

Assault Amphibious Vehicle (AAV) Information Brief

Presented to
NDIA 2009
Combat Vehicles
Conference

Mr. Bryan Prosser
Program Manager, Assault Amphibious Vehicle Systems
12-14 October 2009

Briefing Agenda

- AAV Description, History, Operational Concept
- USMC AAV Future: Sustainment and Upgrade Strategy
- AAVC7A1 C2 Upgrade
- AAVS Upgrades



AAV System Description

- Armored assault amphibious full-tracked landing vehicle.
- Three variants in the AAV FOV:
 - AAVP7A1 Personnel
 - AAVC7A1 Command
 - AAVR7A1 Recovery
- Primary Means of Armored Protected Mobility to the Ground Combat Element.
- Mission Profile for 20% Operation in Water and 80% on Land.



• **Mission**: To maneuver the surface assault elements of the landing force and their equipment from assault shipping during amphibious operations to inland objectives and to conduct mechanized operations and related combat support in subsequent operations ashore.



MARINE CORPS SYSTEMS COMMAND



AAV7A1 Reliability, Availability and Maintainability/Rebuild to Standard (RAM/RS)

Program

Improved-Upgunned **Weapons Station and** Survivability, C4I, Upgrades





Re designated AAV7A1 to better reflect mission

LVT7A1 Service Life Extension Program (SLEP)

Upgrades

C7



Product Improvement Program (PIP)-Upgrade:

- Lethality
- Survivability
- Communications

LVT7 Fielded





AAV Sustainment and Upgrade Strategy

- Remain in USMC inventory until fully replaced by the Expeditionary Fighting Vehicle (EFV).
- Depot maintenance rotation (IROAN) to maintain operationally ready condition.
- Develop and field modifications/ECPs required to address issues related to safety, reliability, parts obsolescence and emerging requirements.
- Apply available capability enhancements to the current configuration to maintain platform viability.
- Provide system upgrades to the AAV FOV which will address critical capabilities gaps in the areas of weapons capability along with survivability, and C4I.



USMC Amphibious Assault Modernization Required Capability Enhancements **Modernized Systems Future** MPC EFV **AAV** 2010 2014 2016 2018 2012 2020 2022 2024



AAVC7A1 C2 Upgrade

- Required operational attributes include:
 - Replace obsolete communications equipment and providing HF, VHF and UHF LOS and UHF SATCOM capability
 - Provide 6 functionally interchangeable staff work stations capable of hosting current MAGTF C2 applications
- Partnered with SPAWAR, Charleston for design, development, testing, and production/deployment









MARINE CORPS SYSTEMS COMMAND

AAV Upgrades

Upgrades focus on the following areas:

- **Survivability**
 - **Belly/Sponson Armor**
 - **Shock/Blast Mitigating Seats**
 - **Selected Location Spall Lining**
 - Improved fire suppression system
 - **CREW Integration**
 - **Infantry Troop Compartment Weapons Mounts**
 - **Situational Awareness Enhancement**
 - **Deck Plate Treatment**
- - **Tactical Radio Refresh**
 - **Blue Force Tracking Integration**
 - Improved Intercom
 - **APU Integration**
 - **Improved Drivers Display**
- **Improved Up-gunned Weapons Station**
 - **Ballistic computer**
 - **Stabilized**
 - Laser Range Finder
 - **Thermal Sight**

Improved Upgunned Weapons Station



Infantry Troop Compartment



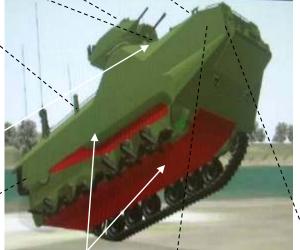
Weapons Mount



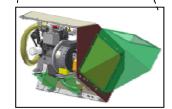
Improved Driver's Display



CREW CVRJ



Belly and Sponson **Armor Solutions**



Auxiliary Power Unit



Blast Mitigating Bench Seats



QUESTIONS?