Functional Team (CFT). Reportedly, the PEO GCS will retain acquisition legal authorities, but the CFT is to have input on requirements and acquisition schedule. The CFT is also to help prioritize corrective actions needed to address deficiencies identified during testing, as well as identify the resources that will be required.

AMPV Moves Into Production and Deployment Phase of Acquisition and Selects a Vendor[25]

In December 2018, the AMPV program received approval to move into the Production and Deployment phase of acquisition. BAE Systems is to start the production of the first batch of 551 of a total of 2,907 AMPVs, with initial vehicle delivery early in 2020. The Army is expected to

[19] Connie Lee, "Army Plans Limited Effort to Upgrade M113s in EAB," *InsideDefense.com,* October 11, 2017 and Courtney McBride, "Army Eyes Rodeo for Upgrades to M113s in EAB," *InsideDefense.com,* August 21, 2017.

[20] Ibid.

[21] Ibid.

[22] Courtney McBride, "Army Places M113 Upgrade Plan on Hold," *InsideDefense.com,* May 23, 2018.

[23] Information in this section is taken from Ashley Tressel, "MPF, AMPV Now Part of NGCV Family of Vehicle," *InsideDefense.com,* October 12, 2018.

[24] For additional information on Army Futures Command, see CRS Insight IN10889, *Army Futures Command (AFC),* by Andrew Feickert.

[25] Information in this section is taken from Ashley John, "Army's AMPV Program Attains Successful Milestone C Decision," Army News Service, January 25, 2019, and Ashley Tressel, "AMPV Passes Milestone C to Begin Initial Production," *InsideDefense.com,* February 8, 2019.

field 258 vehicles as part of the European Deterrence Initiative (EDI) in FY2020 and two brigade sets' worth of AMPVs by the end of calendar year 2020.

Echelon Above Brigade M-133 Replacement Cancelled[26]

In January 2019, it was reported that the Army had decided to cancel M-113 replacement at echelons above brigade (EAB) and reprogram funding for higher priorities. At this point, it is not readily apparent how the Army plans to address its previous 1,922 EAB AMPV requirement.

Potential Revised AMPV Procurement Rate[27]

On March 13, 2019, Army leadership reportedly announced the Army had decided to cut funding over the next five years for 93 programs—including the AMPV—to increase available funding for its new modernization strategy. While the Army has yet to release its final five-year reduction plan, program officials reportedly stated that the AMPV's overall top-line requirement would likely remain unchanged, but the Army would likely slow the per-year procurement rate.[28]

Other Program Issues

DOD Inspector General (IG) Concerns[29]

An April 28, 2017, DOD IG report noted the Army has effectively managed the AMPV program, in particular keeping it within cost requirements and scheduled timeframes, but also expressed the following concerns:

- The program might not meet entry requirements for initial production and testing (Milestone C) because the Army has not fully resolved vehicle performance and design demonstration concerns.
- As a result of the aforementioned performance and design concerns, the AMPV could experience increased costs and schedule delays as a result of addressing the IG's concerns.
- Because the U.S. Army Deputy Chief of Staff, Programming (G-8) had not revised the procurement quantities to reflect changes to the Army's equipment and force structure requirements, the program's estimated total cost and Average Procurement Unit Cost is not accurate.[30]

[26] Information in this section is taken from Ashley Tressel, "M-113 Upgrade Officially Cancelled, $15 M Reprogrammed for Higher Priorities," *InsideDefense.com*, January 28, 2019.

[27] Information in this section is taken from Jen Judson, "U.S. Army Cuts Current Vehicle Fleet to make way for Next-Gen Tech," *InsideDefense.com*, March 13, 2019 and Matthew Cox, "Army to Cut JLTV Buy to Pay for Future Systems," *Military.com*, March 13, 2019.

[28] Jen Judson, March 13, 2019.

[29] Inspector General, U.S. Department of Defense, *Army is Effectively Managing the Armored Multi-Purpose Vehicle, but There Are Concerns That Could Impact Program Cost, Schedule, and Performance*, April 28, 2017.

[30] Ibid., p. i.

Government Accountability Office (GAO) 2018 Weapon Systems Annual Assessment Concerns

An April 2018 GAO Weapon Systems Annual Assessment expressed the following concerns:

> The program has experienced development contract cost growth of over 20 percent above target cost due to continued challenges meeting logistics, performance, and production requirements. However, program officials noted that the government's official cost position for AMPV development—based on the independent cost estimate prepared by the Office of Cost Assessment and Program Evaluation—has not changed as it includes adequate margin to account for the cost growth to date.
>
> AMPV remains dependent on other programs—such as the Army's Handheld, Manpack, and Small Form Fit Radios—for its key communication and networking capabilities. However, these programs have experienced their own acquisition challenges delaying their availability for the AMPV program. The program is including a legacy radio platform in its production vehicle design configuration, which will, according to program officials, readily accommodate future networking capabilities provided by these other programs.[31]

Given the aforementioned 2017 DOD IG concerns and GAO's 2018 concerns regarding cost growth, difficulties meeting a variety of developmental requirements, and dependencies on other programs that are experiencing developmental challenges, the AMPV program will likely receive significant scrutiny and oversight to insure it remains a cost effective and viable program.

Director, Operational Test and Evaluation (DOT&E) FY2018 Annual Report[32]

DOT&E's FY2018 Annual Report noted the following:

Preliminary observations of the Limited Users Test indicate the AMPV meets or exceeds its goal of replacing the M113 family of vehicles (FoV) with a more capable platform.

- The AMPV demonstrated superior power and mobility over the M113 FoV.
- The AMPV was able to maintain its position in the formation.
- The AMPV operational mission availability and reliability were far superior to the M113 FoV.
- The platform provides potential for growth for power demand.
- Having common parts among all the variants should improve overall availability.
- The Mission Command variant facilitates digital mission command.
- The Medical Treatment and Medical Evacuation variants provide improved patient care and treatment capability with a new capability of conducting treatment on the move.

[31] U.S. Government Accountability Office (GAO), GAO-18-360SP, Weapon Systems Annual Assessment: Knowledge Gaps Pose Risks to Sustaining Recent Positive Trends, April 2018, p. 59.

[32] Information in this section is taken from Director, Operational Test and Evaluation (DOT&E) FY2018 Annual Report, December 2018, pp. 70-71.

The following deficiencies, if uncorrected, could adversely affect AMPV performance:

- The driver's and vehicle commander's displays would frequently lock up, and the reboots each took 10 minutes.
- Due to the physical size and location, the commander's weapons station degraded situational awareness of the vehicle commander.
- The Joint Battle Command Platform and radios in the Mission Command vehicle cannot be removed from their docking stations within the vehicle. This limits the ability of the command group to share a common operational picture when operating as a Tactical Operations Center.
- The capability to support analog operations is degraded without the stowage for mapboards and plotting boards.
- The Medical Evacuation vehicle seat stowage and litter lift are difficult to use. (The program manager has identified a design change to correct this deficiency).
- The Mortar Carrier's ammunition storage is not optimized to support the mortar system.
- There is water leakage from the hatch and the roof leaks, affecting the electronics in all variants and patient care in the medical variants.
- The preliminary survivability assessment identified minor vehicle design vulnerabilities that the Program Office is addressing with the vendor in order to meet survivability and force protections requirements.

Department of Defense FY2020 AMPV Budget Request[33]

The FY2020 budget request includes Research Development, Testing and Evaluation (RDT&E) and Procurement funding requests for the AMPV in both the Base and Overseas Contingency Operations (OCO) budgets, as well as FY2020 requested quantities.

Table 2. FY2020 AMPV Budget Request

Funding Category	Base Budget	Base Budget	OCO Budget	OCO Budget	Total Request	Total Request
	$M	**Qty**	**$M**	**Qty**	**$M**	**Qty**
RDT&E	96.7	—	—	—	**96.7**	—
Procurement	264.0	65	221.6	66	**485.6**	**131**
TOTAL	**360.7**	**65**	**221.6**	**66**	**582.3**	**131**

Source: Office of the Under Secretary of Defense (Comptroller)/Chief Financial Officer, Program Acquisition Cost by Weapon System: United States Department of Defense Fiscal Year 2020 Budget Request, March 2019, p. 3-4.

Notes: $M = U.S. Dollars in Millions; **Qty** = FY2020 Procurement Quantities.

[33] Office of the Under Secretary of Defense (Comptroller)/Chief Financial Officer, Program Acquisition Cost by Weapon System: United States Department of Defense Fiscal Year 2020 Budget Request, March 2019, p. 3-4.

The Army notes that FY2020 OCO funding will procure 66 AMPVs to support U.S. European Command's (USEUCOM's) requirement for unit equipment sets to deter potential adversaries and support the European Deterrence Initiative (EDI).[34]

FY2020 National Defense Authorization Act

H.R. 2500[35]

RDT&E

H.R. 2500 fully authorizes the Army's FY 2020 AMPV RDT&E Budget Request ($96.7 million).[36]

Procurement

H.R. 2500 decreases the Army's FY2020 Base Budget AMPV Procurement Budget Request by $5 million (to $259 million) for 65 AMPVs due to a unit cost discrepancy[37] and fully authorizes the Army's FY2020 OCO AMPV Procurement Budget Request ($221.6 million) for 66 AMPVs.[38]

S. 1790[39]

RDT&E

S. 1790 fully authorizes the Army's FY 2020 AMPV RDT&E Budget Request ($96.7 million).[40]

Procurement

S. 1790 fully authorizes the Army's FY2020 Base Budget AMPV Procurement Budget Request ($264 million) for 65 AMPVs[41]and the Army's FY2020 OCO AMPV Procurement Budget Request ($221.6 million) for 66 AMPVs.[42]

[34] Ibid. For addition information on the European Deterrence Initiative (EDI), see CRS In Focus IF11130, *United States European Command: Overview and Key Issues*, by Kathleen J. McInnis.

[35] H.R. 2500 (Report No. 116-120), National Defense Authorization Act for Fiscal Year 2020, June 19, 2019.

[36] Ibid., p. 457.

[37] Ibid., p. 396.

[38] Ibid., p. 441.

[39] S. 1790 (Report No. 116-48) National Defense Authorization Act for Fiscal Year 2020, June 11, 2019.

[40] Ibid., p. 482.

[41] Ibid., p. 413.

[42] Ibid., p. 458.

Department of Defense Appropriation Bill FY2020

H.R. 2968[43]

RDT&E

H.R. 2968 fully appropriates the Army's FY 2020 AMPV RDT&E Budget Request ($96.7 million).[44]

Procurement

H.R. 2968 decreases the Army's FY 2020 AMPV Base Budget Procurement Request ($264 million) by $5 million (to $259 million) due to unit cost discrepancy.[45] H.R. 2968 fully appropriates the Army's FY 2020 AMPV OCO Procurement Request ($221.6 million).[46]

Potential Issues for Congress

The Way Ahead: Upgraded M-113s at Echelons Above Brigade (EAB)

As previously noted, the Army's optimal solution would be to replace EAB M-113s with AMPVs, but the Army felt that given current and projected budgetary constraints, only selected EAB units outside the continental United States and in South Korea and Europe would receive AMPVs while the remainder would receive upgraded M-113s as an interim solution.[47] Reportedly, on May 21, 2018, the Army indefinitely postponed its plans to upgrade EAB M-113s and also put on hold plans to issue an RFP for upgraded M-113s.[48] Reportedly in January 2019, the Army decided to cancel M-113 at EAB replacement efforts.[49] Given the frequently changing nature of the Army's plans for addressing the replacement of legacy M-113s at EAB and the decision to cancel M-113 EAB replacement, it is not unreasonable to question if the Army has a clearly defined "way ahead" for addressing M-113s at EAB. Will the Army simply "leave" M-113s at EAB and continue to maintain them, will they replaced by another vehicle, or is the Army still trying to decide on a course of action and a program strategy?

[43] Report 116-84, Department of Defense Appropriations Bill, 2020, May 23, 2019.

[44] Ibid., p. 231.

[45] Ibid., p. 137.

[46] Ibid., p. 352.

[47] Connie Lee, "Army Plans Limited Effort to Upgrade M113s in EAB," *InsideDefense.com*, October 11, 2017, and Courtney McBride, "Army Eyes Rodeo for Upgrades to M113s in EAB," *InsideDefense.com*, August 21, 2017.

[48] Courtney McBride, "Army Places M113 Upgrade Plan on Hold," *InsideDefense.com*, May 23, 2018.

[49] Ashley Tressel, "M-113 Upgrade Officially Cancelled, $15 M Reprogrammed for Higher Priorities," *InsideDefense.com*, January 28, 2019.

DOD Inspector General (IG), Government Accountability Office (GAO), and Director, Operational Test and Evaluation (DOT&E) Concerns

DOD's April 2017 IG report, while acknowledging effective management of the AMPV program, also raised fundamental concerns about performance and design, as well as inaccurate procurement quantities, which could adversely impact program costs. GAO's 2018 concerns regarding cost growth, difficulties meeting a variety of developmental requirements, and dependencies on other programs that are experiencing developmental challenges suggest that programmatic issues continue. DOT&E's 2018 findings noted a number of performance concerns as well. Given these concerns, a more in-depth examination of identified AMPV program deficiencies might prove beneficial for DOD and policymakers alike.

Potential Revised AMPV Procurement Rate

As previously noted, on March 13, 2019, Army leadership reportedly announced the Army had decided to cut funding over the next five years for 93 programs—including the AMPV—to increase available funding for its new modernization strategy. While the Army is not expected to change its overall AMPV top-line requirement, it could slow the per-year procurement rate. Once the Army has finalized its revised modernization plan, including program cuts, it could be beneficial to provide policymakers with a revised overall AMPV procurement plan, as well as a new fielding plan for units—both Active and Reserves—designated to receive AMPVs.

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