

Amphibious Combat Vehicle (ACV) Family of Vehicles (FoV)



In May 2025, the Amphibious Combat Vehicle (ACV) Family of Vehicles (FoV) program completed all operational, live fire, and cyber testing for the ACV 30mm cannon (ACV-30) variant. DOT&E found testing to be adequate and will publish a classified FOT&E report in 1QFY26. The ACV – Maintenance and Recovery (ACV-R) variant will begin live fire testing in 1QFY26. The operational test for the ACV-R is currently scheduled in FY27.

SYSTEM DESCRIPTION

The ACV FoV program consists of four variants: Personnel (ACV-P), Command and Control (ACV-C), ACV-R, and ACV-30. This year's article focuses on ACV-30 and ACV-R.

The ACV-30 variant shares a common powertrain, drivetrain, water propulsion system, navigation and communication, and survivability features as the

ACV-P. The ACV-30 upper hull is modified from the ACV-P to accommodate a remotely operated turret equipped with a stabilized, dual feed, medium caliber weapon system and coaxial medium machine gun. The ACV-30 carries two days of supply (food, water, and ammo), up to 300 rounds for the cannon, and a maximum of 800 rounds for the machine gun. The ACV-30 carries up to eight embarked marines in addition to the three-marine crew (driver, gunner, and vehicle commander).

The vehicle is equipped with independent thermal and visible-light sighting systems for both the gunner and vehicle commander, in addition to the driver's enhanced vision system. The ACV-30 is present within ACV-equipped company formations in a density of six per company.

The ACV-R also shares a common powertrain, drivetrain, water propulsion system, navigation and communication, and survivability features as the ACV-P. The ACV-R payload features include

an internal hydraulic winch for recovery and an external crane to assist with engine pack removal. The ACV-R has a crew of two (driver and vehicle commander) and carries two maintainers. A ring-mounted M240 Medium Machine Gun (MMG) is provided for self-defense.

MISSION

The overall ACV-equipped amphibious assault (AA) company will provide tactical lift for a reinforced Marine Corps infantry company, from amphibious ships to inland objectives. The ACV-30 carries a medium caliber weapon system capable of supporting dismounted maneuvers while still embarking marines. The ACV-30 is present within ACV-equipped company formations in a density of six per company. The ACV-30 medium caliber weapon system is optimized towards infantry support, with sufficient lethality to destroy adversary vehicles.

The ACV-R is an armored amphibious wheeled vehicle that provides field maintenance, recovery, and limited repair capabilities to the AA battalion. The ACV-R is designed to recover similar or smaller sized vehicles and also carries basic maintenance equipment to provide field support maintenance to vehicles in the field. The ACV-R is organic to the AA company and battalion. The maintenance platoon operates and maintains the battalion's ACV-Rs.

PROGRAM

The ACV FoV is an Acquisition Category IC program. DOT&E

reported on the ACV-P in November 2020 and the ACV-C in June 2022. The Navy signed the full-rate production decision for the ACV-P in December 2020 and authorized all production for future variants after briefing the Assistant Secretary of the Navy for Research, Development, and Acquisition. The ACV-30 is an engineering change proposal for the ACV-P and completed live fire testing in December 2024 and operational testing in May 2025. The Marine Corps awarded production contracts for the ACV-30 base vehicle in March 2025 and for the turret in August 2025. Initial operational capability for the ACV-30 is planned for 2QFY26. The program has planned live fire and operational testing for the ACV-R in FY26 and FY27, to inform a full-rate production decision in 4QFY27.

» MAJOR CONTRACTORS

- Kongsberg Defense & Aerospace – Kongsberg, Norway
- BAE Systems, Inc. – Sterling Heights, Michigan

TEST ADEQUACY

ACV-30 testing was adequate to support the evaluation of operational effectiveness, suitability, and survivability. The Marine Corps Operational Test and Evaluation Activity (MCOTEA) conducted a cooperative cyber assessment in June 2024, and an FOT&E from February – April 2025 at Aberdeen Test Center, Maryland, and Camp Pendleton, California, and a cyber adversarial assessment in May 2025, at Camp Pendleton, California. MCOTEA conducted multiple ACV-30 live

fire tests at the Aberdeen Test Center, Maryland, from March 2024 through December 2024. All testing was conducted in accordance with DOT&E-approved test plans, and DOT&E observed the tests.

ACV-R live fire and operational testing is currently scheduled to occur in FY26 and FY27, in accordance with DOT&E-approved test plans. DOT&E will assess that variant's operational effectiveness, suitability, and survivability following completion of the testing.

PERFORMANCE

» EFFECTIVENESS AND SUITABILITY, AND SURVIVABILITY

DOT&E will publish a classified combined FOT&E and LFT&E report in 1QFY26 to assess the operational effectiveness, suitability, and survivability of the ACV-30. The assessment will use ACV-30 test data from, operational, live fire, and cyber testing. Additionally, DOT&E will leverage some data from prior ACV-P testing.

RECOMMENDATION

The Marine Corps should:

1. Submit a T&E Strategy update to DOT&E for approval, outlining the scope and timeline for testing of the ACV-R.