CHAPTER 1
The World Today

"The United States is a nation at war. In Afghanistan, our forces fight alongside allies and partners in renewed efforts to disrupt, dismantle, and defeat Al Qaeda and the Taliban. In Iraq, U.S. military personnel advise, train, and support Iraqi forces as part of a responsible transition and drawdown. Above all, the United States and its allies and partners remain engaged in a broader war - a multifaceted political, military and moral struggle - against Al Qaeda and its allies around the world."

2010 Quadrennial Defense Review (QDR) Report

Introduction

U.S. strategic interests include global security; prosperity; broad respect for universal values; and an international order that promotes cooperative action. Naval expeditionary forces are at the forefront of our national responses to ongoing international conflicts; moreover, they play a vital role in advancing these strategic interests confronting irregular challenges to prevent potential future conflicts. These conflicts and irregular challenges are caused primarily by instability and insecurity, which constitute pervasive threats to the nation's interests. As articulated by our military's senior leadership, these threats, and the corresponding call for our military forces, specifically expeditionary forces, are expected to continue and will likely increase in the future.

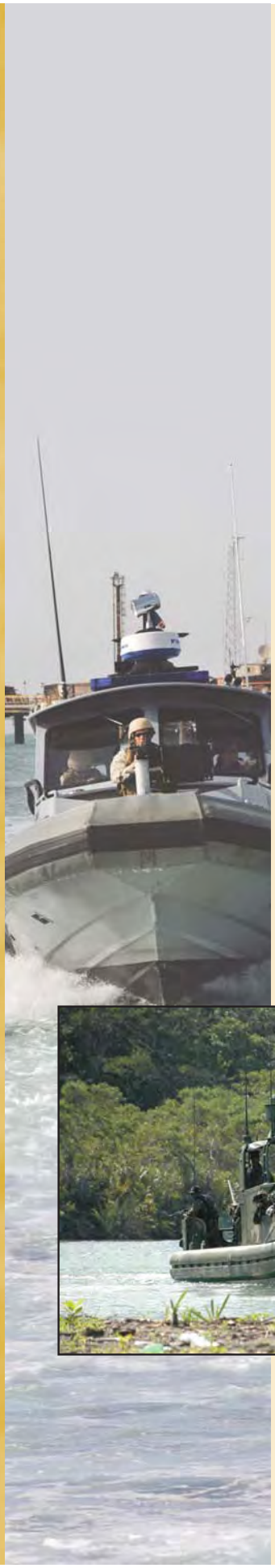
Background

Expeditionary force requirements, capabilities development, and global force posture are solidly grounded in Navy and Defense guidance.

Maritime Strategy

Naval Leadership and the Fiscal Year (FY) 2010 Budget

A Cooperative Strategy for 21st Century Seapower was published in October 2007 after significant analysis, research, and an unprecedented level of collaboration with the public. This Maritime Strategy reaffirmed the commitment of the United States Navy, Marine Corps, and Coast Guard to use seapower to influence actions and activities at sea and ashore. The Maritime Strategy also recognized that our nation's seapower should take on an even larger role in confronting "the challenges of a new era" and articulated that the global reach, persistent presence, and operational flexibility inherent in United States seapower would be employed to accomplish the following six key tasks, or strategic imperatives:



- Limit regional conflict with forward-deployed, decisive maritime power
- Deter major power war
- Win our nation's wars
- Contribute to homeland defense in depth
- Foster and sustain cooperative relationships with more international partners
- Prevent or contain local disruptions before they impact the global system.

The first three imperatives focus on more traditional combat power primarily provided by a powerful fleet. The final three reflect awareness of the impacts, both positive and negative, of expanding globalization, and the growing importance of "soft power" applied in appropriately sized force packages, as and when required, to enhance partnerships and cooperation. Moreover, the Maritime Strategy recognizes that naval forces - characterized by their expeditionary nature, scalability, flexibility, and agility - are uniquely poised to address the strategic imperatives and deliver the following core capabilities:

Maritime Strategy

- Forward presence
- Deterrence
- Sea control
- Power projection
- Maritime security
- Humanitarian assistance/disaster response (HA/DR).


Riverines Build Partner Capacity to Confront Irregular Challenges

Naval Expeditionary Forces and Irregular Warfare

In January 2010, the Chief of Naval Operations (CNO) released *The U.S. Navy's Vision for Confronting Irregular Challenges*. In it, the CNO noted that the Navy must "continue efforts to balance emphasis and investments between countering irregular threats and countering near-peer forces to successfully meet today's and tomorrow's dynamic and interrelated security challenges." A key challenge inherent in achieving the balanced investment is the reality that difficult decisions will have to be made and our Defense establishment may be required to reduce capability in one area to enhance a capability in another. For example, reducing

Africa Partnership Staff and LSD 44 Crew Assist in Haiti.

or adversely impacting aspects of combat power in order to enhance our capabilities to confronting irregular challenges. Naval expeditionary forces are designed to be flexible, agile, and balanced across the range of military operations. Generally, most expeditionary forces already have the desired "balance" in that they provide a wide spectrum of capabilities to support regular, conventional combat operations as well as to confront a myriad of irregular challenges facing our nation today. The vision emphasizes the importance of maximizing the multi-purpose effectiveness of the Navy's capabilities, personnel, and platforms to "achieve the greatest effectiveness against the most likely 21st Century threats", and establishes the following goals:

- Enhance and formalize interoperability
- Build partner capacity
- Improve our regional awareness and understanding of complex environments and challenges
- Achieve an improved understanding and ability to counter illicit and extremist actors
- Enhance and broaden the multi-mission capabilities and applications of today's force
- Identify necessary and distinct shifts in emphasis and investment to confront irregular challenges.

Naval Operations Concept

Naval Operations Concept 2010 (NOC 10) describes when, where and how U.S. naval forces will contribute to enhancing security, preventing conflict and prevailing in war in order to guide Maritime Strategy implementation in a manner consistent with national strategy. NOC 10 describes the ways with which the sea services will achieve the ends articulated in *A Cooperative Strategy for 21st Century Seapower*. Of note, among all ship types, the NOC 10 recognizes the inherent flexibility of amphibious ships to perform all six of the Navy's core capabilities.

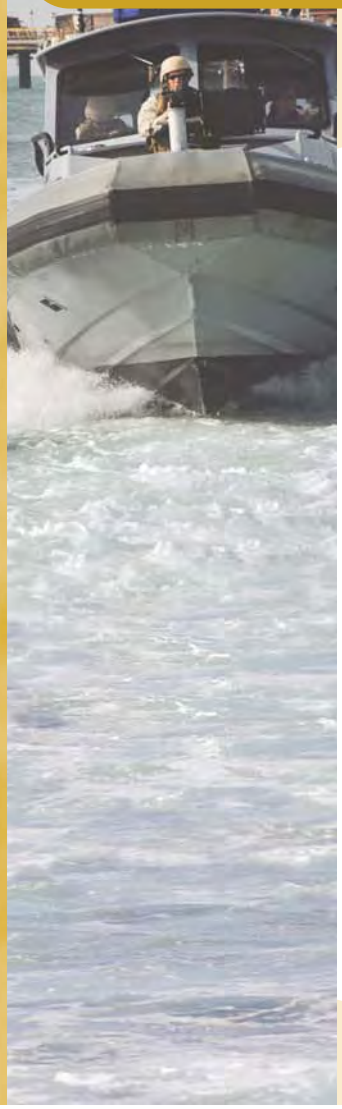
"In an increasingly complex world, naval forces provide the Nation with the global presence and the freedom of maneuver needed to influence world events. Persistently postured forward, naval forces are continuously engaged with global partners in cooperative security activities aimed at reducing instability and providing another arm of national diplomacy. Their expeditionary capabilities enable and support the joint force effort to combat both conventional and irregular challenges."

NOC 10

The table below directly excerpted from NOC 10 shows the relationship between major naval service platforms and the Maritime Strategy's core capabilities.

Core Capabilities / Platforms	Forward Presence	Maritime Security	HA/DR	Sea Control	Power Projection	Deterrence
Aircraft Carriers	X		X	X	X	X
Aircraft	X	X	X	X	X	X
Amphibious Ships	X	X	X	X	X	X
SSNs	X	X		X	X	X
SSGNs	X	X			X	X
SSBNs					X	X
Large Surface Combatants	X	X		X	X	X
Small Surface Combatants	X	X		X		
Major Cutters	X	X	X	X		X
Patrol Craft	X	X	X	X		X
Combat Logistics Force	X	X	X	X	X	
Hospital Ships	X		X			
Maritime Prepositioning	X		X		X	
JHSV	X	X	X			
Command and Support	X					
Icebreakers	X	X	X	X		X

Naval Forces Alignment with the Maritime Strategy



The Joint Operating Environment and Capstone Concept for Joint Operations

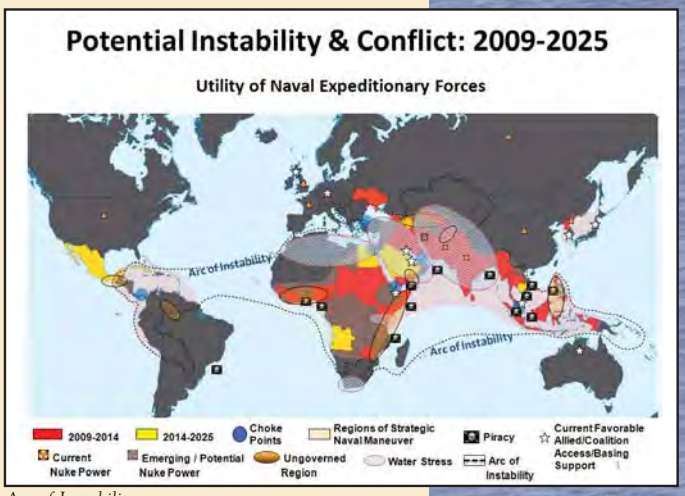
"Over the next quarter century, U.S. military forces will be continually engaged in some dynamic combination of combat, security, engagement, and relief and reconstruction. There will continue to be those who will hijack and exploit religion for extremist ends. There will continue to be opponents who will try to disrupt the political stability and deny the free access to the global commons that is crucial to the world's economy. In this environment, the presence, reach, and capability of U.S. military forces, working with like-minded partners, will continue to be called upon to protect our national interests."

The Joint Operating Environment

Promulgated by Commander, U.S. Joint Forces Command in February 2010, the Joint Operating Environment (JOE) analyzed trends to paint a picture of the operating environment for joint forces over in the next quarter century. Trends were assessed in demographics, globalization, economy, energy, food, water, climate change and natural disasters, pandemics, cyber, and space. The JOE concluded:

- Cooperation and competition among conventional powers will continue. A "conventional power" is an organization that is governed by, and behaves according to, recognized norms and codes or conventions.

- The power and influence of unconventional, nonstate, and trans-state actors will increase; however, the state will continue to be the most powerful international actor.
- The power of states will vary dramatically from culture to culture, region to region but will mutate and adapt to the international environment's changing conditions.
- The relative balance of power between states will shift, some growing faster than the United States and many states weakening relative to the United States. The era of our nation as the sole superpower may be ending. Additionally:



Arc of Instability

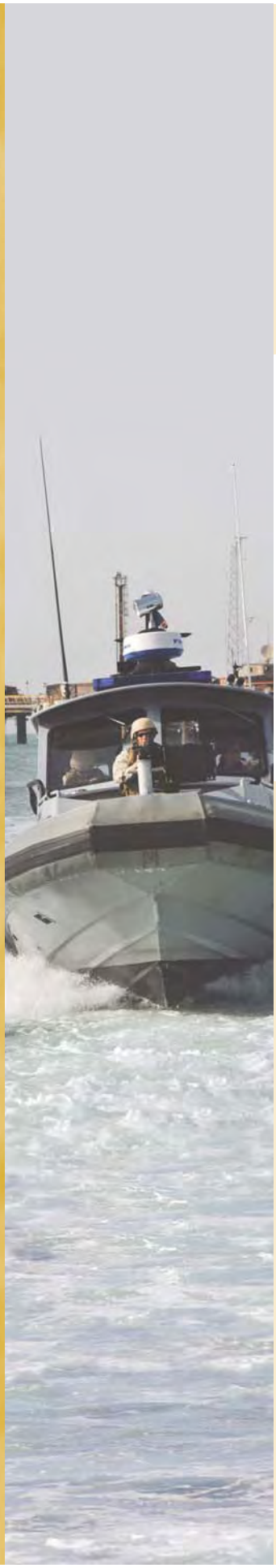
- Many nations/states will build military forces able to influence events in their regions
- Weak and failing states will continue to foment irregular challenges. These states are, and will continue to be, located primarily in an "Arc of Instability" in sub-Saharan and North Africa, Central Asia, and the Middle East.
- The vast region encompassing the Arc of Instability presents an environment where civil and sectarian wars; a havens for extremists; loss of control of their weapons arsenals (including the potential loss of nuclear weapons); and ethnic cleansing/genocide can and frequently do germinate.

With the JOE framing the future's challenging environment, in January 2010 the Chairman of the Joint Chiefs of Staff promulgated the companion document, Capstone Concept for Joint Operations (CCJO). CCJO builds upon the JOE analysis to "...forecast five broad national security challenges likely to require the employment of joint forces in the future." These challenges are summarized as:


Sailors from USS Chosin (CG 65) Aboard Suspected Pirate Dhow

- To win the nation's wars
- Deter potential adversaries
- Develop cooperative security
- Defend the homeland
- Respond to civil crises.

Further, the concept states that these security challenges will require the conduct of four broad types of military activities: combat, security, engagement, and relief and reconstruction and that there may be more challenges than the nation can respond to. This increases the importance of crisis prevention and maintaining security and stability via cooperative security



arrangements. Further, the CCJO recognizes that access overseas is diminishing, and assuring access to ports, airfields, foreign airspace, coastal waters, and host nation support will require active peacetime engagement with states in volatile areas.

Expeditionary Organizations and Forces Supporting the Combatant Commander

"We can expect this challenging set of circumstances to confront us for some time - a steady, if not increasing, demand for ready Naval forces and continued pressure on the available resources needed to sustain them."

Commander, US Fleet Forces Command 2010 Commander's Guidance

The US Navy and its expeditionary forces in particular are engaged globally in support of CCDRs' requirements. In addition to conducting combat and combat support operations in Operations IRAQI FREEDOM and ENDURING FREEDOM, expeditionary forces are also in high demand to support the Global Partnership Station initiative, security force assistance (SFA), and other efforts to engage and build partner capacity. This high demand is due in no small part to their maritime nature. As a maritime force, naval expeditionary forces are manned, trained, equipped, and task-organized to operate from the sea with a minimal footprint. Unlike garrison forces, maritime expeditionary forces provide the United States the asymmetric advantage of enlarging or contracting our nation's military footprint particularly in areas where access may be denied, or a limited presence ashore is preferred.

Naval Special Warfare

The Naval Special Warfare (NSW) Branch (N851) is the resource sponsor for all NSW service common requirements and for the Navy Riverine Force (procurement funding only). NSW service common items include: small arms and weapons mounts, tactical communications equipment, night vision equipment, training support craft, operational stocks and planning and management support systems.

NSW Operators

Additionally, N851 serves as the senior NSW advocate/advisor on the CNO's staff and is the Office of the Chief of Naval Operations (OPNAV) coordinator/advocate for Navy programs that involve NSW/Expeditionary Warfare.

Recent examples include the procurement of the Scan Eagle Unmanned Aircraft System (in support of NSW and Commander, United States Central Command [USCENTCOM]), Special Operations Force (SOF) support attributes of future Navy ships and Navy rotary wing support to SOF. Lastly, N851 dictates Navy policy for the Premeditated Personnel Parachuting program and conduct of operations.

SEAL Mission

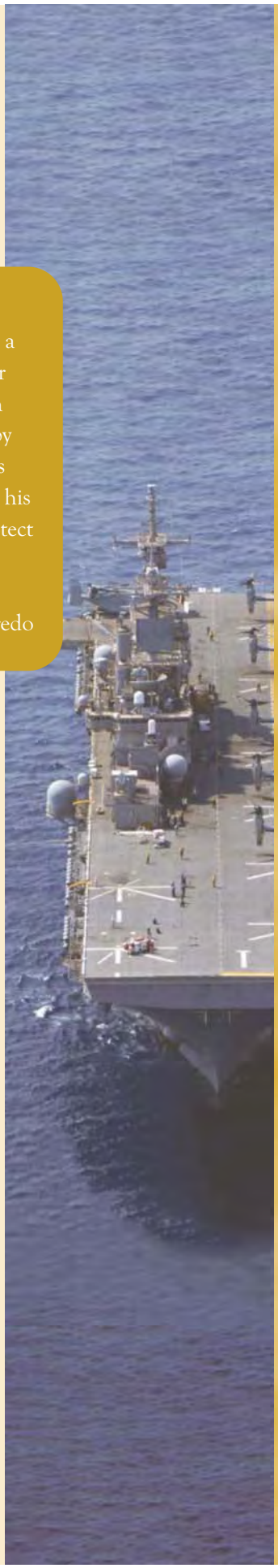
"In times of war or uncertainty there is a special breed of warrior ready to answer our Nation's call. A common man with uncommon desire to succeed. Forged by adversity, he stands alongside America's finest special operations forces to serve his country, the American people, and protect their way of life."

Excerpt from SEAL credo

NSW forces are deployed independently or in conjunction with other SOF, allied units and coalition forces in small units organized, trained, and equipped to conduct special operations in maritime and riverine environments. SEALs, the primary warfighters in NSW, take their name from the elements in and from which they operate: Sea, Air, and Land. Their clandestine methods of operation allow them to find, fix, and finish targets that larger forces cannot approach without being detected. Their ability to provide real-time intelligence and eyes on target also offers decision makers immediate and virtually unlimited options in the face of rapidly changing crises.

SEAL Warrior

NSW forces provide a highly effective counterforce option across the spectrum of hostilities from peacetime operations to limited and general war. They focus on the conduct of seven principal mission areas of special operations: counterterrorism, counter-proliferation, unconventional warfare, direct action, special reconnaissance, military information support operations, and SFA and civil affairs. Forces also conduct collateral missions such as counterdrug activities and personnel recovery. The NSW total force is comprised of approximately 8,230 personnel. There are over 6,600 active duty personnel, including 3,000 SEALs and 3,650 support technicians. The command also calls upon a reserve force of 660 personnel and a civilian force of 1,020.

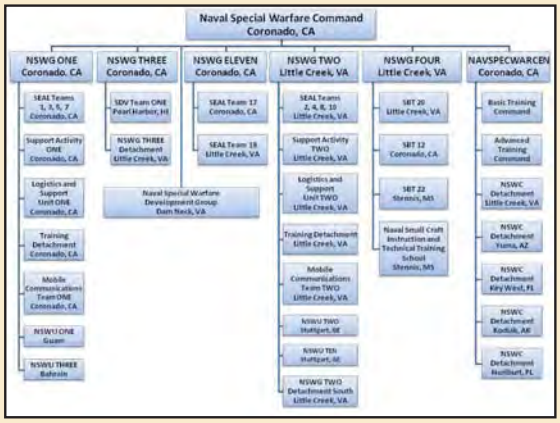


Maritime Craft Aerial Delivery System Operation

The principal resource sponsors for NSW service common and special operations-unique requirements are N851 and United States Special Operations Command (USSOCOM). Naval Special Warfare Command (NAVSPECWARCOM) is the maritime component of USSOCOM.

Naval Special Warfare Command

The mission of NAVSPECWARCOM is to organize, train, man, equip, educate, sustain, maintain combat readiness, and deploy NSW Forces to accomplish special operations missions worldwide. N85 is OPNAV's principal advocate for NAVSPECWARCOM. A diagram of the NAVSPECWARCOM organization is depicted below and descriptions of major elements are provided in the following paragraphs.



NAVSPECWARCOM Organization

The major operational components of NAVSPECWARCOM are Naval Special Warfare Groups (NSWG) ONE, THREE, and ELEVEN in San Diego, CA; and NSWGs TWO and FOUR in Norfolk, VA. The NSWG mission is to equip, support, and provide command and control elements as well as trained and ready SEALs, SEAL delivery vehicle (SDV) platoons, special boat teams (SBT), and other forces to the CCDRs.

NSWG ONE and TWO are each organized into:

- Four SEAL teams that conduct reconnaissance, direct action, unconventional warfare, SFA, and other operations in maritime or riverine environments. A SEAL team is comprised of six platoons per team, organized in three troops (formerly called task units), and two platoons per troop. In addition to the thirty-two to thirty-six personnel from the two platoons, a troop may include a three or four-person command and control element consisting of a troop commander,

troop senior enlisted advisor, communicator, and joint terminal attack controller, for a total of thirty-five to forty personnel per troop. A SEAL team is designated as a Naval Special Warfare Squadron (NSWRON) six months prior to deployment. At that time, the SEAL Team commander assumes operational control (OPCON) and conducts pre-deployment squadron interoperability training with designated SBT, explosive ordnance disposal (EOD), Navy Seabees, mobile communications detachment, tactical cryptologic support, and other support detachments as required by the anticipated mission taskings. NSWRON training, equipping, readiness assessment, and deployment is the responsibility of the NSWG. Once deployed, each NSWRON will normally support the operational requirements of two geographic CCDRs.

SEALs: Ready to Answer Our Nation's Call

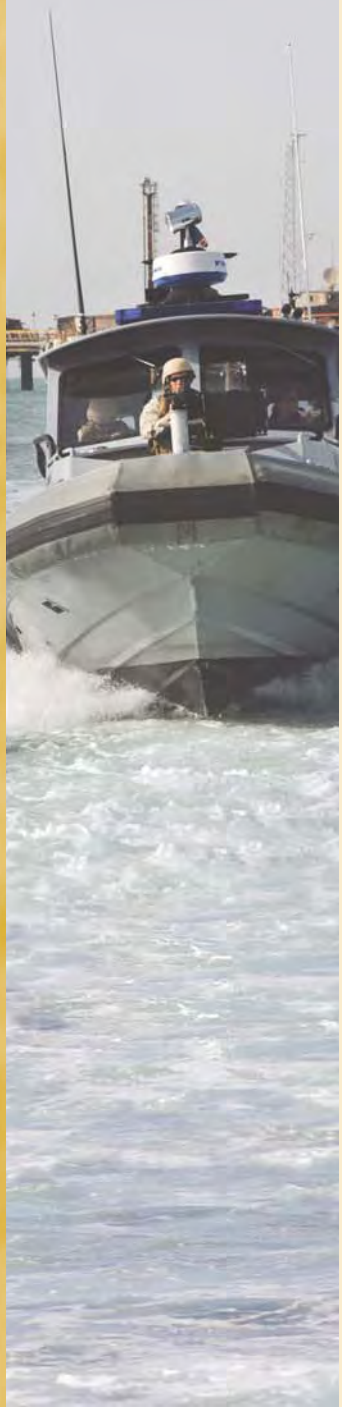
- SEAL Platoons are the largest operational elements normally employed to conduct tactical missions. With the addition of an explosive ordnance disposal technician, a platoon today contains sixteen to eighteen operators. All personnel are dive, parachute, and demolitions qualified. Platoons can destroy or sabotage enemy shipping, port and harbor facilities, bridges, railway lines, communications centers, and other lines of communication. They can infiltrate and exfiltrate selected personnel by submarine, surface vessel, aircraft, or land vehicle, and also conduct reconnaissance and surveillance in multiple environments. SEAL platoons are not equipped for sustained, direct engagements against enemy forces as they carry minimum amounts of equipment, munitions, and light armament, consisting primarily of individual weapons. Therefore, they are dependent on the theater Navy component or the joint special operations task force commander for logistics support.

Special Warfare Combatant-craft Crewman Conducting Free Fall Jump

- Naval Special Warfare Units (NSWUs) are small command and control elements located outside the continental United States responsible for naval special warfare theater planning and support for the Naval Special Warfare forces assigned. The geographic CCDR exercises combatant command authority over the NSWUs as depicted on the next page. The commander of the NSWU is the maritime component commander for the theater special

Naval Special Warfare Units and Geographic CCDRs

operations commander (TSOC). The NSWU commanding officer (CO) may be assigned to act as a commander of task-organized forces under the TSOC and/or the Navy component commander (NCC) for a specified operation, exercise or other purpose. In this case, the NSWU CO would be designated as commander of an NSW Task Force, NSW Task Group or other appropriate designation under the Joint Special Operations component commander, and/or as a Commander, Task Force (CTF) subordinate to the NCC or Maritime component commander.



NSWG ONE has OPCON and administrative control (ADCON) of SEAL Teams ONE, THREE, FIVE, and SEVEN based at the Naval Amphibious Base in Coronado, CA. Each team has six operational SEAL platoons. NSWG ONE also has ADCON of NSWU ONE and NSWU THREE. NSWG ONE units deploy as an integrated NSWRON and then are task organized into task groups upon arrival in theater. NSWG ONE acts as COMNAVSPECWARCOM's executive agent for advising on support of USCENTCOM and United States Pacific Command (USPACOM) geographic CCDRs and its forces geographically concentrate on these areas of responsibility; however, the group can deploy forces worldwide to meet any CCDR's requirements. Other organizations within NSWG ONE include:

NSW Operator with Unmanned Aerial Vehicle

- **Support Activity ONE** has the mission to organize, man, train, equip, and deploy elements to provide special operations intelligence collection, ISR and analytical capabilities. Support is normally provided by Cross Functional Troops with one or more (normally three) subordinate cross functional teams for each deploying west coast SEAL Squadron. Additionally, they provide regional support troops to provide specially trained elements in support of specific geographic CCDR requirements.
- **Logistics and Support Unit ONE and TWO** have the mission to organize, man, train, equip, and deploy elements to provide combat service support. Logistics and Support Unit ONE supports the west coast and Logistics and Support Unit TWO supports the east coast. These units' deployable combat service support troops provide each coast NSWGs - and their SEAL Teams,

SBTs, and NSWRONs contracting, supply, equipment maintenance, facilities management, military construction, hazardous materials, environmental, combat systems support, table of organic allowance, and ordnance management. The units provide range and training facility support including logistics, messing, maintenance, scheduling, and operation. Additionally, they support SEAL Team Supply, Preventative Maintenance System, Diving, Ordnance, Air Operations, First Lieutenant/Engineering, Administration, Career Counseling, Automated Information Systems, and Medical departments.

Mobile Communication Team ONE Sailors Assembling Satellite Communications

- **NSWG ONE Training Detachment** is responsible for coordinating, directing, and conducting NSWRON training and readiness evaluations.
- **Mobile Communications Detachment ONE** has the mission to organize, man, train, equip, and deploy personnel and communications equipment to operate and maintain communications for NSW forces. NSW communications include a variety of voice and data services for communicating with Joint and Fleet commands and units using man-portable, modular and tactical vehicle as well as messaging systems in high, very high, ultra high, super high, and extremely high frequency bands. Detachments are normally attached to deploying NSWRONs and provide rapidly deployable communications capabilities in austere environments.
- **NSWU ONE** has OPCON of a fluctuating number of SEAL platoons and two 11-meter rigid inflatable boat (RIB) SBT detachments. NSWU ONE reports for operational tasking to Special Operations Command, Pacific and U.S. 7th Fleet (COMSEVENTHFLT). NSWU ONE provides support to forward deployed NSWRON SEAL platoons and conducts theater planning for contingencies and exercises and for the NSW forces in the Pacific.
- **NSWU THREE** plans, coordinates, and supports the activities of NSWRON SEAL platoons and SBT detachments deployed to the USCENTCOM area of responsibility (AOR). OPCON of NSWU THREE is exercised by Commander, Naval Forces Central Command, but may be shifted to Special Operations Component, United States Central Command when operational tasking requires.

SEALs Conducting Special Patrol Insertion and Extraction (SPIE) Exercise

NSWG TWO has OPCON and ADCON of SEAL Teams TWO, FOUR, EIGHT and TEN based at the Joint Expeditionary Base Little Creek - Fort Story, VA. SEAL Team TWO is the only team with an Arctic capability and SEAL Team FOUR is the only team with a viable standing language capability, Spanish. NSWG TWO also has ADCON of NSWU TWO and TEN. NSWG TWO acts as COMNAVSPECWARCOM's executive agent for advising on support of United States European, Southern, Africa and Northern Commands (USEUCOM, USSOUTHCOM, USAFRICOM, and USNORTHCOM) geographic CCDRs and its forces geographically concentrate on these AORs. NSWG TWO has also deployed forces to the USCENTCOM AOR and worldwide to meet any CCDR's requirements. Other organizations within NSWG TWO include:

SEALs Prepared for Direct Action

- **Support Activity TWO, Logistics and Support Unit TWO, Mobile Communications Detachment TWO**, and **NSWG TWO Training Detachment** have the same missions, tasks, and responsibilities supporting east coast NSWGs, SEAL Teams, SBTs and NSWRONs as their west coast counterparts.
- **NSWU TWO** has OPCON of two SEAL platoons and one 11-meter RIB SBT detachment. NSWU TWO reports for operational tasking to Special Operations Command, Europe. It also provides operational support to NSWRON SEAL platoons and conducts theater planning for contingencies and exercises, and for the NSW forces in Europe.
- **NSWU TEN** plans, coordinates, and supports activities of NSWRON SEAL platoons and SBT detachments deployed to the USAFRICOM AOR. OPCON is exercised by USAFRICOM, via Special Operations Command, Africa when operational tasking requires.
- **NSWG TWO DET SOUTH** plans, coordinates, and supports activities of NSWRON SEAL platoons and SBT detachments deployed to the USSOUTHCOM AOR. OPCON is exercised by USSOUTHCOM via Special Operations Command, Africa when operational tasking requires.

NSWG THREE is based in Coronado, CA., and is the immediate superior to SDV Team ONE in Pearl Harbor, HI and an SDV Team detachment in Little Creek, VA. NSWG THREE is NAVSPECWARCOM's executive agent for undersea mobility. SEALs deploy from SDVs and dry-deck shelters (DDS). SDV Team ONE is a command

MK 8 Mod 1 SEAL Delivery Vehicle

of specially trained SEALs and support personnel who operate and maintain the SDV and DDS. SDVs are wet submersibles designed to conduct clandestine reconnaissance, direct actions, and passenger delivery missions. DDS deliver SDV and specially trained forces from modified ballistic missile submarines. NSWG THREE Detachment Little Creek supports east coast NSW SDV and DDS operations.

Riverine Training for Partner Nation Security Forces

NSWG FOUR is headquartered in Little Creek, VA, and is responsible for SBT TWELVE in Coronado, CA; SBT TWENTY in Little Creek, VA; and SBT TWENTY-TWO and the Naval Small Craft Instruction and Technical Training School (NAVSCIATTS) at the John C. Stennis Space Center, MS. Special Warfare Combatant-craft Crewmen (SWCC) assigned to these SBTs maintain and operate state of the art, high-performance craft. They are required to utilize a combination of specialized training in navigation, radio communications, engineering, weapons, parachuting, first aid, and tactics in the completion of their missions. Each team is unique in its location, mission, primary designated operational area, and numbers and type of craft. NAVSCIATTS provides a key capability in enhancing the nation's expanding SFA activities and is primarily responsible for teaching foreign military partners small boat seamanship, handling, maintenance, logistics, and sustainment. NSWG FOUR serves as COMNAVSPECWARCOM's executive agent for surface mobility, SWCC community management, and professional development.

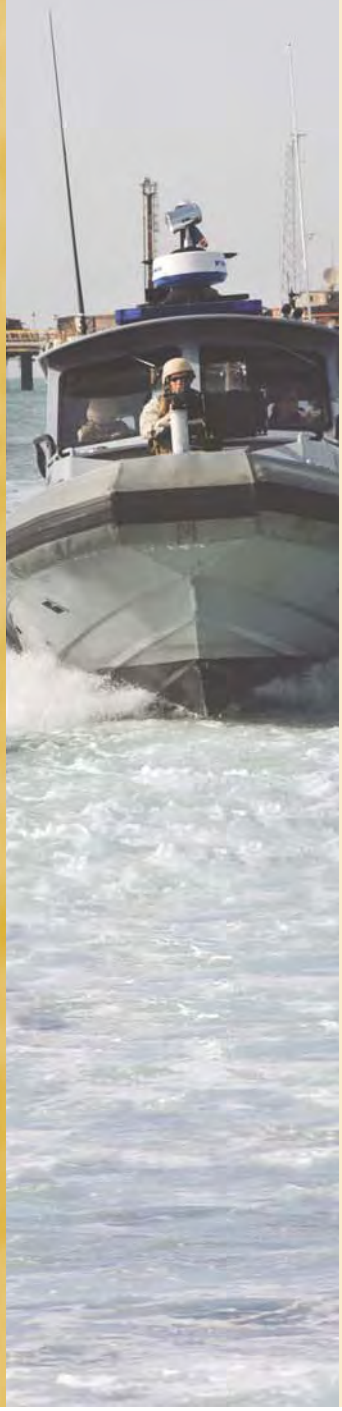
SWCC Code

"On Time, On Target, Never Quit!"

NSWG ELEVEN is headquartered in Coronado, CA and has OPCON and ADCON of SEAL teams SEVENTEEN and EIGHTEEN based in Coronado, CA and Little Creek, VA, respectively. NSWG ELEVEN is responsible for organizing, manning, training, educating, equipping, deploying and sustaining assigned NSW Reserve Component units and personnel to provide increased NSW capacity to meet CCDRs' Theater Security Cooperation Plan (TSCP) and named operations requirements. They provide NSW Reserve component special operations task force, SEAL, and SBT troops in support of NSW and Joint Special Operations Commanders worldwide. When tasked NSWG ELEVEN operational reserve units normally attach to and deploy as part of a NSWRON.

Reserve SEAL in Norway During Cold Response 2010

Naval Special Warfare Development Group, based in Dam Neck, VA, provides centralized testing, evaluation, and development of current and emerging technology applicable to NSW forces. This command also develops maritime ground and airborne tactics for naval special warfare and possible Department of Defense-wide application.



Naval Special Warfare Training

Naval Special Warfare Center, located in Coronado, CA, is the schoolhouse for much of the naval special warfare training. In addition to the SEAL and SWCC qualification courses, the Center conducts advanced special operations training for naval special warfare and other service component special operations forces' personnel.

SEAL training is one of the most extensive and intensive courses of instruction available within the military. The year-long program based in Coronado, CA, focuses on physical conditioning, small boat handling, diving physics and techniques, land warfare, weapons, demolitions, communications, reconnaissance, tactics, and other skills required of SEAL operators.

BUD/S Students Conduct Surf Passage Training

- **Basic Underwater Demolition/SEAL (BUD/S) Preparatory School, eight weeks**: In cooperation with the Naval Recruit Training Command, BUD/S Prep train and develop SEAL candidates physically for BUD/S. It focuses on core athletics tailored to SEAL training, nutrition, and running/swimming techniques.
- **BUD/S Orientation, eight weeks:** Transitions students to specific BUD/S skills, including the Obstacle Course, Log Physical Training, Inflatable Boat, Small procedures, sand running and open water swimming.
- **First Phase (basic conditioning), seven weeks:** Trains, develops, and assesses SEAL candidates in physical conditioning, water competency, teamwork, and mental tenacity.
- **Second Phase (diving), seven weeks:** Trains, develops, and qualifies SEAL candidates as competent basic combat swimmers.
- **Third Phase (land warfare), seven weeks:** Trains, develops, and qualifies SEAL candidates in basic weapons, demolition, and small unit tactics. Students also learn land navigation, patrolling techniques, rappelling, marksmanship, military explosives.

SEAL Trainee Cold Weather Training

- **SEAL Qualification Training (SQT):** Trains, develops and qualifies SEAL candidates in operationally required skills. SQT is designed to provide students with the core tactical knowledge they will need to join a SEAL platoon. It is the intermediate skills course that prepares students for the advanced training they will receive once they arrive at a SEAL Team. SQT includes weapons training, small unit tactics, land navigation, demolitions, cold weather training in Kodiak, Alaska, medical skills and maritime operations. Before graduating, students also attend Survival, Evasion, Resistance and Escape training and qualify in both static-line and freefall parachute operations. Upon completing these requirements, trainees receive their SEAL Trident, designating them as Navy SEALs. They are subsequently assigned to a SEAL Team to begin preparing for their first deployment.

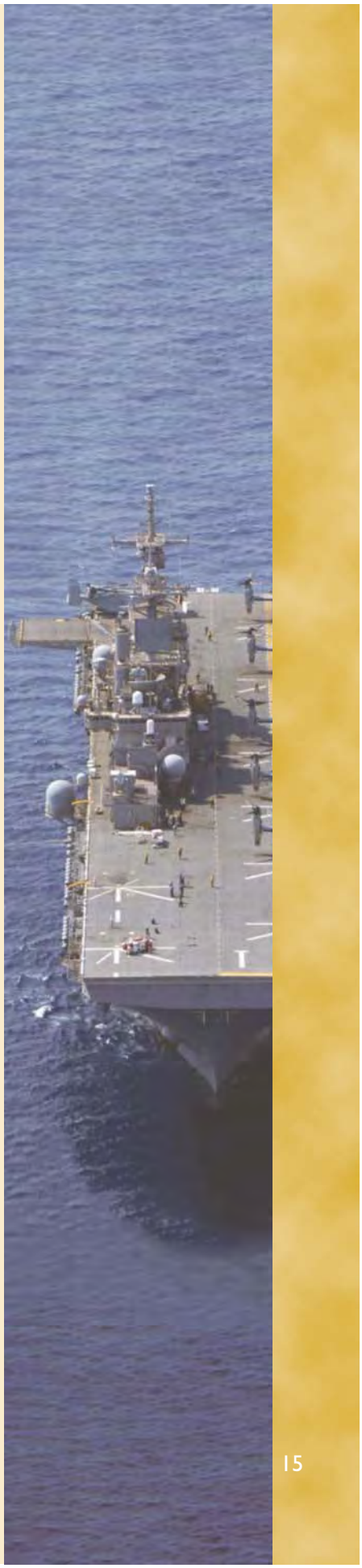
SWCC Training is tailored to prepare individual crewmen for the arduous environment and rigors these professionals will encounter while conducting NSW infiltration, exfiltration, coastal patrol, interdiction, gunfire support, ISR, tactical communications relay, and other NSW and SOF missions. SWCC training consists of:

SWCC Parachute Egress Training

- **Basic Crewman Training, five weeks**: Trains, develops and assesses SWCC candidates on fitness, basic seamanship, and basic boat handling and maintenance.
- **Crewman Qualification Training, fourteen weeks**: Trains, develops and qualifies SWCC candidates on tactics, communications, weapons, advanced seamanship, helo operations, and advanced craft maintenance.

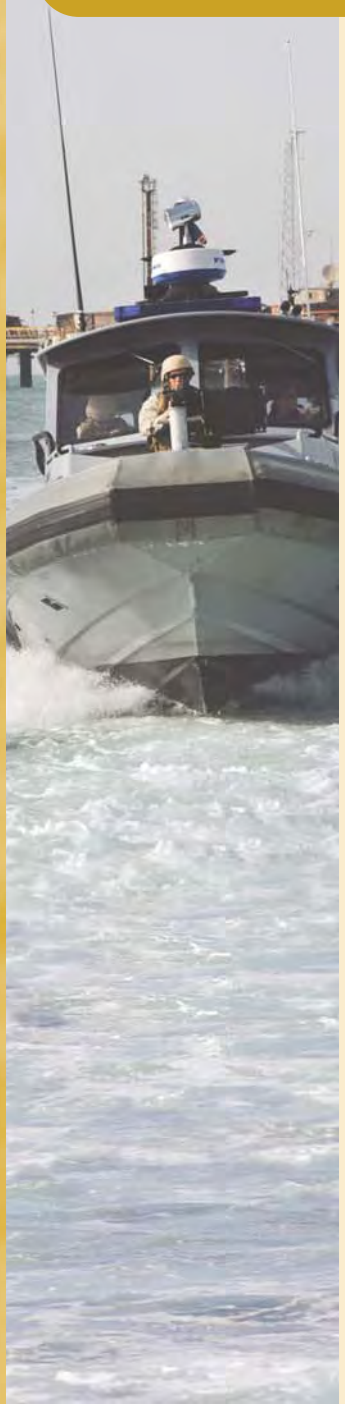
Mine Warfare

The Mine Warfare (MIW) Branch (N852) is the resource sponsor for MIW ships, mine countermeasure (MCM) combat systems, and equipment. N852 resources efforts to attain the MCM vision; and to locate, identify, and neutralize mines to assure access to the littoral, attain and maintain battlespace dominance, and project power ashore.



Critical MCM Technologies and Capabilities

- Improve detection capability
- Decrease sensor false alarm rate
- Reduce or eliminate post-mission analysis detect, classify, identify, decide time
- Automatic target recognition
- Improve neutralization time
- Improve network communications
- Achieve in-stride detect-to-engage capabilities.



The sea mine remains today, as it has throughout naval history, an exceptionally fearful, cost-effective, offensive and defensive tactical weapon. The confirmed presence, or even the perceived presence, of these asymmetric threats can impact operational maneuver of expeditionary forces by creating restricted sea areas in an effort to deny access to our forces or to channelize our forces into areas of an adversary's choosing. Used tactically, these threats can slow, stop, or reroute ships at sea; disrupt humanitarian assistance or forcible entry operations; and temporarily close ports of embarkation and debarkation.

"Field a common set of unmanned modular MCM systems employable from a variety of platforms that can quickly counter the spectrum of mines to enable assured access with minimum risk from mines"

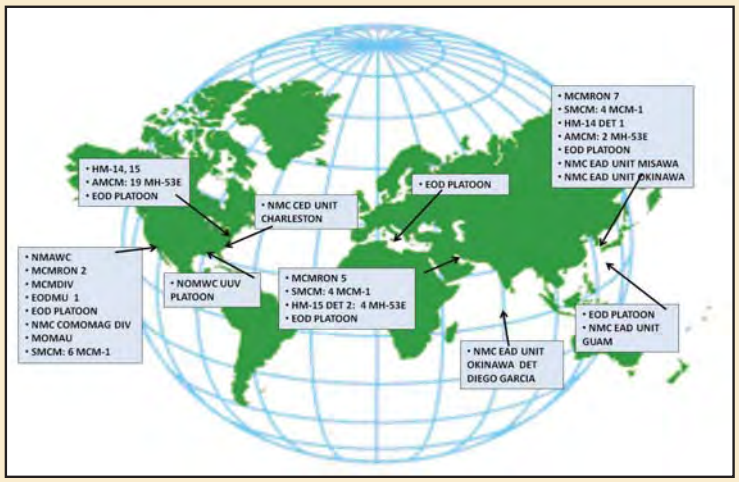
FY 2011 MCM Master Plan

The impressive lethality of the sea mine was demonstrated in combat situations numerous times over the last two decades. Even less capable militaries have demonstrated the ability to deploy sea mines. During the Tanker Wars and Operations DESERT STORM and DESERT SHIELD conducted in the '80s and '90s, USS Samuel B. Roberts (FFG 58), USS Princeton (CG 59), and the MCM command ship, USS Tripoli (LPH 10), struck mines in the open waters of the Persian Gulf. The combined damage to the ships, which totaled over $110 million, was caused by three mines with an estimated combined cost of under $20,000. Iraqi forces planted an estimated 1,300 sea mines in the Persian Gulf, ranging from simple yet deadly contact type mines designed in the early 1900s, to the most modern types of magnetic and acoustic influence mines. Mines are readily acquired from reputable and not-so-reputable vendors throughout the world, and without question, mines are likely to be among the first weapons of choice in encounters with future belligerents. Today and into the future, the United States Navy can expect to encounter a wide spectrum of mine and obstacle threats in the littorals.

Damage Sustained by USS Tripoli (LPH 10) After Striking a Mine in the Persian Gulf.

Mine Countermeasures Triad

Our nation's legacy MCM triad is a platform-centered complimentary capability that includes the surface mine countermeasures (SMCM) Avenger (MCM-1) - class ships; airborne mine countermeasures (AMCM) MH-53E Sea Dragon helicopters; and underwater mine countermeasures (UMCM) EOD divers; unmanned systems; and marine mammal systems (MMS) to detect, classify, identify, reacquire, and neutralize the mine threat. The diagram below depicts the legacy MCM triad and the global disposition of the MCM force.

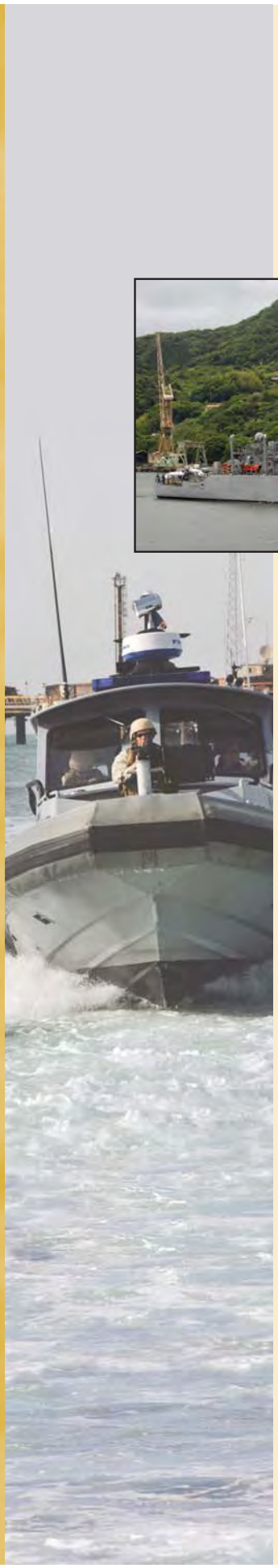


Global MIW Posture

Surface Mine Countermeasures

As recommended by the 2005 Defense Base Realignment and Closure (BRAC) Commission, in 2009 all SMCM assets previously based at Naval Station Ingleside, TX, shifted homeports to Naval Station San Diego, CA. There are fourteen **MCM-1 class ships**. Eight of the fourteen ships are manned with rotational crews and are forward deployed to support combatant commanders' theater requirements. In 2010, a Commander, Naval Surface Force, U.S. Pacific Fleet, Commander, U.S. 3rd Fleet (COMTHIRDFLT), Commander, U.S. 5th Fleet (COMFIFTHFLT), and Naval Mine and Anti-Submarine Warfare Command (NMAWC) rotation initiative was executed to put a full MIW operational staff under the command of a Navy Captain into the Bahrain Forward Deployed Naval Force (FDNF) to improve COMFIFTHFLT Task Force capability in support of USCENTCOM operation plans (OPLANs) and TSCP. This action also rotated a MCM operational staff to San Diego, CA to support COMTHIRDFLT with U.S. Northern Command Homeland Defense and CCDR Exercise and Contingency requirements. Accordingly Commander, Mine Countermeasures Squadron (COMCMRON) THREE executed a permanent duty station change

USS Champion (MCM 4) Arriving San Diego



from San Diego, CA, to Manama, Bahrain, to assume COMFIFTHFLT FDNF duties from Commander MCM Division (COMCMDIV) THREE ONE and was renamed to COMCMRON FIVE. COMCMDIV THREE ONE executed a duty station change from Manama, Bahrain, to San Diego, CA to support COMTHIRDFLT's Maritime Homeland Defense mission and COMSECOND-FLT, COMFOURTHFLT, and COMSIXTHFLT AORs as required.

USS Defender (MCM 2) Arriving Sasebo

A similar action occurred to support USPACOM and enhance COMSEVENTHFLT MCM capability. COMCMRON ONE executed a permanent duty station change from San Diego, CA, to Sasebo, Japan to assume COMSEVENTHFLT FDNF duties from COMCMDIV ELEVEN and was renamed to COMCMRON SEVEN. COMCMDIV ELEVEN was disestablished in October 2010.

Additionally, MH-53E detachments and EOD MCM detachments are forward deployed to the 5th and the 7th Fleet to support UMCM and AMCM operations in the Arabian Gulf and Western Pacific AOR, respectively.

Explosive Charge in Mine Neutralization System

The four ships of MCMRON SEVEN are homeported in Sasebo, Japan, and the four ships of MCMRON FIVE are in Manama, Bahrain, with the remaining six ships homeported in San Diego, CA.

The MCM-1 class ships are fitted with a variety of systems to conduct the following MCM operations:

- Minehunting to search, detect, and classify moored, close-tethered, and proud bottom mines using the variable-depth mine detection and classification SQQ-32 sonar.
- Mine neutralization employing the SLQ-48(V) mine neutralization system to reacquire a previously detected target; to classify and identify it using a low light level television; and, if required, to emplace an explosive charge next to a bottom mine or attach a charge on the cable near a moored mine to "blow in place" or cut the mooring cable to allow the mine to rise to the surface, where it is rendered safe or destroyed.
- Mechanical near surface moored minesweeping using the SLQ-38 cable cutting sweep rigged to either, or both, sides of the MCM ship.
- Influence minesweeping using the Mk 5A straight-tail magnetic sweep to counter magnetic influence mines, or an acoustic sweeping device to counter acoustic influence mines.

- Combination sweeping (mechanical-acoustic and magnetic-acoustic).

FLO/FLO Ship Transporting MCM

While effective, MCM ships do have operational limitations. Foremost, they must conduct reconnaissance, clearance, and neutralization operations by placing the man in the minefield. Additionally, MCM ships based in continental United States (CONUS) often require heavy lift Float-On/Float-Off (FLO/FLO) ships and a lengthy timeline to transport them to theater. There are also water depth limitations that decrease the effectiveness of the dedicated SMCM force inside of the 40-foot depth contour, the beginning of the very shallow water (VSW) region.

MCM ships are an aging force with some systems approaching obsolescence. Accordingly, a modernization program to sustain the MCMs to their thirty-year expected service life is underway. The last ship of the MCM-1 class is expected to be decommissioned in 2024 when it reaches the thirty-year expected service life. SMCM capabilities and modernization plans are further discussed in **Annex B**.

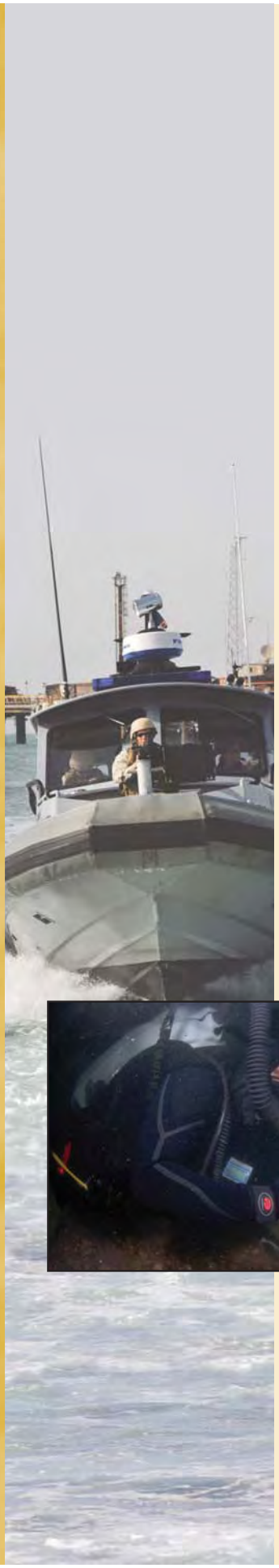
Airborne Mine Countermeasures

The first MH-53E entered operational service on April 1, 1986. It is the largest, most powerful, and most complex helicopter outside of the former Soviet Union. As a result of recommendations from the 2005 BRAC, all AMCM helicopter assets are now based at Helicopter Mine Countermeasures Squadron (HM) FOURTEEN and FIFTEEN in Norfolk, VA. There are twenty-nine MH-53E helicopters. Five are training assets and the remaining twenty-four are assigned to HM-14, HM-15, a forward-deployed detachment in Bahrain supporting 5th Fleet AMCM operations, and a second detachment to the 7th Fleet to support operations in the Western Pacific AOR.

MH-53E is configured with automatic flight controls and engine anti-icing system; and is the only Navy helicopter capable of air-to-air refueling giving it an all-weather and long range capability. The MH-53E aircraft can be airlifted anywhere in the world within 72 hours, and is fitted with a variety of systems to conduct the following MCM operations:

MH-53E with SMCM

- Minehunting using a towed AN/AQS-24A multi-beam side-scan sonar with laser line scan to search, detect, and classify moored, close-tethered , or bottom mines.



- Magnetic influence minesweeping using a towed hydrofoil sled rigged with an extended buoyant cable and electrode array (Mk 105 Magnetic Sweep); or acoustic influence minesweeping with an acoustic sweep device(s) (Mk 104 Acoustic Sweep or Mk 2(G) Acoustic Sweep (rattle bars)).
- Magnetic-acoustic influence minesweeping with the Mk 105 and the Mk 104 Acoustic Sweep (Mk 106 Combination Sweep); or the Mk105 and Mk2(G) Acoustic Sweep.
- Moored minesweeping using rugged tow wire with port and starboard wire sweeps (Mk 103 Mechanical Sweep) armed with explosive cutters to target shallow water moored mines.

MH-53E towing Mk 105 Sled Conducts Training with USS Saipan (LHA 2)

AMCM MH-53E is a highly capable helicopter, but due to its size the MH-53E is limited in the types of ships that can support its operations. Normally, an MH-53E requires a big deck amphibious ship to support it. Like the MCM ships, the MH-53Es are an aging force too; accordingly, a Fatigue Life Extension program is underway to enable the MH-53E fleet to remain operational until about 2025.

Underwater Mine Countermeasures

Explosive Ordnance Disposal Mobile Units (EODMUs) report administratively to Explosive Ordnance Disposal Group ONE or TWO, under their Type Commander, Navy Expeditionary Combat Command (NECC). All Navy EODMU forces are dive qualified to provide combat-ready forces capable of rapid worldwide deployment in support of national interests. A key mission for these units is the conduct of underwater mine and obstacle reconnaissance and clearance operations from over the horizon to the seaward edge of the surf zone (SZ) and in confined areas including ports and harbors. EOD MCM detachments operate from the MCM-1 class ships, other platforms, and ashore to reacquire, identify, and neutralize mines in deep waters into about the 40-foot depth contour. They also support combatant commanders' anti-terrorism force protection requirements performing pre-arrival dives to conduct pier inspections.

EOD UMCM Operations

EODMU ONE, formerly Naval Special Clearance Team ONE, possesses the nation's only UMCM capabilities in the VSW region, the 40-foot depth contour to the beginning of the SZ at about the 10-foot depth. Like other EODMUs, EODMU is also organized for deeper water UMCM and other EOD missions

as well. To conduct the VSW reconnaissance and clearance missions, the EODMU ONE VSW Task Unit is organized with a:

- Combatant craft company to insert and extract forces from over the horizon to proximity of the VSW zone, conduct diversionary operations, and provide force protection
- Unmanned systems company to conduct intelligence preparation of the environment, minehunting, and battlespace situational awareness enhancement using the Swordfish unmanned underwater vehicle (UUV) and various unmanned aerial vehicles (UAVs)

EOD Marine Mammal Training

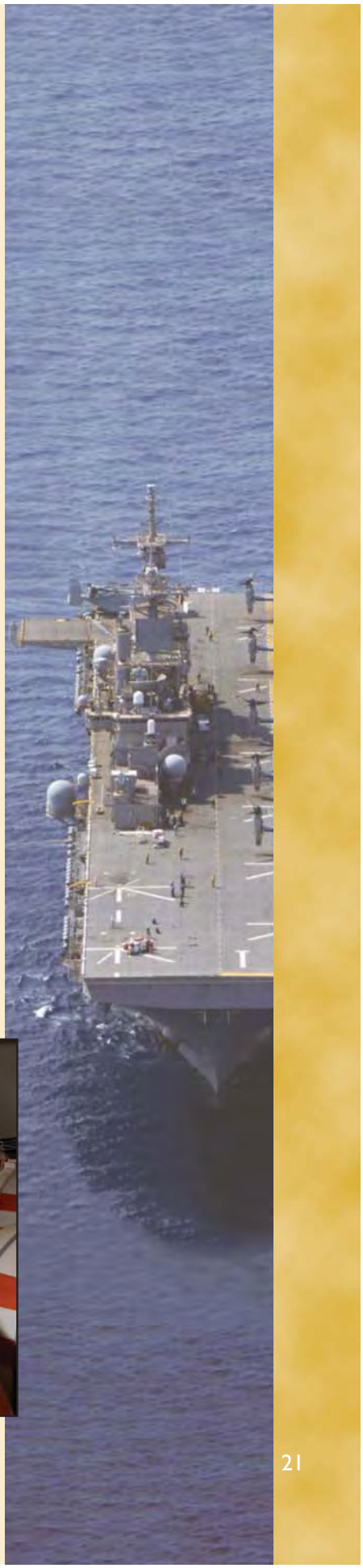
- Marine mammal company to locate and neutralize deep and shallow water moored and bottom mines employing the following specially-trained bottlenose dolphin marine mammal systems:
  - Mk 4: Detects and neutralizes close tethered moored mines near the bottom in deep water zone
  - Mk 7: Detects, locates, marks or neutralizes moored, proud, and buried mines in the shallow water and VSW zones
  - Mk 8: Low visible minehunting operations to detect, locate, mark or neutralize proud and buried mines in the VSW zone.
- Dive company to reacquire and neutralize mines marked by unmanned systems or MMS in the VSW zone.

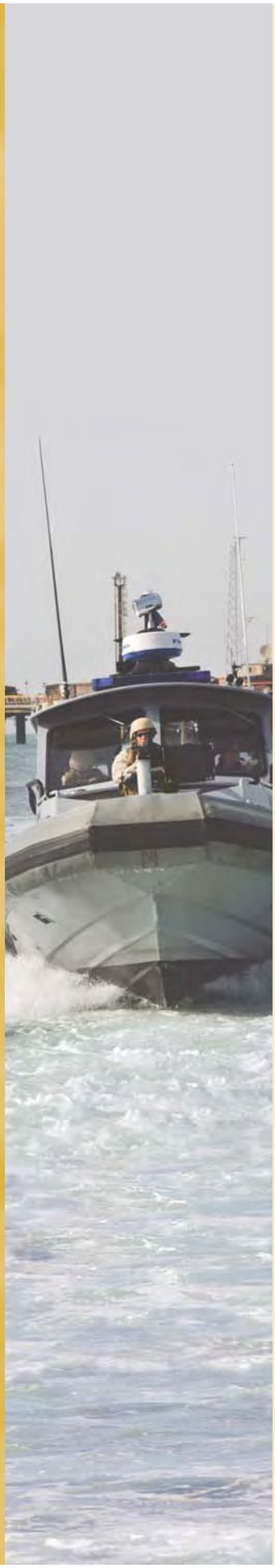
Reflecting the priority for counter-improvised explosive device (IED) and more conventional EOD ground combat missions in Operations IRAQI FREEDOM and ENDURING FREEDOM, the VSWMCM capacity of EODMU ONE has been impacted by deployments of EODMU ONE EOD companies in support of CCDR requirements. Additional information on UMCM systems is provided in **Annex B**.

Mining

To fully support power projection and battlespace dominance, the Navy must sustain a viable mining capability. In the event of war, U.S. policy will be to conduct offensive, defensive, and protective mining as necessary. The purpose is to reduce the enemy submarine and surface combatant threat by destruction and disruption of their operations, to interdict the enemy sea lines of communications and designated ports in order to neutralize or destroy combatant and merchant ships, and to defend U.S. and allied shipping. Accordingly, U.S. naval forces must develop, procure, maintain, and deploy a modern family

MK 6 Training Mines





of sea mines optimized for potential future military encounters associated with expeditionary warfare operations in littoral regions. Equally important, a comprehensive understanding of potential adversarys' sea mines is required to successfully counter them. Foreign sea mine design and development technologies must be continuously exploited to optimize our MCM capabilities.

The Navy's submarine, surface, air, and expeditionary warfare communities each have a requirement for and an interest in establishing a viable offensive and/or defensive sea mining capability. The United States Air Force also plays a key role. While submarines offer the best capability to clandestinely and precisely plant mines, and surface ships can provide high volume mine deliveries, aircraft offer the greatest potential to quickly lay mines in a variety of areas.

Quickstrike Family of Mines

Quickstrike mines include the Mk 65, a purpose-built thin-wall 2,300-pound mine, and two mines converted from bombs, the Mk 62 500-pound and Mk 63 1,000-pound bottom mines. Quickstrike mines use magnetic/seismic/pressure target detection devices. Because the Mk 62/63 mines are bomb-conversion weapons, aircraft carrier air wings have the flexibility to conduct mining operations without the need to carry mines as additional ordnance. Trained Navy and civilian professionals assemble and prepare these mines for training, exercises, and operational employment.

Mk65 Quickstrike Mine

Submarine Launched Mobile Mine

The Mark 67 submarine launched mobile mine weighs approximately 1,790 pounds and is a self-propelled bottom mine that can be covertly placed from safe standoff distances. Its target detection device uses magnetic and seismic sensors to detect stimuli generated by enemy vessels. The mine's purpose is to restrict ship and submarine traffic in an operational area.

Mine Countermeasures Targets

The Versatile Exercise Mine System (VEMS) is an instrumented MCM target that can emulate threat mine performance. There are two variants of the system; the Mk 74 is cylindrical shaped and the Mk 75 is shaped like a truncated cone emulating a stealth shallow water mine. Both VEMS variants utilize a programmable sensor suite and detection system enabling Fleet users and engineering analysis activities to assess the effectiveness of minesweeping operations.

Mine Warfare Training and Technical Support

Mine Warfare Training Center Point Loma

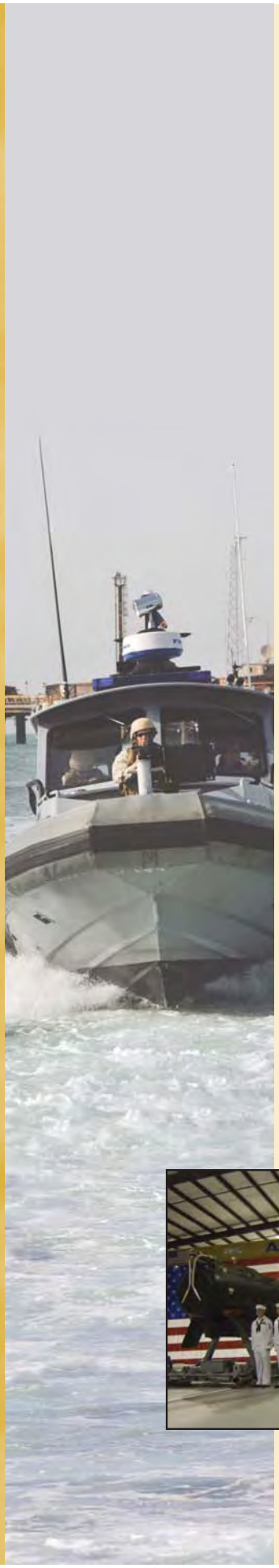
The **Mine Warfare Training Center** relocated to San Diego, CA in 2009 following the recommendations of the 2005 BRAC. This center is the Navy's single instructional site for providing tactical and hands-on training in MIW. The school has trained students from the United States and thirty-five other nations in its international training program providing full spectrum MIW tactical, doctrinal, and technical training while promoting the "mainstreaming" of MIW throughout our Navy. It is also available on-line to train the mine force worldwide and to support virtually anyone requiring its information, products, and services.

NSWC-PCD Technicians with AQS-20A Sonar

Naval Surface Warfare Center, Panama City Division, located in Panama City, FL, is recognized as the world leader in research, engineering, and test facilities dedicated to mine warfare, amphibious warfare, special warfare, and diving/life support. This synergism of capabilities, experience, knowledge, facilities, and missions create an extraordinary environment in which to develop requirements, system hardware and software, and tactics. Its strategic location on the Gulf of Mexico offers a local test environment that closely duplicates many of the areas of interest most important to naval missions today.

NOMWC Personnel Deploying a UUV

Established in October 2007, a key responsibility of the **Naval Oceanography Mine Warfare Center** (NOMWC) is the test and evaluation of UUVs in support of MIW. NOMWC detachments operate in the shallow water regime (200-40 ft depth) and in confined waterspace ports, harbors, and channels to provide manning for UUV platoon and environmental MIW teams, embedded components, and MIW reachback cell.



Established in 2006, the **Navy Munitions Command** (NMC) is headquartered in Yorktown, VA and aligns all ashore ordnance support operations in the United States and overseas to standardize ashore ordnance support; consolidate resource requirements; and serve as the advocate for ordnance funding requirements. NMC is comprised of four divisions: Commander, Mobile Mine Assembly Group (COMOMAG) Division; CONUS East Division (CED); CONUS West Division; and East Asia Division (EAD). Elements that support MIW are located around the world, as shown on page 17, and are provided by specific units, detachments, and Mobile Mine Assembly Units (MOMAUs) within NMC's four divisions. Their primary MIW-related responsibilities are to:

- When directed, assemble and complete final preparations on prepositioned war reserve mines to support strategic, operational, or tactical missions as required by CCDRs and Navy Fleet to meet National Defense Strategy requirements
- To maintain the Preposition War Reserve Stock service mine stockpile of underwater mines as directed by the Navy component commander in support of CCDRs' OPLANs
- To provide exercise and training mines and material to Allied, Joint, and naval forces.

Mine Warfare in the Future

Mine warfare, specifically MCM, is in a period of transition. The goal of this transition is to deliver a seamless more efficient mine countermeasures capability from deep water through the beach exit to quickly counter all mine and obstacle types to assure access for our forces. The additional investment in the evolution of unmanned vehicles with advanced sensors and the improved processing of sensor data and the subsequent fusion of that data are essential to reducing MCM timelines, removing Sailors and ships from the minefield, and minimizing manning requirements. The objective of future MCM technology investment is to integrate mine detection, classification, identification, and neutralization devices to enable a seamless capability to identify, localize, and eliminate the mine threat. An important aspect in the continued development of UUVs and sensors

Goals

- Accelerate the detect-to-engage timeline
- Remove the Sailor, Marine, and Mammals from the minefield.

MCM Mission Package Rollout

is the ability to precisely detect, localize, and identify mine-like contacts in a single pass while minimizing false contacts. Navy's MCM systems' collective capabilities must operate in an integrated and complementary manner, while fully exploiting our advantages in intelligence preparation of the operational environment. Collectively, these complementary future MCM systems need to address the full MCM detect-to-neutralize spectrum from deep water through the beach exit against the full mine and obstacle threat spectrum. Ultimately, our MCM capabilities will shift from the legacy dedicated platform-centered mine countermeasures force to a family of distributed and netted deployable organic mine countermeasures (OMCM) systems, modularized for employment from the Littoral Combat Ship (LCS, discussed below) or other suitable host platforms. Many of the OMCM systems will be carried as payloads on unmanned platforms embarked in the LCS. The MCM mission package (MP) is comprised of OMCM systems with support equipment; containers; interfaces; an MCM crew detachment (MCM MP DET) and aircraft. Modularity will expedite configuring the LCS or host platform for MIW missions. MCM MPs will be forward deployed; accelerate the detect-to-engage timeline; and, most importantly, will take the man out of the minefield.

Mission Package Aircraft

The aircraft in the MCM MP are the MH-60S Seahawk helicopter and the Fire Scout Vertical Takeoff and Landing Tactical Unmanned Aerial Vehicle (VTUAV).

MH-60S with AQS-20A

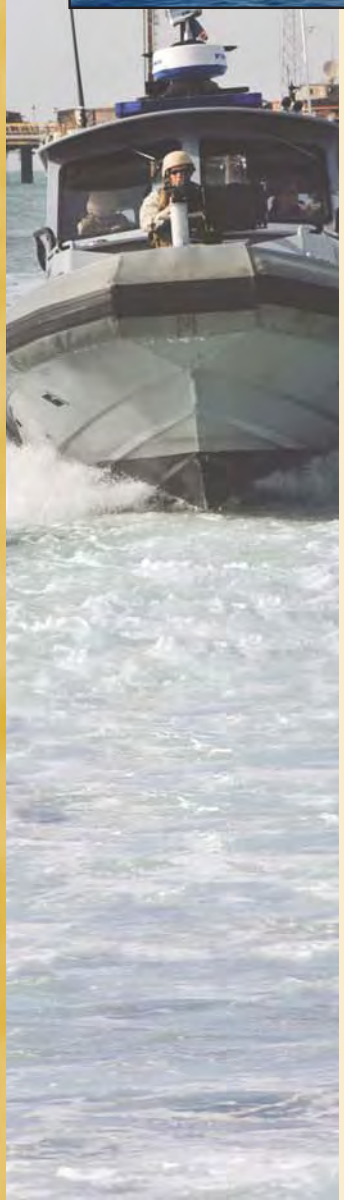
The MH-60S will ultimately replace the MH-53E as the primary AMCM aircraft platform. The intent of the U.S. Navy Helicopter Master Plan is to downsize from six helicopter types/models/series to only two, both of which are variants of the proven Sikorsky H-60 helicopter airframes which has been widely fielded. The two variants have many commonalities including a digital glass cockpit. Accordingly, the follow-on AMCM helicopter to the MH-53E will be the MH-60S Seahawk. When fitted with the airborne mine countermeasures mission kit, the MH-60S will begin the transformation from a dedicated to an organic airborne mine countermeasures (OAMCM) force. Seahawk OAMCM helicopters are planned to be organized in nine squadrons, consisting of two fleet replacement and nine Expeditionary Helicopter Sea Combat Squadrons (HSC (EXP)) located in San Diego/Norfolk/ Japan/Guam (4/3/1/1). The MH-60S will support OAMCM operations using advanced sensor and weapons packages to provide detection, localization, and neutralization of mine threats. The OAMCM systems destined for the MH-60S are:

- AN/AQS-20A, Minehunting Sonar
- AN/ASQ 235, Airborne Mine Neutralization System (AMNS)

- AN/AES-1, Airborne Laser Mine Detection System (ALMDS)
- AN/AWS-2, Rapid Airborne Mine Clearance System (RAMICS)
- AN/ALQ-220, Organic Airborne and Surface Influence Sweep (OASIS)

The Fire Scout VTUAV will be reconfigurable depending upon the MP type. In the MCM MP, the Fire Scout will carry the Coastal Battlefield Reconnaissance and Analysis (COBRA) payload to support minefield and mineline reconnaissance, detection, localization.

Fire Scout in Flight

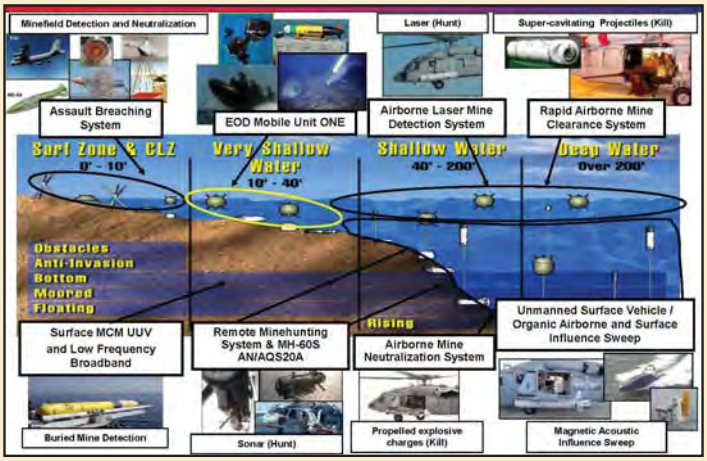


Organic Mine Countermeasures

OMCM is the U.S. Navy's response to address the nation's future MCM capability and capacity requirements for operations throughout the water column. Technology developments in advanced sensors; manned and unmanned sensor platforms; processing; tethered and untethered neutralizers; and targeting algorithms have provided, or are anticipated to provide, capabilities that are fast, light, agile, adaptable, precise, and modular - and that ultimately will remove the man and the marine mammals from the minefield. Future MCM sensors and weapon systems include:

- AN/AQS-20A Minehunting Sonar
- AMNS
- ALMDS
- RAMICS
- OASIS
- AN/WLD-1, Remote Minehunting System (RMS)
- Unmanned Surface Vessel (USV) with Unmanned Surface Sweep System (US3)
- COBRA
- Surface Mine Countermeasures Unmanned Underwater Vehicle (SMCM UUV) with Low Frequency Broad Band (LFBB) Sonar

These systems are employed in the water column as shown below.



Future MCM Systems and Waterspace

Assault Breaching Systems

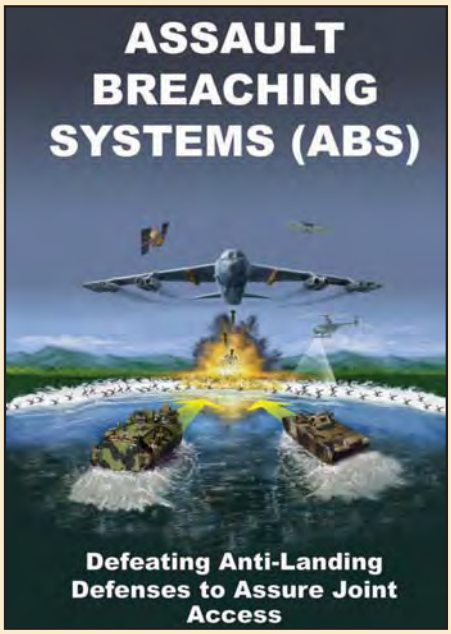
Fire Scout Configured with COBRA

To address MCM in the SZ, the highly dynamic region from the 10-foot water depth to the high water mark; on the beach; and inland to the beach exit, Assault Breaching Systems (ABS) are in development. The components which comprise ABS are:

- Intelligence, surveillance, reconnaissance , and targeting (ISRT)
- Command and control (C2)
- Countermine counter-obstacle (CMCO) munitions
- Precision navigation and marking (PN&M)

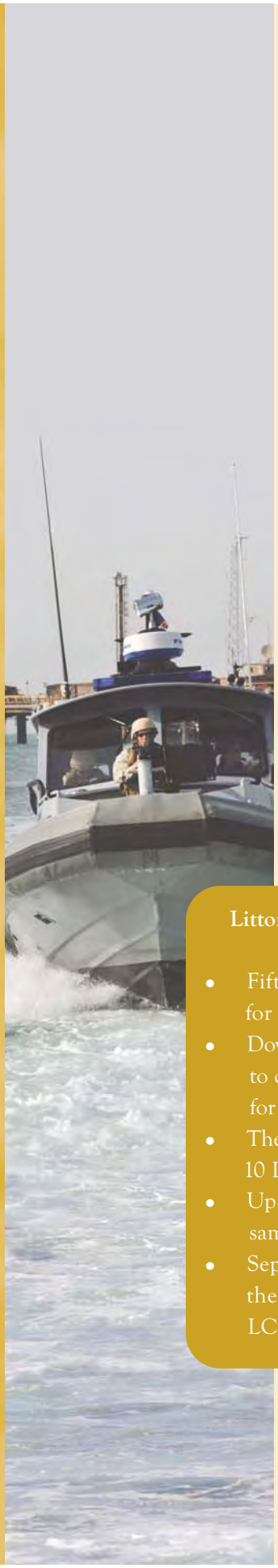
Breaching operations to neutralize the threat are conducted with the precision-guided CMCO munitions delivered by Air Force bombers or Navy tactical aircraft.

Assault breaching is a preplanned fire support mission that is coordinated with the landing force maneuver ashore and other D-day support fires. It is a deliberate breach designed to overcome antilanding defenses, mines, and obstacles located in the SZ, the 10-foot depth contour to the high water mark, and on the beach to the beach exit. It is characterized by thorough reconnaissance and detailed planning. It is employed in support of Marine Expeditionary Brigade (MEB) size and larger amphibious assaults.



Assault Breaching Systems Brochure

Assault breaching tactics, techniques, and procedures are contained in NTTP 3-15.24, *Mine Countermeasures (MCM) in Support of Amphibious Operations*. Assault breaching requires significant quantities of precision guided munitions. Air Force bombers are the preferred delivery platform because of their larger payload capability (twelve to twenty-four Joint Direct Attack Munition [JDAM]) when compared to Navy tactical aircraft (four). A Memorandum of Agreement exists between the Navy and Air Force allowing Air Force bombers to deliver the munitions.



Littoral Combat Ship

The LCS is a small, fast, relatively inexpensive surface combatant designed to be reconfigurable with modular "plug-and-fight" MPs. There are two distinct and unique LCS designs - both are fully compatible with the modular LCS MPs due to common interface specifications; both possess similar capabilities and characteristics; and both have been determined by the Navy to meet Key Performance Parameters. The two designs are:

LCS Conducting Underway Replenishment

- Steel semi-planing monohull
- Aluminum trimaran hull.

USS Freedom (LCS 1) the first ship of the steel semi-planing monohull design was commissioned in 2008, and USS Independence (LCS 2) the first ship of the aluminum trimaran hull design was commissioned in 2010. Freedom completed a successful maiden deployment to the USSOUTHCOM area of responsibility and U.S. 4th and 3rd Fleets in April 2010 with a tailored surface warfare (SUW) mission package configuration. Independence has been designated as the primary platform for MCM MP Initial Operational Test and Evaluation (IOT&E).

LCS expands the battle space by complementing our established and proven blue water capability. LCS fills warfighting gaps in MCM, antisubmarine warfare, and SUW to counter anti-access threats and maintain dominance in the littorals and strategic choke points around the world. The concept of operations and design specifications for LCS were developed to meet these gaps with focused mission packages that deploy manned and unmanned vehicles to execute a variety of missions. LCS' speed, agility, shallow draft, payload capacity, reconfigurable mission spaces, and mission package capabilities combined with its core seaframe weapons and sensors, make it an ideal platform for engaging in Irregular Warfare and Maritime Security Operations. The LCS' shallow draft permits coastal operations and entry into ports not accessible to larger surface combatants. The LCS employs automation to achieve a reduced core crew of forty sailors. Thirty-five additional sailors are required for the mission package and aviation detachment, for a total crew of seventy-five sailors.

Littoral Combat Ship Acquisition and Procurement

- Fifty-five seaframes planned for procurement
- Down select decision in FY 2011 to determine the single design for all the remaining ships
- The winning shipyard will build 10 LCS commencing in FY 2011
- Up to five additional LCS of the same design from a 2nd shipyard
- Separate competition between the two shipyards for future LCS contracts.

Summary

When the OMCM systems and ABS; the MCM MPs; and the LCS platforms have completed testing, evaluation, and are assessed as more capable than the legacy systems they will replace - when they are ready and fielded in sufficient numbers - then the nation's MCM capability will truly be enabled to transform to confront future mine warfare challenges.

Amphibious Warfare

"The capabilities which allow an amphibious task force to provide globally distributed presence and rapid crisis response are the same capabilities that allow them to overcome limited or damaged local infrastructure during humanitarian assistance and disaster response (HA/DR) missions and when aggregated, assure access through the delivery and support of an amphibious expeditionary landing force on a hostile shore."
NOC 2010

The Amphibious Warfare Branch (N853) is the resource sponsor for amphibious ships and oversees the development and acquisition of the ships and craft required to transport naval expeditionary forces to overseas conflict and crisis areas; sustain them indefinitely once there; and to provide them with force protection from a range of threats, both conventional and asymmetric.

The foundation of the nation's amphibious warfare capabilities is the Navy-Marine Corps team. This amphibious warfare capability is routinely employed throughout the world as an Amphibious Ready Group (ARG)/Marine Expeditionary Unit (MEU) rotational amphibious force deployment package. In March 2009, following a Navy/Marine Corps review of options for restructuring and deploying amphibious forces, it was agreed to adopt an ARG/MEU construct as described here, "The nominal ARG/MEU baseline will consist of an Amphibious Squadron (PHIBRON), (1) LHA/D, (1) LPD, (1) LSD, embarked naval support elements and an embarked MEU. The ARG/MEU will be led by PHIBRON and MEU commanders." Prior to this decision and since the inception of the Expeditionary Strike Group (ESG) construct in 2001, the ESG was the baseline for deploying amphibious forces.


USS Mesa Verde (LPD 19) Transiting the Suez Canal

The ARG/MEU will routinely deploy without organic surface combatants, submarine(s), or an embarked flag/general officer-led command element as had occurred with the ESG construct prior to the 2009 decision. Components comprising the nominal ARG/MEU are sourced from a number of different Navy and Marine Corps commands, organizations, and units to develop the single cohesive ARG/MEU team including those listed in the following paragraphs.

Amphibious Squadron

There are seven deploying amphibious squadrons or PHIBRONs manned, trained, and certified to plan, coordinate, and execute amphibious missions and, depending on the mission requirements, surface combatant operations such as naval surface fire support coordination and visit, board, search, and seizure (VBSS). Commanded by a Navy Captain, a PHIBRON provides the command and control organization that ensures troops, equipment, and supplies are landed on time, in the right location, and in the formations required by the landing force concept of operations. Elements attached to the PHIBRON staff for the ARG/MEU deployment are detachments from the Tactical Air Control Group to support airspace control and coordination; an embarked Fleet Surgical Team (FST) providing a level II medical facility, and detachments from the Naval Beach Group.

Amphibious Squadrons

Norfolk, VA:
- COMPHIBRON FOUR
- COMPHIBRON SIX
- COMPHIBRON EIGHT

San Diego, CA:
- COMPHIBRON ONE
- COMPHIBRON THREE
- COMPHIBRON FIVE

Sasebo, Japan:
- COMPHIBRON ELEVEN

Naval Beach Groups

COMNAVBEACHGRU ONE
Coronado, CA:
- Assault Craft Unit FIVE
- Amphibious Construction Battalion ONE
- Assault Craft Unit ONE
- Beachmaster Unit ONE

COMNAVBEACHGRU TWO
Norfolk, VA:
- Assault Craft Unit FOUR
- Amphibious Construction Battalion TWO
- Assault Craft Unit TWO
- Beachmaster Unit TWO

Naval Beach Group

Naval Beach Groups (NBG) provide the ARG/MEU with landing craft, lighterage, beach control, bulk liquid transfer, and camp support to support amphibious ship-to-shore movement and beach operations. They also provide the ship-to-shore assets and personnel for Joint Logistics Over-the-Shore (JLOTS) operations. The NBGs are also key providers of Foreign Humanitarian Assistance and Disaster Relief capabilities in CONUS and worldwide. These personnel and assets are drawn from the CNBG staff and subordinate commands described below.

- **Assault Craft Unit (Displacement Vessel)**

The Assault Craft Unit Displacement Vessel (ACU (DV)) is a permanently commissioned naval command, subordinate to the CNBG, with the displacement landing craft and crews necessary to support amphibious operations. ACU TWO on the East coast and ACU ONE on the West coast provide landing craft, utility (LCU) and landing craft, mechanized (LCM) in support of ship-to-shore operations, general offload, and security as needed in JLOTS and maritime prepositioning force (MPF) operations. ACU ONE also has FDNF forces in Sasebo, JA.

- **Assault Craft Unit (Air Cushion Vessel)**

This ACU is a permanently commissioned naval command, subordinate to the CNBG, with the landing craft, air cushion (LCAC) and crews necessary to support high-speed amphibious operations. ACU FOUR on the East coast and its partner command on the West Coast, ACU FIVE, provide LCAC in support of ship-to-shore operations, general offload, or other operations. ACU FIVE also has forces in the FDNF.

LCAC Touching Down During Dawn Blitz 2010

- **Beachmaster Unit**

The Beachmaster Unit (BMU) is a commissioned naval unit of the NBG designed to provide the Beach Party Team to the Landing Force Support Party. BMU ONE and BMU TWO on the West and East coast, respectively, controls the landing and movement of troops, equipment, and supplies across the beach, salvage operations, and the evacuation of casualties and enemy prisoners of war. BMU ONE also has forces in FDNF.

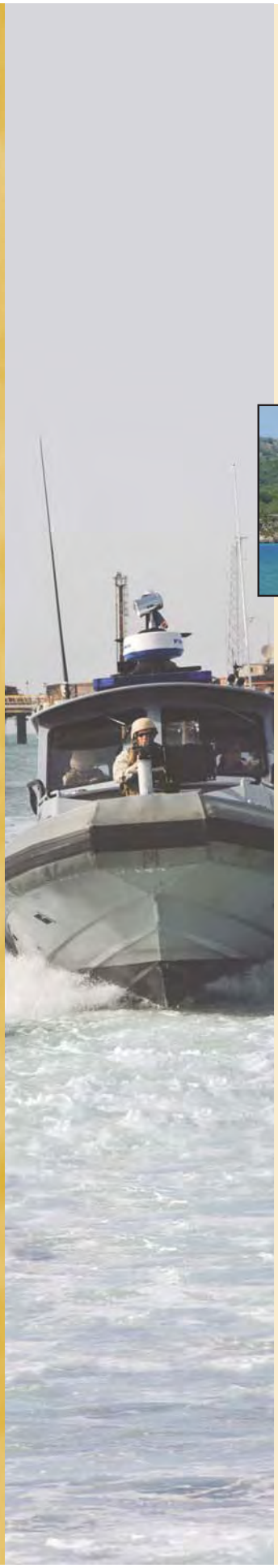
- **Amphibious Construction Battalion**

The Amphibious Construction Battalion (PHIBCB) is a permanently commissioned naval unit subordinate to the CNBG. The PHIBCBs are Naval Construction Force units that operate the Improved Navy Lighterage System (INLS), assault bulk water and fuel systems, and civil engineering support equipment to provide in-stream and pierside offload of a Maritime Prepositioning Ship Squadron (MPSRON), other Military Sealift Command (MSC) vessels, and/or Army cargo vessels. PHIBCBs also provide and construct the Elevated Causeway Section (Modular) (ELCAS(M)). PHIBCBs provide and construct up to 1200 person tent camps for the NBG and associated commands during MPF and JLOTS operations, and also have a limited construction capability for beach improvements and egress routes. PHIBCB ONE and TWO provide the following capabilities in support of MPF offload and JLOTS operations:

PHIBCB TWO Conducting INLS Operations

- MPF Offload is designed to support a MEB with the assets carried by a single MPSRON. PHIBCBs operate and employ the following systems (carried by MPSRON assets) in support of an MPF offload:

  - INLS Causeway Ferries
  - Warping Tugs
  - Roll-On/Roll-Off Discharge Facility (RRDF)



- Amphibious Bulk Liquid Transfer System (ABLTS) designed for rapid deployment of fuel and water systems, capable of pumping 720,000 gallons of product ashore per day.

- JLOTS operations are similar to MPF offload with the majority of the assets to support the operation being provided by the PHIBCBs through homeport assets.

PHIBCB INLS sections, ABLTS, ELCAS, and Offshore Petroleum Distribution System (OPDS) systems employed in JLOTS are transported via ships in a ROS status, normally requiring 5-10 days to activate.

Crane Ship SS Cornhusker State (T-ACS 6)

The Marine Air-Ground Task Force

The Marine air-ground task force (MAGTF) is the Marine Corps' principal organization for missions across the range of military operations. It is composed of forces task organized under a single commander and can respond rapidly to a contingency anywhere in the world. MAGTF forces are functionally grouped into four core elements: a command element, a ground combat element, an aviation combat element (ACE), and a logistics combat element. These elements are categories of forces, not formal commands. The basic structure of the MAGTF never varies, but the number, size, and type of Marine Corps units comprising each of the four elements are always mission dependent. MAGTFs are normally sized as a MEU, MEB, or Marine Expeditionary Force (MEF), or in some cases, a Special Purpose MAGTF for Security Cooperation (SC MAGTF).

- **Marine Expeditionary Unit**

A MEU is a MAGTF constructed around a reinforced infantry battalion, a reinforced composite aircraft squadron, and a combat logistics battalion. A MEU does not have any Marine Special Operations Forces (MARSOF) embarked and/or operating with it. The forward-deployed MEU is task-organized, trained, and equipped to provide the joint force commander with an expeditionary force that is sustainable, flexible, responsive, expandable, and credible. It consists of approximately 2,200 Marines and Sailors, deploys with 15 days of sustainability, and is commanded by a Colonel. It is the landing force organization typically associated with and transported by the three amphibious ships of the ARG (LHA/D, LPD, LSD) are required to transport a MEU. The Marine Expeditionary Unit must be able to plan and execute any of the first twelve missions shown to the right, take action within hours of notification using the rapid

response planning process, and conduct multiple missions simultaneously, if required.

A MEU which is certified as "Special Operations Capable" is designated a MEU(SOC). A MEU(SOC) is a MEU with MARSOF specifically task-organized, embarked, and directed to conduct operations with that MEU. The MEU has been certified and undergone interoperability training and evaluation with SOF. As depicted in the insert, there are fifteen MEU(SOC) mission essential tasks, with three of the fifteen tasks characterized as special operations missions. These three missions are conducted by the associated MARSOF of a MEU(SOC). Its special operations capability makes the MEU(SOC) well suited for crisis response, immediate reaction operations, limited objective attacks, raids, and to act as an enabling force for a larger follow-on MAGTF.

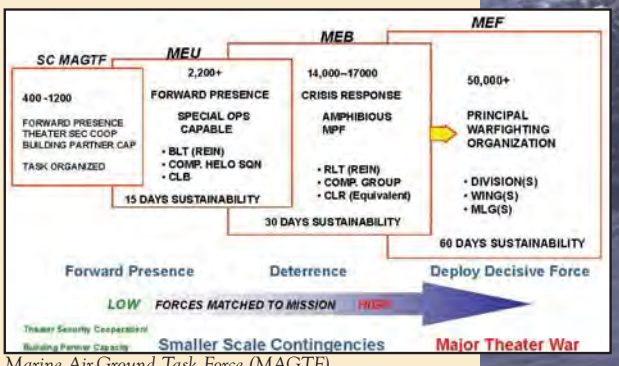
MEU (SOC)
Mission Essential Tasks

1. Amphibious Assault
2. Amphibious Raid
3. Maritime Interception Operations
4. Advance Force Operations
5. Noncombatant Evacuation Operations
6. Humanitarian Assistance
7. Stability Operations
8. Tactical Recovery of Aircraft and Personnel
9. Joint and Combined Operations
10. Expeditionary Airfield Operations
11. Theater Security Cooperation
12. Airfield and Port Seizure
13. Direct Action Operations*
14. Special Reconnaissance *
15. Foreign Internal Defense *

* MARSOF Operations

In the future as detailed in the Enhanced MAGTF Operations (EMO) concept, Marine Corps forces with specialized engagement enabling capabilities will be task-organized for deployment with each MEU while additional elements will be aligned to the deployed MEU in a reach-back capacity. Additional pre-deployment training for Marines and Sailors will prepare ARG/MEU personnel for increased performance of engagement activities.

- **Marine Expeditionary Brigade**



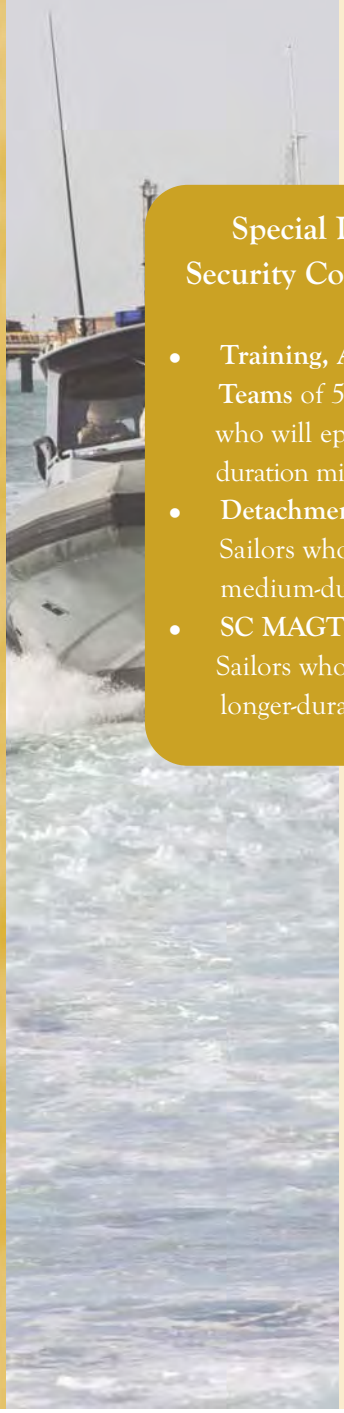
Marine Air-Ground Task Force (MAGTF)

The MEB is considered to be the smallest MAGTF required to conduct forcible entry operations. It is constructed around a reinforced Infantry Regiment, a composite Marine Aircraft Group, and a Combat Logistics Regiment. It can deploy in amphibious shipping or be transported by strategic lift into an area of operations to link up with Maritime Prepositioning Force MPSRON assets. Normally commanded by a Brigadier General or Major General, and comprised of 8,000 to 18,000 Marines and Sailors, a MEB varies in size and composition and is task-organized to meet the requirements of a specific situation. It typically deploys with up to 30 days of

sustainment and can conduct combat operations of a limited scope. A MEB requires the combined lift capability of seventeen amphibious ships.

- **Marine Expeditionary Force**

The MEF is the largest MAGTF. It is constructed around a Marine Division, a Marine Air Wing, and Regimental Landing Team, a Marine Aircraft Group, and a Marine Logistics Group. A MEF is capable of missions across the full range of military operations, including amphibious assault and sustained operations ashore in any environment. It can operate from a sea base, land base, or both, and typically deploys with more than 45,000 personnel with up to 60 days of sustainment, and is normally commanded by a Lieutenant General. The assault echelon of the MEF (two MEBs) is transported by the entire amphibious force. Other shipping, including chartered ships, would be required to transport an entire MEF.



Special Purpose MAGTF for Security Cooperation (SC MAGTF)

- **Training, Advisor, and Assessment Teams** of 5-15 Marines and Sailors who will episodically deploy for short-duration missions of approximately 15 days
- **Detachments** of 15-200 Marines and Sailors who will episodically deploy for medium-duration missions of 30-90 days
- **SC MAGTF** of 200-500 Marines and Sailors who will episodically deploy for longer-duration missions of 90-150 days.

- **Special Purpose Marine Air-Ground Task Force for Security Cooperation (SC MAGTF)**

The SC MAGTF is an element of EMO. Formed from each MEF which will be increasingly regionalized, SC MAGTFs are comprised of up to 500 Marines and Sailors specially trained, attached and rotationally deployed to a geographic CCDR's AOR for a period of approximately six months to support security cooperation, building partner capacity, and SFA operations. As specified in the Marine Corps Operating Concepts 3rd Edition, a SC MAGTF will be able to conduct sequential, simultaneous, or overlapping missions of varying duration and location by task-organizing and deploying small teams, medium-size detachments, and if necessary the entire SC MAGTF as depicted to the left.

Expeditionary Strike Group

Expeditionary Strike Groups

ESG TWO Norfolk, VA
ESG THREE San Diego, CA
ESG FIVE Manama, Bahrain
ESG SEVEN Sasebo, Japan

There are four Expeditionary Strike Groups (ESGs) as shown. The ESGs are numbered to reflect the Fleet under which the ESG staff is aligned. ESGs oversee amphibious ships' readiness, serviceability, Marine Corps interoperability, and their ability to integrate with other Navy and Joint forces. Commanded by a Navy Flag Officer and manned by a staff which includes amphibious warfare

and composite warfare commander subject matter experts, the ESG is responsible for all amphibious support and planning functions. The ESG staff is normally shore-based deploying only in response to circumstances requiring a flag-officer command element. The ESG could embark and lead an ARG/MEU, if the situation required a flag officer and staff.

Amphibious Ships

Amphibious ships are designed and the force is sized to meet Marine Corps lift requirements to provide the lift for a 2.0 Marine Expeditionary Brigade assault echelon (AE). The lift requirement for an AE; that is, the Marines, vehicles, aircraft and equipment assigned to conduct the initial assault of an amphibious operation, is defined using the following five elements of amphibious lift:

- Troop berthing
- Vehicle stowage in sqare feet
- Cargo stowage in cubic feet
- Aircraft operating spots (MV-22)
- Well deck operating spots (LCAC).

"…The Chief of Naval Operations and Commandant of the Marine Corps have determined that the force structure requirement to support a 2.0 MEB lift is 38 total amphibious assault ships. Understanding this requirement, and in light of the fiscal constraints with which the Navy is faced, the Department of the Navy will sustain a minimum of 33 total amphibious ships in the assault echelon. …"

Excerpt from 7 January 2009 cover letter accompanying "Report to Congress on Naval Amphibious Force Structure" with CNO, CMC, and SECNAV as signatories

Navy and Marine Corps analysis has determined that a future ship mix of LHA/D, LPD-17, and LSD (11/11/11) is required to transport the 2.0 MEB AE. The current amphibious lift capability consists of the ship classes and landing craft as detailed in **Annex C**.

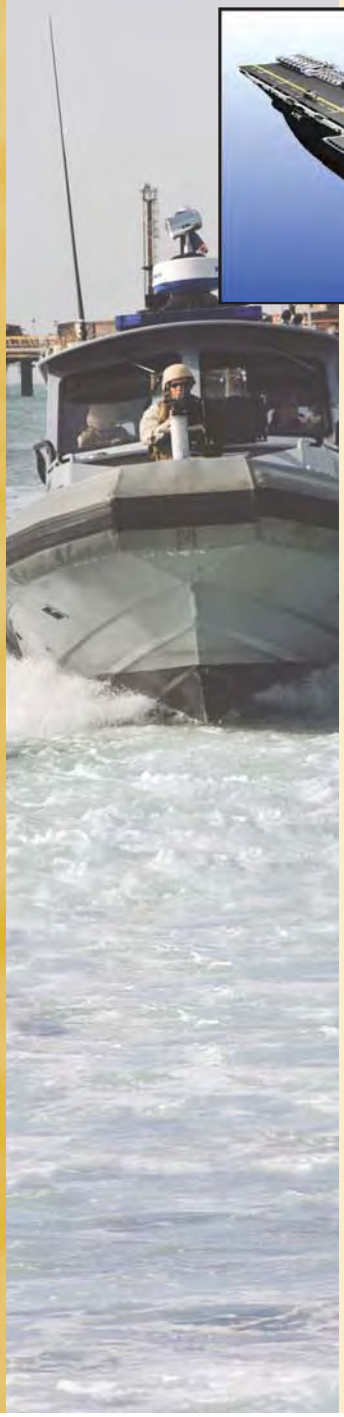
Future Amphibious Force

The future amphibious force is being forged through today's shipbuilding program. Amphibious force shipbuilding programs are the LPD 17 and LHA 6 classes. The recapitalization of Whidbey Island class LSDs and Wasp class LHDs will begin within the next decade. Accordingly, and due to the long lead times associated with shipbuilding programs, the early phases of requirements development for these recapitalizations began in FY 2010 with a capabilities-based assessment as required by the Joint Capabilities Integration Development System.

PCU New York LPD 21 Arrives for Commissioning

LPD 17-class

The LPD 17-class is a revolutionary new class of amphibious transport dock ships, and is



critical to maintaining the aggregate amphibious lift required to carry the assault echelon required for conducting forcible entry operations. The San Antonio-class of amphibious warfare ships represents the Navy's commitment to an expeditionary, power projection and engagement Fleet capable of operating across the full spectrum of warfare. The class provides significant command, control, communications, computers and intelligence (C4I), survivability, and quality of life improvements and serves as the replacement for four classes of older amphibious cargo, tank landing, dock landing, and transport dock ship classes. San Antonio-class ships play a key role in supporting ongoing overseas operations by forward deploying Marines and their equipment to respond to global crises.

Graphic Illustration of LHA 6- Class

LHA 6-class

LHA(R) is the replacement for the four Tarawa-class ships that will reach the end of their already extended service life between 2011 and 2015. LHA(R) will provide flexible, multi-mission amphibious capabilities that span the range of military operations from forcible entry to humanitarian and disaster relief. LHA(R) will leverage the LHD 8 design while providing modifications that remove the well deck and increase aviation capacity to better accommodate aircraft in the future Marine Corps ACE, such as the short take-off vertical landing Joint Strike Fighter and the MV-22.

LSD(X)-class

According to the *Report to Congress on Annual Long-Range Plan for Construction of Naval Vessels for FY 2011*, a 33-ship force comprised of 11 LHA/D amphibious assault ships and a mix of 11 LPD 17 amphibious transport docks and 11 LSD(X) dock landing ships would be sufficient to support forcible entry operations providing essential lift for 2.0 MEB with acceptable risk in the speed of arrival of combat support elements of the MEB. The LSD(X) is a planned replacement for the LSD 41/49 class and has a projected FY 2017 contract award date.

Future Support Ships

Graphic Illustration of JHSV Cut-Away

Joint High Speed Vessel (JHSV)

The JHSV will provide high-speed support vessels for the Army and the Navy. JHSV will be an effective alternative to move assets throughout marginally developed theaters of operation while also requiring a less well developed port facility than is the case for today's principal lift assets. In addition, this vessel's relatively shallower draft permits operation in a greater number of port facilities around the globe. The combination of these attributes permits rapid transport of medium size payloads, including company-sized units integrated with their associated equipment, over

intra-theater distances to austere ports, and load/offload without reliance on well developed, heavy port infrastructure. CCDRs have made clear to the Navy their desire for this niche capability that can execute unique operations with partner nations throughout each of their areas of responsibility.

Maritime Prepositioning Force Enhancements

In addition to the shipbuilding programs described above, N853 is providing resources to enhance the capabilities of the current MPF with the addition of three Auxiliary Dry Cargo/Ammunition (T-AKE) ships and three Mobile Landing Platform (MLP) ships.

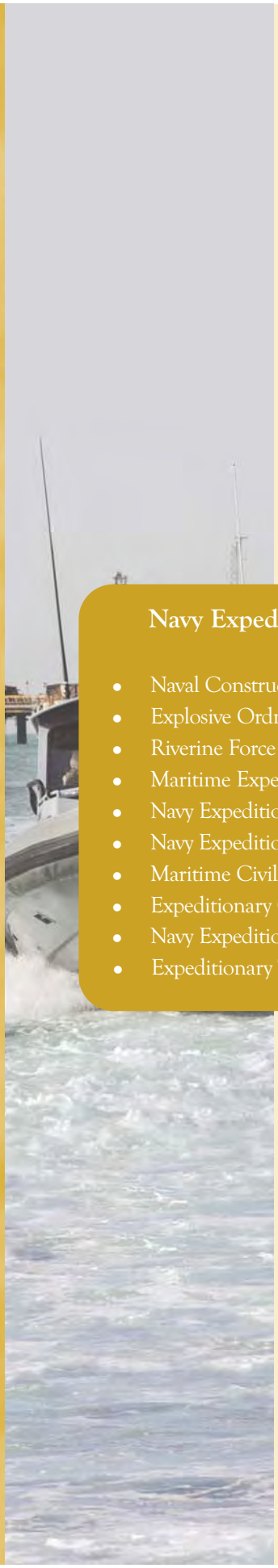
The Maritime Prepositioning Force (Future) (MPF(F)) concept envisioned a forward-deployed squadron of ships to enable rapid closure, at-sea assembly, and employment of sea-based forces. In May 2005, the Secretary of the Navy defined the MPF(F) squadron as twelve new construction ships and two legacy container ships. Although useful in the lower end of the war-fighting spectrum, the MPF(F) squadron was primarily designed for use in major combat operations.

Early in the development of the 2010 Quadrennial Defense Review and as part of the process of completing the Department of Defense budget submission for FY 2010, the Secretary of Defense took action to address priorities for that budget and in future years. Those decisions included deferring production of new maritime prepositioning ships. Instead of developing a single MPF(F) squadron of the above 14 ships, the Navy's 30-Year Shipbuilding Plan reflects the decision to enhance the existing MPF's three MPSRONs. Specifically, the current MPF will be enhanced with the addition of:

LMSR and MLP Surrogate Conducting Vehicle Transfer Testing

- 3 x T-AKEs all awarded and under construction with deliveries planned in FY 2011 and FY 2012
- 3 x MLPs, lower cost variants of the MPF(F) MLP, lead ship to be awarded in FY 2011 and follow ships in FY 2013 and FY 2015
- 3 x Large Medium-Speed Roll-on/Roll-off (RO/RO) (LMSR) cargo ships (transferred from the Army)
- 1 x fleet tanker (T-AOT) and 1 x container ship maintained to support the three MPSRONs
- A support program to enable development of the tactics, techniques and procedures required to fully exploit this mission area in the future.

Together with the legacy MPF ships, these enhancements will provide each MPSRON with the capabilities to support further MPF concept validation and operational testing. Additionally, an incremental operational capability enhance-



ment will be provided in each MPSRON to better provide the delivery ashore and resupply of up to MEB size forces. Specifically, the MLP, based on commercial (FLO/FLO) technology, will facilitate the at-sea transfer of vehicles and equipment loaded on LMSR ships and JHSVs (to the MLP) for delivery ashore by LCAC. The T-AKEs as a selectively off-loadable afloat warehouse ship with a day/night capable flight deck will support the sortie rates necessary for delivering daily dry cargo and ammunition sustainment requirements ashore. Utilizing a shuttle ship replenishment scheme, three T-AKEs will have sufficient dry cargo, ammunition, and cargo fuel capacities to persistently sustain up to a brigade sized force operating ashore.

The current and future amphibious lift platforms, existing MPF, and the planned MPF enhancements are discussed further in **Annex C**.

Navy Expeditionary Combat Command

Navy Expeditionary Combat Command

- Naval Construction Force
- Explosive Ordnance Disposal Force
- Riverine Force
- Maritime Expeditionary Security Force
- Navy Expeditionary Logistics Support Group
- Navy Expeditionary Intelligence Command
- Maritime Civil Affairs and Security Training Command
- Expeditionary Combat Readiness Center
- Navy Expeditionary Guard Battalion
- Expeditionary Training Group

The principal resource sponsor for Navy Expeditionary Combat forces is OPNAV Expeditionary Warfare Division Navy Expeditionary Combat Branch (N857).

NECC serves as the Type Commander to centrally manage current and future readiness, resources, manning, training and equipping of the Navy's expeditionary forces. NECC provides units ready for tasking to operational commanders in all theaters across a wide range of joint- and service-specific expeditionary missions. NECC's globally deployed, mission-tailored forces accomplish missions that combat terrorism, prevent crises and promote stability.

NECC's more than 30,000 active and reserve Sailors link the land and maritime domains, extending the Navy's influence from blue to green to brown water in direct support of all six phases of Joint operations. On a given day, approximately one-third of NECC's forces are deployed on missions ranging from partnership building to infrastructure protection. Because of the operational capabilities represented and where they operate, NECC units act as a Force multiplier by delivering substantial Navy SFA capability consistent with the CNO's Maritime Strategy and the 2010 QDR.

The Expeditionary Warfare Pin Earned by Expeditionary Sailors

NECC delivers core capabilities through expeditionary forces made up of both Active and Reserve Components. Reserve Component Sailors make up 53% of the NECC force and are employed as an "operational reserve" - reserve units are manned, trained and equipped as operational units that deploy just like their active duty counterparts. In several NECC component commands, the operational reserve enables NECC to satisfy CCDR demand for forces. All NECC Active Component forces can produce an initial surge capability within 48 hours. NECC expeditionary capabilities are summarized in the following paragraphs.

Naval Construction Force (Seabees)

Navy Seabees, with a motto of, "We build, We fight," are the Navy's deployable engineer and construction force. In support of maneuvering forces, Seabees provide a wide range of responsive military construction including roads, bridges, bunkers, airfields and logistics bases. Seabee units are adaptive to mission requirements, scalable and agile. Seabees are a force of choice for disaster preparation and recovery operations, to include furnishing assistance to civilian agencies. Additionally, Seabees complete civic action projects that complement nation-building programs and are known for their worldwide humanitarian efforts. A robust, organic self-defense capability ensures Seabees can protect themselves and their projects wherever they go. Seabees provide a wide variety of capabilities and assistance in times of peace and war, such as:

- Runway repair and Expeditionary Airfield construction
- Construction of aircraft parking aprons; munitions storage areas; large scale camps sites; border outposts; expeditionary camps; community outreach centers; and medical clinics
- Waterfront and underwater construction and demolition
- Schools and municipal facilities renovation.

First Naval Construction Division (1NCD) oversees approximately 15,000 active and reserve Seabees. Nine Active Component Naval Mobile Construction Battalions (NMCB) are based in Gulfport, MS and Port Hueneme, CA. Twelve reserve battalions are geographically dispersed throughout the U.S. and enable Navy Reservists to organize and train for possible mobilization. Seabee Readiness Groups (SRG) are located at

Naval Construction Force

1NCD (Virginia Beach, VA.):

20th SRG Gulfport, MS

3rd NCR Atlanta, GA
NMCB 14 Jacksonville, FL
NMCB 23 Fort Belvoir, VA
NMCB 24 Huntsville, AL

7th NCR Newport, RI
NCMB 21 Lakehurst, NJ
NMCB 26 Mount Clemens, MI
NMCB 27 Brunswick, ME

22nd NCR Gulfport, MS
NMCB 1 Gulfport, MS
NMCB 11 Gulfport, MS
NMCB 74 Gulfport, MS

25 NCR Gulfport, MS
NMCB 7 Gulfport, MS
NMCB 133 Gulfport, MS
CBMU 202 Virginia Beach, VA
UCT 1 Virginia Beach, VA

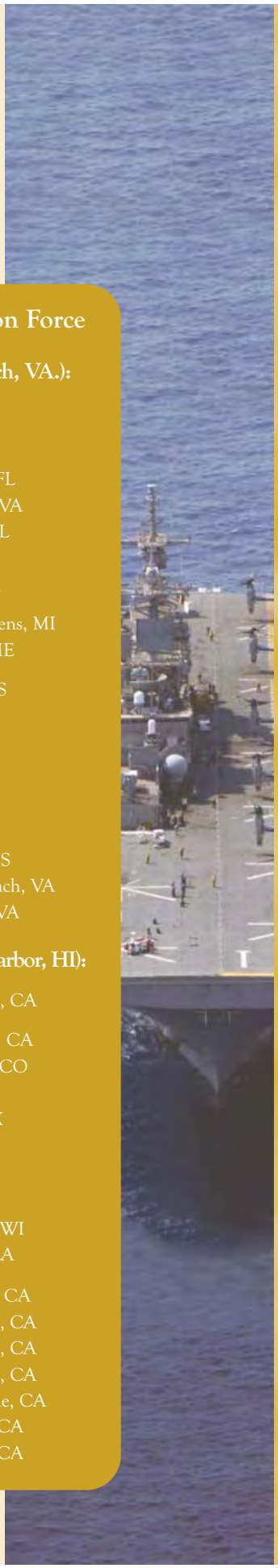
1NCD FWD (Pearl Harbor, HI):

31st SRG Port Hueneme, CA

1st NCR Port Hueneme, CA
NMCB 17 Fort Carson, CO
NMCB 18 Tacoma, WA
NMCB 22 Ft Worth, TX

9th NCR Dallas, TX
NCMB 15 Belton, MO
NMCB 25 Fort McCoy, WI
NMCB 28 Shreveport, LA

30 NCR Port Hueneme, CA
NMCB 3 Port Hueneme, CA
NMCB 4 Port Hueneme, CA
NMCB 5 Port Hueneme, CA
NMCB 40 Port Hueneme, CA
CBMU 303 San Diego, CA
UCT 2 Port Hueneme, CA



NMCB 74 Seabees Preparing Hesco Barriers in Afghanistan

Gulfport and Port Hueneme to provide training and mobilization capability. Seven Naval Construction Regiments (NCR) exercise command and control over the 21 battalions and other specialized units, including two Underwater Construction Teams (UCT), and two Construction Battalion Maintenance Units (CBMU). Seabees deploy regularly around the globe to support combatant commanders. Additionally, more than 15% of deployed Seabees are in direct support of SOF.

UCT 1 and Ukrainian Divers in Sea Breeze 2010

- **Underwater Construction Team** - UCT divers are dive qualified Seabees who construct, inspect, repair, and maintain ocean facilities in support of Navy and Marine Corps operations, including repair of battle damage to waterfront facilities. They also maintain capability to support an amphibious assault, subsequent combat service support ashore, and self-defense for camp and facilities under construction, and in time of emergency or disaster, conduct disaster control and recovery operations. UCT forces include more than 140 divers assigned to UCT 1 and 2 homeported in Virginia Beach, VA and Port Hueneme, CA, respectively.

In addition to the Underwater Construction Teams, Expeditionary Combat Camera, detachment Atlanta was recently realigned to the Naval Construction Force and administratively tied to the 20th SRG in Gulfport, MS.

- **Expeditionary Combat Camera** - Originating in the World War II era, Expeditionary Combat Camera (ECC) based in Norfolk, VA is one of two Navy Combat Camera units whose mission is to provide video and still documentation of combat operations, contingencies, exercises and events of historical significance. ECC capabilities include:

ECC Sailors Capturing History

- Still photo and video
- Post production (video)
- Audio services
- Underwater photography and video.

ECC has a fully qualified underwater photo team, operating scuba equipment to a depth of 190 feet. Using state-of-the-art multimedia equipment, they acquire high quality still and video imagery digitally, and then deliver that imagery to on-scene commanders or transmit to command authorities directly from the field. With 49 active duty and 36 reserve Sailors, ECC provides world-class imaging services anytime, anywhere.

Explosive Ordnance Disposal

U.S. Navy EOD is a combat support force for countering IEDs, weapons of mass destruction (WMD), and hazardous ordnance. An elite team of warriors qualified to parachute and dive deep, EOD operates in every environment around the world. EOD is the force of choice to enable Special Operations and conventional forces access to denied areas. Over 20% of deployed Navy EOD forces are in direct support to SOF. EOD forces:

- Render safe all types of explosive hazards, including conventional ordnance, underwater mines, IEDs, and WMDs (chemical, biological, nuclear and radiological weapons)
- Conduct clandestine operations either independently or in support of a larger combatant force

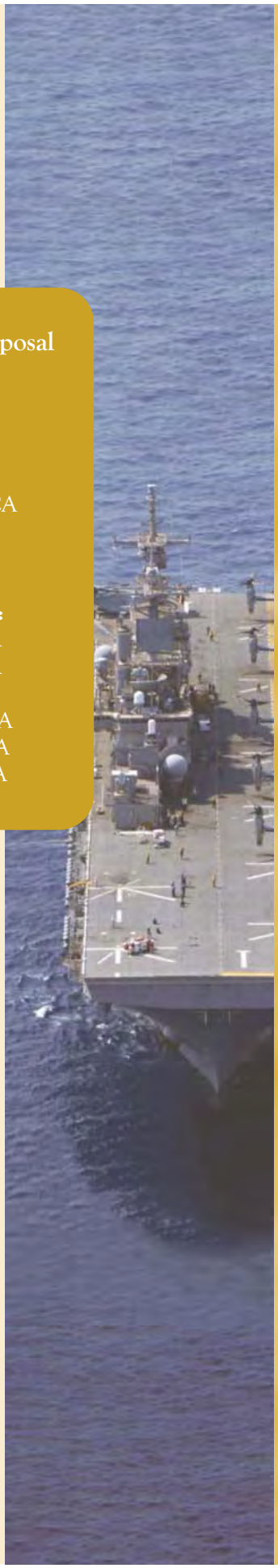
Force Protection Dive Umm Qasr

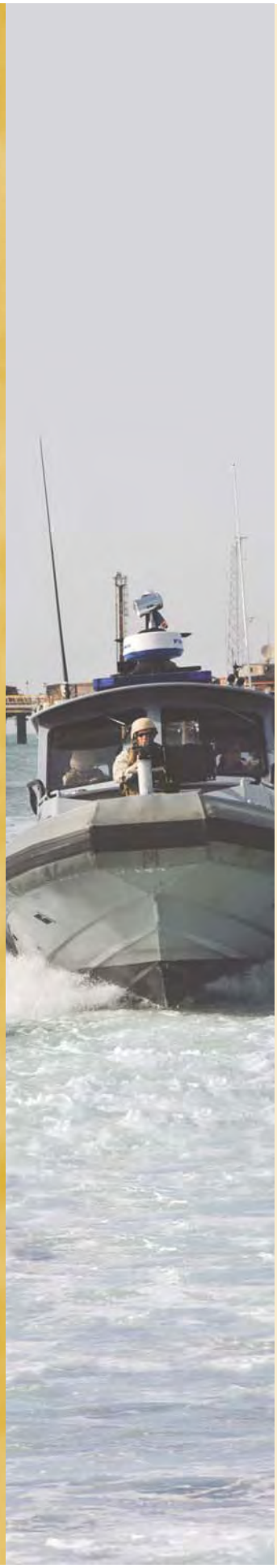
- Support the units of USSOCOM, to include direct action support of Navy SEALs and Army Special Forces
- Conduct demolition of hazardous munitions, pyrotechnics, and retrograde explosives using detonation and burning techniques
- Support military and civilian law enforcement agencies with foreign and domestic explosives analysis and processing including the Department of Homeland Security, the Customs Office, the Federal Bureau of Investigation, and state and local authorities
- Work with the U.S. Secret Service and State Department, helping to protect the President and Vice President of the United States as well as foreign officials and dignitaries.

Navy Explosive Ordnance Disposal

EOD Group 1 San Diego, CA:
- EODMU 1 San Diego, CA
- EODMU 3 San Diego, CA
- EODMU 5 Agana, Guam
- EODMU 11 Imperial Beach, CA
- EODTEU 1 San Diego, CA
- EODESU 1 San Diego, CA

EOD Group 2 Virginia Beach, VA:
- EODMU 2 Virginia Beach, VA
- EODMU 6 Virginia Beach, VA
- EODMU 8 Sigonella, Italy
- EODMU 12 Virginia Beach, VA
- EODTEU 2 Virginia Beach, VA
- EODESU 2 Virginia Beach, VA





NECC's EOD forces are homported in Virginia Beach, VA and San Diego, CA. Navy EOD has approximately 2,300 active duty and 70 reserve EOD Sailors. Although all the services have highly trained and skilled EOD professionals, Navy EOD is the only service EOD component that conducts underwater EOD operations.

Mobile Diving and Salvage Unit (MDSU) forces conduct operations to defend against threats in the near coast, inshore, and harbor/port environments. They conduct combat salvage diving and underwater battle damage repair to both sunken and damaged ships, as well as the recovery of ship wrecks and aircraft. They maintain the capability to either work from the shore, or embark on a vessel of opportunity. MDSU forces include more than 320 divers attached to MDSU 2 and 1 homeported in Virginia Beach, VA and Pearl Harbor, HI respectively.

Riverine

The Riverine force is a combat arms force developed to establish and maintain control of rivers and waterways for military and civil purposes; deny their use to hostile forces; and destroy waterborne hostile forces as necessary. The Riverine force combats sea-based terrorism and other illegal activities, such as transporting components of WMD, hijacking, piracy and human trafficking. The Riverine force:

Riverine Forces

Riverine Group
Virginia Beach, VA:

- Riverine Squadron (RIVRON 1) Virginia Beach, VA
- Riverine Squadron (RIVRON 2) Virginia Beach, VA
- Riverine Squadron (RIVRON 3) Yorktown, VA

RIVRON 3, Anbar Providence Iraq

- Increasingly are requested to support partner military and law enforcement offices in counter IED training in support of CCDR shaping operations
- Provides a persistent Navy presence to meet combatant commanders' requirements
- Participates in Theater Security Cooperation and SFA through joint or multilateral exercises, personnel exchanges, and humanitarian assistance projects
- Conducts Maritime Security Operations providing riverine area control and denial; protecting critical infrastructure; preventing the flow of contraband; and disrupting movement of enemy forces or supplies on rivers and waterways
- Enables power projection by providing fire support through direct fire or coordinating supporting fire, and insertion/extraction of ground forces.

The Riverine Force is homeported in Virginia Beach, VA and is made up of more than 700 Active Component Sailors in three Riverine Squadrons (RIVRONs) and the headquarters. Dedicated to closing gaps in the maritime environment, the Riverine force is scalable, agile, and adaptive to mission requirements. Due to their ability to operate with boats in brown river environment, Riverine forces have a unique capability to build partnerships with littoral nation inhabitants and military forces, some of whom may be daunted by the presence of larger Navy ships or large scale operations. This is one reason why Riverine forces will remain in high demand even after ongoing combat operations are concluded. Of note, the QDR Report of February 2010 states that beginning in FY 2011, the Navy will add a fourth RIVRON to its force structure.

Maritime Expeditionary Security

The Maritime Expeditionary Security Force (MESF) provides maritime security forces to combatant commanders and numbered fleet commanders. Primary MESF disciplines include command and control, waterborne security, landward security, and embarked security operations. Missions in support of the maritime strategy include:

- Harbor and port security
- Coastal surveillance
- Critical maritime infrastructure protection
- High value asset escort and protection
- Theater security cooperation
- Special missions as assigned.

MESF is concentrated in Portsmouth, VA and San Diego, CA with reserve units throughout the United States. Forces are also permanently stationed in 7th Fleet and 5th Fleet areas of operation. MESF deploys to conduct operations in areas such as Africa, Europe, the Northern Arabian Gulf, Southern Arabian Gulf, Caribbean Sea, and Western Pacific. MESF fully integrates Active and Reserve Components to produce immediate response capability and sustainability. With approximately 2,500 active and 3,700 reserve Sailors, MESF stands ready to protect our nation's assets at sea or ashore. The MESF is comprised of Maritime Expeditionary Security Squadrons (MSRON) that which conduct routine deployments in support of ongoing combat operations overseas. A typical MSRON consists of:

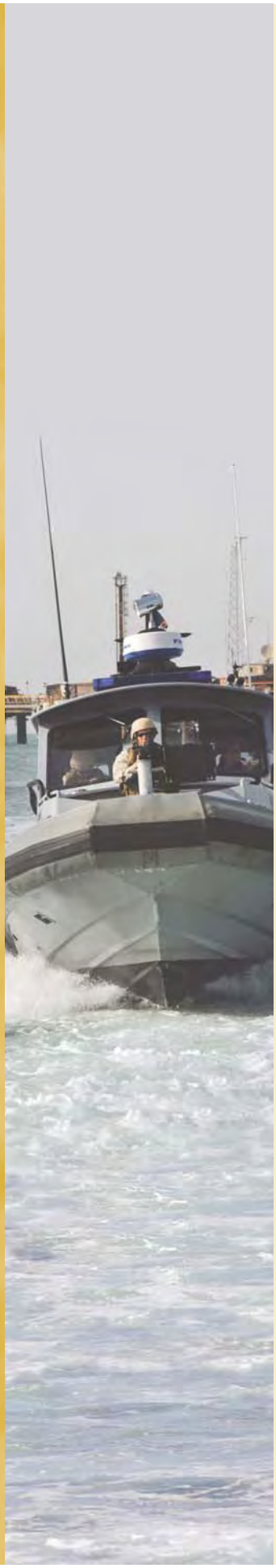
Maritime Expeditionary Security Force

Maritime Expeditionary Security Group 1:

- Maritime Expeditionary Security Squadron (MSRON) 1 San Diego, CA
- MSRON 3 San Diego, CA
- MSRON 5 San Diego, CA
- MSRON 7 Agana, Guam
- MSRON 9 Whidbey Island, WA
- MSRON 11 Seal Beach, CA

Maritime Expeditionary Security Group 2:

- MSRON 2 Portsmouth, VA
- MSRON 4 Portsmouth, VA
- MSRON 6 Portsmouth, VA
- MSRON 8 Newport, RI
- MSRON 10 Jacksonville, FL
- MSRON 12 Williamsburg, VA
- MSRON 14 Toledo, OH



MSRON BOATDIV Forces Providing Waterborne Security

- Headquarters staff capable of exercising command and control via communications and sensor support. Sensor systems (e.g., various ground sensors, unmanned vehicles, etc.); communications; and other associated support equipment provide capabilities for an integrated command, control, communication, computers, intelligence, surveillance, and reconnaissance asset capable of self sustained support to the units. Headquarters C2 personnel operate the Mobile Ashore Support Terminal (MAST III) and the Radar Sonar Surveillance Center (RSSC). Both the MAST and RSSC are discussed in **Annex D**. Headquarters staff also provide logistics support, consolidated maintenance, and support services.
- Boat Division (BOATDIV) provides waterborne defense equipped with armed patrol craft including the Force Protection - Small (FP-S) and Force Protection - Large (FP-L) boats discussed further in **Annex D**. Working with other MESF Divisions to provide enhanced force package for conducting small craft security and support for MESF operations in harbors, harbor approaches and near shore littoral areas, a BOATDIV consists of at least two maritime expeditionary boat detachments.
- Security Division (SECDIV) providing ground defense and embarked vessel security teams, high-end security, interdiction, and point defense of designated assets. SECDIVs provide afloat security as embarked security teams; and security ashore for entry control points, convoys and military air assets. A SECDIV consists of at least two maritime expeditionary security detachments.


MSRON Ground Security

Expeditionary Logistics

The Navy Expeditionary Logistics Support Group (NAVELSG) is responsible for providing expeditionary logistics capabilities for the Navy or joint services customers, primarily within the maritime domain of the littorals. NAVELSG conducts surface and air cargo handling missions, cargo terminal and warehouse

operations, fuels distribution, ordnance reporting and handling, and expeditionary communications. The Navy Expeditionary Logistics Force:

- Delivers world-wide expeditionary logistic capabilities with Active and Reserve Component Sailors and equipment to theater commanders in support of military strategy, port and air cargo handling missions, ordnance handling and reporting services, and combat service support to forces deployed ashore
- Responds to humanitarian relief efforts and builds allies through humanitarian efforts among host nations.

NAVELSG is homeported in Williamsburg, VA, and has reserve units across the United States. Comprised of more than 3,600 Sailors (3,240 Reserve and 390 Active Component), NAVELSG delivers expeditionary logistics capabilities "Anytime, and Anywhere."

Navy Expeditionary Logistics Support Force

Navy Expeditionary Logistics Support Group:

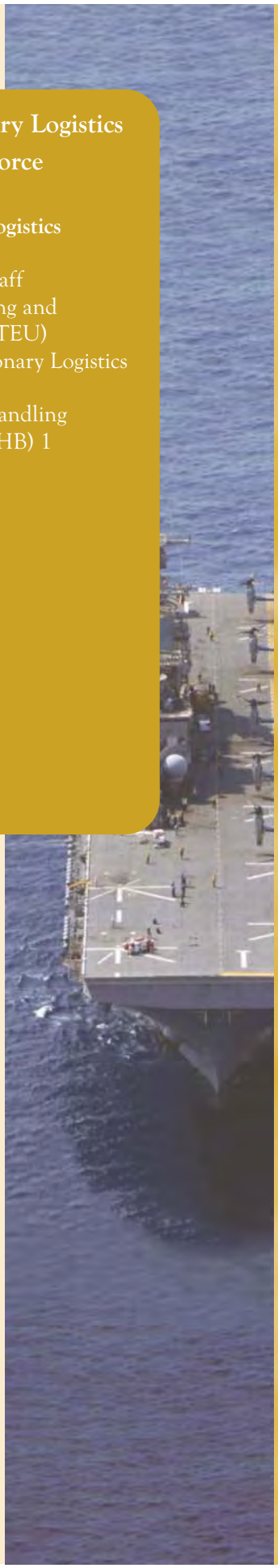
- NAVELSG HQ Staff
- NAVELSG Training and Evaluation Unit (TEU)
- 1st Navy Expeditionary Logistics Regiment (NELR)
  - Navy Cargo Handling Battalion (NCHB) 1
- 2nd NELR
  - NCHB 4
  - NCHB 10
- 3rd NELR
  - NCHB 7
  - NCHB 8
- 4th NELR
  - NCHB 11
  - NCHB 12
  - NCHB 13
- 5th NELR
  - NCHB 3
  - NCHB 5

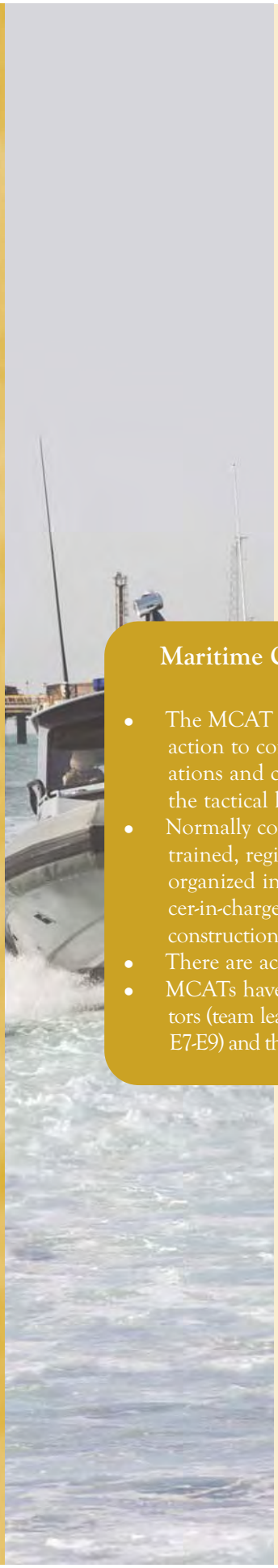
Expeditionary Intelligence

Navy Expeditionary Intelligence Command (NEIC) provides tactical maritime intelligence capability and capacity through the provision, support and sustainment of a standing force of ready expeditionary intelligence Sailors fully task-organized, manned, trained and equipped to support NECC operating forces and respective theater NCCs/joint force maritime component commanders. NEIC exercises administrative control of the Navy Human Intelligence (HUMINT) Teams (NHT), Maritime Interception Operations - Intelligence Exploitation Teams (MIO-IET), Expeditionary Intelligence Support Elements (EISE), and NEIC Expeditionary Tactical Information Operations Support (ETIOS). Expeditionary Intelligence Forces:

MIO-IET Prepares to Board a Dhow

- Conduct full-spectrum military source operations, interrogation, Force Military Intelligence Collection Activities (FORMICA), and document/media exploitation providing force protection/indications and warning during all phases of military operations





- Provide on-scene commanders with VBSS technical expertise and mission specific equipment to acquire and exploit information in support of maritime security operations
- Provide trained and equipped Sailors who deploy in support of all NECC missions including major combat operations, maritime security operations, maritime homeland defense operations, and peace-keeping operations
- Offer real-time early warning/force protection and computer network operations capability tailored to support tactical and ground irregular warfare missions.

NEIC is homeported in Dam Neck, VA, with reserve forces located throughout the United States. NEIC intelligence capabilities are comprised of approximately 200 Active Component and 70 Reserve Component mission-trained Sailors and material assets with sufficient network capability and capacity to meet requirements while maintaining a solid foundation of core capabilities that can respond rapidly to evolving irregular warfare missions.

Maritime Civil Affairs Team

- The MCAT is the principle unit of action to conduct civil-military operations and civil affairs operations at the tactical level.
- Normally comprised of five highly trained, regionally aligned personnel organized in a "Five-C" concept (officer-in-charge, coxswain, corpsman, constructionman and communicator).
- There are active and reserve MCATs.
- MCATs have two senior CA operators (team leader 03-04 and team chief E7-E9) and three CA operators (E4-E6).

Maritime Civil Affairs and Security Training

Maritime Civil Affairs and Security Training Command (MCAST) Command was established in October 2009 from the merger of the Maritime Civil Affairs Group and Expeditionary Training Command. MCAST provides Maritime Civil Affairs (MCA) and SFA core competencies to enhance international partnerships. Headquartered at Virginia Beach, VA, this command of approximately 250 Active Component and 170 Reserve Component Sailors focuses on enhancing peace and contributes to preventing future conflicts through international partnerships enabling our partner nations to establish and exercise their own maritime security and regional stability.

Maritime Civil Affairs Teams, (MCAT) deploy globally and engage on the front lines of American diplomacy. MCATs are comprised of highly trained Sailors who possess unique language expertise and cultural skills, which enable them to quickly and systematically identify the critical needs of local citizens in the most vulnerable regions of the world.

MCA regionally aligned planners, specialists, and teams provide effective, flexible and responsive liaison between the operational commander, U.S. country team, host nation civil and military entities, and other key governmental and non-governmental organization (NGO) partners to facilitate the collaboration of diplomacy, defense, and development. MCA forces:

- Provide expertise in maritime-specific functional specialties of port operations; harbor/channel construction and maintenance; and marine and fisheries resources
- Have reach back capabilities to address areas and answer questions concerning the rule of law, economic stability, governance, public health and welfare, infrastructure and public education.

MCAT 104 Sailors in Djibouti

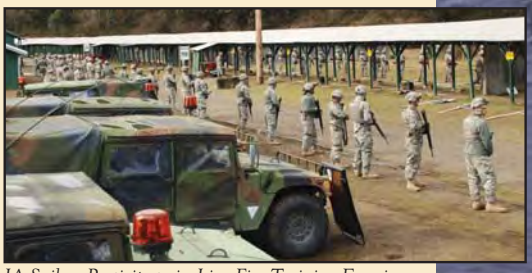
SFA Mobile Training Teams (MTT) support CCDR and Navy component commanders' security cooperation efforts by delivering timely, focused and customized training to designated host nations. MCAST Command draws training expertise from across NECC and the Department of Navy to assist in training delivery. Host nation training supports critical regional stability by helping improve the recipient nation's capabilities in exercising maritime sovereignty. SFA MTTs provide training in foreign locations and give local nationals the capability to govern and protect themselves and their areas of responsibility. The training core curricula are targeted at the global audience of foreign country military, civil and security personnel includes basic to intermediate level:

2010 APS West SFA MTT Conducts Training for Partner Nation Sailors and Coast Guardsmen

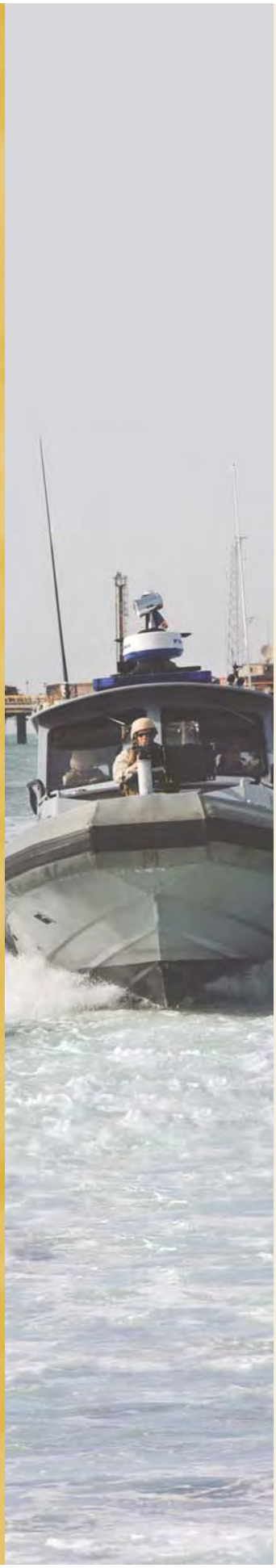
- Small Boat Operations and Tactics
- Maritime Combat Operations
- Weapons Handling
- Anti-Terrorism / Force Protection
- Maintenance and Construction
- Leadership / Professional Development
- Other NECC skill sets.

Expeditionary Combat Readiness

Expeditionary Combat Readiness Center (ECRC) provides coordination and supervision of all administrative processing, equipping, training and deployment of combat trained Navy Individual Augmentee (IA) forces deployed around the world. ECRC coordinates IA training instruction with the Army in the areas of combat skills and specialized missions. ECRC:



IA Sailors Participate in Live Fire Training Exercises at the Expeditionary Combat Readiness Center on Fort Lewis, Washington Prior to Deploying to Iraq.



- Assigns action officers (AO) to IA Sailors and Ad Hoc units grouped by mission. AOs review missions and training pipelines and communicate directly with IA Sailors throughout the mobilization process to ensure IAs are fully ready to deploy both medically and administratively
- Provides Navy Liaison Officer (LNO) teams to assist Sailors at their predeployment training sites. LNOs assist with berthing, pay issues, communications, scheduling, uniforms, transportation, documentation, surveys, database update and information archives
- Provides IA reach back via Navy Forces Central Command country detachments in Kuwait, Iraq and Afghanistan providing a clear window of visibility through every phase of the IA Sailor's mission
- Supervises the Warrior Transition Program in Kuwait, providing logistical and administrative support in addition to the preliminary steps of the medical and mental health continuum for returning IA Sailors
- Coordinates logistic support for IA Sailors going through the redeployment/demobilization process
- Helps Sailors get home as quickly and safely.

Located in Virginia Beach, VA, ECRC is represented by 260 Active and Reserve Component Sailors, all of whom are dedicated to supporting Sailors and their families.

Expeditionary Guard Battalion

Sailor Guarding Detainees in Guantanamo Bay.

Established in 2005, the Navy Expeditionary Guard Battalion (NEGB) mans, trains and equips a guard force to support the Joint Detention Group (JDG) at Joint Task Force (JTF) Guantanamo. NEGB includes a force of 600 guards who are fully trained in JTF detention procedures, cultural awareness, legal, self defense, first aid, non-lethal weapons, and weapons employment (for external security). All guards are trained at Gulfport, MS, and then at Fort Lewis, WA, with training facilities modeled after those at the JDG. Before arriving, they learn the skills essential to undertake the demanding work associated with guarding detainees removed from the battlefield. Upon completion of training in Fort Lewis, the prospective guards arrive at Naval Station Guantanamo Bay and complete a two-week, "right-seat, left-seat" training session, where incoming guards train with their outgoing counterparts before assuming their duties.

Expeditionary Training

Established in March 2010, the Expeditionary Training Group (ETG) based at Virginia Beach, VA is responsible for assessing the readiness and training NECC subordinate command units as they complete the integrated phase of the Fleet Response Training Plan (FRTP). Upon training completion, ETG provides the recommendation to certify and designate the unit as FRTP Maritime Security Surge or Maritime Security Operations-Ready.

Seabasing Integration

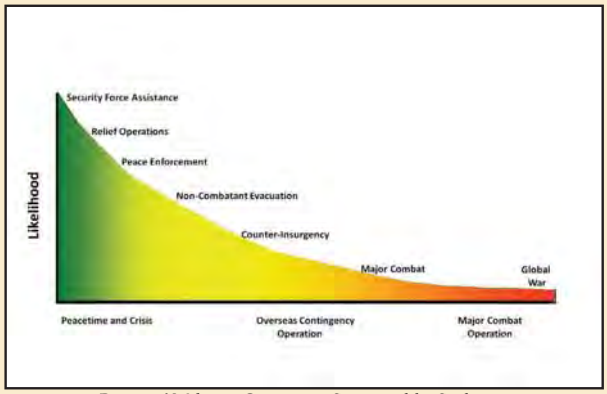
The Seabasing Integration Branch (N85V) is the warfare sponsor for the Sea Base Pillar of *Sea Power 21*. The Branch is responsible for concept, concept of operations, and capabilities development, as well as refining road maps and material options for developing a capable, executable Seabasing platform.

"Seabasing is the rapid deployment, assembly, command, projection, reconstitution, and re-employment of joint combat power from the sea, while providing continuous support, sustainment, and force protection to select expeditionary joint forces without reliance on land bases within the Joint Operations Area (JOA). These capabilities expand operational maneuver options, and facilitate assured access and entry from the sea."

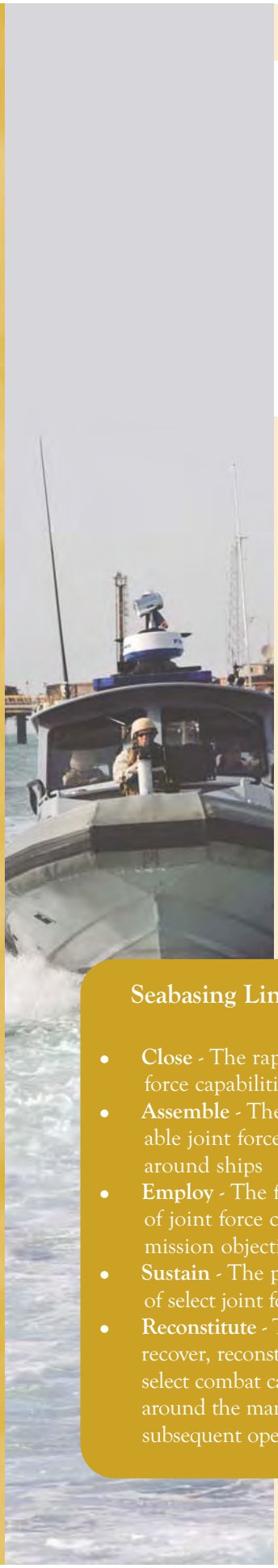
Seabasing Joint Integrating Concept (JIC)

Seabasing is a national capability that applies throughout the range of military operations. Seabasing supports and enhances the core capabilities enumerated in the Maritime Strategy and is particularly vital as the military and political landscape continues to change in the early 21st century. Sea-based, as opposed to garrison forces, are able to poise offshore exerting influence and potentially preventing a crisis from evolving into a conflict. If the situation merits, Seabasing enables assembling the right force package offshore and employing them at precisely the right time to "get in, do the job, and get out" when and where required.

The US can no longer be assured of access to seaports of debarkation (SPOD) and aerial ports of debarkation ashore from which to prepare, launch, execute, and sustain military operations. Seabasing provides an ideal solution in this era of diminishing, or perhaps absent, access enhancing the ability of naval forces to use the sea as maneuver space.



Range of Military Operations Supported by Seabasing



"The imperative to build and sustain partnerships that measurably contribute to maritime security, deterrence and combat effectiveness comes at a time when sensitivity to U.S. bases overseas is rising and the overall number of U.S. forces stationed on foreign soil is much lower…"
NOC 10

As stated in *Seabasing Concept of Operations Low to Mid Intensity Operations* released in February 2010, "...the U.S. and partner nations will confront a highly dynamic security environment with complex threats that will require innovative means of harnessing and integrating all investments of national power, as well as close coordination with a wide range of allies, friends, and partners. Seabasing is one such innovative means that reduces or eliminates the requirement for a large "footprint" ashore, host nation support, and regional political acceptance. This also allows host nations to maintain transparency in their support of U.S. operations."

Sea-based forces may vary in size and mission. To execute major combat operations, for example, the sea-base may be huge and comprised of one or more Carrier Strike Group, ARG/MEU, ESG, an amphibious force, MSC MPF and Naval Fleet Auxiliary Force (NFAF), and/or joint and coalition naval platforms, and may include ground forces such as the U.S. Army, the Marine Corps, coalition, or interagency personnel. In support of smaller operations, the sea-base may be comprised of only a single ship with its crew and any embarked elements as in the example of a ship conducting Global Fleet Station or partnership operations such as Africa Partnership Station (APS), Pacific Partnership, Southern Partnership Station, and other recurring naval engagement activities.

Seabasing Lines of Operation

- **Close** - The rapid closure of joint force capabilities
- **Assemble** - The integration of scalable joint force capabilities on and around ships
- **Employ** - The flexible employment of joint force capabilities to meet mission objectives
- **Sustain** - The persistent sustainment of select joint forces afloat and ashore
- **Reconstitute** - The capability to recover, reconstitute, and redeploy select combat capabilities within and around the maneuverable sea base for subsequent operations.

Close, Assemble, Employ, Sustain, and Reconstitute (CAESR) are Seabasing's five lines of operation. "CAESR" is normally conducted sequentially, but can also be conducted concurrently as various units arrive, prepare for operations, conduct operations are re-deployed overlapping with other units of the sea base.

Naval forces have a rich tradition and history of Seabasing. Since the earliest years in our Nation's history, our naval forces have recognized and exploited the advantages of Seabasing. Moreover, technological developments and new platforms have further enhanced the capabilities of modern naval forces to conduct the CAESR lines of operation. Seabasing technological initiatives are discussed further in **Annex E**.

Chapter Summary

The N85 Expeditionary Warfare Directorate is comprised of five major branches: Naval Special Warfare, Mine Warfare, Amphibious Warfare, Navy Expeditionary Combat Command, and Seabasing Integration.

This chapter has provided an overview of each branch, to include organizations and missions, equipment and capabilities, operations, training, and programs for which they are responsible. The characteristics and responsibilities are of course different for each branch, but the Directorate combines the experience and expertise of its personnel to provide the glue that enables United States Navy expeditionary forces to stand at the forefront of those called upon first when flexibility, ingenuity, and adaptability of forces are required anywhere in the world. The chapter describes how, and with what assets, our expeditionary forces are meeting those challenges and supporting the Maritime Strategy and the NOC 10.

Cobra Gold Participant USS San Antonio (LPD 17)