

# Why Amphibious Capability

*“In order to credibly deter potential adversaries and to prevent them from achieving their objectives, the United States must maintain its ability to project power in areas in which our access and freedom to operate are challenged.”*

-- Sustaining U.S. Global leadership: Priorities for 21<sup>st</sup> Century Defense, Jan 2012

*“Acknowledging the fact that virtually all naval operations are ultimately conducted to influence events on land, it is not surprising how much of the history of naval warfare centers on operations in the littoral areas of the world.”*

-- *Brown-, Green-, and Blue-Water Fleets: The Influence of Geography on Naval Warfare, 1861 to the Present* by Michael Lindberg and Daniel Todd. Praeger , 2002



# Amphibious Operations: As Old as Warfare Itself

- **Numerous examples throughout history with varying degrees of success:**
  - Egyptians invaded the Levant in 1471 BC
  - Greeks believed to have invaded Troy ~ 1094 BC
  - Persians assaulted Marathon in 490 BC
  - Caesar invaded Britain twice, in 55 and 54 BC
  - William the Conqueror attacked Britain in 1066
  - Turks invaded Malta in 1565
  - Spanish invaded Sardinia in 1717 and Sicily in 1732
  - British landed at Cartagena in 1742, Quebec in 1759, New York in 1776 and Charleston in 1779
  - British inability to conduct an amphibious withdrawal resulted in surrender at Yorktown in 1781
  - US landing at Vera Cruz, Mexico, 1847
  - Union landings at Fort Fisher in 1864 and 1865
  - British / ANZAC / French landings at Gallipoli in 1915

# Relative Importance to US National Strategy

- **Continental Era (1775-1889)**

- Global Posture: Small naval units protect US commerce, provide ad hoc landing forces
- Threats: Native Americans, British, Mexicans, Confederates, minor overseas actors & incidents
- National Strategy: Secure the continental US from internal & external threats
- Amphibious capability: not important

- **Expeditionary Era (1890-1945)**

- Global Posture: Small number of overseas bases, increasing naval forward presence
- Threat: Peer competitors: Germany & Japan
- National Strategy: Use seapower to gain access, protect commercial interests, project power
- Amphibious capability: very important

- **Cold War / Garrison Era (1946-1989)**

- Global Posture: Extensive overseas bases for large Army & Air Force formations
- Threat: Peer competitor: Soviet Union
- National Strategy: Containment; use seapower to reinforce forward-based land and air forces
- Amphibious capability: initially important only for crisis response; in latter years slightly more important to threaten Soviet northern flank

# Despite historical significance, often overlooked

- **In 1939:**
  - US Army doctrine did not even mention amphibious operations
  - Gen George Marshall declined a Navy invitation to practice them
- **In 1940:**
  - France fell to the Germans
  - Secure ports in Europe were no longer available as they had been in WWI
  - The US Army suddenly became interested
- **In 1948:**
  - Gen Omar Bradley told Congress “large-scale amphibious operations will never occur again”
- **In 1950:**
  - The Inchon landing changed the course of the Korean War
- **In 2005:**
  - Noted naval analyst Norman Polmar wrote: “The U.S. Navy-Marine Corps team has not carried out an opposed landing in more than half a century...the role of the LPD-17 class as well as other amphibious tools...must be questioned.”
- **In 2010:**
  - Secretary of Defense Robert Gates stated: “We have to take a hard look at where it would be necessary or sensible to launch another major amphibious landing again”

## Amphibious operations often confused with amphibious assault

- ***Amphibious assault***...the establishment of a landing force on a hostile or potentially hostile shore.
- ***Amphibious raid***...a swift incursion into or a temporary occupation of an objective, followed by a planned withdrawal.
- ***Amphibious demonstration***...a show of force conducted to deceive with the expectation of deluding the enemy into a course of action unfavorable to him.
- ***Amphibious withdrawal***...the extraction of forces by sea in ships or craft from a hostile or potentially hostile shore.
- ***Amphibious support to other operations***. A type of amphibious operation which contributes to conflict prevention or crisis mitigation...such as security cooperation, foreign humanitarian assistance, civil support, noncombatant evacuation operations, peace operations, recovery operations, or disaster relief, etc.

**Amphibious operations may take place in *permissive, uncertain, or hostile* environments.**

# What is thus far the largest post-World War II amphibious operation?

An amphibious withdrawal

Hungnam, 10-24 December 1950

Hostile environment

UN forces withdrawn from eastern North Korea.

105,000 military personnel

17,500 vehicles

350,000 measurement tons of cargo

Included:

1st Marine Division following breakout from Chosin

1st ROK Corps

HQ, US X Corps

US Army 3rd & 7th Divisions

Also involved a noncombatant evacuation

91,000 refugees

A fraction of those who wanted out



# What is thus far the *second* largest post-World War II amphibious operation?

- A noncombatant evacuation operation



**Lebanon, 17-26 July 2006**

- Uncertain environment
- 15,000 American citizens
- Iwo Jima ARG/24th MEU, reinforced

# Even when we do assaults, they don't look like Iwo Jima Landing in WWII

Photo # NH 104136 Map of Japanese defense installations on Iwo Jima, 1945

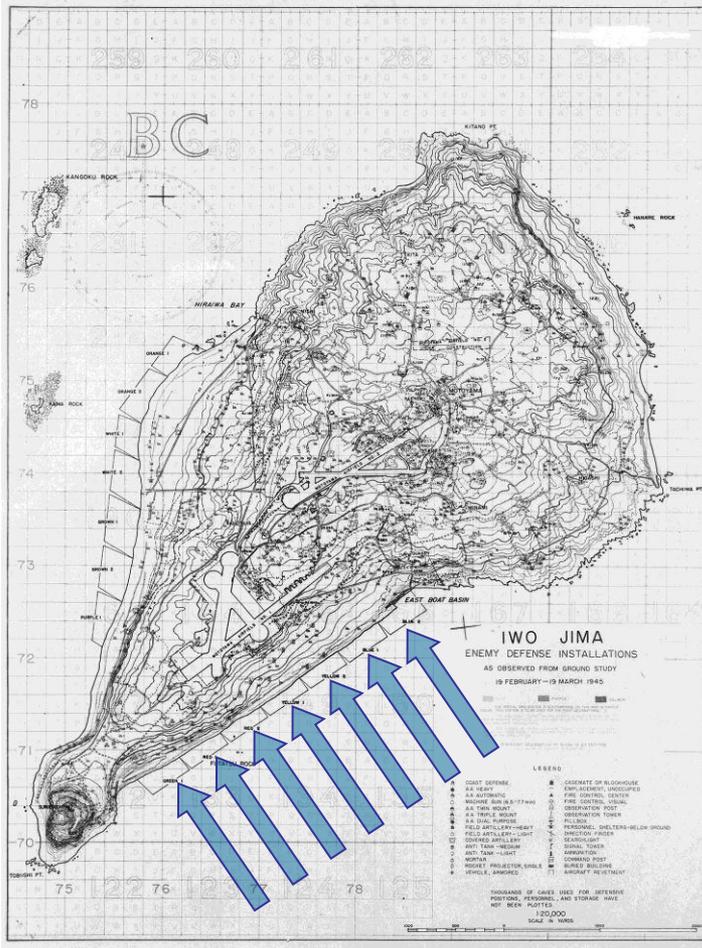


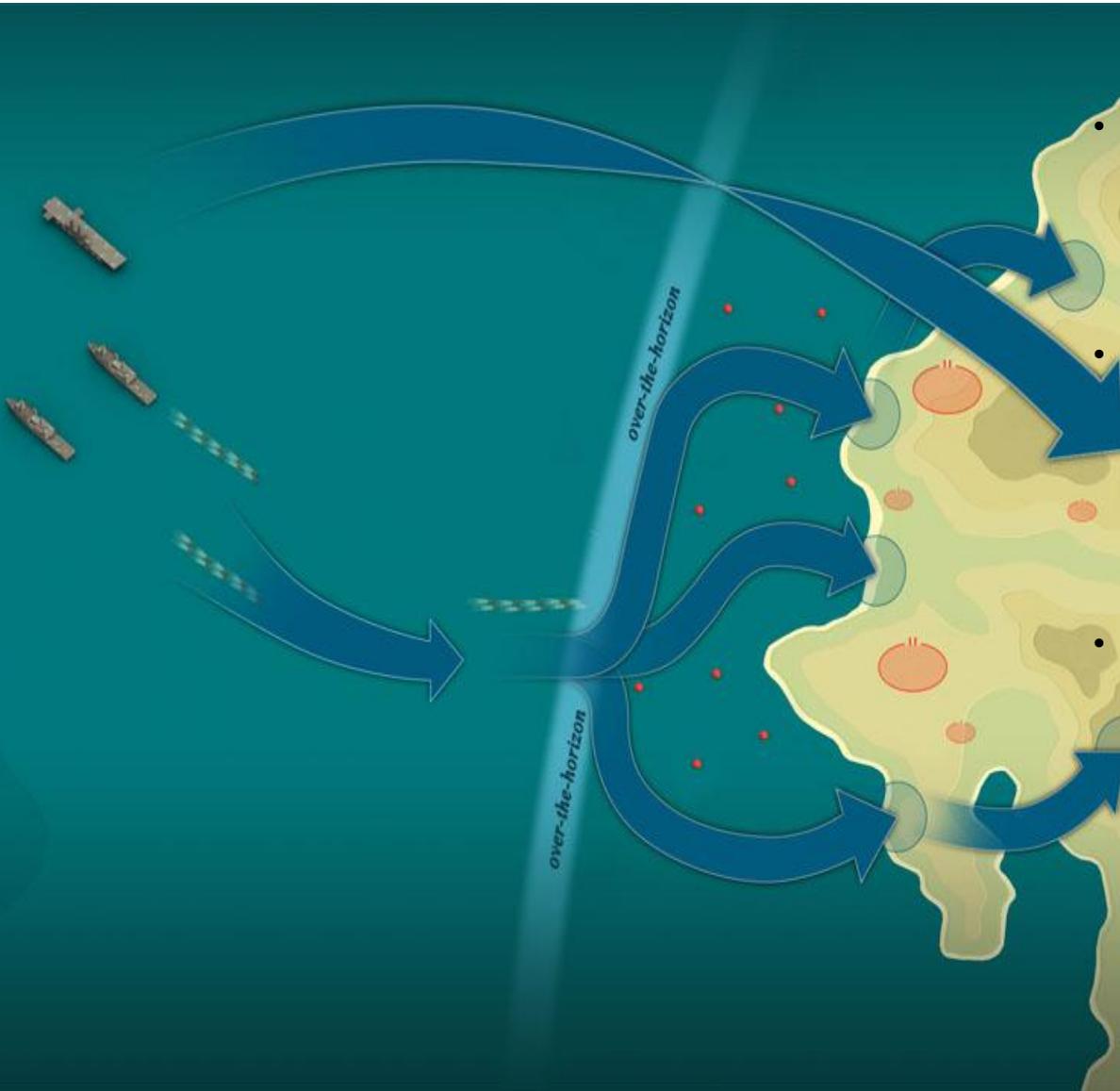
Photo # 80-G-415308 (cropped) First landings on Iwo Jima, 19 February 1945



## ...because we've been evolving the means to avoid frontal assaults for 70 years...

- **MajGen A. A. Vandergrift, 1943:** "...landings should not be attempted in the face of organized resistance if, by any combination of march or maneuver, it is possible to **land unopposed within striking distance of the objective.**"
- **"The New Concept"—vertical envelopment, 1948:** "...a landing force that could be launched from ships **widely dispersed and underway miles offshore.**"
- **Hogaboom Board, 1956:** "...the Board concluded that its precept required it to develop and recommend an organizational structure for the Fleet Marine Force which would facilitate and be consistent with the requirement for the projection of seapower ashore at any selected point on the world littoral **without the necessity of direct assault on the intervening shoreline.**"  
Requires a *combination* of vertical and surface maneuver.
- **Ship to Objective Maneuver, 1997:** "...leverage the advantages of emerging technologies to develop greater capabilities for our amphibious operations, **operations characterized by extraordinary mobility and flexibility, that are able to be executed in depth.**"
- **Ship to Objective Maneuver, 2011:** "This revised concept discusses the utility of STOM in **all missions**—including major combat operations. It should be viewed as **the next step in the Marine Corps' development of littoral maneuver...**"

# ...and can now employ dispersed forces conducting high-speed littoral maneuver from over the horizon.



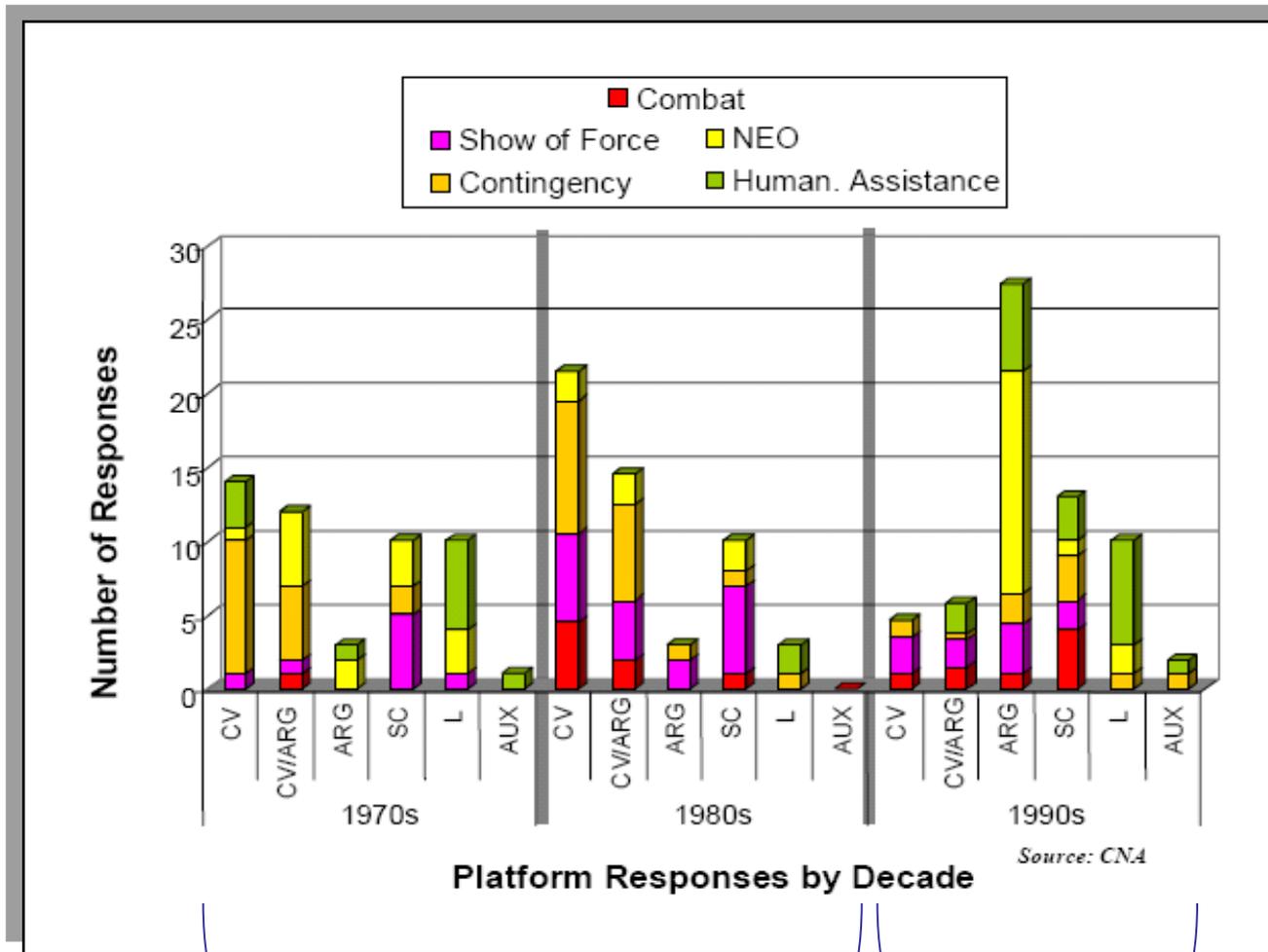
- **Neutralize anti-access threats for the location & duration required to:**
  - gain & maintain access;
  - establish “moving umbrellas of domain superiority” over littoral maneuver forces.
- **Initiate littoral maneuver from OTH:**
  - Numerous vertical & surface elements;
  - Enter the objective area via multiple, distributed points;
  - Avoid defenses, obstacles, & presenting a concentrated, lucrative target.
- **Littoral maneuver may be employed:**
  - Directly against inland objectives to accomplish the mission singly;
  - To seize infrastructure or lodgments which will enable the arrival of follow-on forces via naval movement and / or strategic airlift.

## Liddell Hart Championed Wide Utility of Amphibious Forces in 1960

*“An amphibious force of modern type, operating from the sea and equipped with helicopters, is free from dependence on airfields, beaches, ports, land-bases—with all their logistical and political complications. The use of an airborne force, or of any land-based force, is a more irrevocable step, since its commitment is more definite and its withdrawal more difficult.”*

***A self-contained and sea-based amphibious force, of which the U.S. Marine Corps is the prototype, is the best kind of fire extinguisher—because of its flexibility, reliability, logistic simplicity, and relative economy . . . . Amphibious flexibility is the greatest strategic asset that a sea-based power possesses.”***

# Changing Demand Signals



**Cold War crises:**  
**“Where are the carriers?”**

**Post-Cold War crises:**  
**“Where are the *amphibs*?”**

## General Gray Predicted Growing Post-Cold War Utility in 1989

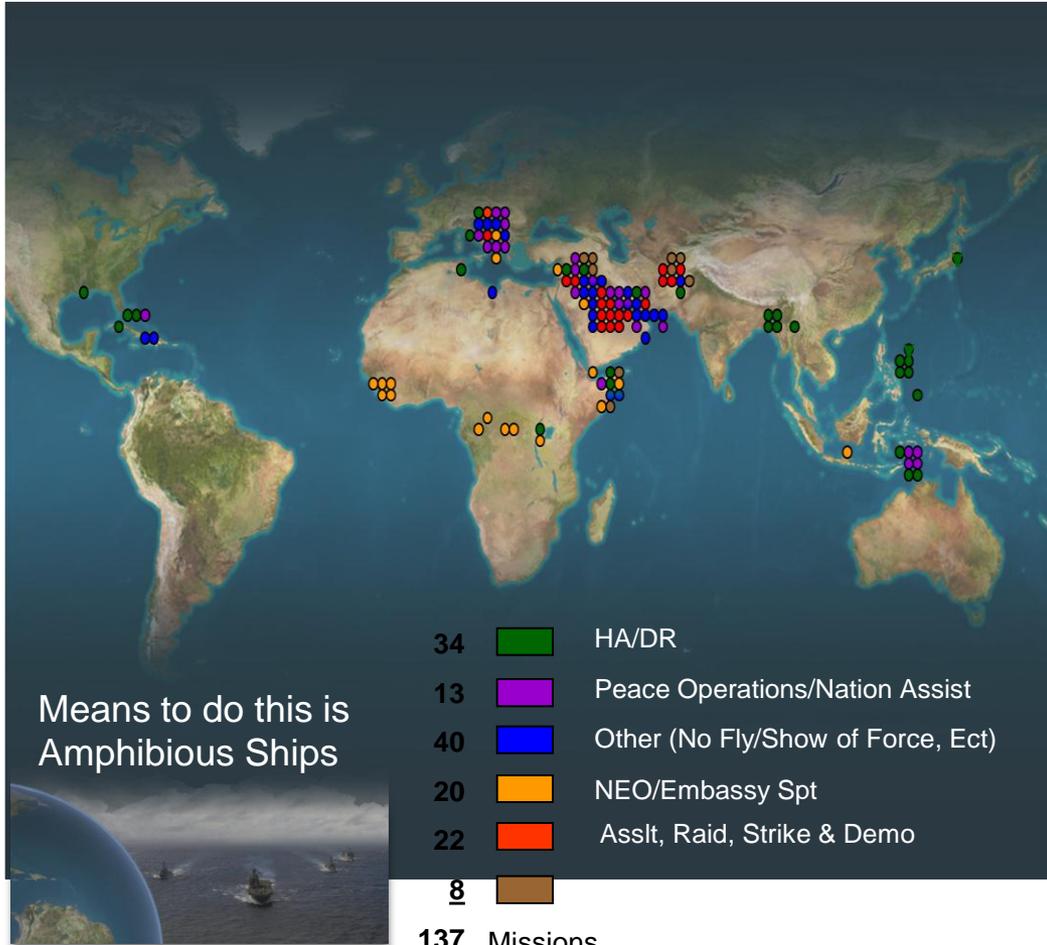
*“...as we enter an era characterized by increasing terrorist activities, violence in drug exportation, and the use of coercive tactics such as hostage taking, that **amphibious forces, with their evolving special operations capabilities, will emerge increasingly as the more logical force of choice...***

*...There is no indication whatsoever that the zeal of xenophobic radicals, messianic clerics, nihilistic students and other insurgents bent on reversing the trend of emerging, albeit weak or impoverished, democratic governments will decrease. These men of the streets and villages are better dealt with by riflemen than by supersonic aircraft – and **they will be dealt with in areas where we will not likely have and will not want to establish, bases ashore.**”*

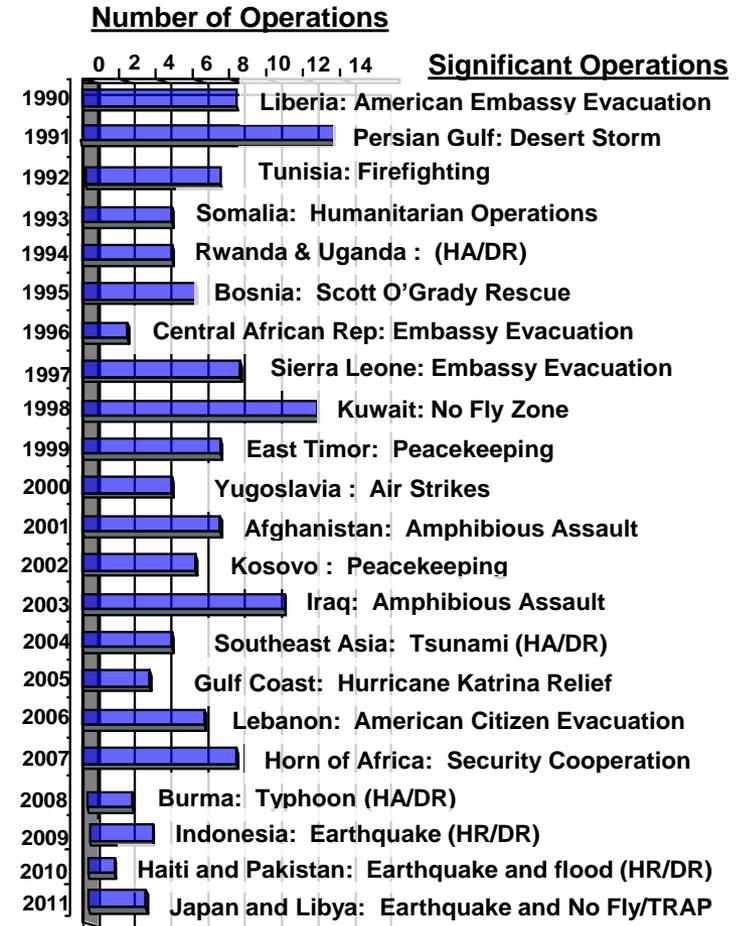
# “Track Record Shows Value”

## 116 Amphibious Operations

Since 1990 conducting over 137 missions across ROMO



137 Missions



# Task Force 58, 25 November 2001

Vice Admiral Willie Moore to Brigadier General Jim Mattis:  
“Go to Kandahar and raise hell!”



# Sample Deployment 1: Peleliu ARG/ 15th MEU

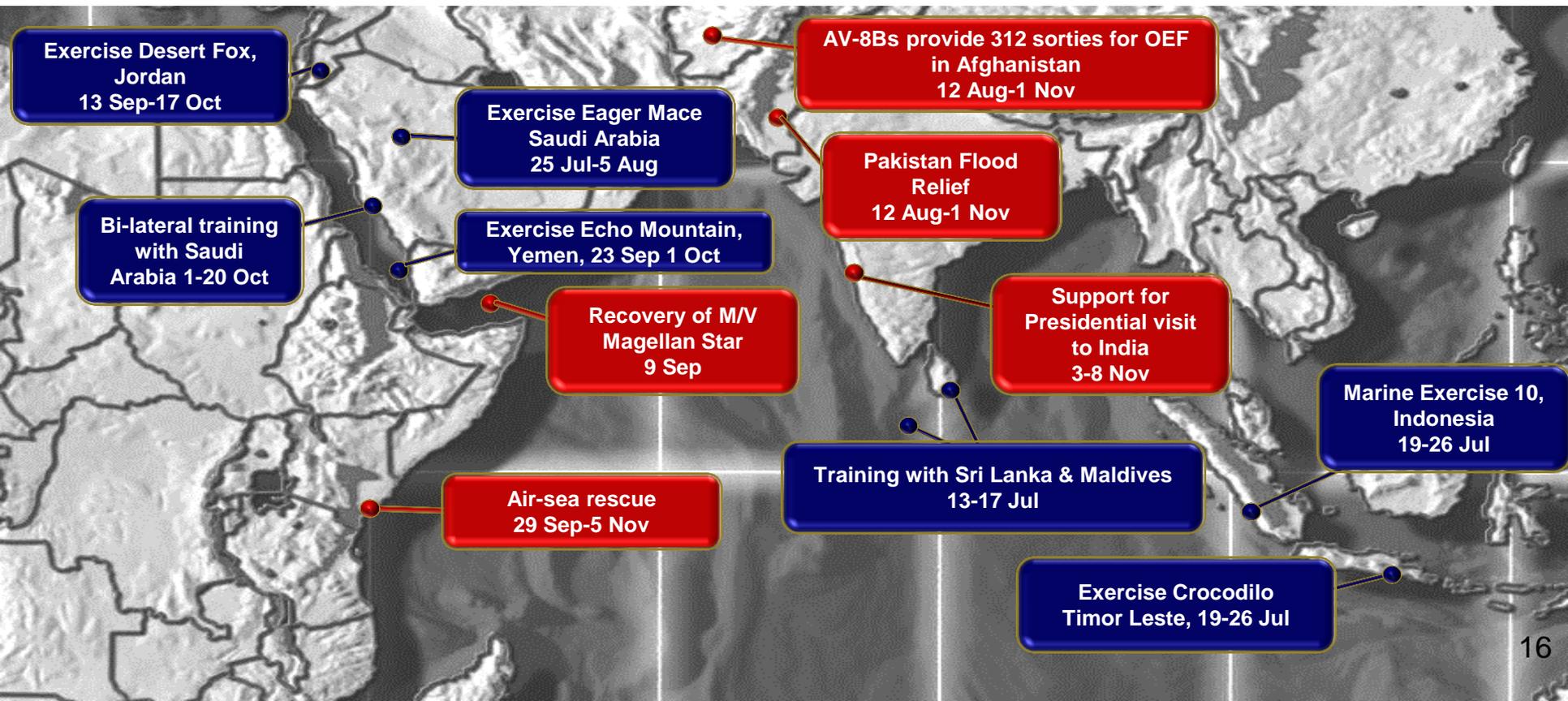
## 22 May to 18 December 2010

### Amphibious Ready Group

- USS Peleliu (LHA-5)
- USS Dubuque (LPD-8)
- USS Pearl Harbor (LSD-52).

### Marine Expeditionary Unit:

- Battalion Landing Team 1/4
- Marine Medium Helicopter Squadron -165 (Reinforced)
- Combat Logistics Battalion-15.



# Sample deployment 2: Kearsarge ARG/26th MEU

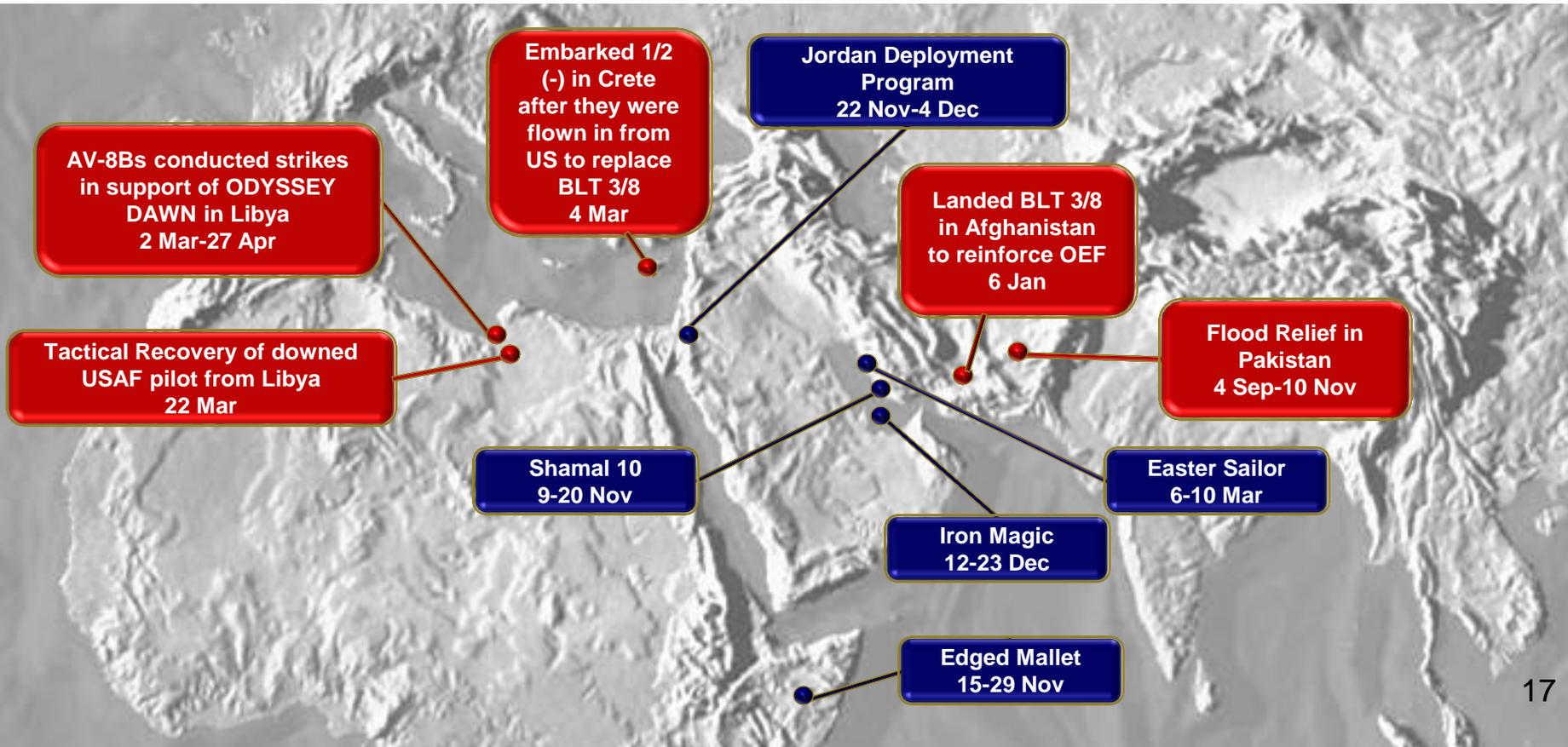
## 22 August 2010 to 18 May 2011

### Amphibious Ready Group

- USS Kearsarge (LHD-3)
- USS Ponce (LPD-15)
- USS Carter Hall (LSD-50).

### Marine Expeditionary Unit:

- Battalion Landing Team 3/8
- Marine Tilt-Rotor Squadron-266 (Reinforced)
- Combat Logistics Battalion-26.



# Proven Utility for the Range of Military Operations

- **Amphibious Assaults**

- Al Wafra Gap, 1991
- OEF I, 2001
- Basra, 2003

- **Amphibious Raids**

- Umm Al Maridim Island, 1991
- Faylakah Island, 1991

- **Amphibious Demonstrations**

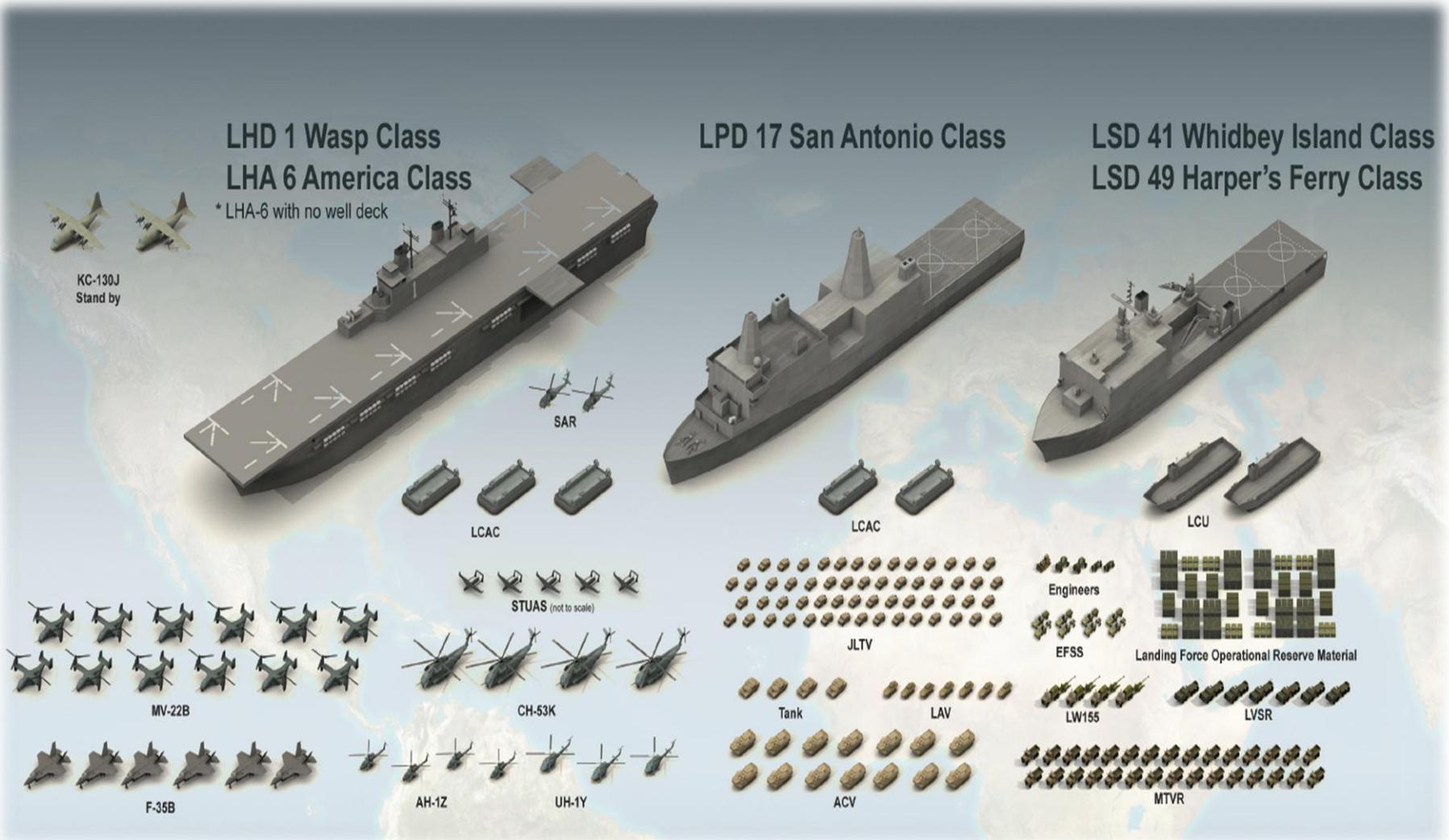
- Desert Storm, 1991



- **Amphibious Withdrawals**
  - UN forces from Somalia, 1995
- **Amphibious Support to Other Operations**
  - At least 83 events since 1990
  - By far the most frequent type
- **Non-doctrinal employment of amphibious forces**
  - At least 23 events since 1990
  - Strikes, maritime interdiction, no-fly zone enforcement



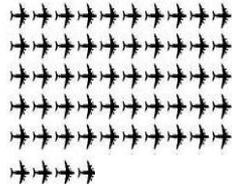
# What is a Amphibious Ready Groups/Marine Expeditionary Unit (ARG/MEU) ...Over 2,000 Marines and...



# Strategic Lift Summary Comparison

It takes 400 C-17s to do the job of 1 LMSR

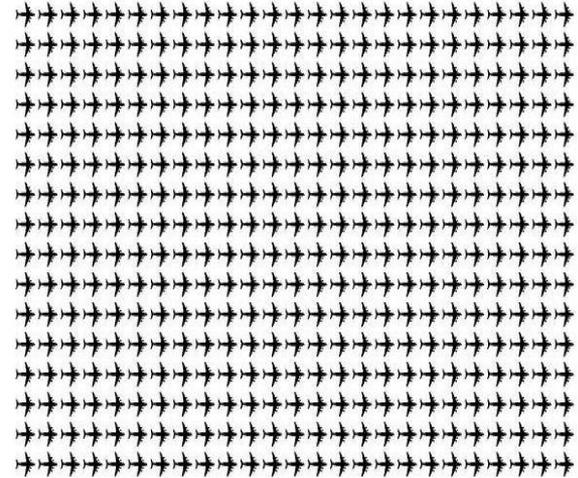
It takes 54 C-17s to do the job of 1 LPD-17



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LPD 17 also provides hospital, C2, well deck and flight deck ship-to-shore capabilities, water production capability, and up to 800 Marines



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Sources: American Shipbuilding Association; Department of the Navy, United States Transportation Command; Congressional Research Service

## Haiti Cost Compare

1 LPD 17 ~ 54 C-17s  
 1 LPD 17 ~ \$110,760 to Haiti  
 1 C-17 ~ \$22,400 to Haiti  
 54 C-17s ~ \$1,209,600 to Haiti

1 LMSR = 400 C-17s  
 1 LMSR = \$88,140 to Haiti  
 400 C-17s = \$8,960,000 to Haiti

**1 LPD 17 ~ 11% of C-17 Cost**

**1 LMSR < 1% of C-17 Cost**

# Strategic Lift by Sea is “Green”

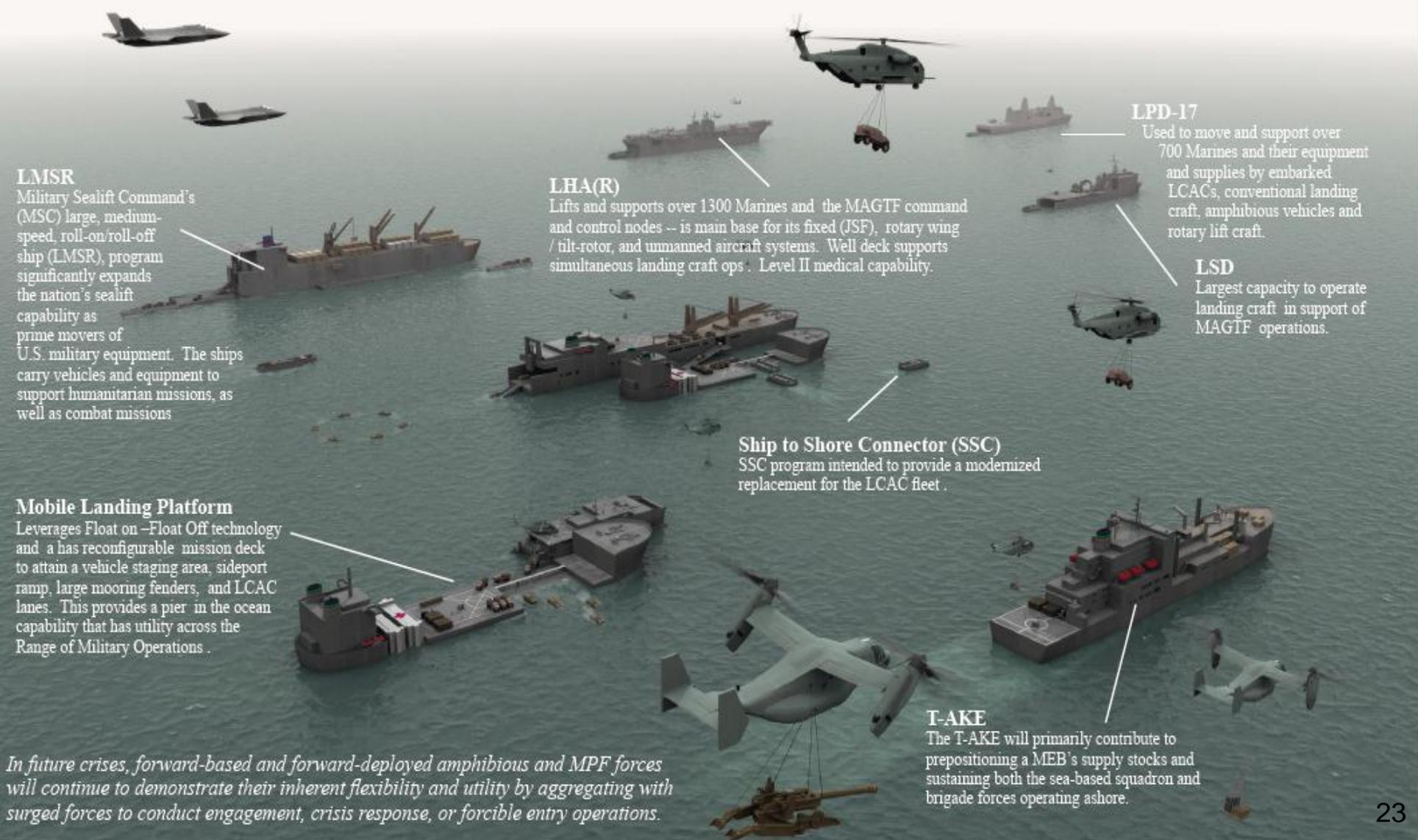
- Transport by ship is much more efficient than by air and has a smaller CO2 footprint
  - 1 LMSR = 400 C-17s
  - 1 LPD 17 = 54 C-17s of cargo plus hospital, C2, and welldeck capabilities
  - Moving 1 ton of cargo 1 mile by C-17 produces roughly 38 times more CO2 emissions than by LMSR
- Sustaining security force assistance activities from the sea reduces the burden on local infrastructure and eliminates or minimizes the use of airlift

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  - Amphibious capability: initially important only for crisis response; in latter years slightly more important to threaten Soviet northern flank
- **Post-Cold War / Joint Expeditionary Era (1990-?)**
  - Global Posture: Diminishing overseas bases and access; CONUS-based joint forces
  - Threat: Mix of non-state actors, rogue states, and rising peer competitors
  - National Strategy: Use a mix of soft and hard power to counter diverse threats
  - Amphibious capability: Increasingly important for gaining geographic, diplomatic or military access

***“If it had not been for the constant urging of the Marine Corps, the amphibious art would hardly have been developed at all.”***

**—Admiral W. H. P. Blandy, USN (Ret.) 1951**



**LMSR**  
Military Sealift Command's (MSC) large, medium-speed, roll-on/roll-off ship (LMSR), program significantly expands the nation's sealift capability as prime movers of U.S. military equipment. The ships carry vehicles and equipment to support humanitarian missions, as well as combat missions

**LHA(R)**  
Lifts and supports over 1300 Marines and the MAGTF command and control nodes -- is main base for its fixed (JSF), rotary wing / tilt-rotor, and unmanned aircraft systems. Well deck supports simultaneous landing craft ops. Level II medical capability.

**LPD-17**  
Used to move and support over 700 Marines and their equipment and supplies by embarked LCACs, conventional landing craft, amphibious vehicles and rotary lift craft.

**LSD**  
Largest capacity to operate landing craft in support of MAGTF operations.

**Ship to Shore Connector (SSC)**  
SSC program intended to provide a modernized replacement for the LCAC fleet.

**Mobile Landing Platform**  
Leverages Float on -Float Off technology and a has reconfigurable mission deck to attain a vehicle staging area, sideport ramp, large mooring fenders, and LCAC lanes. This provides a pier in the ocean capability that has utility across the Range of Military Operations.

**T-AKE**  
The T-AKE will primarily contribute to prepositioning a MEB's supply stocks and sustaining both the sea-based squadron and brigade forces operating ashore.

*In future crises, forward-based and forward-deployed amphibious and MPF forces will continue to demonstrate their inherent flexibility and utility by aggregating with surged forces to conduct engagement, crisis response, or forcible entry operations.*

# Conclusion

“Amphibious Ready Groups are like a Swiss Army knife; they can do a little bit of everything... ***They are among the most responsive and cost-effective means to project U.S. power around the world. In fact, we don't have enough of them.*** The Pentagon should be buying more assets such as the America class amphibious assault ships, as well as speeding the purchase of F-35Bs, the short take-off, vertical landing replacements for aging Harriers.”



“Gates erred in downplaying the value of an amphibious force. As one Marine officer put it, ‘Amphib ships and Marines are mules’—they get fed last, even though they do all the work. ***If we don't maintain a robust amphibious force, the barn could be empty when the next crisis comes.***”

—James Carafano, *San Francisco Examiner*, July 11, 2011