



MARINE CORPS SYSTEMS COMMAND PROGRAM EXECUTIVE OFFICER LAND SYSTEMS



Advanced Planning Briefing to Industry

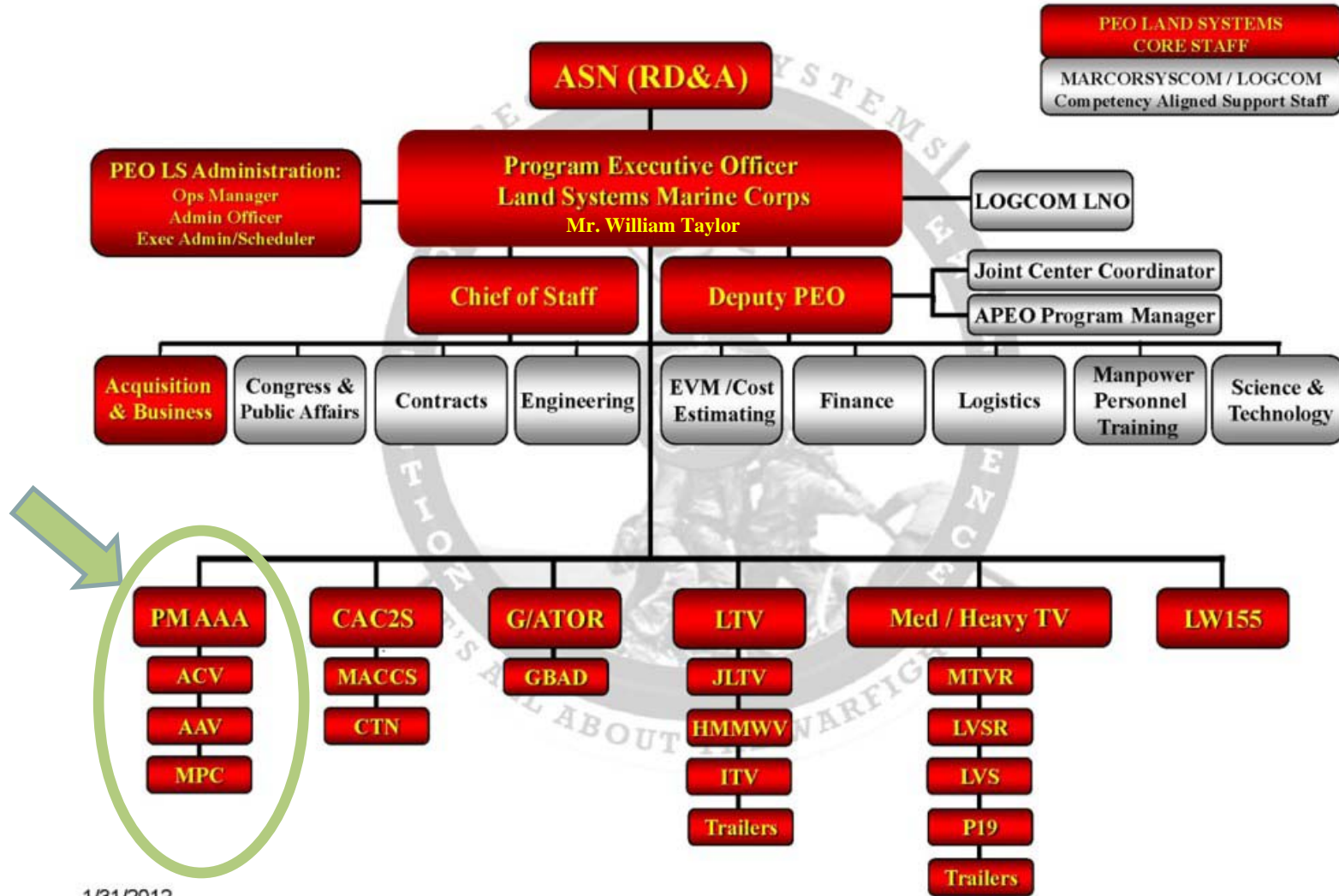


Program Manager, Advanced Amphibious Assault
(PM AAA)

1 May 12

PM AAA ORGANIZATION

PEO LS ORGANIZATIONAL VIEW



1/31/2012



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 It will restore operational relevance to the AAV by updating outdated protection attributes and gain back current/improved land and water mobility with increased survivability attributes.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

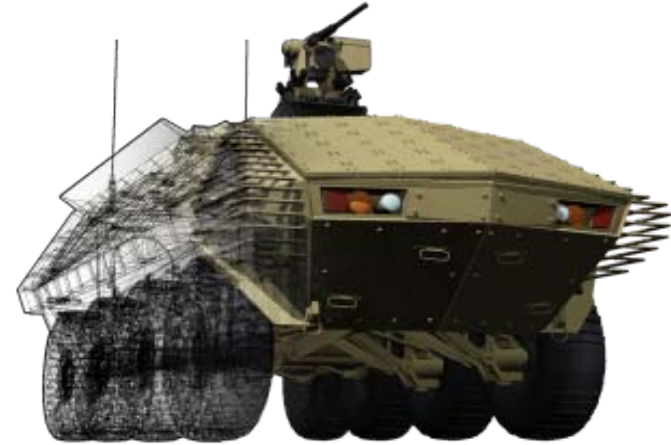
- Force Protection and Survivability
- Land and Water Mobility
- Network Enabled
- Lethality



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.



Mission: General Support Lift / Protected Mobility

Dimensions: H: TBD

W: TBD

L: TBD

Wt: ~45,000 - 55,000 lbs weight range

Weapon: Heavy Machine Gun RWS stabilized mount

Capacity: 9 Infantry Marines + 3 Marine Crewmen

Range: ~300 miles

Speed: Mobility effective with MAGTF
Maneuver Task Force / swim ~5 knots

Features: Two MPCs provide protected mobility for one reinforced rifle squad / MPC company capable of lifting an Infantry Battalion

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 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.



Mission: General Support Lift (tracked/armored) / Amphibious Mobility

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.

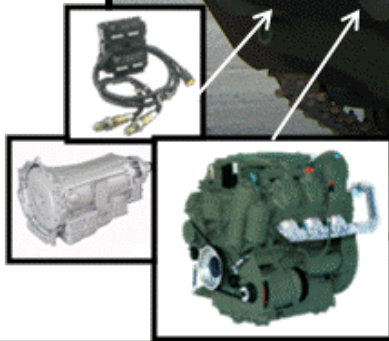


ASSAULT AMPHIBIOUS VEHICLE UPGRADE CAPABILITIES

Assault Amphibious Vehicle Upgrades: Force Protection/Survivability



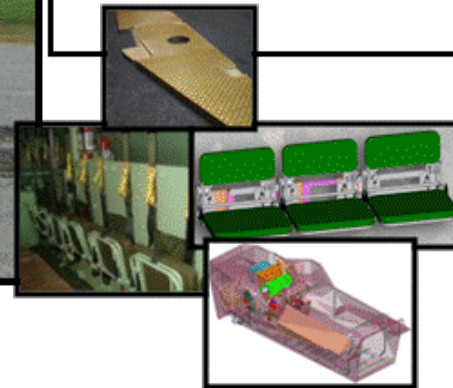
Blast mitigating seats (troops & crew)
Fuel tank protection
Spall liner
Deck liner
Sponson & belly armor solutions



Improved transmission, engine, & associated components



Improved suspension



AAV SUSTAINMENT

- PMAAA 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

