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Updated December 6, 2021

The Army's Armored Multi-Purpose Vehicle (AMPV)

Background

The Army describes the Armored Multi-Purpose Vehicle (AMPV), a tracked support vehicle, as follows:

> The Armored Multi-Purpose Vehicle (AMPV) is the replacement for the M113 Family of Vehicles (FoV) within the Armored Brigade Combat Team (ABCT), comprising approximately 30% of its tracked vehicle fleet. There are five variants:
>
> The **General Purpose (Figure 1)** variant accommodates two crew, six passengers, is reconfigurable to carry one litter, mount crew served weapons, and integrates a variety of communications and battle management systems.
>
> The **Mortar Carrier** variant accommodates two crew members, two mortar crew members, one mounted 120 mm mortar, 69 rounds of 120 mm ammunition, and communications and fire control systems.
>
> The **Mission Command** variant is the cornerstone of the Army's ABCT Network Modernization Strategy. It is intended to take advantage of increased size, weight, power and cooling technology and provide a significant increase in command, control, communications and computer capability. The variant accommodates a driver and commander and two workstation operators, and its red side network provides full Tactical Command Post capabilities at brigade and battalion levels.
>
> The **Medical Evacuation** variant includes room for three crew members, six ambulatory patients or four litter patients or three ambulatory and two litter patients, and storage for medical equipment.
>
> The **Medical Treatment** variant includes room for four crew members, one litter patient and a patient treatment table.

Figure 1. The Armored Multi-Purpose Vehicle (AMPV) General Purpose Variant

Source: United States Army Acquisition Support Center, https://asc.army.mil/web/portfolio-item/gcs-ampv/, accessed January 18, 2021.

Current Program Status

The AMPV is currently being produced by BAE Systems in York, PA. On January 25, 2019, the AMPV entered the low-rate initial production phase (LRIP). The Army planned for acquiring a total of 2,907 AMPVs, with initial vehicle delivery in 2020. The current AMPV program plans to replace 2,897 M113 vehicles at the brigade and below level within the ABCT. There are an additional 1,922 M113s supporting non-ABCT affiliated units (referred to as Echelons Above Brigade [EAB] units) that are not included in the Army's modernization plan. A full-rate production (FRP) decision is planned for the third quarter of FY2022.

Low-Rate Initial Production (LRIP) is a programmatic decision made when manufacturing development is completed and there is an ability to produce a small-quantity set of articles. It also establishes an initial production base and sets the stage for a gradual increase in the production rate to allow for Full-Rate Production (FRP) upon completion of Operational Test and Evaluation (OT&E).

Full-Rate Production (FRP) is a decision made that allows for government contracting for economic production quantities following stabilization of the system design and validation of the production process.

Testing Deficiencies and Production Problems

During a limited user test (LUT) in FY2019, the Department of Defense (DOD) Director of Operational Test and Evaluation (DOT&E) and the Army Test and Evaluation Command (ATEC) identified 24 items while testing prototype AMPVs that BAE should correct and have evaluated during the Initial Operational Test and Evaluation (IOT&E) by the end of 2021. Reportedly, due to BAE production challenges and effects of the Coronavirus

Disease 2019 (COVID-19) pandemic, BAE did not meet the July 2020 first vehicle delivery date and is six to eight months behind the original schedule to deliver vehicles to support AMPV IOT&E and live-fire test events. BAE reportedly delivered its first LRIP AMPV to the Army on August 31, 2020.

AMPV Reaches Low-Rate Initial Production Rates

In October 2021, it was reported that monthly production of the AMPV had reached contracted levels for LRIP and the early manufacturing troubles had subsided. Because of earlier delays, total AMPV production remains behind schedule but BAE plans to achieve full-rate production by the end of FY2022.

Budgetary Information

Table 1. FY2022 AMPV Budget Request

Funding Category	Total Request ($M)	Total Request (Qty)
RDT&E	$35.6	—
Procurement	$104.7	—
TOTAL	$140.3	—

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 2022 Budget Request, May 2021, p. 3-4.

Notes: RDT&E = Research, Development, Test & Evaluation: **$M** = U.S. Dollars in Millions; **Qty** = FY2022 Procurement Quantities.

Table 2. FY2022 AMPV Defense Authorizations and Appropriations

Funding Category	Authorized	Appropriated
	$M	$M
RDT&E	$35.6 (H.R. 4350/S. 2972)	$35.6 (H.R. 4432/S. 3023)
Procurement	$104.7 (H.R. 4350/S. 2972)	$63.0 (H.R. 4432) $90.1 (S. 3023)

Sources: H.Rept. 117-118 to accompany H.R. 4350; p. 407 (RDT&E) and p. 355 (Procurement); S.Rept. 117-39 to accompany S. 2792, p. 435 (RDT&E) and p. 386 (Procurement); H.Rept. 117-88 to accompany H.R. 4432, p. 242 (RDT&E); Explanatory Statement to accompany Senate Appropriations Committee-released Department of Defense Appropriations Act, 2022, p. 157 (RDT&E) and p. 76 (Procurement).

Foreign Military Sales

There are no reported Foreign Military Sales actions associated with the AMPV.

Potential Issues for Congress

Has the AMPV Become a Major Bill Payer for Army Modernization?

With the Army's decision to reduce AMPV funding in FY2021 and FY2022 and reported production delays resulting in the program falling behind schedule, it appears the AMPV program has become a major bill payer for Army modernization. While the Army reportedly remains committed to fully fielding the AMPV, further programmatic problems could result in additional AMPV funds being used for other Army modernization priorities. As it stands, there appears to be a degree of programmatic uncertainty and risk, as well as questions concerning the validity of the Army's original requirements and plans for the AMPV, which was once described as "the Army's number one vehicle priority."

Given the possibility the AMPV program might be subject to more Army cost-cutting reviews and program adjustments to free up funding for other Army priorities, policymakers might consider reviewing the Army's AMPV program. Such a review could include revised overall vehicle requirements, new production and fielding timelines, and potential program cost increases resulting from program delays and cuts to funding.

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

As previously noted, the Army's current modernization plans do not include replacing EAB M-113s with AMPVs although, originally, the Army had planned to replace all M-113s with AMPVs. Reportedly, on May 21, 2018, the Army indefinitely postponed its plans to upgrade EAB M-113s. Then, in January 2019, the Army reportedly decided to cancel all EAB M-113 replacement efforts. 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, policymakers might question if the Army has a clearly defined "way ahead" for addressing M-113s at EAB. Will the Army "leave" approximately 1,900 M-113s at EAB and continue to maintain these Vietnam era vehicles? Will they be replaced by another vehicle? Or is the Army still trying to decide on a course of action and an overall program strategy?

For a more detailed historical discussion of the AMPV Program, see CRS Report R43240, *The Army's Armored Multi-Purpose Vehicle (AMPV): Background and Issues for Congress*, by Andrew Feickert .

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