Advanced Planning Briefing to Industry

Program Manager, Advanced Amphibious Assault (PM AAA)

1 May 12
MISSION

PROGRAM MANAGER
ADVANCED AMPHIBIOUS ASSAULT
(PM AAA)

Mission:
Our mission is to deliver and support an operationally effective and suitable amphibious vehicle capability that will meet the needs of an expeditionary force across the range of military operations – on time and at an acceptable cost.

Command Location:
PEO Land Systems, Quantico VA

Programs:
ACV – The ACV is not yet a program of record. It will be effective with the M1A1 off-road and swim 8-10 knots in water. It will provide lift for 8 Battalions.

MPC – The MPC capability complements the ACV by providing 4 Infantry Battalions lift. It provides MRAP level protection with the high off-road mobility and a limited swim capability (not fully amphibious, water crossing). Variants include Personnel Carrier, C2, and Recovery.

AAV Upgrade - The AAV Upgrade is a bridge capability to ACV. It will restore operational relevance to the AAV by updating outdated protection attributes and gain back current/improved land and water mobility with increased survivability attributes. It will provide 4 Infantry Battalions lift capacity to the MAGTF.
A PORTFOLIO APPROACH TO COMPLEMENTARY CAPABILITIES

• **Portfolio Objective:**
  
  – *Marine ground combat forces require expeditionary protected mobility throughout the extended littoral operational environment across all types of terrain*

• ACV & MPC are part of a portfolio of capabilities that provide closure to real world operational gaps and shortfalls in the ability of the MAGTF to conduct ground based maneuver tasks

• The MPC, as the medium capability category platform, provides a bridge in capability between the ACV and JLTV

• *Distributed Combat Power - 2 MPCs will lift a reinforced rifle squad*

• MPCs will be supported by JLTVs carrying heavy weapons, communications equipment, and cargo

• In conjunction with ACV the MPC will meet GS lift requirements for Marine Infantry across the ROMO

• ACV is optimized for JFEO/MCO while MPC is better suited for the fight in restricted terrain against irregular threats

“Our Ground Combat & Tactical Vehicle Strategy is designed to field and support a portfolio of complementary capabilities - No one vehicle can do it all while being affordable and singularly operationally effective across the ROMO”.
AMPHIBIOUS COMBAT VEHICLE

Mission Description: The ACV meets the Marine Corps' requirement for self-deploying, fully amphibious vehicles, in order to maintain an amphibious forcible entry capability. The ACV will be included as part of the Marine Corps' integrated and complementary portfolio of combat vehicles critical to the future expeditionary Marine Air Ground Task Force operations.

Mission: General Support Lift / Amphibious Mobility Firepower
Dimensions: To meet amphibious lift and other transportability requirements
Wt: ~70,000 lbs GVW
Weapon: Lethality Options under analysis - Medium Caliber Canon & Heavy Machine Gun in Manned & Unmanned Turret combinations to be studied
Fire control: Modern, Stabilized Day / Night Optics
Capacity: 17 Infantry Marines + 3 Marine Crewmen
Range: 200 miles (post 12nm swim)
Speed: Mobility effective with MAGTF Maneuver Task Force/ 8-10 knots in 2 ft significant wave height

Acquisition Status: MDD
Acquisition Objective: ~600
IOC/FOC: 2022/2028 (Projected)
Approximate Unit Cost: TBD
Comments:
- Not yet a program of record
- AAO will provide lift for 8 Infantry Battalions
ACV SYSTEM CONCEPT

Required Capabilities
- Provide armored protected mobility (ship-to-objective)
- ATF Transportable and Self-Deploying
- Enable MAGTF Maneuver on land and sea
- Effective across the ROMO and operating environments
- Operate within Mechanized Task Force
- Move Reinforced Rifle Squad
- Provide support-by-fire to dismounted infantry
- Provide defensive fires ISO of vehicle survivability
- Network enabled C2 on-the-move capable
- Sustainable and energy efficient

Initial Capability Documented Gaps
- Force Protection and Survivability
- Land and Water Mobility
- Network Enabled
- Lethality
**MARINE PERSONNEL CARRIER**

**Mission 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.

<table>
<thead>
<tr>
<th>Mission</th>
<th>General Support Lift / Protected Mobility</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dimensions</td>
<td>H: TBD</td>
</tr>
<tr>
<td></td>
<td>W: TBD</td>
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<tr>
<td></td>
<td>L: TBD</td>
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<tr>
<td></td>
<td>Wt: ~45,000 - 55,000 lbs weight range</td>
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<tr>
<td>Weapon</td>
<td>Heavy Machine Gun RWS stabilized mount</td>
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<tr>
<td>Capacity</td>
<td>9 Infantry Marines + 3 Marine Crewmen</td>
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<tr>
<td>Range</td>
<td>~300 miles</td>
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<tr>
<td>Speed</td>
<td>Mobility effective with MAGTF Maneuver Task Force / swim ~5 knots</td>
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<tr>
<td>Features</td>
<td>Two MPCs provide protected mobility for one reinforced rifle squad / MPC company capable of lifting an Infantry Battalion</td>
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**Acquisition Status:** Pre-MDD
**Acquisition Objective:** 579
**IOC/FOC:** 2022/2027
**Approximate Unit Cost:** TBD
**Comments:** Not yet Program of Record
- This capability complements ACV to provide the 4 Infantry Battalions lift
- Provides MRAP level protection with the high off-road mobility and a swim capability (not fully amphibious, water crossing)
- Variants: Personnel Carrier, C2 & Recovery
MPC SYSTEM CONCEPT

Required Capabilities

• Provides landward armored protected mobility across land, littoral and inland water obstacles
• ATF Transportable
• Enable MAGTF Maneuver
• Effective across the ROMO and operating environments
• Operate within Mechanized Task Force
• Move Reinforced Rifle Squad
• Provide support-by-fire to dismounted infantry
• Provide defensive fires ISO of vehicle survivability
• Network enabled C2 on-the-move capable
• Sustainable and energy efficient

Initial Capability Documented Gaps

• Force Protection and Survivability
• Tactical and Operational Mobility
• Network Enabled
• Lethality
ASSAULT AMPHIBIOUS VEHICLE UPGRADE

**Mission Description:**

The AAV upgrade is anticipated to provide the Ground Combat Element with an operationally relevant AAV that possesses the necessary protection and mobility attributes to conduct sustained operations ashore in the current threat environment. The AAV upgrade program is an effort to improve the survivability of the AAVs and the force protection of embarked Marines while maintaining the platforms’ current mobility characteristics. All technologies to be integrated on the current platform are mature, therefore, this program will primarily be an integration effort.

<table>
<thead>
<tr>
<th><strong>Mission</strong></th>
<th>General Support Lift (tracked/armored) / Amphibious Mobility</th>
</tr>
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</table>
| **Dimensions:** | H: 130 in  
|  | W: 130 in  
|  | L: 321 in  
|  | Wt: 46,330 lbs (curb wt) |
| **Weapons:** | 2 HMGs |
| **Payload:** | 21 Infantry Marines + 3 Marine crewmen |
| **Range:** | 200 + miles |
| **Speed:** | Effective with M1A1 off-road / 6 knots in water |

**Acquisition Status:** Pre-MS B  
**Acquisition Objective:** 392  
**IOC/FOC:** FY17/FY23  
**Approximate Unit Cost to Upgrade:** TBD  
**Comments:**

- AAV Upgrade AAO provides 4 Infantry Battalions lift capacity to the MAGTF
- The AAV Upgrade is to be a bridge capability to ACV. Focus - restore operational relevance to the AAV by updating outdated protection attributes and gain back current/improved land & water mobility with increased survivability attributes.
ASSAULT AMPHIBIOUS VEHICLE UPGRADE CAPABILITIES

Assault Amphibious Vehicle Upgrades: Force Protection/Survivability

- Blast mitigating seats (troops & crew)
- Fuel tank protection
- Spall liner
- Deck liner
- Sponson & belly armor solutions

Improved transmission, engine, & associated components

Improved suspension
PMAAAA is developing a Request for Proposal in support of Full and Open Competitive contract award to continue providing sustainment efforts required to maintain AAV Operational Readiness for more than 1000 fielded vehicles. This contract will provide the following efforts:

- Engineering Change Proposal (ECP) Development and Fielding
- Logistic Support for Beneficial Suggestions, Product Quality Deficiency Reports and DLA 339
- Technical Manual Updates
- Field Service Support
- Configuration Management and Configuration Status Accounting