



*Amphibious Ready Group
And
Marine Expeditionary Unit
Overview*



U.S. Marine Corps

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The US Strategic Challenge In an Era of Uncertainty

The United States is increasingly challenged by the demands in the littorals – the complex interface where the great commons of the sea meet the physical geography where human, political, and economic domains function.

The Geo-Strategic Environment

- 70% of the world is covered by water
- 95% of all commercial cargo travels by sea
- 49% of the world's oil transits 6 major sea chokepoints
- 23,000 ships are underway daily
- 17 of the world's 20 largest cities have direct access to the sea
- 95% of international communications is transmitted by undersea cable
- 75% of the world's populace lives within 200 miles of a sea coast

Sources of Global Stress and Instability

- Increasing resource scarcity and demand
- Poor or weak governance
- Explosive mega-cities – most in the littorals
- Population growths and unmet demographic expectations
- Increasing ease of access to lethal technology
- Networked terrorists/non-state actors
- Growing near-peer global powers
- Vulnerability of US expeditionary-dependent military posture to anti-access capabilities
- American prosperity rests on a foundation of fair and free access to a vibrant global economy
- Disruptions to global commerce & access to the global commons harm US and global economies
- Instability reduces confidence in the international economic system and its legal framework
- Freedom of action at sea and in the littorals are critical to securing US national interests

MAGTF Defined

The Marine Air-Ground Task Force (MAGTF) is the Marine Corps principal organizational construct for conducting missions across the range of military operations. MAGTFs provide combatant commanders with scalable, versatile expeditionary forces able to assure allies, deter potential adversaries, provide persistent U.S. presence with little or no footprint ashore, and respond to a broad range of contingency, crisis, and conflict situations. They are task organized, combined-arms force packages containing command, ground, aviation, and logistics elements. A single commander leads and coordinates this combined-arms team through all phases of pre-deployment training, deployment, and employment. MAGTF teams live and train together further increasing their cohesion and fighting power.

Multi-Mission Capable MAGTFs

Tailored to meet combatant commanders' requirements, MAGTFs operate as an integrated force in the air, land, maritime and cyberspace domains. The naval character of MAGTFs enhances their global mobility, lethality, and staying power. Embarked aboard amphibious ships or deployed using other means, multi-mission capable MAGTFs provide U.S. civilian and military leaders with increased strategic and operational flexibility.

Today's Amphibious Capability

Among the many capabilities provided by integrated, combat ready MAGTFs aboard multi-mission amphibious ships, three are of critical importance:

- Forward presence to support engagement and theater security cooperation
- A ready force to immediately respond to emergent crises
- A credible and sustainable forcible-entry capability, operating from the sea, over the horizon, at night or during periods of reduced visibility

Our amphibious capability creates four strategic benefits for a nation dependent on its ability to exploit its command of the seas to project influence and power:

- *Freedom of action:* Amphibious forces can use the maritime domain as a base from which to conduct operations. They can loiter indefinitely in international waters and maneuver ashore at the time and place of their choosing.

- *Deterrence*: While a standoff strike is sometimes an adequate response, other situations require the rapid insertion of sustainable combat forces – “boots on the ground” – to underscore the nation’s commitment to an ally or to protect our National Security interests.
- *Assured access*: Amphibious forces contribute unique and essential capabilities toward the nation’s ability to take advantage of the freedom of the high seas to enter a region without regard to access constraints and impediments and to sustain sea-based operations almost indefinitely without need for in-theater host-government support.
- *Uncertainty for adversaries*: A credible forcible-entry capability compels potential adversaries to invest in a broad range of systems and spread their defenses over larger areas of concern.

Forward Deployed MEU Presence

Forward deployed MEUs embarked aboard Amphibious Ready Groups (ARGs) operate continuously in the areas of responsibility of various Geographic Combatant Commanders (GCC). These units provide the President and the GCC with credible deterrence and decision time across the range of military operations. MEUs serve as a forward-deployed, flexible sea-based MAGTF, capable of conducting amphibious operations to respond to crisis, conduct limited contingency operations, introduce follow-on forces, and support designated special operations forces. MEUs are characterized by their sea-based forward presence, expeditionary nature, ability to plan for and respond to crises, combined arms integration, and their interoperability with joint, combined and special operations forces.

There are seven standing MEUs that routinely deploy in accordance with the Global Force Management Implementation Guidance (GFMIG). The CONUS-based MEUs are 11th, 13th and 15th from the West Coast and the 22d, 24th, and 26th MEUs from the East Coast. The 31st MEU is forward assigned and located in Okinawa, Japan.

Crisis/Contingency Response

- Deter aggression
- Quickly respond to crisis
- Protect citizens/interests
- Expand influence
- Strengthen alliances
- Conduct information operations



Recent Examples:

- Afghanistan
- Libya
- Pakistan
- Haiti
- Indonesia
- Lebanon
- Kosovo
- Liberia
- Philippines
- U.S. Gulf Coast
- Japan
- New York City

MEU Mission

Provide a forward deployed, flexible sea-based MAGTF capable of conducting amphibious operations, crisis response, and limited contingency operations, to include enabling the introduction of follow on forces, and, designated special operations, in order to support the theater requirements of GCCs.



MEU Mission Essential Tasks

Amphibious operations

- Amphibious assault
- Amphibious raid
- Maritime interception Operations (MIO)/Visit, board, search, and seizure (VBSS)
- Advance force operations

Expeditionary support to other operations/crises and limited contingency operations — operating across the Range of Military Operations

- Noncombatant Evacuation Operations (NEO)
- Humanitarian assistance (HA)
- Stability operations
- Tactical Recovery of Aircraft and Personnel (TRAP)
- Joint and combined operations
- Aviation operations from expeditionary shore-based sites
- Theater security cooperation activities
- Airfield/port seizure



MEU Characteristics

Most agile, standing Marine Air Ground Task Force (MAGTF)

- Expeditionary by nature
- Sea-based, strategic reach with inherent force protection
- Scalable levels of presence and visibility
- Offers wide range of options for the national leadership
- Rapid response: within 6 hours of notification
- Self-sustaining: 15 days of organic, sea-based logistics
- Task organized to operate across the Range Of Military Operations (ROMO)
- Enables follow-on, joint, interagency, and coalition forces
- Combined arms integration of credible combat power
- Operates from over-the-horizon and out-of-sight
- Operates independent of facilities ashore
- Capable of integrating with special operations forces

Navy-Marine Corps Team
Amphibious Ready Group (ARG) and MEU



Supported/Supporting Relationship



**Amphibious Squadron
(PHIBRON)**



**Amphibious Assault Ship
(LHD or LHA)**



**Amphibious Transport Dock
(LPD)**



**Dock Landing Ship
(LSD)**

**Naval Support
Element (NSE)**

**CE
(MEU)**

**GCE
(Battalion Landing Team)**

**ACE
(Composite Squadron)**

**LCE
(Combat Logistics Battalion)**

ARG/MEU Pre-Deployment Training Phase

Critical for building the Blue-Green team and capability

Standardized 6-month, phased, pre-deployment training phase in CONUS

2 months
Initial Training Phase




- ARG/MEU staff planning
- Individual and special skills training

3 months
Intermediate Training Phase

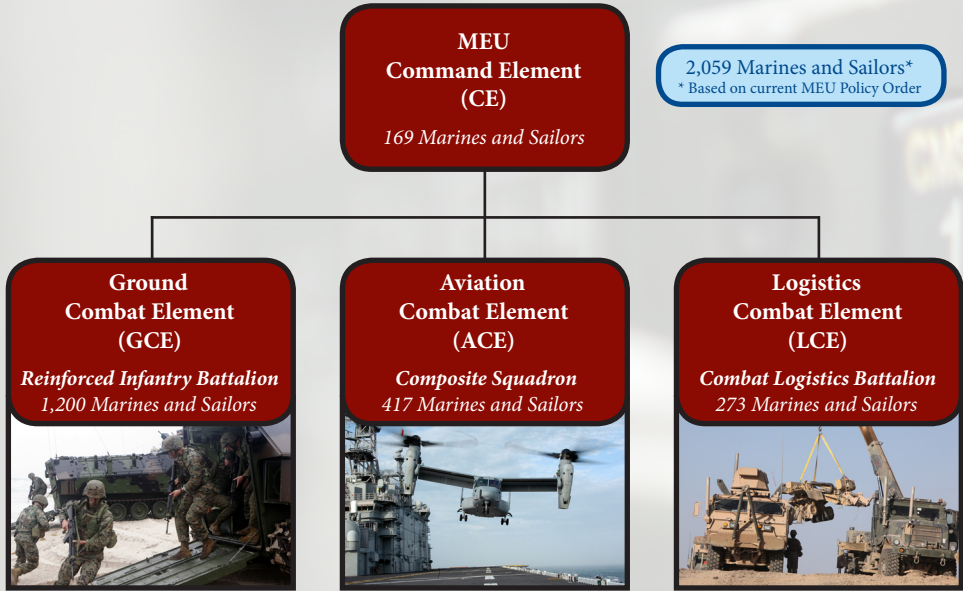
- Phibron/MEU integration training (at-sea)
- Realistic urban training
- Composite training unit (at-sea)
- MEU/SOF interoperability training

1 month
Final Training Phase

- Supporting arms coordination
- Certification (at-sea)
- Pre-overseas movement

Building block approach		
Individual skills	Special skills	Collective skills
		

MEU Task Organization



Command Element (CE)

(169 Marines and Sailors)

The CE contains the MAGTF headquarters and other units that provide intelligence, communications, and administrative support. The CE is scalable and task organized to provide the command, control, communications, computers, intelligence (C4I), and joint interoperability necessary for effective planning and executions of operations.

- Force Reconnaissance Platoon
- Air Naval Gunfire Detachment
- Imagery Interpretation Detachment
- Human Exploitation Detachment
- Ground Sensor Detachment
- Topographic Detachment
- Radio Detachment
- Communication Detachment
- Marine Corps Information Operations Center (MCIOC) Team



MEU Command Element Capabilities

- Rapid and deliberate planning
- Command and Control (C2)
- Enable Joint Task Force (JTF) and maritime prepositioning force operations
- Reconnaissance & Surveillance (R&S)
- Human intelligence collection
- Signals intelligence collection
- Geospatial intelligence/analysis
- Imagery intelligence collection
- Ground sensor employment
- MIO/VBSS
- Integrate and synchronize MEU, naval, joint, and combined fires
- Military information support operations



Ground Combat Element (GCE)

The GCE is task organized to conduct ground operations to support the MAGTF mission. This element includes infantry, artillery, reconnaissance, armor, light armor, assault amphibian, engineer, and other forces as needed.

Battalion Landing Team (BLT)

(~1,200 Marines and Sailors)

- Headquarters & Service Company
- 3 x Rifle Company
- Weapons Company
- Artillery Battery
- Amphibious Assault Vehicle (AAV) Platoon
- Light Armored Reconnaissance Platoon or Company (-)
- Tank Platoon
- Engineer Platoon
- Reconnaissance Platoon

Capabilities

- Amphibious assaults
- Amphibious raids
- Airfield seizure
- Offensive operations
- Defensive operations
- Stability operations
- NEO
- MIO/VBSS
- HA
- TRAP
- R&S

GCE Vehicles



4 x M1A1 Main Battle Tank

(In addition, LCE has 1 x M88A12 Tank Retriever)

- Crew: 4
- Speed: 42 mph
- Range: 275 miles
- Main armament: 120 mm (40 rounds)
- Secondary: 1 x 12.7mm, 2 x 7.62mm



15 x Assault Amphibious Vehicle (AAV)

- personnel and command variants
- Troops: 3 Crew + 21 combat Marines
- Speed: 45 mph (7 kts in water)
- Range: 200 miles
- Armament: 1 x 12.7mm machinegun
1 x 40mm grenade launcher



- 8-17 x M1161 Internally Transportable Vehicles (ITV)
- Transportable inside MV-22/CH-53E
 - Troops: 4
 - Speed: 65 mph
 - Range: 170 miles
 - Armament:
1 x 12.7 mm machinegun
or 1 x 40mm grenade launcher



- 31 x Medium Tactical Vehicles
- Cargo: 7 tons off-road/15 tons paved
 - Troops: 25
 - Speed: 65 mph
 - Range: 360 miles
 - Armament: 1 x 12.7 mm
or 40mm grenade launcher or
7.62 mm



- 7-17 x Light Armored Vehicle (LAV)
(In addition, MEU has 1 x Mobile Electronic Warfare LAV)
- Troops: 3 Crew + 4 Troops
 - Speed: 60+ mph
 - Range: 400 miles
 - Armament:
1 x 25 mm cannon,
2 x 7.62 mm machineguns,
or TOW variant



- 105 x High Mobility Multi-Wheeled Vehicles (HMMWV)
- Troops: 4 - 10
 - Speed: 55 - 70 mph
 - Range: 256 - 350 miles
 - Armament:
1 x 12.7 mm
or 40mm grenade launcher
or 7.62 mm machineguns
or TOW missile

Aviation Combat Element

The ACE conducts offensive, defensive, and all other air operations to support the MAGTF mission.

5 of 6 Aviation Functions

- Control of aircraft and missiles
- Assault support
- Offensive air support
- Anti-aircraft warfare
- Aerial reconnaissance

Composite Squadron

(~417 Marines and Sailors)

- Medium Tilt-rotor Squadron
- Light Attack Helo Detachment
- Fixed Wing Detachment
- Heavy Helo Detachment
- Aviation Logistics Detachment
- Aviation Support Squadron
- Air Control Detachment
- Aerial Refuel Detachment

MEU Aircraft



12 x MV-22B/C Osprey

- Medium lift assault support
- 24 combat equipped Marines
- 10,000 lbs external load
- Cruise speed: 240 knots
- Combat radius: 325 NM w/o refuel
- Aerial refuel capable



4 x CH-53E Super Stallion

- Heavy lift assault support
- 24 combat equipped Marines (can lift up to 55 passengers)
- 36,000 lbs external load
- Cruise speed: 120 knots
- Combat radius: 225 NM w/o refuel
- Aerial refuel capable



3 x UH-1Y Huey

- Command and Control
- 8 combat equipped Marines
- Cruise speed: 147 knots
- Combat radius: 129 NM



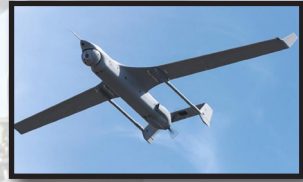
2 x Hercules (KC-130J)

- Aerial refueling
- On-call, CONUS stand-by
- Cruise speed: 320 kts
- Combat radius: 3,345 NM



4 x AH-1Z

- Rotary Wing CAS
- Cruise speed: 137 knots
- Combat radius: 125 NM



5 x RQ-21A Small Tactical Unmanned Air System (STUAS)

- Intelligence, Surveillance, and Reconnaissance (ISR)
- Communication relay
- Ship or land-based
- Control radius: 50 NM
- Max speed: 80 kts
- Endurance: 10 hrs
- To be fielded 2014-2015



6 x Harrier (AV-8B)

- Fixed Wing CAS
- Vertical Short Takeoff/Landings (VSTOL)
- Max speed: 585 kts
- Combat radius: 300 NM

Logistics Combat Element (LCE)

The LCE is task-organized to provide the full range of combat logistics functions and capabilities necessary to maintain the continued readiness and sustainability of the MAGTF as a whole.

Combat Logistics Battalion (CLB)

(~273 Marines and Sailors)

- Headquarters Platoon
- Law Enforcement Detachment
- Maintenance Detachment
- Medical Detachment
- Engineer Platoon
- Communications Platoon
- EOD Detachment
- Supply Detachment
- Landing Support Platoon

Capabilities

- 15 days organic sustainment
- Ground supply operations
- Ground equipment maintenance – intermediate level
- Transportation operations
- General engineering operations
 - Earth moving
 - Construction & repair
 - Electrical support
 - Water purification, and distribution
- Health services
- Explosive Ordnance Disposal (EOD)
- General services (postal, ammo)
- Humanitarian assistance
- Evacuation control center operations
- Law enforcement operations



LCE Equipment

- 15 MTVR
- 18 HMMWVs
- 2 wreckers
- 2 bulldozers
- 3 forklifts
- 4 bulk fuel trucks
- 2 water trucks
- 2-5 water purification systems
- 1 tank retriever
- 1 recovery AAV
- 2 NEO Tracking Systems (NTS)



Engineer Logistics

Water Section

- 1,200 gal per hour
(24k gal per 10 hour day) – purification
- 5,400 gal mobile – distribution/storage
- 30,000 gal static – storage



Electrical Section

- Generators (various sizes)
- Floodlight sets
- Power distribution (various sizes)
- Refrigeration units (various)
- Trailers (various)



Combat Engineer Section

- Village water cistern reinforcement
- Vertical building
- Roof replacement
- Debris removal



Amphibious Ready Group

The Amphibious Ready Group (ARG) is the most frequently employed type of amphibious task force (ATF) organization that is formed to conduct amphibious operations. Together and in close cooperation with the MEU, who is the Landing Force (LF) embarked aboard the ships of the ARG, collectively they comprise an Amphibious Force (AF). An ARG consists of a minimum of three ships, usually an amphibious assault ship (LHD or LHA), an amphibious transport dock ship (LPD) and an amphibious dock landing ship (LSD). In addition to the ships, the principal Navy elements of the ARG are a Naval Beach Group element that includes Beachmasters who control the movement of personnel and equipment across the beach, Assault Craft Unit (ACU) elements that bring the landing craft, both Landing Craft Air Cushion (LCAC) and Landing Craft Utility (LCU) that move equipment and personnel from the ship to the shore, the Tactical Air Control Squadron (TACRON) element that provides aviation control, a Fleet Surgical Team (FST) that provides enhanced medical support and a Helicopter Sea Combat Squadron (HSC) element that provides airborne search and rescue, vertical replenishment, air and sea defense and limited assault support. A single commander, a Navy Captain referred to as the Commodore, leads and coordinates the Navy team through its entire training plan. The ARG/MEU forms a cohesive Navy/Marine Corps combined-arms team ready to respond to all missions across the range of military operations.

ARG Capabilities

- Command and control
- Operational maneuver
- Amphibious assault, demonstration, withdrawal
- Intelligence, surveillance, reconnaissance
- Joint intelligence operations
- Logistical support
- Mass casualty & level II surgery
- SOF integration
- MIO/VBSS
- NEO
- HA
- Water Production
 - LHA/D 200,000 gallons / day
 - LSD 60,000 gallons / day
 - LPD 17 72,000 gallons / day



ARG Task Organization

PHIBRON

Amphibious Squadron Staff

- 33 personnel
- Planning
- C2



Tactical Air Control Squadron Detachment

- 29 personnel
- Control tactical air operations



Fleet Surgical Team

- 18 personnel
- 1 surgeon/2 physicians
- Surgical and medical support



NSE

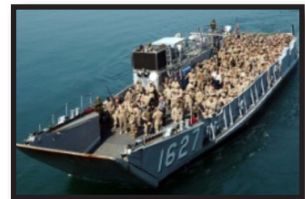
Helicopter Sea Combat Squadron (HSC) Detachment

- 29 personnel
- Search and rescue
- Anti-surface warfare
- Logistics



Landing Craft Air Cushion (LCAC)

- 34-54 personnel
- Speed: 35 knots
- Can land over 80% of the world's beaches
- Limited to beach ops
- Medium cargo lift
- 1 M1A1 tank or 2 MTRVs or 4 LAVs or 180 personnel



Landing Craft Utility (LCU)

- 12-24 personnel
- Speed: 10 knots
- Large Cargo Lift
- 2 M1A1 tank or 4 MTRVs or 9 LAVs or 300 personnel
- Can operate in ports and harbors
- Limited by beach gradients

Beachmaster Unit Detachment

- 25 personnel
- Beach traffic control
- Surf zone salvage



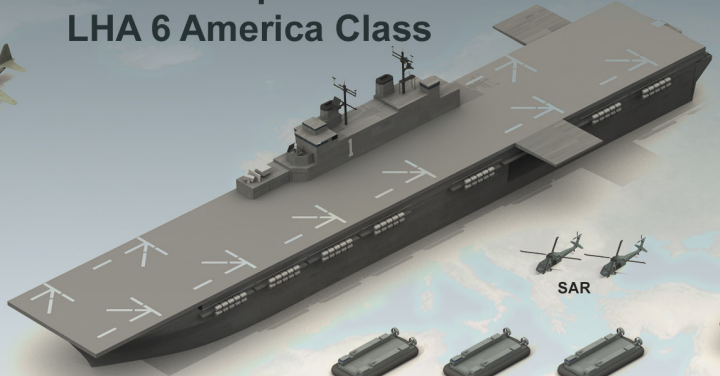
ARG/MEU Air, Sea, and Ground Mobility

~2,000 ARG Personnel, ~2,059 MEU Personnel

LHD 1 Wasp Class LHA 6 America Class



KC-130J
Stand by



SAR



LCAC



MV-22B



STUAS (not to scale)



CH-53E



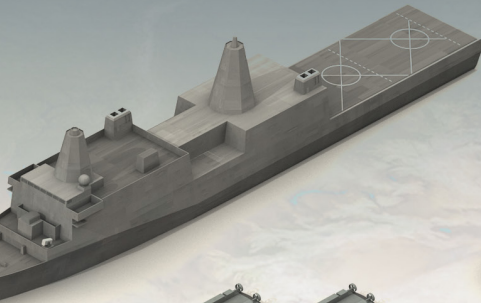
AV-8B



AH-1Z

UH-1Y

LPD 17 San Antonio Class



LCAC



HMMWV



Tank

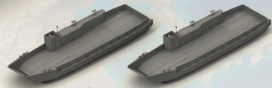
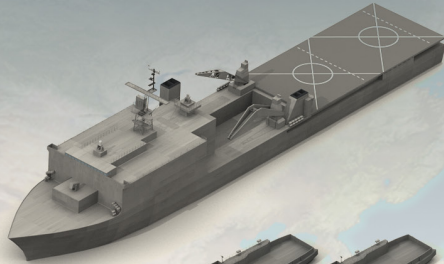


LAV



AAV

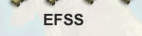
LSD 41 Whidbey Island Class LSD 49 Harper's Ferry Class



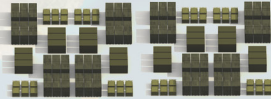
LCU



Engineers



EFSS



Landing Force Operational Reserve Material



LW155



LVSR



MTRV

Amphibious Ships



Wasp Class

USS Wasp (LHD 1)

USS Essex (LHD 2)

USS Kearsarge (LHD 3)

USS Boxer (LHD 4)

USS Bataan (LHD 5)

USS Bonhomme Richard (LHD 6)

USS Iwo Jima (LHD 7)

USS Makin Island (LHD 8)

- 40,650+ tons
- 22 knots
- Crew: 1,123
- Troops: 1,687 (+184 surge)
- 20,000 square ft vehicle storage
- 125,000 cubic ft cargo storage
- 9 landing spots & aircraft hangar
- 3 LCACs or 2 LCU
- 536,343 gal JP-5
- 6 operating rooms
- 64 hospital beds

America Class

USS America (LHA 6)

USS Tripoli (LHA 7)*

* Ship under construction

- 44,850 tons
- 22 knots
- Crew: 1,059
- Troops: 1,687 (+184 surge)
- 12,000 square ft vehicle storage
- 160,000 cubic ft cargo storage
- 9 landing spots & aircraft hangar
- No well deck
- 1,300,000 gal JP-5
- 2 operating rooms
- 24 hospital beds

* USS Peleliu (LHA 5) remains in service until end of FY15

San Antonio Class

USS San Antonio (LPD 17)

USS New Orleans (LPD 18)

USS Mesa Verde (LPD 19)

USS Green Bay (LPD 20)

USS New York (LPD 21)

USS San Diego (LPD 22)

USS Anchorage (LPD 23)

USS Arlington (LPD 24)

USS Somerset (LPD 25)

USS John P. Murtha (LPD 26)*

USS Portland (LPD 27)*

* Ship under construction

*USS Denver (LPD 9) remains in service until end of FY14

- 25,885 tons
- 22 knots
- Crew: 360
- Troops: 720 (+80 surge)
- 24,000 square ft vehicle storage
- 34,000 cubic ft cargo storage
- *4 landing spots & aircraft hangar
- 2 LCACs or 1 LCU
- 318,308 gal JP-5
- 24 hospital beds

*LPD-17 class has 2 standard helo spots and 4 expanded spots based on the type, model, and series of aircraft embarked



Whidbey Island Class

USS Whidbey Island (LSD 41)

USS Germantown (LSD 42)

USS Fort McHenry (LSD 43)

USS Gunston Hall (LSD 44)

USS Comstock (LSD 45)

USS Tortuga (LSD 46)

USS Rushmore (LSD 47)

USS Ashland (LSD 48)

- 15,939 tons
- 22 knots
- Crew: 413
- Troops: 402 (+102 surge)
- 12,500 square ft vehicle storage
- 5,000 cubic ft cargo storage
- 2 landing spots
- 4 LCACs or 3 LCUs
- 52,160 gal JP-5
- 8 hospital beds

Harpers Ferry Class

USS Harpers Ferry (LSD 49)

USS Carter Hall (LSD 50)

USS Oak Hill (LSD 51)

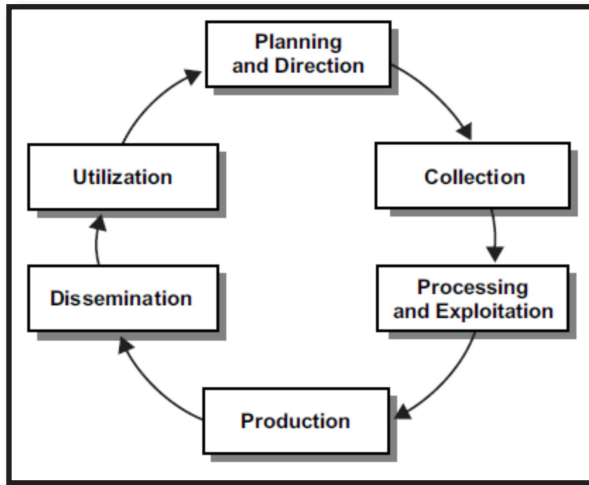
USS Pearl Harbor (LSD 52)

- 16,740 tons
- 22 knots
- Crew: 419
- Troops: 402 (+102 surge)
- 20,200 square ft vehicle storage
- 67,600 cubic ft cargo storage
- 2 landing spots
- 2 LCACs
- 51,923 gal JP-5
- 11 hospital beds

ARG/MEU Combined Capabilities

Plan and Direct Intelligence Operations

The ARG and MEU form a cohesive intelligence team, operating from the LHD Joint Intelligence Center (JIC). The team draws on both strategic, operational, and tactical intelligence resources and, in certain circumstances, conducts intelligence operations for the operational and strategic levels. The ARG and MEU conduct the six intelligence functions continuously during the planning, decision, execution, and assessment cycles of mission planning



Intelligence Cycle

Coordinate to leverage intelligence capabilities outside the ARG-MEU:

- Other naval intelligence platforms/systems
- Theater intelligence systems
- National intelligence systems
- Plan Intelligence activities to support operations
- Deploy collection capabilities

Collect, process, and exploit intelligence:

- Signals intelligence (SIGINT)
- Human intelligence (HUMINT)
- Imagery intelligence (IMINT)
- Ground sensors
- Force reconnaissance

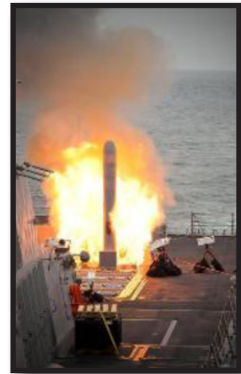
Fires

Each ARG/MEU conducts extensive integrated supporting arm training. During the PTP the ARG/MEU use both assets inherent with the MEU and those from external sources, such as Naval Surface Fire Support ships, and when available, Carrier Strike Group (CSG) aviation and joint assets. MEUs deploy with the ability to plan, coordinate and control fires in the joint/combined environment.

Fires Synchronization

MEU/ARG Fires Integration & Coordination

- Integrate fires with scheme of maneuver
- Integrate both kinetic and non-kinetic fires
- Access and leverage other forward deployed naval, joint, coalition fires:
 - Carrier strike and jamming aircraft
 - Naval gunfire and missiles
 - Air Force and Army aircraft
 - Army ground fires
 - Allied and coalition aircraft and weapons
 - Electronic attack



- Coordination centers able to effectively control fires from ARG shipping as well as ashore
- Multiple, highly trained controllers and observers
 - 13 Joint Terminal Attack Controllers/Air Controllers
 - 8 Joint Fires Observers/Naval gunfire observers
 - 12 artillery and mortar observers



Aviation Fires

	Gun(s)	Rockets	Air-to-Air Missile	Air-to-Ground Missiles	General Purpose Bombs	Guidance Kits for GP Bombs	Additional Bombs
AV-8B	25mm	2.75 inch 5.0 inch	Sidewinder AMRAAM	Maverick	500 lbs. 1000 lbs.	Laser GPS	Incendiary Cluster Mines
KC-130J (w/ Harvest Hawk)	Hellfire Griffin			Hellfire Griffin			
AH-1Z	20mm	2.75 inch	Sidewinder	Hellfire			
UH-1Y	7.62mm	2.75 inch					

ARG ships carry 15 days of ammunition for embarked aircraft



Ground Fires

MEUs deploy with either: 6 x 155mm M777 howitzers or 6 x 120mm M327 towed mortars or a combination of both

6 x M777A2 Howitzer

- 155 mm
- Range: 30 km
- Weight: 9,300 lbs



6 x M327 Rifled Mortar

- 120 mm
- Range: 8.2 km
- Weight: 1,800 lbs
- (MV-22 internally transportable)



8 x M252 Mortar

- 81 mm
- Range: 6.0 km
- Weight: 91 lbs



9 x M224 Mortar

- 60 mm
- Range: 3.5 km
- Weight: 47 lbs



Types of Projectiles Available

	Caliber (mm)	Range (km)	Coverage (km ²)	High Explosive	Dual Purpose Improved (Cluster)	Minefield	Laser Guided	GPS Guided	Smoke	Illumination	Gas
M777	155	30	2,827	X	X	X	X	X	X	X	X
M327	120	8.2	211	X					X	X	
M252	81	6.0	113	X					X	X & IR	
M224	60	3.5	38	X					X	X & IR	

ARG ships carry 15 days of ammunition for embarked weapons

Humanitarian Assistance

The ARG/MEU team can provide significant assistance in response to humanitarian and disaster events.



Medical

ARG

- 7 physicians and 3 dentists
- 5-9 operating rooms
- 7-25 intensive care beds
- 730-800 ward and triage beds

MEU

- 2 physicians and 2 physician assistants
- 78 corpsmen
- Shock trauma platoon
- 30-bed evacuation ward
- casualty evacuation



Water

ARG

- Produce 332,000 gallons of potable water per day at sea

MEU

- Produce 24,000 gallons of potable water per day ashore



General Engineering

MEU

- Mobile power generators
- Bulldozers and excavator
- Forklifts

Transport and Distribution

ARG

- 4-7 LCAC and LCUs
- 2 medium lift helicopters

MEU

- 16 medium and heavy lift helicopters
- 15 AAVs
- 38 medium lift trucks

ARG/MEU capabilities are self-supporting and have minimal impact on a fractured infrastructure:

- Berthing and feeding of teams aboard ship
- Aircraft basing on ships
- Self-contained landing craft facilities (well-decks)
- Significant communications and C2 facilities

Non-combatant Evacuation Operations—*Globally Protecting US Citizens*

Forward deployed; ready to assist

In the past twenty years over 20,000 American and partner nation citizens whose lives were in danger in a host nation have been evacuated by U.S. Marines from amphibious ships to a safe haven



Non-combatant Evacuation Operations (NEO)				
Operation	Location	Year	Evacuees	
			US	Total
<i>Lebanon NEO 2006</i>	Lebanon	2006	14,000	
<i>Safe Departure</i>	Asmara, Eritrea	1998	105	172
<i>Noble Obelisk</i>	Sierra Leone	1997	451	2,510
<i>Guardian Retrieval</i>	Congo (formerly Zaire)	1997		532
<i>Silver Wake</i>	Albania	1997		900
<i>Quick Response</i>	Central African Republic	1996	208	448
<i>Assured Response</i>	Liberia	1996	480	2,780
<i>Distant Runner</i>	Rwanda	1994	148	230
<i>Eastern Exit</i>	Somalia	1991	281	
<i>Sharp Edge</i>	Liberia	1990	330	3,020

Foreign area specialists
Training and advisor teams

Training teams
Deployed dets

ARG/MEU

Tea

Detachment

MA

Comprehensive range of engagement



Integration with country team
Situational insight

ms

Advice to commander and staff
Mil-to-mil technical assistance
Build partner capacity

s / Platoons

SOF integration
Security exercises
Mil-to-mil contact

AGTF

ent with minimal footprint ashore

ARG/MEU Employment

An ARG/MEU is best employed as designed—*as a single entity*. As such, they are not only capable of conducting the full range of missions, they can conduct many of them simultaneously and/or in rapid succession in accordance with GCC priorities and emerging crises. Given the increased demand for military engagement, security cooperation and crisis response capabilities, GCCs may choose to employ tactics that involve greater dispersion of the ships at sea and the conduct of littoral maneuver.

Additionally, operational necessity may occasionally require ARG/MEUs to be divided into smaller, more widely separated formations. Doing so imposes risk and is not the preferred method of employment. When operational necessity makes such risks acceptable, an ARG/MEU may operate in a *split* or *disaggregated* manner.

Split operations require elements of the ARG/MEU to function separately for short durations and/or distances, with the PHIBRON and MEU commanders retaining control of all forces under the same GCC.

Disaggregated operations require elements of the ARG/MEU to function separately and independently, regardless of time and distance, with elements under a command relationship that changes/limits the PHIBRON and MEU commanders' control of their forces. The ARG/MEU may be disaggregated within a GCC's AOR or elements of the ARG/MEU may be attached to a different GCC.

Although ARG/MEUs are highly capable and flexible organizations, there are some limitations on key enablers that constrain tactics and employment options if required to operate in a split or disaggregated manner.

Augmentation of medical, intelligence, aviation, and beach support party personnel and equipment may be required to continue to meet operational requirements under these circumstances. Other key considerations for split or disaggregated employment of the ARG/MEU are the diminishment of ground, aviation and overall command and control capability because of reduced C5I capacity aboard the LPD and LSD, fewer aviation and surface ship to shore connectors on a single ship or pair of ships resulting in a slower ability to move personnel and equipment or mass combat power ashore, no fixed wing aviation and a consequent reduction in aviation delivered fires and ISR, spreading the Maritime Raid Force and its maritime interception operations and precision raid capabilities such that it is less effective than when aggregated. Heavy ground fires capabilities such as tanks or towed artillery are difficult to move between ships. Aviation

SAR capability with two H-60's will be severely taxed, explosive ordnance disposal will have limited to no capacity to operate on two or more ships and ashore concurrently and aviation maintenance aboard ships other than the LHD/LHA can only be sustained for a finite amount of time. The FST will have to reorganize and receive augmentation from the MEU's Shock Trauma Platoon to provide Level II medical capability on multiple ships.

The PHIBRON and MEU commanders carefully analyze and re-task organize their forces on each ship to best meet the anticipated requirements while operating in a split or disaggregated fashion. The nimbleness of the ARG/MEU team allows these forces to be organized and reorganized quickly and efficiently, within reason, even over significant distances.

Split/Disaggregated Operations Example

The real world example of the Peleliu ARG/15th MEU is illustrative of the extraordinarily capable fashion that the ARG/MEU can operate while disaggregated and of the risk involved. On September 9, 2010 PELARG/15th MEU successfully executed three simultaneous combat and foreign humanitarian assistance (FHA) operations. The LHA (Peleliu) and LSD (Pearl Harbor) were in an operations box (OPBOX) off the coast of Pakistan operating as CTG 51.3 (ARG) and CTG 51.5 (MEU) in support of FHA for flood relief throughout Pakistan. That day over 16 ARG/MEU helicopters operated ashore and afloat providing relief while an ARG/MEU forward command element (FCE) of several personnel acted as a liaison to the American embassy in Karachi for the coordination of relief efforts. Simultaneously, four two-aircraft formations of AV-8B jets launched from the deck of the Peleliu to conduct offensive air support (OAS) missions in support of Operation ENDURING FREEDOM in Afghanistan. On this day they delivered six GBU-54 laser JDAM 500 pound bombs against enemy targets while also refueling from MEU KC-130J aerial tankers both enroute and during return from the targets. Simultaneously, over 1,700 miles away in the Gulf of Aden (GOA) while under the tactical control of CTF 151, the LPD (Dubuque) conducted an opposed visit, board, search and seizure (VBSS) of the MV Magellan Star, freeing its crew and the ship from the control of Somali pirates. The MEU Commanding Officer and the PHIBRON Commander retained full situational awareness of all three events, commanding and controlling the FHA effort in Pakistan, providing guidance to the VBSS in the GOA and providing direct support to the OAS missions in Afghanistan.

The risk incurred was specific to each mission. The FHA lacked the surface connectors (LCACs) the LPD carried with her, diminishing the capability to more quickly move relief supplies ashore. The VBSS did not have any fixed wing aviation support nor complete rotary wing aircraft support, lessening an integral part of the tactics for a VBSS. The medical capability aboard the LPD was not Level II, since the ARG/MEU did not have that capacity, but a supporting coalition ship of CTF 151 made up for that shortfall, a luxury not always present. Even so, the risk was manageable and the missions were accomplished successfully. The savvy reconfiguration of forces and equipment aboard all three ships of the ARG by the PHIBRON and MEU made these actions possible and demonstrate the remarkable operational relevance the ARG/MEU brings to the range of military operations.

ARG/MEU Highly Relevant Force



Flexibility to respond to global instability and enabling maximum freedom of action with the least risk

- Versatile, sea-based capability for the era of uncertainty
- Proven, flexible utility in peace and conflict
- Leverages our command of the seas to build necessary partnership, exert timely influence, and deter conflict
- Forward to respond to crises with a variety of essential capabilities
- Enables strategic conditions for an expeditionary-dependent military





For more information visit:
<http://www.imef.marines.mil/news/meuoverview.aspx>