ADVANCED AMPHIBIOUS ASSAULT VEHICLE


AAAV

AAAV…REVOLUTIONIZING EXPEDITIONARY MANEUVER WARFARE

Past: AAV

- WWII Doctrine
- No Standoff Distance for ATF
- Slow Speed Amphibious Assault
- 1960's Technology
- Limited Survivability

New System Validation:
- Three AOA's/COEA's
- Comprehensive Whole Systems Trade Study

Identified Deficiencies:
- Tactical Mobility
- Close Combat
- Command & Control
- Survivability

Future: AAAV

- Defense Stand-off Space for Amphibious Task Force
- Operational Reach - Land and Water Maneuver
- Seamless Maneuver OMFTS/STOM
- Precision Lethality
- Survivable on 21st Century Battlefield
- Enhanced C4I

Leap Ahead to 21st Century Technology

MISSION & KEY PERFORMANCE PARAMETERS

AAAV MISSION

- Provide High Speed Transport of Embarked Marine Infantry From Ships Located Beyond the Horizon to Inland Objectives
- Provide Armor Protected Land Mobility and Direct Fire Support During Combat Operations

AAAV KEY PERFORMANCE CRITERIA

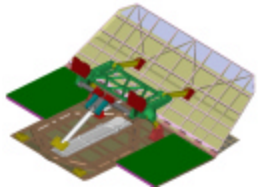
	Objective	Threshold
High Water Speed	25 knots	20 knots (SS 3)
Forward Speed	72 kph	69 kph
Armor Protection	30mm @ 1000m	14.5mm @ 300m
Firepower	2000 m	1500 m (Max Eff Range)
Reliability	95 Hours	70 Hours (MTBOMF)
Carrying Capacity	18 Marines	17 Marines
Interoperability	100% Top Level IERs	100% Top Level Critical IERs

PROTOTYPE #1 TESTING STATUS

- **P1 has 1,866 hours of testing, primarily in High Water Speed Mode**

- **Ongoing Developmental Testing Is Characterizing the Hydrodynamic Performance Envelope, And Optimizing Performance and Handling Characteristics**

Accomplishments:



SDD Bow

Max Planing Weight
35,684 kg @ 22 Kts
(78,600 lbs)

Max Speed = 38 Knots

Transition Mode
Fully Characterized

PROTOTYPE #2 TESTING STATUS

- **P2 Has 3,031 Miles of Land Mode Testing**

The Carrying KPP was Demonstrated

July 2000

- **Developmental Testing at ATC / 29 Palms has Characterized Land Performance Parameters.**
- **08 April 2002, completed Firepower Comparative Testing**

PROTOTYPE #3 TESTING STATUS

- **P3 Has 309 Miles of Land Mode and Firepower Testing**

- **To Date, P3 Has Been Used for the Following Tests:**
  - Logistics Demonstration
  - Maintenance/Operator Training for EOA Marines
  - Mk46 System Checkout and Dial-in of Primary and Coax Weapons Systems at Eglin AFB
  - CAX Support

- **While at 29 Palms in Support of EOA, the P3 Prototype Was Also Conducting the Following Developmental Tests:**
  - Engine Cooling System Evaluation (Hot Weather)
  - Vehicle Acceleration
  - Environmental Control System Evaluation

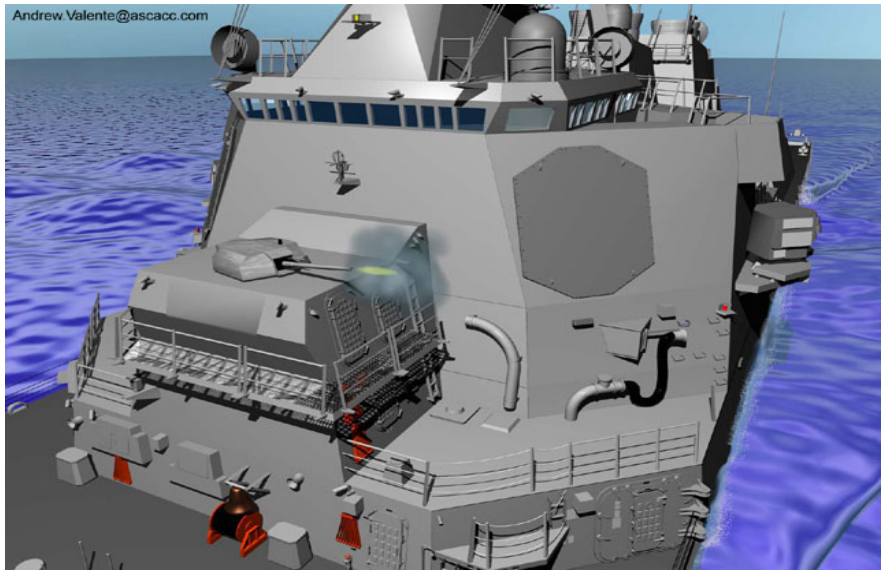
- **P3 Returned to Woodbridge to be Refurbished and Prepared for Water Mode Testing at Camp Pendleton, CA**

MK 46 MOD 1 STATUS

- **Domestic Customers**
  - Deliveries for LPD-17

- **Potential Domestic Customers**
  - DDG-51
  - CVN(X)
  - DDX Blue team CIGS
  - JCC(X)
  - USCG “Deep Water”

- **Potential International Customers**
  - UK Type 45 Destroyer
  - Japan Navy and Coast Guard

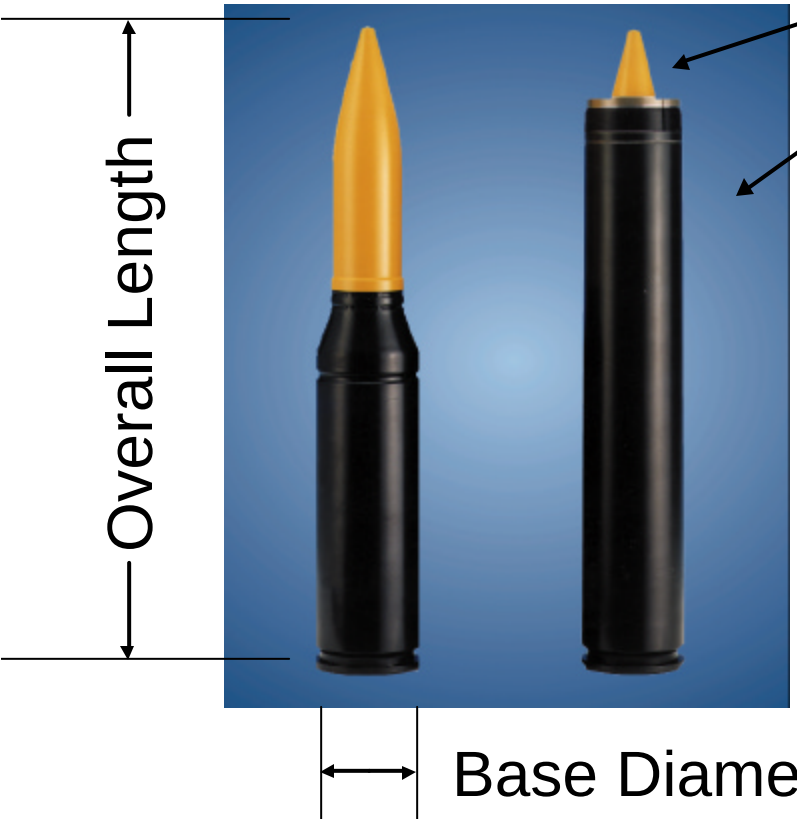


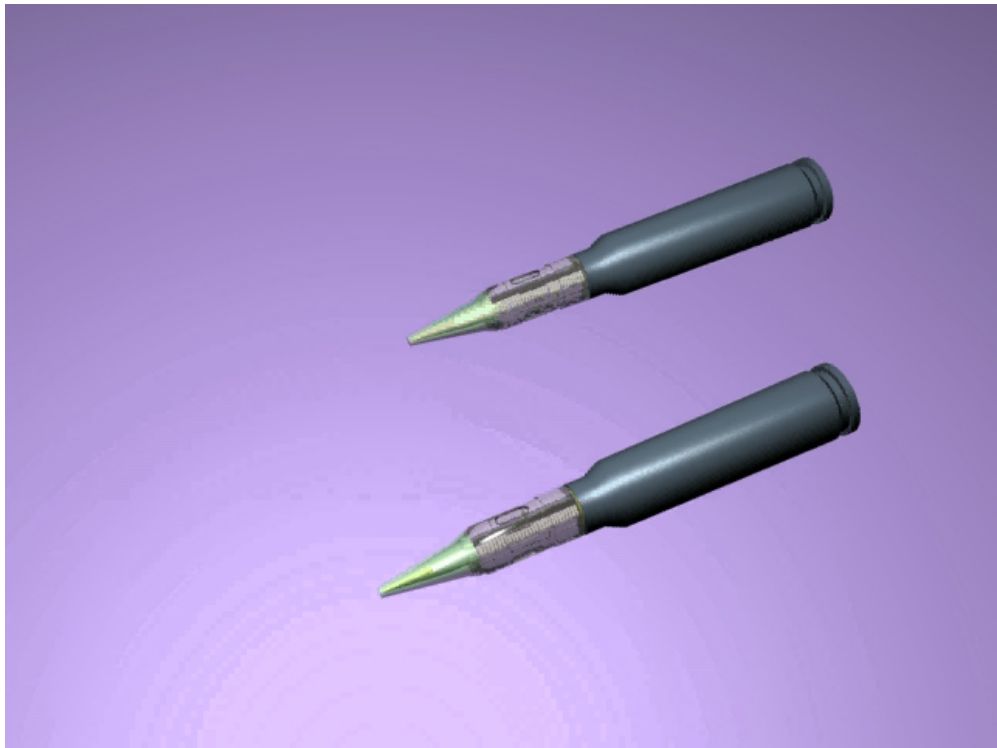
MK 44 MOD 1 30/40mm AUTOMATIC GUN

- **Mk 44 30/40mm Automatic Gun**
  - US Army
    - Future Combat System
    - Bradley Upgrade
    - IAV
  - H60 Seahawk Helicopter Anti-Mine Mission (RAMICS)
  - NATO Use: Norway, Switzerland, Finland
  - Under Evaluation: UK, Germany, Austria, Taiwan, South Korea, Spain, Singapore

30/40mm Technology

- **Long Rod Status**
- **H/E Status**
- **Super 40 Development**





SDD TESTING

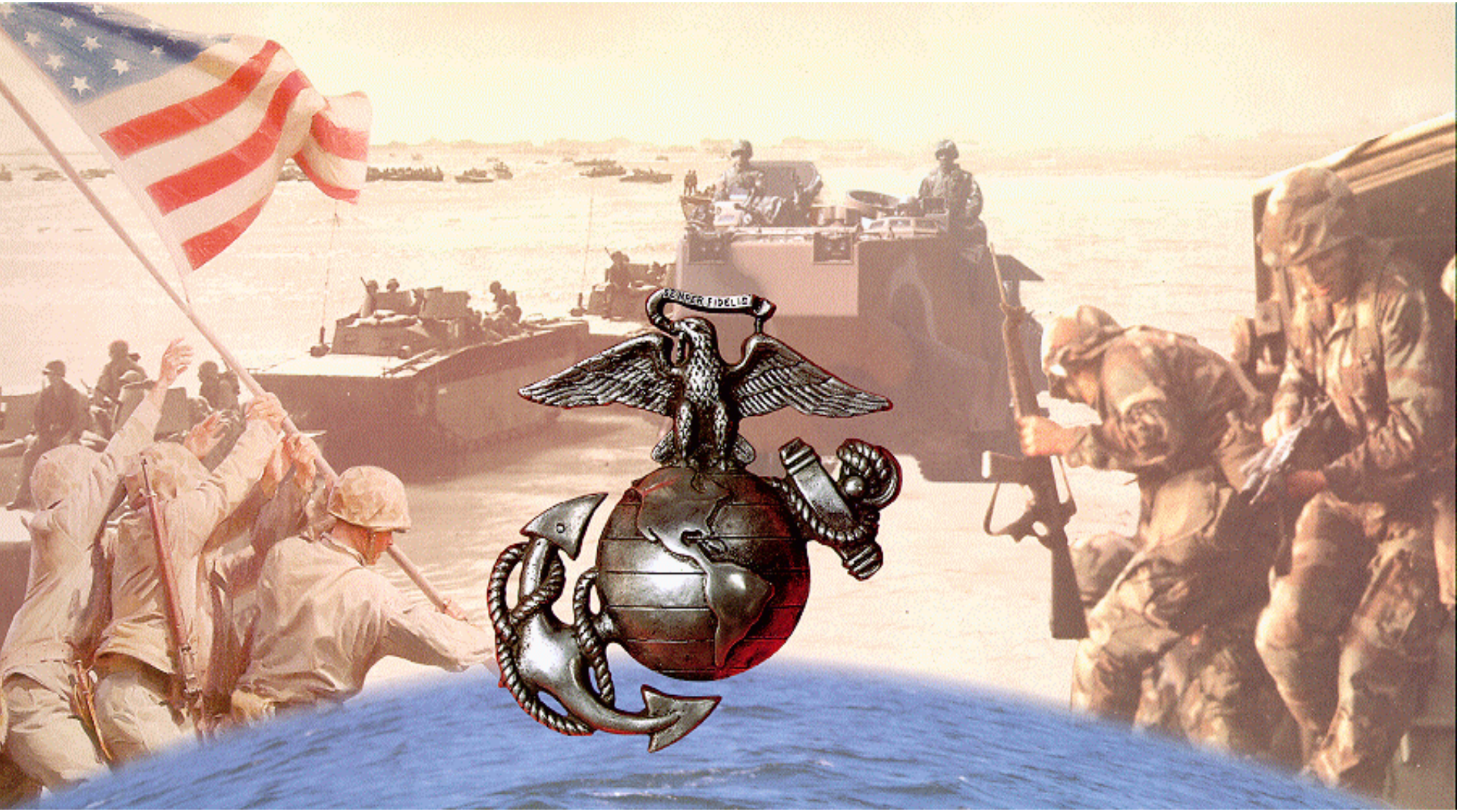
- **Developmental Testing**
  - Land and Water Mobility, Firepower
  - Reliability Testing
- **Operational Testing (Before IOT&E)**
  - Land Mobility Operational Assessment (FY01)
  - Comparative Firepower Operational Assessment (FY02)
  - Amphibious Operations Operational Assessment (FY02)
  - Validating LRIP Entrance Criteria (FY04)
  - SDD Operational Assessment (FY04)
  - Cold Weather Operational Assessment (FY05)

TEST To LEARN

- **Operational Testing**
  - Full Up System Live Fire (FY05)
  - IOT&E (FY06)

TEST To PROVE

QUESTIONS?



Http://www.aaav.usmc.mil