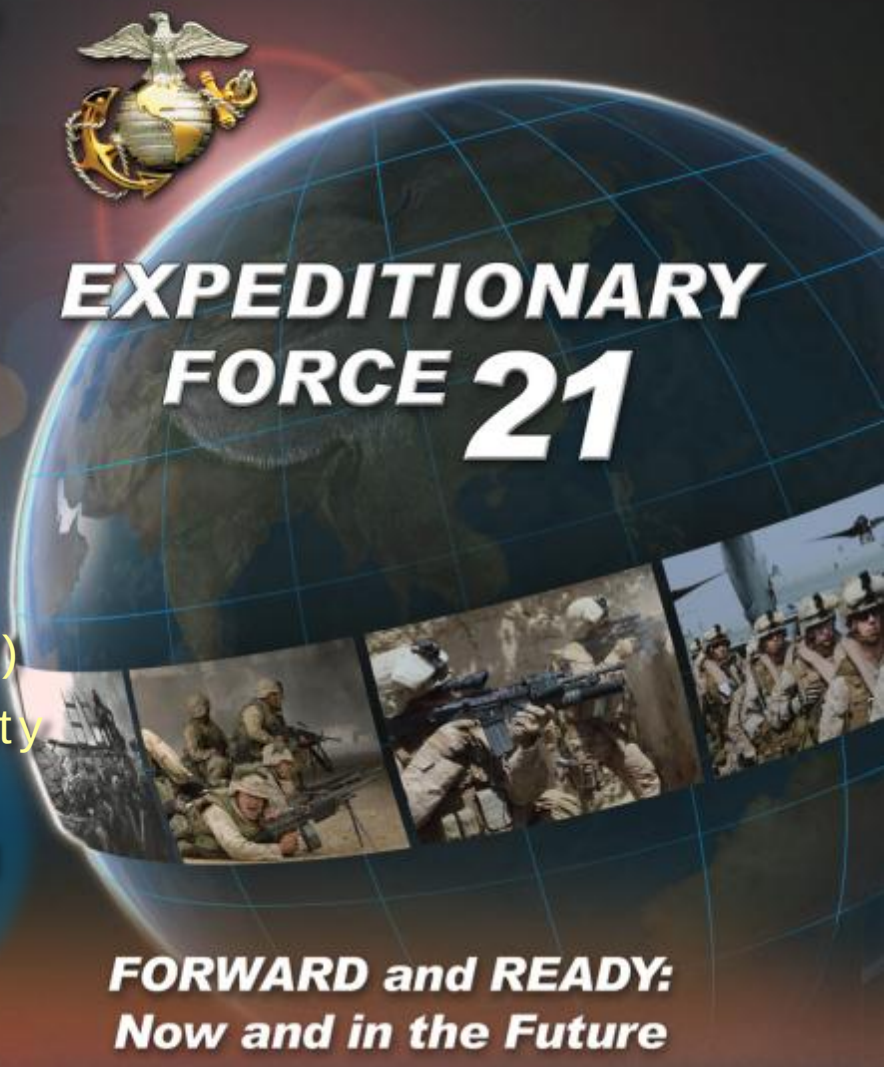
Expeditionary Warfare Conference

November 17, 2014

USMC Capabilities Development Directorate Panel

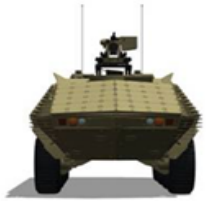
- Amphibious Combat Vehicle (ACV)
- High Water Speed (HWS) Capability Technology Exploration
- Marine Expeditionary Rifle Squad (MERS)
- Marine Corps Load Effects Assessment Program (MC-LEAP)



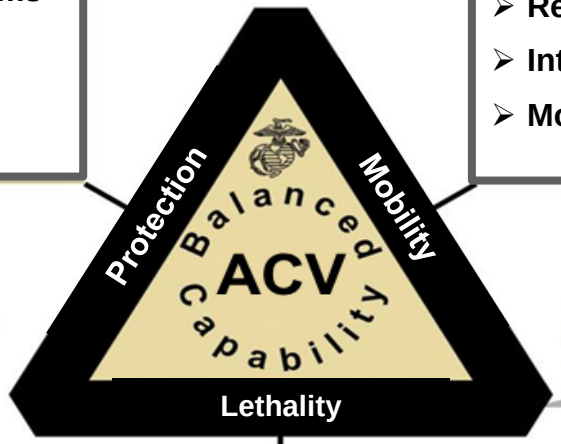
Lieutenant Colonel James "Mac" McArthur, Director Fires and Maneuver Integration Division

ACV

- Inherent protection against kinetic threats, IEDs, mines, IDF, and CBRNE
- Protection with land and water mobility
- Weight growth for scalable protection
- SWAP-C for future survivability systems
- Protected Fuel Storage
- Mobility after blast attack



- Cross Country Performance with M1A1
- Tactical water mobility to include river crossing and shore-to-shore mobility
- Energy Efficient over Mission Profile
- Reliable over Mission Profile
- Interoperable with Connectors, MPF, L-Class
- Modern Networked C4I Suite



- Crew of 3; 10 embarked infantry
- Embarked infantry with Full combat loads; two days of supply
- Single Mount RWS; Stabilized weapon system for precision support by fire and vehicle defense
- Capacity to Upgrade to more Lethal Weapon Systems
- Built in System Growth Capacity

HWS Capability Technology Exploration

- Enhancements to low water speed amphibious vehicles
- HWS amphibious vehicles
- Future HWS connectors

Modeling and simulations efforts are required to define the EF 21 operational framework and required capabilities (types, quantities, payloads)

MERS

- **Description**: Integration and configuration manager for all capabilities (clothing, equipment, weapons, optics, and command and control) fielded to support the Marine rifle squad
  - Modeling
  - Simulation
  - Human Factors
  - Mobility Platforms
  - Immersive Trainers

- **Purpose**.
  - Increase the mobility and lethality of Marine rifle squads
  - Timely situational awareness
  - Improve command and control
  - Increase responsiveness

Synchronizes requirements officers, operational forces, the acquisitions community and industry capability gap solutions development actions.

MC-LEAP

- **Description**: Human Factors Mobility Platform informed by operations conducted in Iraq, Afghanistan and the future operating environment
  - Focus
    - Weight
    - Bulk
    - Stiffness

- **Purpose**.
  - Identify mobility metrics
  - Conduct trade studies
  - R & D aiming points


EXPEDITIONARY
FORCE 21
FORWARD and READY:
Now and in the Future

QUESTIONS