

AMPHIBIOUS COMBAT VEHICLE ACQUISITION

Marine Corps Adopts an Incremental Approach

Why GAO Did This Study

The National Defense Authorization Act for Fiscal Year 2014 mandated GAO to review and report annually to the congressional defense committees on the ACV program until 2018. In April 2014 GAO produced the first of the mandated reports describing the status of the Marine Corps' efforts to initiate an ACV program. This second mandated report discusses (1) the current ACV acquisition approach and (2) how the ACV acquisition approach compares to acquisition management best practices.

To conduct this work, GAO reviewed program documentation and other materials for the ACV acquisition, including Acquisition Decision Memorandums, relevant analyses of alternatives, and a briefing on the most recent analysis of alternatives update. GAO also reviewed documentation and budget information for the AAV Survivability Upgrade Program and the Marine Personnel Carrier program. GAO identified acquisition best practices based on its prior body of work in that area 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 on this program are aligned with GAO's best practices and it will continue to monitor the program and ensure that mitigations are in place to address potential risk areas. In GAO's upcoming review, additional analysis will assess how well the program is aligned with best practices.

What GAO Found

Since GAO reported on the Amphibious Combat Vehicle (ACV) acquisition in 2014, the Marine Corps has adopted a new ACV acquisition approach consisting of three concurrent efforts that emphasize the requirement for improved protection from threats such as improvised explosive devices in the near term with improved amphibious capabilities over time. The first of the three efforts, the Assault Amphibious Vehicle (AAV) Survivability Upgrade Program, plans to upgrade legacy AAV protection and mobility. The second effort subdivides into two increments, ACV 1.1 and ACV 1.2. ACV 1.1 is a continuation of a previously suspended Marine Personnel Carrier program that intends to provide enhanced protected land mobility and limited amphibious capability. Testing on the ACV 1.1 will inform the development of the ACV 1.2, with the intent that the ACV 1.2 will demonstrate improved amphibious capability and at a minimum, achieve parity with the legacy AAV. The third effort, referred to as ACV 2.0, focuses on technology exploration to attain high water speed capability. Results of this high water speed research are intended to further inform the development of a replacement for the AAV fleet.

GAO's analysis of the ACV 1.1 planned acquisition approach has demonstrated the Marine Corps' use of, and deviation from, best practices; however, ACV 1.1 is still in the initial stages of the acquisition process, limiting our ability to determine how fully this approach will adopt a best practices knowledge-based framework. GAO's prior work on best practices has found that successful programs take steps to gather knowledge that confirms that their technologies are mature, their designs stable, and their production processes are in control. The knowledge-based acquisition framework involves achieving the right knowledge at the right time, enabling leadership to make informed decisions about when and how best to move into various acquisition phases. Specifically, the Marine Corps' incremental approach for the ACV acquisition is consistent with best practices and can increase the likelihood of success. The adoption of an incremental approach has helped the program progress towards achieving the balance—that is sought in accordance with best practices—between customer needs and resources (e.g., technologies, cost, and schedule). In addition, the ACV acquisition's pursuit of high water speed capabilities via technology exploration is also aligned with best practices. In previous reports, GAO has found that DOD should separate technology development from product development, and fully develop technologies before introducing them into the design of a system. In contrast, the program plans to hold the ACV 1.1 preliminary design review after Milestone B—the decision point allowing entry into system development—which is a deviation from best practices that can increase technical risk. According to DOD officials, this approach was selected because no contracts will have been awarded prior to Milestone B and the use of non-developmental technology will reduce acquisition risks and result in a high level of knowledge prior to the Milestone B decision. The recent completion of key documents—including an updated analysis of alternatives—will permit a more robust analysis and assessment of the ACV program's use of additional acquisition best practices.