

AMPHIBIOUS COMBAT VEHICLE PHASE 1 INCREMENT 1



Program Background

The Amphibious Combat Vehicle (ACV 1.1) is an armored personnel carrier that is balanced between performance, protection, and payload for employment within the Ground Combat Element (GCE) and throughout the range of military operations, to include a swim capability. ACV 1.1 leverages and continues the work that was previously accomplished under the Marine Personnel Carrier (MPC) program. Operationally, the ACV 1.1 will be employed in such a manner that allows combat units to continue the inland fight toward the objective after an initial beachhead has been established. ACVs will provide a very robust combat capability, with features including Mine-Resistant Ambush Protected (MRAP)-level survivability, amphibious ability to negotiate two-foot significant wave height, and four-foot plunging surf.

Program Status

The Marine Corps published a Request For Proposal on 26 March 2015. Two vendors have been selected to compete for the program (SAIC and BAE), the Marine Corps expects to down select to a single vendor in FY 2018. The ACV 1.1 is expected to achieve Initial Operational Capability (IOC) in FY 2020.

ACV 1.1's Top Technical Issues

1. Survivability

Technologies that provide lightweight survivability solutions with specific focus on blast and direct fire protection are needed for the ACV.

2. Weight

Technologies that provide lightweight solutions for vehicle materials and components are needed for the ACV to achieve future survivability, lethality, and mobility upgrades.

3. Crew Visibility

The ACV crew must maintain direct sensory knowledge of their surroundings to safely and effectively employ the system. This requirement includes, but is not limited to, fully blacked out land/water operations, station keeping, obstacle detection (including near-surface obstacles), and operation in urban environments. Technologies that provide the necessary situational awareness for the crew are critical to the execution of the ACV mission.

Pre-MDAP/TMRR Phase

MSB = 1Q FY16
 IOC = 4Q FY20

AAO = 204

FOC = 3Q FY23



ACV 1.1

Description:

Provide wheeled, expeditionary, armor-protected mobility and direct fire support expanding the maneuver space of the infantry battalion on land and across littoral and inland water obstacles throughout the range of military operations.

JAN 2016



Key Performance Parameter (KPP)	Definition
1. Net Ready	Per CJCS 3170
2. Sustainment Material Availability	75%
3. Sustainment Operational Availability	81%
4. Energy	1.28 miles per gallon/1.9 gallons per hour
5. Sea Connectors	Transportable via connectors
6. Force Protection	Under-vehicle mine/IED protection
7. System Survivability	Egress kill zone, 5 miles, protected fuel
8. Water Mobility	Shore-to-Shore, 3 NM, 2t SWH
9. Payload	3 Crew, 10 Infantry PAX plus additional DoS
10. Training	Course lengths no longer than equivalent AAV courses

Key System Attributes (KSA)	Definition
1. Soft Soil Mobility (Mud)	Traverse soil with Rating Cone Index of 30
2. Soft Soil Mobility (Sand)	Climb dry sand slope w/ 40% grade
3. Weapon System	Single mount, stabilized RWS
4. Direct Fire Protection (Force Protection)	Equivalent to AAV & LAV with applique
5. Roadside IED Protection	MRAP equivalent
6. System Reliability	0.77 probability of completing any single one of the scenarios described in the OMS/IMP
7. OAS Costs	Equal to or less than \$3.068B (T) \$2.761B (O) in FY145B
8. Afloat Ready	Interoperability, MPSIRON, L-Class

Contract Data

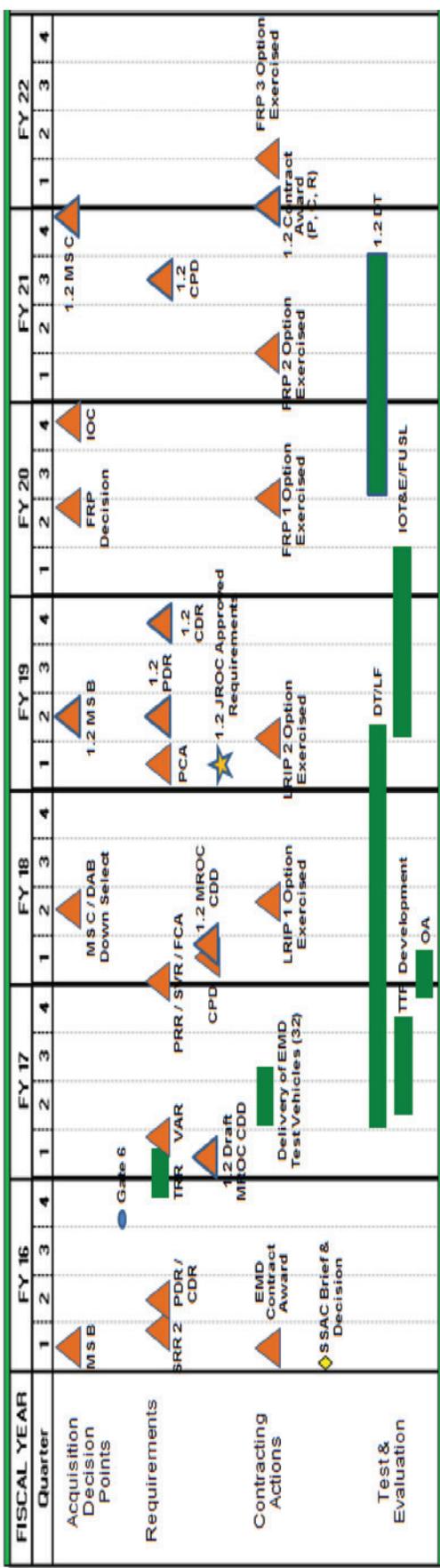
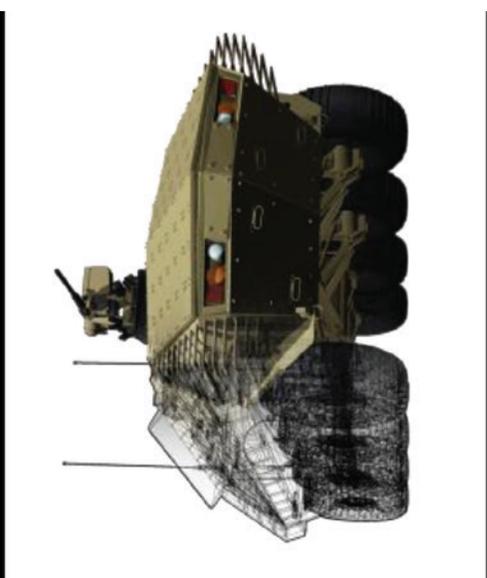
RFP Final/DAB Meeting Held – 18 Mar 15

RFP Released – 26 Mar 15

Proposals Received – 18 May 15

Milestone B – 19 Nov 15

Contract Award – 24 Nov 15





ACV 1.1 Technical Issue #1 Survivability

