



**MARINE CORPS SYSTEMS COMMAND**  
**UNITED STATES MARINE CORPS**

# **Ensuring Future Effective Amphibious Assault Capability**



**Presented to  
NDIA Combat Vehicles Conference  
by  
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**AAVS PROGRAM OFFICE**

PM AAVS is responsible for complete life-cycle management of the USMC fleet of Assault Amphibious Vehicles (AAV). This mission includes developing, demonstrating, procuring, fielding, supporting and maintaining safe, reliable and cost efficient family of AAVs and associated modifications required to maintain combat effectiveness of the weapon system until its planned replacement.





## AAV SYSTEM DESCRIPTION

- The AAV7A1 is an 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.
- AAV Design Meets a 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.”*



## AAV HISTORY

- 1972 - 1975** LVT7 Fielded
- 1983 - 1986** LVT7A1 Service Life Extension Program (SLEP)
- 1987** Redesignated AAV7A1 to better reflect mission
- 1987 - 1999** Product Improvement Program (PIP)
  - Upgrade Lethality, Survivability and Communications
- 1999 – 2007** AAV7A1 Reliability, Availability and Maintainability/Rebuild to Standard (RAM/RS) Program



## **AAV FUTURE STRATEGY**

- **Remain in USMC inventory until replaced by the Expeditionary Fighting Vehicle (EFV)**
  - ✓ **IOC: 2015      FOC: 2025**
- **Depot maintenance rotation (IROAN) to maintain operationally ready condition**
- **Apply available product improvements to the current configuration to maintain platform viability.**
  - ✓ **Thermal Sight System, AAVC7 C2 Upgrade & EPLS**
- **Interest in near-term survivability enhancements for application in support of GWOT**
- **Develop and integrate future significant upgrades due to extended service life.**
  - ✓ **Survivability**
  - ✓ **Lethality**
  - ✓ **Mobility**
  - ✓ **Communications / Interoperability**
  - ✓ **Environmental/Habitability**



## FUTURE CAPABILITY UPGRADES

- PM AAVS received RDT&E funding for development and testing of future upgrades
  - ✓ FY09: \$42.8M
  - ✓ FY10: \$43.4M
- Upgrades will focus on Survivability, C4I and Environment/Habitability
- POM-10 Initiative requests additional RDT&E, PMC and O&MMC for execution of the program for upgrade of 369 vehicles.
- PM AAVS currently working on defining the details of a formulated acquisition approach.



## AAV SURVIVABILITY UPGRADES

- Improved Armor System
  - ✓ Minimum same level of protection as EAAK but with more coverage of vehicle and reduced weight desired
  - ✓ IED/mine blast protection for vehicle belly and lower side of hull
- Integral Spall Liner
- Improved Fire Suppression System
  - ✓ Automatic in engine compartment
  - ✓ Multiple shots for full vehicle interior
- Blast Attenuation/Protection Seats
  - ✓ Crew stations and troop compartment
- Up-Gunned Weapons Station (UGWS) improvements
  - ✓ Stabilize for fire on the move; automated controls; laser range finder



## AAV C4I UPGRADES

- Open System Architecture
- Improve Battlespace SA
  - ✓ 360° Day/Thermal Vision
  - ✓ Integrated Multi-functional Displays
  - ✓ Integrated future Blue Force applications
- UHF SATCOM
- Integral Navigation System
- Improved Vehicle Intercom (TOCNET)
- Tactical Radio Refresh
- Auxiliary Power System / Improved Power Management

## AAV ENVIRONMENT / HABITABILITY UPGRADES

- ECU, Improved Air Quality, Noise Reduction





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*Assault Amphibious  
Vehicle Systems  
(AAVS)*

**QUESTIONS ?**