

Why GAO Did This Study

The Marine Corps' ACV is intended to transport Marines from ship to shore and provide armored protection on land. It is to potentially replace all or a portion of the decades old AAV fleet, and is expected to eventually offer increased amphibious capability and high water speed.

The National Defense Authorization Act for Fiscal Year 2014 included a provision that GAO annually review and report on the ACV program until 2018. This report provides an updated discussion of (1) how the ACV program's efforts compare to acquisition best practices and examines (2) how the increments of ACV will achieve amphibious capability.

To conduct this work, GAO reviewed program documentation and other materials for the ACV acquisition and Navy surface connector programs. GAO identified acquisition and analysis of alternatives best practices based on its prior body of work and DOD guidance. GAO also interviewed program and agency officials.

What GAO Recommends

GAO is not making recommendations in this report. In commenting on a draft of this report, DOD stated that it believes its efforts are aligned with best practices and that GAO's report appears to underestimate ACV 1.1's planned technical maturity. GAO found that some program plans do not align with best practices and that while some aspects of the acquisition do suggest lower levels of risk, these deviations could potentially increase program risk. GAO will continue to monitor these risks as the program moves forward.

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AMPHIBIOUS COMBAT VEHICLE

Some Acquisition Activities Demonstrate Best Practices; Attainment of Amphibious Capability to be Determined

What GAO Found

Most of the current activities of the U.S. Marine Corps' Amphibious Combat Vehicle (ACV) program have demonstrated the use of best practices, but plans for an accelerated acquisition schedule pose potential risks. As the program approaches the start of engineering and manufacturing development, it is seeking to rely on mature technologies that have been demonstrated to work in their intended environment as well as fostering competition—a critical tool for achieving the best return on the government's investment. Further, GAO analyzed the ACV analysis of alternatives that the Marine Corps produced for the initial portion of the ACV development, finding that overall it met best practices by, for example, ensuring that the analysis of alternatives process was impartial. However, the Marine Corps is pursuing an accelerated program schedule that presents some risks, including plans to hold the preliminary design review after the start of development—a deviation from best practices which could postpone the attainment of information about whether the design performs as expected. Moreover, GAO believes that the level of planned concurrency—conducting development testing and production at the same time—could leave the program at greater risk of discovering deficiencies after some systems have already been built, potentially requiring costly modifications. Agency officials stated that mature technologies reduce risk and that, while some concurrency is planned, all required testing will be completed prior to the production decision. While some aspects of this acquisition do suggest lower levels of risk, these deviations could potentially increase program risk. GAO will continue to monitor this risk as the program moves forward.

The ACV program relies heavily on future plans to increase ACV amphibious capability gradually, in three planned increments known as ACV 1.1, 1.2, and 2.0, but exactly how this capability will be attained has not yet been determined.

- ACV 1.1 – Although this increment is expected to have some amphibious capability, according to program documents, it is expected to rely on surface connector craft—vessels that enable the transportation of military assets from ship to shore. Marine Corps and U.S. Navy officials regularly coordinate ACV 1.1 plans to operate with the surface connector fleet through coordination mechanisms such as the Surface Connector Council.
- ACV 1.2 – This increment is expected to have greater amphibious capability, including the ability to self-deploy from ships. Based on demonstrations from related programs to date, program officials believe it will reach that capability, but indicated that plans for 1.2 are expected to depend on the success of ACV 1.1 development.
- ACV 2.0 – This increment represents a future decision point when the Marine Corps plans to determine how to replace the Assault Amphibious Vehicle (AAV) fleet. The Marine Corps is currently exploring technologies that may enable high water speed—a significant increase from the amphibious goals identified for ACV 1.1. Therefore, how it will achieve the amphibious capability envisioned for ACV 2.0 is undetermined.