

# Ground Combat Tactical Vehicles

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USMC Capability  
Development Command





CPL DAKOTA MEYER  
**MEDAL OF  
HONOR**  
LIVING RECIPIENT



# Joint Expeditionary Force in Readiness



## Core Missions

### Crisis Response



### Assuring Littoral Access



Historically Based Knowledge, Expertise & Success



# The World We Live In...What We Expect...

## Wars Amongst the People



## Hybrid Threats



Sea lanes

Sea lanes

Sea lanes

Sea lanes

Sea lanes

Sea lanes

# Access challenges...

## Information Environment



## Complex Terrain



## Largely in the Littorals

- 75% of people live w/in 200mi of a coast
- 70% of world is water
- 95% of international communications travels via underwater cables

- 23,000 ships are underway daily carrying 90% of the world's international commerce
- 49% of the world's oil travels through 6 chokepoints
- 25% of the world's oil and gas is drilled at sea

# A Maritime Nation with global responsibilities





# 26th Marine Expeditionary Unit

BLT 3/8, VMM-266 (REIN), CLB-26

DEPLOYMENT DATES: AUG 2010 – MAY 2011

USS KEARSARGE (LHA-3)

USS PONCE (LPD-15)

USS CARTER HALL (LSD-50)



JORDAN OPERATIONAL DEPLOYMENT PROGRAM  
22 NOV 10 – 4 DEC 10

ODYSSEY DAWN  
19-30 MAR 11 – Air strikes  
22 MAR 11 – Recovery ops

OEF Combat Ops  
JAN 10 – MAY 11

PAKISTAN HA/DR  
4 SEP 10- 10 NOV 10

SHAMAL 10  
9 – 20 NOV 10

IRON MAGIC  
12-23 DEC 10

JOINT OPS  
Sep-Dec 10

EDGED MALLETT  
15-29 NOV 10

Aug 2010: Deployed one month early to Pakistan  
 Sep-Nov 2010: Humanitarian relief 400 miles into Pakistan  
 Sep-Dec 2010: Operations and engagement in Persian Gulf, Jordan, Kenya and Horn of Africa  
 Jan 10–May 11: Combat ops in Helmand Province, AFG  
 Feb 2011: Egypt contingency response from the Red Sea  
 March 11: Ordered to execute operations in Libya  
 Reinforced from Camp Lejeune  
 MV-22s self deploy from CENTCOM to Med.  
 March 2011: Strike operations and recover downed airmen in Libya  
 May 2011: Return to Camp Lejeune, NC



## If Not an ARG/MEU Then What?



# Ship to Objective Maneuver

## ❖ Mobility

- ❖ Vertical & surface options
- ❖ Capability & capacity for high & low-end

## ❖ Command and Control

- ❖ Decentralized execution & common picture

## ❖ Intelligence

- ❖ Locate & identify forces & impediments to mobility
- ❖ Pull vice push information

## ❖ Fires

- ❖ Immediate & responsive – all weather – lethal & non lethal
- ❖ Unmanned systems

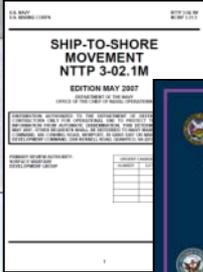
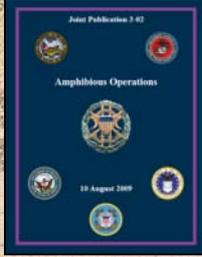
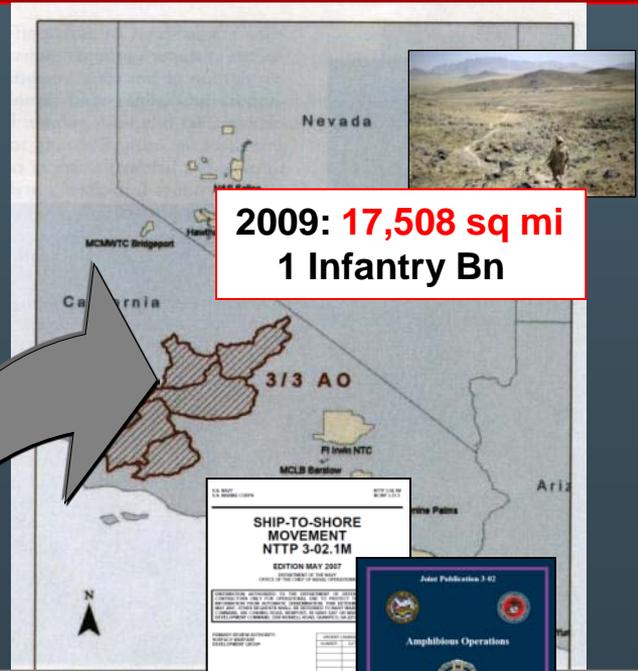
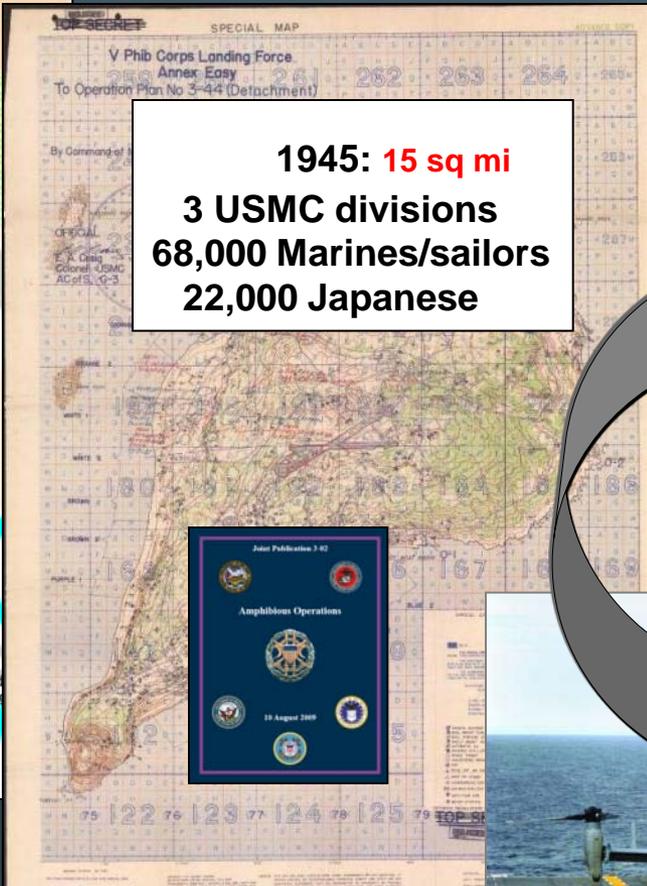
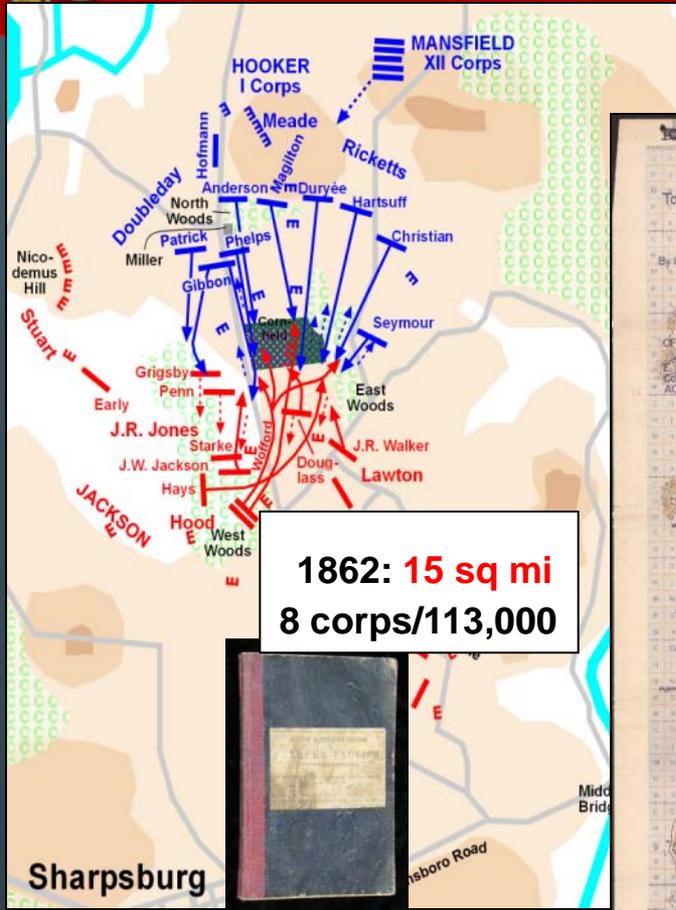
## ❖ Information Operations and Computer Network Operations

## ❖ Sea-based Operations and Logistics





# Our Challenge is not just the “Nature of the Enemy”



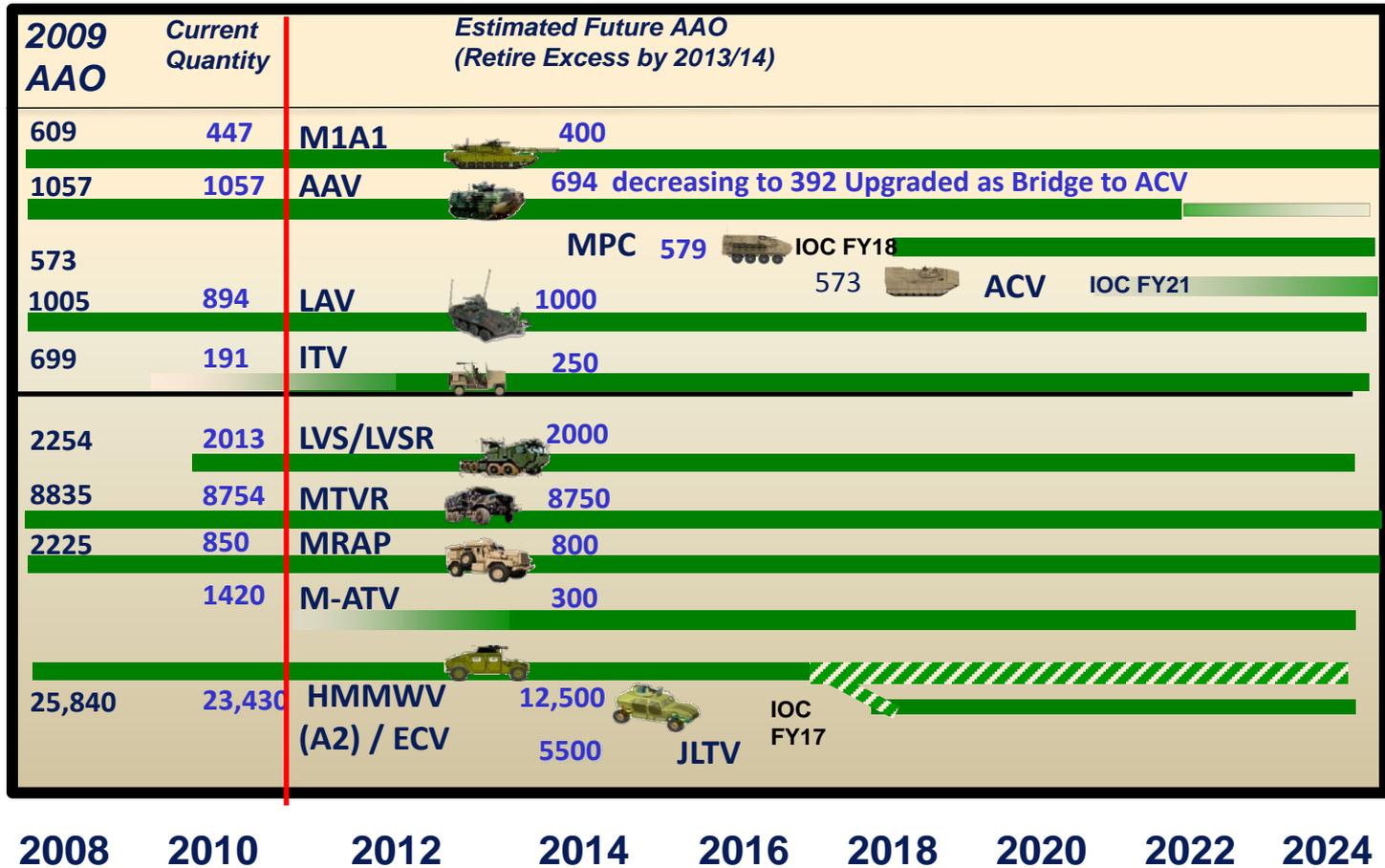
There is a tyranny of distance and distribution. Our challenge is make it an advantage – not a liability.

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“Recognize that small, distributed, agile general purpose tactical formations are a nightmare for enemy commanders.”



# 2011 Ground Combat Tactical Vehicle Strategy





# What an Amphibious Combat Vehicle Does



**Critical Link – the ACV gains access from the sea for the joint force .....crosses the surf zone ...gets off the beach .....to the objective**



- Rolls out of the well deck of a landing ship combat ready
- Transitions without pause at the water line ready to fight
- Breaches natural and man-made water & land obstacles



❖ *An Amphibious Combat Vehicle will successfully cross ground where other vehicles get stuck*



- Gets the landing force off the beach
- Protects the force during offensive & defensive operations

❖ *An Amphibious Combat Vehicle protects combat ready cohesive units and delivers them into the fight without pause*



- Expands a commanders maneuver options
- Maneuvers combat power in a single lift to defeat the enemy or deter aggression

❖ *An Amphibious Combat Vehicle delivers mass and lethality in the attack ...reduces the risk by quick build-up of force during a lodgment ashore*



- Carries the supplies and gear to sustain that combat unit through the assault





# Amphibious Combat Vehicle (ACV)



## Description

The Amphibious Combat Vehicle (ACV) replaces the canceled Expeditionary Fighting Vehicle (EFV) with personnel and C2 variants within the Family of Vehicles (FOV). The ACV will not have the high water speed/planing requirement.

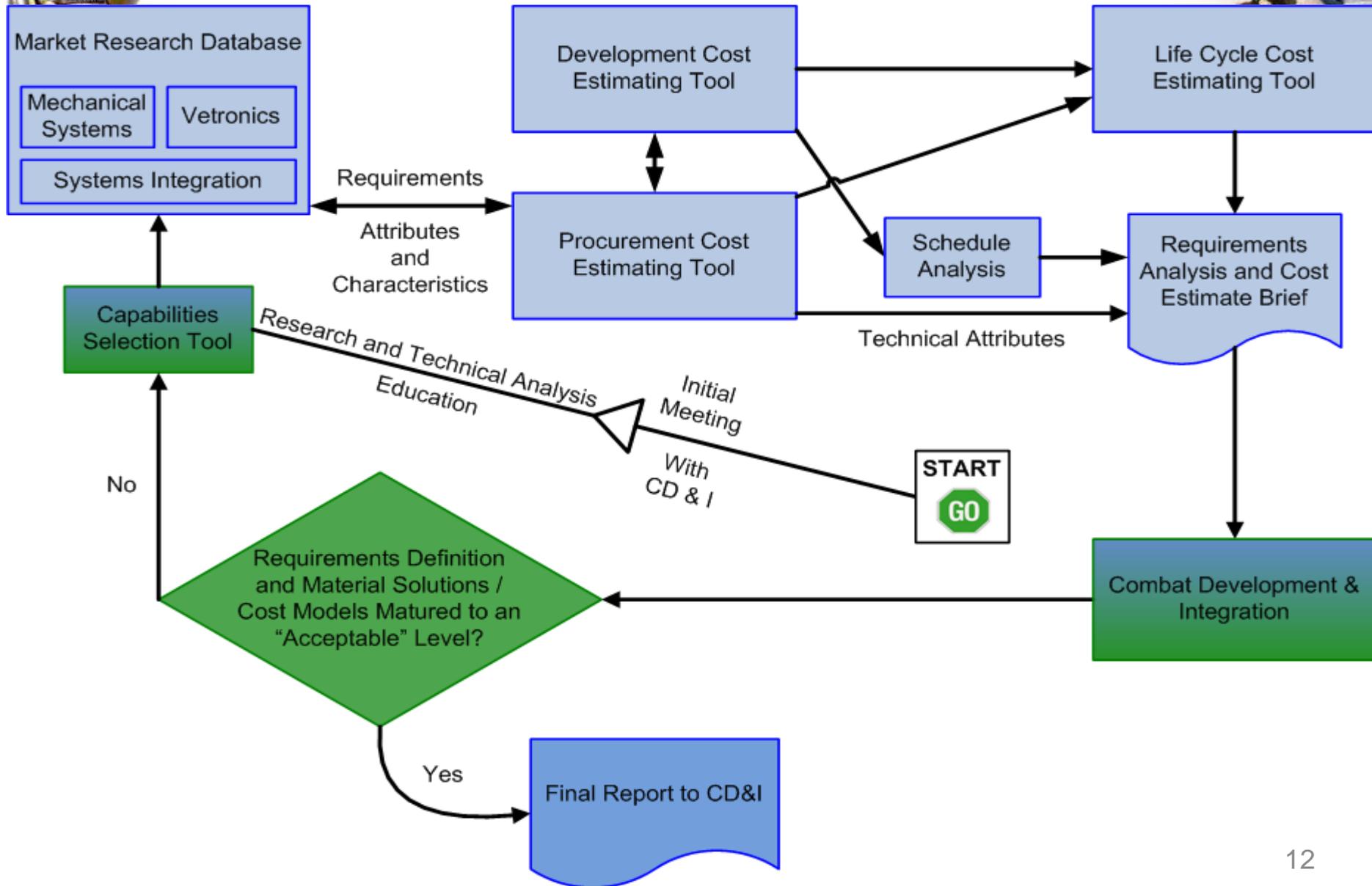
Mission: Amphibious Mobility/Firepower  
Dimensions: H: ~130 in  
W: ~130-146 in  
L: ~320-370 in  
Wt: ~50,000 – <80,000 lbs GVW  
Weapon: TBD  
Fire control: TBD  
Capacity: 17 PAX + 3 Marine crew  
Range: ~ 120 - 200 miles land, after a 12 nm swim  
Speed: ~ 45 mph land, ~ 8 kts sea

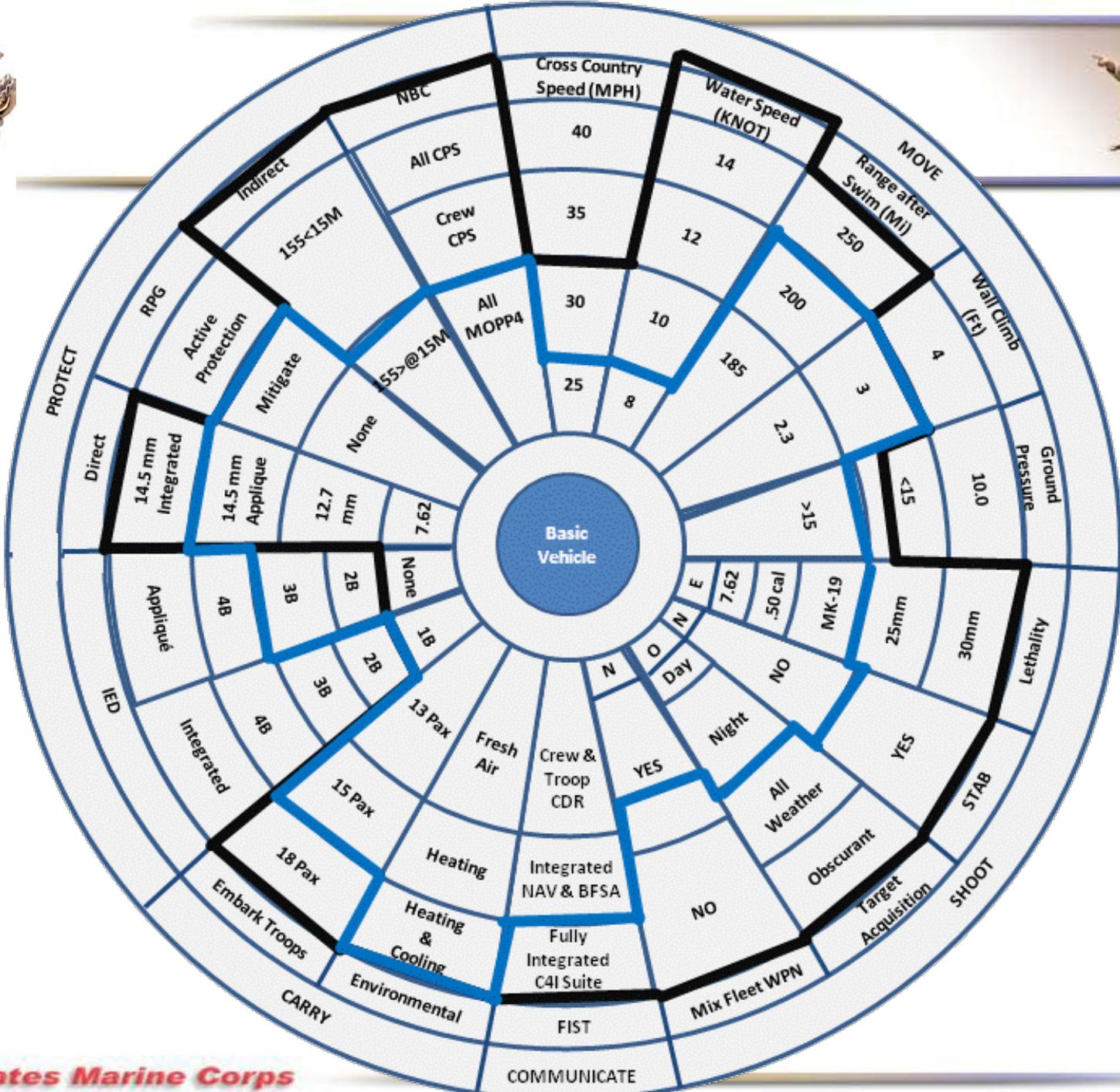
Acq Status: Pre MS A  
Acq Obj: TBD  
IOC/FOC: TBD  
Approx Unit Cost: TBD

Modernized the Assault Amphibian  
Battalion.



# Systems Engineering OPT Process





# LAV & MPC



## LAV – in the Light Armored Reconnaissance Battalion.

- Mission – To conduct reconnaissance, security, and economy-of-force operations, limited offensive or defensive operations that exploit the unit's mobility and firepower.
  - **Conduct Reconnaissance for GCE or MAGTF commander in the close and deep battle space**
  - **Conduct security operations to protect the GCE or MAGTF**
  - **Win the counter-reconnaissance fight**
  - **Exploit opportunities with long range firepower and mobility**
- Eight-wheeled armored combat vehicle with a 25-year history to remain in service until to 2025 and possibly beyond.



## MPC – will reside in the Amphibious Assault Battalion.

- Mission – To provide armor-protected mobility for infantry battalion maneuver task forces. Two MPC lift a reinforced rifle squad.
- The MPC program balances vehicle performance, protection, and payload attributes.





# Joint Light Tactical Vehicle (JLTV)



Mission: Light Combat mission roles and fwd Cmd  
Dimensions: H: ~85 in operating ht (reducible to 76 in)  
W: ~96 in  
L: ~207 in  
GVW: below 20k lbs

Weapons: .50cal/Mk19, TOW, Remote weapon

Expeditionary: CH53, CH47, Amphib and MPF compatible

Speed: 70 mph, 45 mph on 5% grade

Range: 300 miles

Acq Status: MS B 2012  
Acq Obj: 5,500 (Increment 1)  
IOC/FOC: 2017/2022  
Approx Unit Cost: \$360K

Variants:  
Weapons carrier  
Gen Purpose  
TOW carrier  
Utility  
Fwd C2

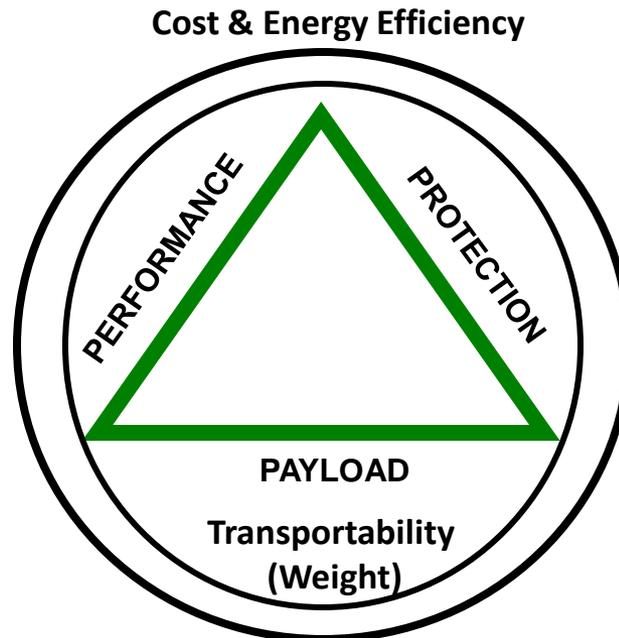


# Affordability and the Iron Triangle



## Cost further constrains the Iron Triangle:

Field an affordable fleet of ground combat and tactical vehicles that provide required capabilities and adequate capacity to meet the operational demands of the expeditionary MAGTF.

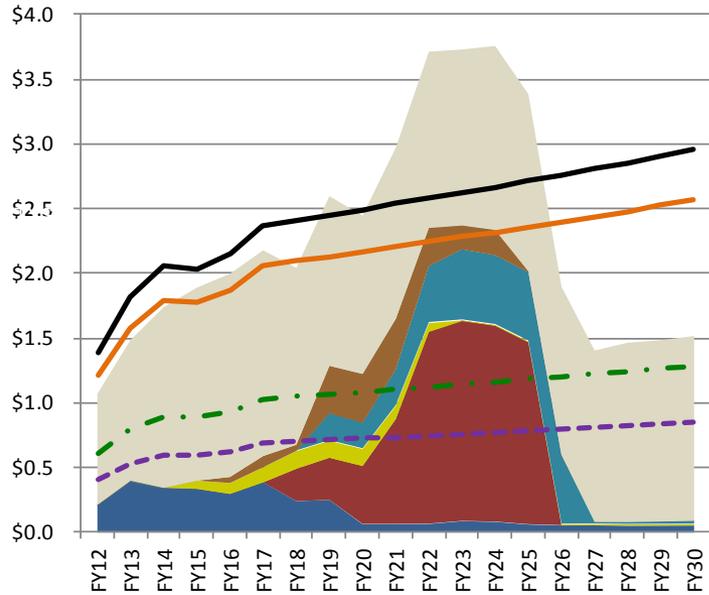




# Managing Affordability

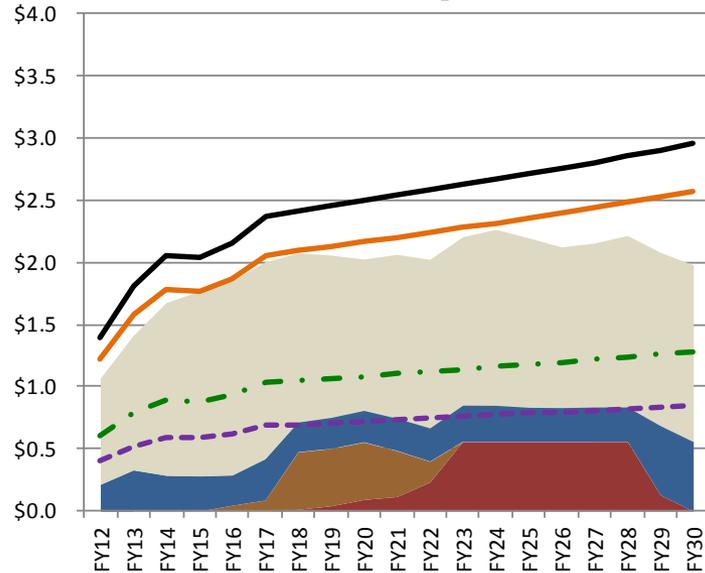


## 8 Bn Lift via ACV / 4 Bn Lift via MPC



- Non-GCTVS (NCB-13)
- JLTV - 5500
- MPC - 4 Bn Lift
- AAV - Bridge to ACV
- ACV - 8 Bn Lift
- GCTVS Other
- USMC A-POM PMC
- WIPEB A-POM PMC
- WIPEB A-POM PMC 50%
- WIPEB A-POM PMC 33%

## AOA Option



- Non-GCTVS
- GCTVS Other
- JLTV - 5500
- I-AAV - 12 Bn Lift
- USMC A-POM PMC
- WIPEB A-POM PMC
- WIPEB A-POM PMC (50%)
- WIPEB A-POM PMC (33%)



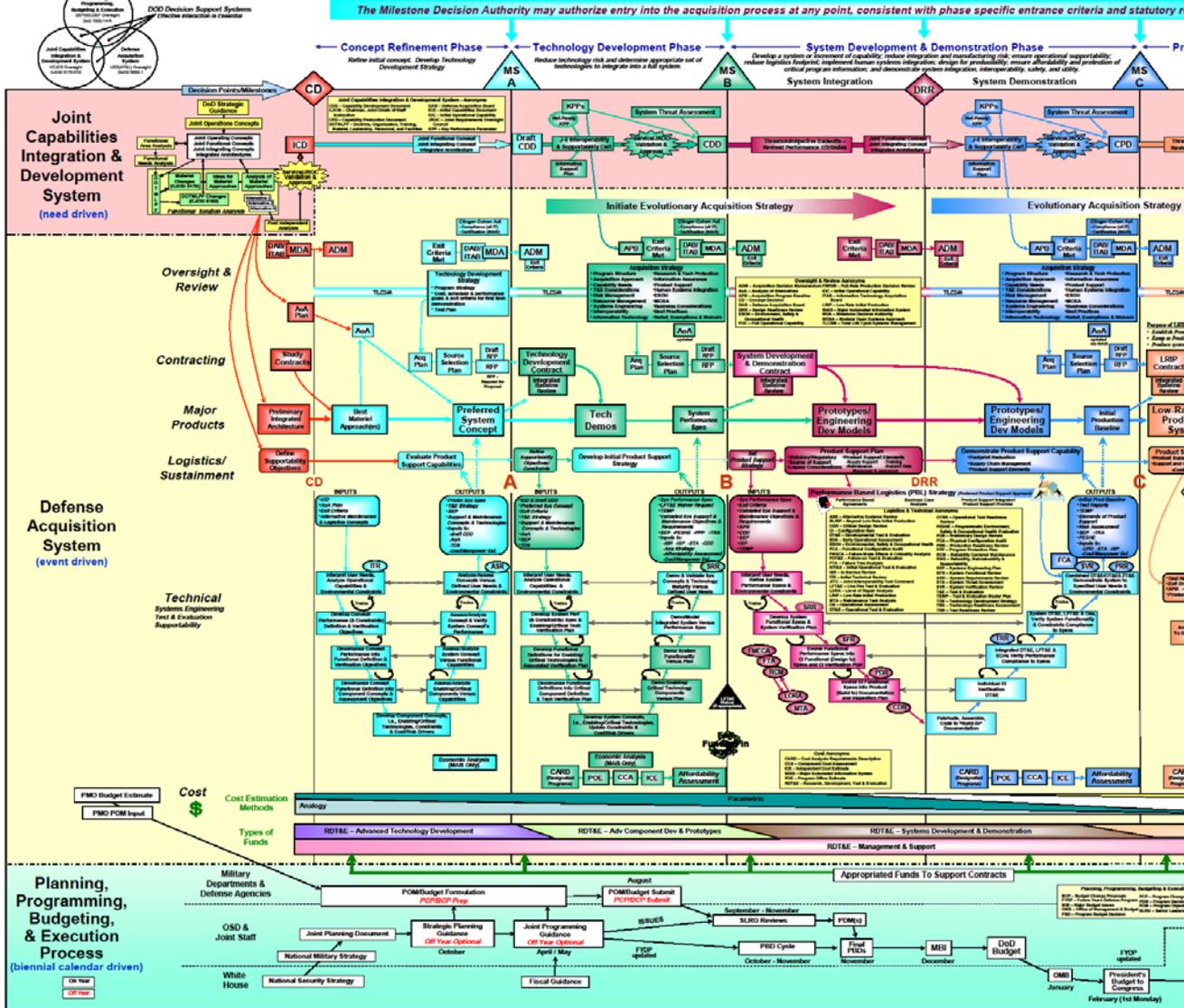
# Acquisition Way Ahead



FY12	FY13	FY14	FY15	FY16	FY17	FY18
ACV Technology Demonstrator						
	AAV SLEP Design, Integration and Evaluation		PRODUCTION			
	MPC Competitive Vehicle Evaluation			PRODUCTION		
		ACV Competitive Design, Integration & Evaluation				PROD
Development Plan Informed by Industry						

# Integrated Defense Acquisition, Technology, & Logistics Life Cycle Manager

The Milestone Decision Authority may authorize entry into the acquisition process at any point, consistent with phase specific entrance criteria and statutory requirements.



Not responsible to improve this chart as managed and may be used to redesign/modify



**RISK**