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A Message from the Chief of Naval Operations

It is my pleasure, once again, to introduce formally the "Owners' and Operators'" edition of All Hands magazine for 2010. This publication continues to serve as a useful resource to those who have great interest in what we do.

As the Chief of Naval Operations (CNO), it has been my privilege and pleasure to witness the extraordinary work you have done throughout the world and your continued commitment to being a global force for good. I am very proud of your dedication to our country, and I am honored to serve alongside you.

Today, our Navy is globally deployed, persistently forward and actively engaged with more than 50,000 of our shipmates deployed around the world. You bring our Maritime Strategy, "A Cooperative Strategy for 21st Century Seapower" alive. As we approach another year, we remain committed to building the future force, maintaining our warfighting readiness and developing and supporting our Sailors, Navy civilians and our families.

Throughout the year, our Navy has taken these focus areas and turned them into actions: launched the second littoral combat ship, commissioned the 10th and final Nimitz-class aircraft carrier, USS George H.W. Bush (CVN 77), rolled out the P-8A Poseidon Multi-Mission Maritime Aircraft and the F-35C Lightning II, Joint Strike Fighter in the same week, established the Fleet Cyber Command/U.S. 10th Fleet, treated more than 100,000 patients and performed more than 1,600 surgeries while participating in Continuing Promise in Caribbean, Central and South American nations, responded to the natural disasters in Indonesia, the Philippines and American Samoa, as well as participated in Africa Partnership Station and Pacific Partnership, observed our Navy SEALs and the crew of USS Bainbridge (DDG 96) disrupt pirate activities off the Horn of Africa and the rescue of the captain of Maersk Alabama, and enrolled the most diverse USNA and NROTC classes in history. These are just a few of our significant accomplishments and there will be many more in the years ahead.

My CNO guidance and its 18 intentions to guide the course of our Navy and enable us to measure our progress. This year, I am emphasizing the following five intentions: (1) continue to be the dominant, ready naval force across all maritime missions, (2) build a Navy with appropriate force structure and strategic lay down, (3) achieve decision superiority, (4) align the requirements, resources and acquisition processes and (5) evolve and establish international relationships.

We have done much and achieved many successes. As we move forward, we will focus on our core capabilities and work cooperatively with partners to pursue our common objectives. Continue to act with honor, live with courage and be committed to the highest standard of integrity. Your contributions as a Sailor, the service you provide, and the sacrifices you make are truly inspiring. I am extraordinarily proud of your dedication to the world's finest Navy.

Thank you for continuing to make us the global force for good.
NAVAL COMPONENT COMMANDS, NUMBERED FLEETS

The map depicts the unified commands’ areas of operation (AO). The Navy supports regional unified commands with component commands and numbered fleets.

U.S. Fleet Forces Command

Headquarters: Norfolk

USFF’s other primary responsibilities include determining and providing future and current needs of the fleet for warfighting and readiness capabilities to the Chief of Naval Operations. USFF strives to have an effectively prepared total Navy force by building a fleet with speed, endurance, global reach, unique capabilities and the operational agility to give a range of options to regional combatant commanders.

U.S. Pacific Fleet

Headquarters: Pearl Harbor
Mission: U.S. Pacific Fleet (PACFLT) operates in support of the U.S. Pacific Command (PACOM) theater security strategy and provides interoperable, trained and combat-ready naval forces to PACOM and other U.S. combatant commanders as required. In addition to these traditional Title X responsibilities, PACFLT has a vital operational role as Commander, Joint Task Force 519. This mission requires PACFLT to not only maintain the training and readiness of the Joint Task Force Headquarters staff, but to also command the joint force during times of conflict, crisis or war.

As part of the nation’s maritime strategy, PACFLT conducts humanitarian assistance and disaster relief efforts. Pacific Partnership is an annual mission by PACFLT involving partner nations, nongovernmental organizations and other groups working to provide medical and dental care, school and hospital repairs. PACFLT provides forward presence, deterrence, sea control, power projection and security for the Pacific Ocean, the world’s largest maritime domain, covering one-third of the world’s surface.

U.S. 2nd Fleet

Headquarters: Norfolk
Mission: U.S. 2nd Fleet exercises delegated operational control and administrative control of assigned ships, aircraft and landing forces. Second Fleet plans for and, when directed, conducts maritime, joint and combined operations in support of designated unified and allied commanders.

Second Fleet trains, certifies and provides maritime forces to respond effectively to global contingencies.
AO: The North Atlantic Ocean
Flagship: Rotational

U.S. 3rd Fleet

Headquarters: San Diego
Mission: U.S. 3rd Fleet delivers combat-ready naval forces, executes fleet operations and defines future fleet requirements to deter aggression, preserve freedom of the seas and promote peace and security.
AO: Pacific Ocean from the North Pole to the South Pole and from the continental West Coast to the International Date Line.

U.S. Naval Forces Southern Command/U.S. 4th Fleet

Headquarters: Mayport, Fla.
Mission: U.S. Naval Forces Southern Command (NAVSO) is the Navy component commander for U.S. Southern Command (SOUTHCOM), which is headquartered in Miami. U.S. 4th Fleet is the numbered fleet assigned to NAVSO.
NAVSO/4th Fleet directs U.S. Navy forces operating in the SOUTHCOM area of focus and interacts with Caribbean, Central and South American civil forces and navies to shape the maritime environment. Through theater security cooperation, NAVSO/4th Fleet works to build and strengthen
relations, develop partner nation capabilities and maintain maritime access to defend southern approach to the United States in support of the maritime strategy.

NAVSO/4th Fleet also provides operational control for U.S. Navy units supporting joint and interagency efforts in counter-illicit trafficking operations, and efforts to stem the flow of illegal migration. **AO:** Caribbean Sea, Eastern Pacific and South Atlantic waters surrounding 31 countries and 12 dependencies, and covering about 15.6 million square miles.

**U.S. Naval Forces Central Command/U.S. 5th Fleet/Combined Maritime Forces**

**Headquarters:** Manama, Bahrain

**Mission:** U.S. Naval Forces Central Command (COMUSNAVCENT)/5th Fleet is the naval component command for U.S. Central Command and conducts maritime operations to help ensure security and stability throughout the region, promote U.S. interests, prevent regional conflict and defeat our adversaries. COMUSNAVCENT acts in concert with other Central Command components, the Combined Maritime Forces and joint task forces to deter destabilizing activities and promote a lawful maritime order in the region as a venue for attack.

**AO:** Approximately 5 million square miles, including the Arabian Gulf, Gulf of Oman, Arabian Sea, Gulf of Aden, Red Sea and parts of the Indian Ocean. This expanse, comprised of 22 countries, includes three critical chokepoints at the Strait of Hormuz, the Suez Canal and the Strait of Bab al Mandeb at the southern tip of Yemen.

**U.S. Naval Forces Europe/Naval Forces Africa/U.S. 6th Fleet**

**Headquarters:** Naples, Italy.

**Mission:** U.S. Naval Forces Europe/Naval Forces Africa/U.S. 6th Fleet (CNE-C6F) is the maritime arm of European Command (EUCOM) and Africa Command (AFRICOM) responsible for supporting National Military Strategy and the strategic objectives of EUCOM, AFRICOM and the Chief of Naval Operations. CNE-C6F provides overall command, operational control and coordination of U.S. naval forces in the EUCOM and AFRICOM areas of responsibility.

Providing presence with a purpose, CNE-C6F follows a peacetime engagement plan focusing on exercises and operations that improve interoperability and increase regional maritime security among European and African nations. U.S. naval forces in Europe and Africa remain committed to building emerging partnerships’ maritime safety and security capabilities while positively shaping the environment “south and east” to deny maritime criminals, terrorists or any other destabilizing element freedom of action.

**AO:** More than 21 million square miles including 92 countries and territories and a population of more than 1 billion people. This territory extends from the Cape of Norway through the waters of the Baltic, Black and Mediterranean Seas, most of Europe, parts of the Middle East to the Cape of Good Hope in South Africa.

**Flagship:** USS Mount Whitney (LCC/JCC 20)

**U.S. 7th Fleet**

**Headquarters:** Yokosuka, Japan

**Mission:** The U.S. 7th Fleet operates in the largest area of responsibility of the Navy’s numbered fleets. U.S. naval forces have maintained a continuous forward presence in this region for more than a century and a half, directly supporting U.S. national interests, upholding key alliances, and expanding maritime partnerships. The U.S. 7th Fleet employs both forward and rotationally deployed ships, aircraft, submarines and other maritime forces independently or as part of a joint, combined or multinational force, executing military operations across the spectrum, from major combat operations to humanitarian assistance and disaster relief.

Seventh Fleet forces operate in the region on a continuous basis and obtain critical “local knowledge” – increasing opportunities to train and operate with our allies, friends and partners, while allowing for rapid response to any crisis, natural or manmade. The 7th Fleet AOR is home to more than 50 percent of the world’s population, speaking more than 3,000 languages and includes two of the world’s largest economies (China and Japan).

**AO:** Forty-eight million square miles of the Pacific and Indian oceans, from the International Date Line to the waters east of Africa, and from the Kuril Islands in the north to the Antarctic in the south, including 39 coastal nations.

**Flagship:** USS Blue Ridge (LCC 19)

**U.S. Fleet Cyber Command/U.S. 10th Fleet**

**Headquarters:** Fort George G. Meade, MD

**Mission:** U.S. Fleet Cyber Command (FLTCYBERCOM) will be the Navy’s service component to the proposed U.S. Cyber Command (USCYBERCOM), and will execute the operational missions assigned to the Navy by U.S. Strategic Command and USCYBERCOM. As the Navy’s principal point of action for cyber warfare, information operations and space, to include computer network operations, U.S. 10 Fleet (C10F) will partner with and support other fleet commanders to provide guidance and direction to ensure coordinated, synchronized, and effective preventative and response capability in cyberspace.

FLTCYBERCOM/C10F unifies Navy’s ability to implement DoD cyberspace policy and strategy at the convergence of sea power and cyber power as well as increases our ability to prevent and respond to cyber threats. It brings unity of effort for cyberspace integration into planning and operations to support commanders’ warfighting requirements by creating capabilities that complement kinetic options. FLTCYBERCOM/C10F will work closely with Joint and interagency partners to develop offensive and defensive cyberspace capabilities, infrastructure, experience, and access, posturing our Navy to reduce risks associated with cyber threats while at the same time offering opportunities for our Navy to continue leverage the advantages of cyberspace.

**AO:** Worldwide
## Bases

### COMMANDER, NAVY INSTALLATIONS COMMAND

### UNITED STATES

**California**
- Naval Air Weapons Station (NAWS) China Lake
- Naval Air Facility (NAF) El Centro
- Naval Air Station (NAS) Lemoore
- Naval Base (NAVBASE) Coronado
- NAVBASE Ventura County
- Naval Station (NAVSTA) San Diego
- Naval Weapons Station (NWS) Seal Beach

- Naval Post Graduate School

**Connecticut**
- Naval Submarine Base (SUBASE) New London

**District of Columbia (Navy District Washington)**
- Naval Support Activity (NSA) Washington
- Washington Navy Yard
- NSA North Potomac
- NSA South Potomac

**Florida**
- NAS Jacksonville
- NAS Key West
- NAS Whiting Field
- NAS Pensacola
- NAVSTA Mayport
- NSA Panama City
- NSA Orlando

**Georgia**
- NAS Atlanta
- SUBASE Kings Bay

**Hawaii**
- NAVSTA Pearl Harbor
- Pacific Missile Range Facility, Kauai

**Illinois**
- NSA Crane

**Louisiana**
- NAS Joint Reserve Base (JRB) New Orleans
- NSA New Orleans

**Maryland**
- NAS Patuxent River
- NSA Annapolis

**Mississippi**
- Naval Construction Battalion Center Gulfport
- NAS Meridian

**Nevada**
- NAS Fallon

**New Jersey**
- Naval Air Engineering Station, Lakehurst
- NWS Earle

**New York**
- Naval Support Unit Saratoga Springs

**Pennsylvania**
- NAS JRB Willow Grove
- NSA Mechanicsburg

**Rhode Island**
- NAVSTA Newport

**South Carolina**
- NWS Charleston

**Tennessee**
- NSA Mid-South Millington

**Texas**
- NAS Corpus Christi
- NAS JRB Fort Worth
- NAS Kingsville
- NAVSTA Ingleside

**Virginia**
- Joint Expeditionary Base Little Creek - Fort Story
- NAS Oceana
- NAVSTA Norfolk
- Navy Support Facility Diego Garcia

### WORLDWIDE

**Bahrain**
- NSA Bahrain

**Cuba**
- NAVSTA Guantanamo Bay

**Diego Garcia**
- Navy Support Facility Diego Garcia
- Indian Ocean

**Djibouti**
- Camp Lemonnier, Djibouti

**Greece**
- NSA Souda Bay

**Guam**
- Joint Base Guam

**Italy**
- NAS Sigonella
- NSA Naples

**Japan**
- NAF Atsugi
- NAF Misawa
- Commander Fleet Activities (CFA) Yokosuka
- CFA Sasebo
- CFA Kadena Okinawa

**Korea**
- CFA Chinhae

**Singapore**
- Navy Region Center, Singapore

**Spain**
- NAVSTA Rota

(Source: CNIC)
Fleet and Family Support

The Fleet & Family Readiness (F&FR) program at Commander, Navy Installations Command (CNIC) is responsible for policy development, resourcing and oversight of quality of life programs for Sailors and their families. F&FR enables a ready Navy force through programs such as family readiness, fleet readiness and housing programs.

FAMILY READINESS

More than 80 Fleet and Family Support Centers throughout the fleet provide Sailors and their families access to services, resources, counseling and education. Some of their offerings are:

- Deployment Readiness Workshops
- Ombudsman programs
- Personal Financial Management program
- New Parent Support Home Visitation program
- Transition Assistance program
- Family Employment Readiness program
- Relocation Assistance program
- Clinical Counseling Services
- Family Advocacy program
- Sexual Assault Victim Intervention program
- Life Skills Workshops
- Child & Youth programs

To submit an online request for care, go to www.mwr.navy.mil, click on “Child and Youth” and “I need childcare.”

For more information about these and other programs go to https://www.nffsp.org/skins/nffsp/home.aspx.

FLEET READINESS

Fitness, Sports and Deployed Forces

The Navy’s Morale, Welfare and Recreation (MWR) services offer programs to help Sailors shape up and stay fit. Among these programs are:

- Deployed Forces Support program
- Deployed Forces Support Coordinators
- The Navy’s MWR Civilian Afloat program (fit bosses/fun bosses)
- All-Navy Sports program

More information can be found at www.mwr.navy.mil

HOUSING

The CNIC F&FR Housing program is focused on ensuring that service members, both single and those with families, receive adequate and affordable housing worldwide, whether provided by the local, private community or under government sponsorship.

For more information on Navy Private Public Venture housing, visit Navy Housing OneStop, the one-stop source for Navy Housing worldwide, at https://www.housing.navy.mil/onestop.

OTHER SERVICES AVAILABLE TO FLEET AND FAMILIES

- Navy Gateway Inns and Suites
- Information, tickets and travel
- Liberty (single Sailor) program
- Marinas
- Golf courses
- Outdoor recreation centers
- Base library and movie theaters
- MWR cabins, camping sites and RV parks

For more information visit www.mwr.navy.mil.

NAVY FAMILY ACCOUNTABILITY AND ASSESSMENT SYSTEM (NFAAS)

When disaster strikes, Sailors and their families must report their status through NFAAS. This is a Web-based standardized method for the Navy to account, assess, manage and monitor the recovery process for personnel and their families affected and/or scattered by a widespread catastrophic event.

For more information about NFAAS, visit https://navyfamily.navy.mil.
Navy Medicine

REGIONAL MEDICAL COMMANDS, HOSPITALS

National Naval Medical Center, Bethesda, Md.
Naval Medical Center (NMC) Portsmouth, Va.
NMC San Diego

Other Facilities Include:

Nine CONUS Naval Hospitals
Seven OCONUS Naval Hospitals
Eight CONUS Naval Health Clinics
Two OCONUS Naval Health Clinics
119 Branch Medical Clinics
Six CONUS Dental Clinics
Two OCONUS Dental Clinics
Six CONUS Research Commands
Three OCONUS Research Commands
Five DoD Health Care Schools

Military Sealift Command Hospital Ships:

USNS Mercy (T-AH 19), homeport San Diego
USNS Comfort (T-AH 20), homeport Baltimore
(Source: Bureau of Navy Medicine)

By the Numbers

| Doctors: | 4,351 |
| Active Duty | 3,792 |
| Reservists | 559  |

| Dentists: | 1,277 |
| Active Duty | 1,032 |
| Reservists | 245  |

| Medical Service Corps: | 2,648 |
| Active Duty | 2,320 |
| Reservists | 328  |

| Nurses: | 3,965 |
| Active Duty | 2,838 |
| Reservists | 1,127 |

| Hospital Corpsmen: | 28,631 |
| Active Duty | 23,812 |
| Reservists | 4,819 |

(Source: Bureau of Navy Medicine)
Dr. Deصير Cruz Alvarez, (right), a general surgeon with the Dominican National Police, and Lt. Cmdr. Heliodoro Andres Salas Cablera, an anesthesiologist with the Dominican Republic navy, embarked aboard USS Kearsarge (LHD 3) to conduct a cooperative surgery with U.S. Navy medical personnel during the Caribbean phase of Continuing Promise 2008.

SAFE HARBOR: COMPREHENSIVE CARE FOR WOUNDED, ILL OR INJURED SAILORS
The mission of Safe Harbor is comprehensive casualty care, from pay issues to rehabilitation, for seriously injured personnel and their families. More information is available at www.safeharbor.navy.mil or toll-free at 1-877-746-8563.

OPERATIONAL STRESS CONTROL RESOURCES
Navy Operational Stress Control (OSC) is a program supported by Navy Medicine. The foundation of OSC is the Stress Continuum Model which provides Sailors, leaders, and family members a visual tool for assessing stress responses and practical steps to take to mitigate stress injuries. For more information, see https://www.nko.navy.mil/portal/operationstresscontrol/operationalstresscontrol.

The Naval Center for Combat and Operational Stress Control (NCCOSC) was created to improve the psychological health of Navy and Marine Corps forces through training, education, care system improvement and facilitating research and information distribution. For more information see, www.nccosc.navy.mil

Project FOCUS
Project FOCUS, is Families OverComing Under Stress (FOCUS) is designed for families needing to ramp up their resiliency to best handle the demands of deployment and combat and operational stress. Through parent, child and family sessions, FOCUS helps Navy and Marine families develop strong skills in problem solving, goal setting, communication and emotional regulation. The free program is offered through the Navy Bureau of Medicine and Surgery in collaboration with University of California - Los Angeles. For details and a list of FOCUS locations, see www.focusproject.org or call 310-794-2482.

Military OneSource
Military OneSource is a DoD program offering a variety of services to service members and their families. Its many services include 12 free counseling sessions per service member or family member, per issue; sessions are conducted 24/7 in person, on the phone or online. Complete information is available at www.MilitaryOneSource.com or by calling 800-342-9647.

Returning Warrior Workshops
Making a successful transition from the war zone to the home front is the focus of Returning Warrior Workshops (RWW), a well-received program for Navy and Marine Corps Reservists. The workshops are expense-paid weekend events for up to 200 service members and their spouses or significant others. In addition to presentations from senior military leaders who have been in combat, there are breakout sessions where participants discuss — and help learn to resolve — stressful situations arising in deployment and reintegration. A number of support services are available at the workshops along with counselors, psychological health outreach coordinators and chaplains to assist service members in re-acclimating with their families and to civilian life.

For more information on workshops in your area, go to www.ia.navy.mil/rww_dates.pdf.

TRICARE
TRICARE, the civilian-care component of the Military Health System, recently launched the TRICARE Assistance Program (TRIAP), a free Web-based service for psychological health services. Available to active-duty service members and their families, TRIAP uses audiovisual telecommunications systems, such as video chat and instant messaging. Assistance counselors are on hand around-the-clock for nearly any behavioral health issue, and a referral or prior authorization is not required. For complete information, see www.tricare.mil/TRIAP.

Additional Resources can be found at:
- Combat operational stress control/management, resiliency materials and programs designed specifically for the Navy population are accessible at www-nmcphc.med.navy.mil/Healthy_Living/Psychological_Health/Stress_Management/operandcombatstress.aspx
Family Separation Allowance

Family Separation Allowance (FSA) compensates qualified members for added expenses incurred because of an enforced family separation. There are three different categories depending on the status of the Sailor and their family members. Family separation allowance is $250 per month. See the DoD Financial Management Regulation (FMR) Volume 7A, Chapter 27 for more information.

Overseas Tour Extension Incentive Program

The Overseas Tour Extension Incentive Program offers eligible enlisted members the opportunity to receive their choice of one of four incentive options for extension of the DoD tour length for 12 months or more. For more information see a command career counselor or MILPERSMAN Article 1306-300.

Hardship Duty Pay

Hardship Duty Pay is payable to members who are entitled to basic pay while performing duty designated by the Secretary of Defense as hardship duty. Current rates and locations are maintained in the DoD FMR, 7A, 17.

Combat Zone Tax Exclusion

Combat Zone Tax Exclusion allows earnings received while performing duties in, or in direct support of, areas designated as combat zones to be excluded from taxes. Exclusion is unlimited for enlisted members and warrant officers. Visit http://www.defenselink.mil/militarypay/pay/tax/10_combatzone_05.html and DoD FMR, 7A, 44, for more information.

Imminent Danger Pay, Hostile Fire Pay

Imminent Danger Pay (IDP) is a threat-based pay, meaning it is payable for any month the member performs duty in an IDP area (designated by DoD). Hostile Fire Pay (HFP) is an event-based pay, meaning the member is exposed to an actual occurrence of hostile fire or an explosion of hostile mine. The rate of IDP/HFP is $225 per month. Designated areas are listed in DoD FMR, 7A, 10.

Sea Duty Incentive Pay

Sea Duty Incentive Pay (SDIP) offers extra pay of up to $750 per month for extension and early return to sea (voluntary curtailment of shore duty). For more information on SDIP, visit the NPC website (www.npc.navy.mil) select “Career Info,” “Pay and Benefits” and scroll to “SDIP.”

Special Duty Assignment Pay

Special duty assignment pay (SDAP) is a monthly incentive pay to sustain manning levels and obtain high quality enlisted personnel for designated special duty assignments. For more information on SDAP, visit the NPC website (www.npc.navy.mil) select “Career Info,” “Enlisted Career Progression,” “Incentives” and scroll to “SDAP.”

Critical Skills Retention Bonus

Critical Skills Retention Bonus (CSRB) is used to ensure essential skills remain in military service. When a critical skill becomes scarce, DoD offers a financial incentive – some bonuses are $20,000 or more. For more information, contact your command career counselor or your enlisted community manager.

Career Sea Pay, Career Sea Pay Premium

Career Sea Pay (CSP) and CSP premium are entitlements to compensate service members for the inherent dangers of sea duty and incentivize consecutive sea service greater than 36 months. For info, see Military Personnel Manual (MILPERSMAN) article 7220-060.

Assignment Incentive Pay

Assignment incentive pay (AIP) incentivizes traditionally hard-to-fill assignments or less desirable geographic locations. For more AIP information including a listing of locations eligible for AIP, visit the NPC Web site (www.npc.navy.mil) select “Career Info,” “Pay and Benefits” and “AIP.”

Foreign Language Proficiency Bonus

Sailors skilled in a foreign language may be eligible for a foreign language proficiency bonus of up to $500 per month for demonstrated proficiency in a foreign language or a maximum $1,000 per month for more than one foreign language. Refer to OPNAVINST 7220.7F and NAVADMINs 143/06, 252/06, 072/07, and 156/08 for specific eligibility criteria.

Basic Allowance for Housing

Basic allowance for housing (BAH) reduces out-of-pocket expense for off-base living. This non-taxable allowance generally covers rent, utilities and renter’s insurance. For details visit http://www.defenselink.mil/militarypay/pay/bah/.

Basic Allowance for Subsistence

Basic allowance for subsistence (BAS) is adjusted annually based on the cost of food. For details on 2010 rates, visit www.defenselink.mil/militarypay/pay/bas/index.html.
**Savings Deposit Program**

The Savings Deposit Program (SDP) is allowed for Sailors during assignments and deployments to specified locations. SDP pays 10 percent interest and allows Sailors to deposit a portion of current pay, up to a maximum of $10,000. Interest paid on SDP is taxable and rules apply. For information, contact the local finance office prior to deployment.

**Family Subsistence Supplemental Allowance in addition to BAS**

Family Subsistence Supplemental Allowance, in addition to BAS, is an additional food allowance some large military families may qualify for and is based on total household income. Contact the fleet and family support center or a command financial specialist for assistance in determining eligibility. For details, go to www.fns.usda.gov/fns/ or https://www.dmdc.osd.mil/fssa.

**Federal Tax Advantage**

Because some allowances are not taxable, the result is actually additional compensation. Untaxed allowances include BAS, BAH, overseas housing allowance, cost-of-living allowance and FSA. Further tax advantages are available through participation in the Uniformed Services Thrift Savings Plan (TSP). See the pay and compensation calculator at www.npc.navy.mil/CareerInfo/StayNavyTools/ or choose the calculator on www.defenselink.mil/militarypay/pay/bp/index.html.

**Military Pay Raises**

Annual military pay raises are linked to the employment cost index (ECI). Military pay raises are equal to a yearly increase in the ECI. But, pay raises may (and usually do) exceed these levels if authorized and funded by Congress. See www.defenselink.mil/militarypay/pay/bp/05_annualraise.html.

Sailors take the fleetwide E-4 advancement exam in the aft mess decks aboard USS John C. Stennis (CVN 74), while underway off the coast of California.
Pay & Benefits

Medical and Dental
The TRICARE medical plan is one of the benefits afforded active and Reserve families. TRICARE is a regionally managed health care program. Contact a health care benefits advisor at your nearest military treatment facility or Navy Reserve activity. For additional information see www.tricare.mil.

Military Leave and Liberty
Active-duty members accumulate two-and-a-half days leave per month, totaling 30 days of paid leave each year. While earned leave is intended for use throughout the year, members may carry forward leave not to exceed 75 days at the end of the fiscal year (this carryover eligibility ends Dec. 31, 2010, when leave carryover resets to 60 days).

Navy Exchange/Commissary
The Navy Exchange Service Command (NEXCOM) manages tax-free, discounted shopping for quality goods and also manages Navy Lodges, ship’s stores, and other programs. For more information visit the Navy Exchange Web site at www.navy-nex.com/. The Defense Commissary Agency operates a worldwide chain of grocery stores serving military personnel, retirees and their families in a safe and secure shopping environment. Shoppers save an average of more than 30 percent on their purchases which is worth about $3,000 annual savings for a family of four. For more information visit the Commissary Web site at www.commissaries.com.

Retirement Pay
One of the most attractive incentives of a military career is the retirement system that provides lifelong retirement income for those who serve 20 or more years. Active duty and Reserve retirement plans differ. To view retirement plans and an easy-to-use online calculator visit www.npc.navy.mil/CareerInfo/StayNavyTools or www.defenselink.mil/militarypay/pay/bp/index.html and then choose the calculator.

Thrift Savings Plan
The Thrift Savings Plan is a 401(k)-like savings plan for Sailors. It accumulates long-term, tax-deferred savings and earnings for a retirement nest egg, regardless of whether the Sailor remains for a full military career. Useful information can be found at: www.tsp.gov/.

Certifications/NAVY COOL
The Navy’s Credentialing Opportunities On-Line (COOL) identifies civilian credentials that best map to a Sailor’s rating and training. The COOL Web site guides Sailors seeking training paths and funding toward industry-recognized, professional certification and licensure exams. This tool helps ensure Sailors have career opportunities within the Navy, as well as a successful follow-on career when they transition to the civilian workforce.

For more information on Navy COOL visit https://www.cool.navy.mil.

Navy Personnel Command Customer Service Center
The Navy Personnel Command (NPC) Customer Service Center (CSC) is the one-stop shop for all questions. If unsure about who to contact or where to go, call 1-866-U-ASK-NPC (1-866-827-5672) and let the customer service agents help you, or visit the CSC Web page at http://www.npc.navy.mil/AboutUs/NPC/CSC/. E-mail questions can be sent to CSCMailbox@navy.mil.

THE BALANCING ACT – NAVY ASSISTANCE FOR SAILORS’ LIVES
New pregnancy/adoption policy
Known as the postpartum operational deferment, the June 2007 revision of the Pregnancy and Parenthood Instruction (OPNAVINST 6000.1C) authorized an extension of current operational deferment from four to 12 months for new mothers. The increased operational deferment policy allows more time for families to arrange long-term child care. For more, see the Women’s Policy Web site at www.npc.navy.mil/AboutUs/BUPERS/WomensPolicy/.

Adoption leave
Navy families are authorized up to 21 days of non-chargeable administrative leave for parents who adopt children in a DoD-qualified adoption. Details are covered in OPNAVINST 6000.1C Section 202.

Paternity leave
Male service members are now able to take up to 10 days of administrative leave when their spouse gives birth to a child. The leave must be used within 60 days of the birth or return from deployment. For more information, see NAVADMIN 341/08.
(Source: Navy Personnel Command)
<table>
<thead>
<tr>
<th>Years of Service</th>
<th>Pay Grade</th>
<th>Enlisted Members</th>
<th>Commissioned Officers</th>
<th>Warrant Officers</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
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<tr>
<td>E-8</td>
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Individual Augmentee Duty

NAVY REFINING, IMPROVING TRAINING AND SUPPORT FOR IAs AND THEIR FAMILIES

Approximately 10,000 Sailors are on IA orders at any given time. Last year alone, more than 75,000 Sailors have been on IA since 2002.

The Navy is committed to supporting IA Sailors and their families with the same fervor and vigilance that deploying Sailors and their families traditionally receive. The primary command providing the supervision and coordination of training and support for IA’s is the Expeditionary Combat Readiness Center (ECRC), a division of the Navy Expeditionary Combat Command (NECC).

The mission of the ECRC is to provide oversight to ensure effective processing, equipping, training, deployment, reachback, homecoming and proactive family support of combat-trained Navy IAs, ad-hoc individuals and provisional units deploying for nontraditional expeditionary missions in support of overseas contingencies.

DECIDING TO BE AN IA

The three primary forms of IAs today are GSA Sailors, IA manpower management (IAMM) Sailors and mobilized Reserve Sailors. Sixty percent of war-on-terror assignments are made via the IA/GSA process, while the IAMM assignment process remains agile enough to meet the dynamic demands of the combatant commanders.

CAREER BENEFITS OF VOLUNTEERING FOR IA DUTY

IA tours are career enhancing in the areas of advancement and recognition. Some of the incentives are follow-on detailing guarantee and increased IA advancement rates.

To learn more, go to www.ia.navy.mil/faq.htm.

WHAT YOU SHOULD KNOW ABOUT GSA/IA ORDERS

There are two sets of orders cut for Sailors that negotiate for GSA orders. Sailors will get the first set shortly after negotiating with the detailer. The first set, permanent change of station, will have details for detachment from the current command and report to an NMPS location. The second set of orders (TEMADD) outlines requirements, point-of-contact information, training site locations and additional guidance. The first set of orders directs the Sailor to log onto BUPERS ONLINE at https://www.bol.navy.mil/ select the NMCMPS link and Click “View My Orders.” TEMADD orders will be released soon after the PCS orders. Sailors who have not seen their TEMADD orders 60 days prior to PCS transfer are directed to contact their commands IA coordinator and their detailers immediately.

Training

All IA Sailors are required to complete online training courses listed in the ECRC IA checklist and located on e-learning under the individual augmentee prerequisite training tab. The online courses prepare Sailors for Navy Individual Augmentee Combat Training (NIACT), a three-week training that provide Navy IAs with the basics for their boot-on-the-ground tour.

Requirements

The ECRC IA checklist includes medical screenings, government travel credit card and security clearance items. The official updated version of the ECRC IA checklist can only be found at www.ia.navy.mil/screencheck.htm.

RTN Or Noble Eagle (NE) Number

Your requirement tracking number (RTN) or Noble Eagle (NE) number is located on your orders. An NE number, simply stated, is a tracking number applied to a specific mission. Please be sure to give your NE number to your family before you deploy to expedite locating you in case of any emergency situation.

IA Opportunities


Family Support

To guarantee that families receive the very best support possible, IA Sailors are directed to include family information for the person they wish the Navy to contact during their deployment in Block 5 of the ECRC IA Checklist. If a family changes location during the deployment or if they need help or have general questions, they can contact the ECRC IA Family help desk at ecrc.fs.fct@navy.mil. For emergencies and for those families without e-mail access, ECRC operates a 24-hour toll-free family hotline at 1-877-364-4302.

Join the Conversation

Fleet Forces Command, the executive agent for IA continuum, has grown a robust Web and social media presence for Sailors and families to find and exchange information on their IA experience. Join the conversation at www.facebook.com/navyIA and http://twitter.com/Navy_IA.

(Source: U.S. Fleet Forces Command, Navy Expeditionary Combat Command and Expeditionary Combat Readiness Center.)

HM3 Eric Nobriga, assigned to Combined Anti-Armor Team 2, hands candy to Afghan children during a patrol in Nawa District, Helmand Province, Afghanistan.
Expeditionary Warfare

COMMANDER NAVY EXPEDITIONARY COMBAT COMMAND (NECC), NORFOLK

NECC serves as the single functional command for the Navy’s expeditionary forces and as central management for the readiness, resources, manning, training and equipping of those forces. NECC is a command element and force provider for integrated maritime expeditionary missions. NECC is a core expeditionary force providing effective waterborne and ashore anti-terrorism, force protection, theater security cooperation and engagement, and humanitarian assistance/disaster relief contingency response. Upon request, NECC supplements Coast Guard homeland security requirements while training and equipping forces to support joint mission requirements.

MARITIME EXPEDITIONARY SECURITY FORCE (MESF)

MESF provides inshore and coastal surveillance, security and antiterrorism for aircraft, airfields, campsites, convoys and convoy routes, ports, harbors, anchorages, approaches, roadsteads and other inshore or coastal areas of importance.

Additionally, MESF embarks security teams on board Navy and merchant vessels to provide in-transit security protection. Maritime Expeditionary Security Squadrons are deployable worldwide and operate sophisticated surveillance and communications equipment supporting landward, seaward and embarked security forces. Together, these forces provide security to vital shipping, forces and infrastructure in the littoral regions.

Maritime Expeditionary Security Group 1, San Diego
- Maritime Expeditionary Security Squadron (MSRON) 1, San Diego
  - MSRON 3, San Diego
  - MSRON 5, San Diego
  - MSRON 7, Guam
  - MSRON 9, Everett, Wash.

Maritime Expeditionary Security Group 2, Portsmouth, Va
- MSRON 2, Portsmouth, Va.
- MSRON 4, Portsmouth, Va.
- MSRON 6, Portsmouth, Va.
- MSRON 8, Newport, R.I.
- MSRON 10, Jacksonville, Fla.

EXPLOSIVE ORDNANCE DISPOSAL (EOD)

EOD conducts counter IED operations, renders safe explosive hazards and disarms underwater explosives such as mines. EOD technicians can handle chemical, biological and radiological threats, and are the only military EOD force that can both parachute from the air to reach distant targets or dive under the sea to disarm weapons. Mobile diving and salvage units clear harbors of navigation hazards, engage in underwater search and recovery operations, and perform limited underwater repairs on ships.

Commander, EOD Group 1, San Diego
- EOD Mobile Unit (EODMU) 1, San Diego
  - EODMU 3, San Diego
  - EODMU 5, Guam
  - EODMU 11, Whidbey Island, Wash.
  - Mobile Diving and Salvage Unit (MDSU) 1, Pearl Harbor
  - EOD Training and Evaluation Unit (EODTEU) 1, San Diego
  - EOD Expeditionary Support Unit (EODESU) 1, San Diego

Commander EOD Group 2, Norfolk
- EODMU 2, Norfolk
- EODMU 6, Norfolk
- EODMU 8, Sigonella, Italy
- EODMU 12, Norfolk
- EOD ESU 2, Norfolk
- EODTEU 2, Virginia Beach, Va.
- MDSU 2, Norfolk
- EOD Operational Support Unit 10, Virginia Beach, Va.

NAVY EXPEDITIONARY LOGISTICS SUPPORT GROUP (NAVELSG), WILLIAMSBURG, VA.

NAVELSG delivers worldwide expeditionary logistics with active and Reserve Component personnel to conduct port and air cargo handling missions, customs inspections, contingency contracting capabilities, fuels distribution, freight terminal and warehouse operations, postal services, and ordnance reporting and handling.

As part of NECC, NAVELSG deploys tailored force packages providing expeditionary logistics to combatant commanders and component commanders, and provides support to all NECC deployed commands, detachments and teams. NAVELSG provides multi-function logistics detachments with organic command and control to support both CONUS and OCONUS NECC operations.

1st Expeditionary Logistics Regiment (NAVELR)
- Navy Cargo Handling Battalion (NCHB) 1, Williamsburg, Va.
The Naval Construction Force (Seabees) provides a wide range of construction in support of operating forces, including roads, bridges, bunkers, airfields and logistics bases. It provides responsive support to disaster recovery operations; performs civic action projects as part of the Navy’s theater security cooperation program; and provides force protection for personnel and construction projects. “We Build, We Fight.”

2nd NAVELR
- NCHB 4, Charleston, S.C.
- NCHB 10, Yorktown, Va.

3rd NAVELR
- NCHB 7, Great Lakes, Ill.
- NCHB 8, Fort Dix, N.J.

4th NAVELR
- NCHB 11, Jacksonville, Fla.
- NCHB 12, Bessemer, Ala.
- NCHB 13, Gulfport, Miss.

5th NAVELR
- NCHB 3, Alameda, Calif.

NAVELESG Training and Evaluation Unit, Williamsburg, Va.

NAVELESG Expeditionary Support Unit, Williamsburg, Va.

NAVAL CONSTRUCTION FORCE
The Naval Construction Force (Seabees) provides a wide range of construction in support of operating forces, including roads, bridges, bunkers, airfields and logistics bases. It provides responsive support to disaster recovery operations; performs civic action projects as part of the Navy’s theater security cooperation program; and provides force protection for personnel and construction projects. “We Build, We Fight.”

1st Naval Construction Division, Norfolk

1st Naval Construction Division Forward, Pearl Harbor

NAVAL CONSTRUCTION REGIMENTS

1st Naval Construction Regiment, Port Hueneme, Calif.
- Naval Mobile Construction Battalion (NMCB) 17, Colorado Springs, Colo.
- NMCB 18, Seattle
- Naval Construction Force Support Unit 2, Port Hueneme, Calif.

3rd Naval Construction Regiment, Atlanta
- NMCB 14, Jacksonville, Fla.
- NMCB 24, Huntsville, Ala.
Expeditionary Warfare

7th Naval Construction Regiment, Newport, R.I.
- NMCB 21, Lakehurst, NJ
- NMCB 26, Mt. Clemens, Minn.
- NMCB 27, Brunswick, Maine

9th Naval Construction Regiment, Fort Worth, Texas
- NMCB 15, Kansas City, Mo.
- NMCB 22, Fort Worth, Texas
- NMCB 25, Fort McCoy, Wis.
- NMCB 28, Shreveport, La.

22nd Naval Construction Regiment, Gulfport, Miss.
- NMCB 1, Gulfport, Miss.
- NMCB 11, Gulfport, Miss.
- NMCB 74, Gulfport, Miss.

25th Naval Construction Regiment, Gulfport, Miss.
- NMCB 7, Gulfport, Miss.
- NMCB 133, Gulfport, Miss.
- Underwater Construction Team (UCT) 1, Norfolk
- Construction Battalion Maintenance Unit 202, Norfolk

30th Naval Construction Regiment, Port Hueneme, Calif.
- NMCB 3, Port Hueneme, Calif.
- NMCB 4, Port Hueneme, Calif.
- NMCB 5, Port Hueneme, Calif.
- NMCB 40, Port Hueneme, Calif.
- Construction Battalion Maintenance Unit 303, San Diego
- UCT 2, Port Hueneme, Calif.

Seabee Readiness Groups
- 20th Seabee Readiness Group, Gulfport, Miss.
- 31st Seabee Readiness Group, Port Hueneme, Calif.

RIVERINE FORCE
The riverine force establishes and maintains control of rivers and waterways for military and civil purposes, denies terrorists the use of the maritime environment, and destroys waterborne hostile forces as necessary. The riverine force combats sea-based terrorism and other illegal activities, such as hijacking, piracy and human trafficking.

Riverine Group 1, Norfolk
- Riverine Squadron (RIVRON) 1, Norfolk
- RIVRON 2, Norfolk
- RIVRON 3, Yorktown, Va.

MARITIME CIVIL AFFAIRS AND SECURITY TRAINING (MCAST) COMMAND, NORFOLK
Maritime Civil Affairs and Security Training Command (MCAST Command) provides Maritime Civil Affairs (MCA) and Security Force Assistance (SFA) core competencies to enhance international partnerships. These capabilities enable a partner nation to establish and exercise its maritime security and regional stability.

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

Maritime Civil Affairs regionally aligned planners, teams and specialists liaison between the operational commander, U.S. country team, host nation civil and military entities and other key partners to facilitate the collaboration of diplomacy, defense, and development.

SFA Mobile Training Teams (MTTs) support Combatant and Navy Component Commanders’ Security Cooperation efforts by delivering customized training to designated host nations. SFA MTTs provide training in foreign locations and give local nationals the capability to govern and protect themselves and their areas of responsibility from enemies. The training targets the global audience of foreign country military, civil and security personnel.

- MCASTC Det., Norfolk

EXPEDITORY COMBAT READINESS CENTER (ECRC) NORFOLK
ECRC coordinates with the U.S. Army across 14 states to oversee all administrative processing, equipping, training, deployment and re-deployment of Sailors assigned as individual augmentees, in-lieu of forces and to provisional units committed to joint and maritime security operations.
- ECRC Det. Kuwait
- ECRC Det. Iraq
- ECRC Det. Afghanistan

NAVY EXPEDITIONARY INTELLIGENCE COMMAND (NEIC), VIRGINIA BEACH, VA.
NEIC capabilities provide timely, relevant force protection indications, warnings and tactical intelligence, which enables combatant commanders to conduct missions across the spectrum of expeditionary operations; including major combat operations, maritime security operations, combat engineering/construction, theater security cooperation support, security assistance, foreign military training, maritime civil affairs and riverine operations.

(Source: Navy Expeditionary Combat Command)
COMANDER NAVAL SPECIAL WARFARE COMMAND, CORONADO, CALIF.

Naval Special Warfare Recruiting Directorate, Coronado, Calif.
- Navy Parachute Team “Leap Frogs,” Coronado, Calif.

Commander, Naval Special Warfare Group (NSWG) 1, Coronado, Calif.
- SEAL Teams 1/3/5/7
- Logistics Support Unit (LSU) 1, Coronado, Calif.
- Support Activity 1, Coronado, Calif.
- Naval Special Warfare Unit 1, Guam
- Naval Special Warfare Unit 3, Bahrain

Commander, NSWG 2, Little Creek, Va.
- SEAL Teams 2/4/8/10
- LSU 2, Little Creek, Va.
- Support Activity 2, Little Creek, Va.
- Naval Special Warfare Unit 2, Germany

Commander, NSWG 3, Coronado, Calif.
- SEAL Delivery Vehicle Team 1, Pearl City, Hawaii

Commander, NSWG 4, Little Creek, Va.
- Special Boat Team (SBT) 12, Coronado, Calif.
- SBT 20, Little Creek, Va.
- SBT 22, Stennis, Miss.
- Naval Special Warfare Center, NSWC, Coronado, Calif.
- Naval Special Warfare Basic Training Command, Coronado, Calif.
- Naval Special Warfare Advanced Training Command, Coronado, Calif.

Commander, NSWG 11
- SEAL Team 17, Coronado, Calif.
- SEAL Team 18, Little Creek, Va.

Commander, Naval Special Warfare Development Group, Dam Neck, Va.

(Source: Naval Special Warfare Command)

A third phase student in Basic Underwater Demolitions/SEAL training is illuminated by a flare during a night shoot on San Clemente Island, Calif.

Photo by MC3 Blake Midnight
Enlisted Ratings

AB
Aviation Boatswain’s Mate
ABE - Equipment
ABF - Fuel
ABH – Handling

AC
Aviation Machinist’s Mate

AD
Aviation Electrician’s Mate

AE
Aerographer’s Mate

AG
Aviation Structural Mechanic
AME - Equipment

AM
Aviation Ordnanceman

AO
Aviation Ordnanceman

AS
Aviation Support Equipment Technician

AT
Aviation Electronics Technician

AW
Naval Air Crewmen

AZ
Aviation Maintenance Administrationman

BM
Boatswain’s Mate

BU
Builder

CE
Construction Electrician

CM
Construction Mechanic

CS
Culinary Specialist

CT
Cryptologic Technician
CTI - Interpretive
CTM - Maintenance
CTN - Networks
CTR - Collection
CTT - Technical

DC
Damage Controlman

EA
Engineering Aide

EM
Electrician’s Mate

EN
Engineman

EO
Equipment Operator

EOD
Explosive Ordnance Disposal

FC
Fire Controlman

FT
Fire Control Technician

GM
Gunner’s Mate

GS
Gas Turbine System Technician
GSE - Electrical
GSM - Mechanical

HC
Hospital Corpsman

HT
Hull Maintenance Technician

IC
Interior Communications Electrician

IS
Intelligence Specialist

IT
Information Systems Technician

LN
Legalman
Enlisted Sailors wear their job specialty in plain sight. Rating badges, worn on the left sleeve, consist of an eagle (called a crow); chevrons indicating the wearer’s rate; and a specialty mark indicating rating. While some of these ratings have historical significance (such as the boatswain’s mate), others show the evolution of Naval technology in modern times, such as the (gas turbine system technician).

(Source: Navy Personnel Command)
Warfare Pins

- Astronaut
- Naval Astronaut (NFO)
- Naval Aviator
- Naval Aviation Maintenance
- Naval Aviation Observer and Flight Meteorologist
- Flight Surgeon
- Flight Nurse
- Naval Flight Officer (NFO)
- Aviation Experimental Psychologist and Aviation Physiologist
- Enlisted Aviation Warfare Specialist
- Naval Aviation Supply Corps
- Aircrew
- Marine Combat Aircrew
- Special Warfare (SEAL)
- Special Operations
- Special Warfare Combatant-Craft Crewman
- Surface Warfare Officer
- Enlisted Surface Warfare Specialist
- Surface Warfare Nurse Corps
- Surface Warfare Medical Corps
- Surface Warfare Dental Corps
- Surface Warfare Medical Service Corps
- Surface Supply Corps
- Submarine (officer)
- Submarine (enlisted)
- Submarine Medical
- Submarine Engineering Duty
- Submarine Supply Corps
- Submarine Combat Patrol
- SSBN Deterrent Patrol
- SSBN Deterrent Patrol (20 patrols)
- Seabee Combat Warfare Specialist (officer)
- Seabee Combat Warfare Specialist (enlisted)
- Naval Parachutist
- Basic Parachutist
- Naval Reserve Merchant Marine
- Enlisted Expeditionary Warfare Specialist
- Integrated Undersea Surveillance System (officer)
- Integrated Undersea Surveillance System (enlisted)
- Explosive Ordnance Disposal Warfare Specialist
- Basic Explosive Ordnance Disposal Warfare Breast Insignia
- Fleet Marine Force Officer
- Fleet Marine Force (FMF) Enlisted Warfare Specialist
- Diving (officer)
- Diving Medical Officer
- Master Diver
- Diver (medic technician)
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<td>Scuba Diver</td>
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<tr>
<td>Deep Submergence (enlisted)</td>
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<tr>
<td>Vice Presidential Service Badge</td>
<td>Command Ashore/Project Manager</td>
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<tr>
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<td>Command Master Chief Petty Officer</td>
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<td>Small Craft (officer)</td>
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<td>Command Master Chief Petty Officer</td>
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Devices

**GOLD STAR**
Denotes subsequent awards of the same Navy decoration.

**SILVER STAR**
Worn in lieu of five gold stars.

**BRONZE STAR**
Represents participation in campaigns or operations, multiple qualification or an additional award to any of the various ribbons on which it is authorized. Also worn to denote first award of the single-mission Air Medal after Nov. 22, 1989.

**SILVER SERVICE STAR**
Worn in lieu of five bronze stars.

**BRONZE OAK LEAF CLUSTER**
Represents second and subsequent entitlements of awards.

**SILVER OAK LEAF CLUSTER**
Worn for the 6th, 11th, or in lieu of five bronze oak leaf clusters.

**WINTERED OVER**
For wintering over on Antarctica continent – a clasp for Antarctica Service Medal; a suspension ribbon and a disc for the service ribbon; bronze for the first winter, gold for the second winter, and silver for the third winter.

**“V” DEVICE**
Authorized for acts or service involving direct participation in combat operations.

**HOURGLASS**
Issued for each succeeding award of the Armed Forces Reserve Medal.

**EUROPE AND ASIA CLASPS**
Worn on the suspension ribbon of the Navy Occupation Service Medal.

**FLEET MARINE FORCE COMBAT OPERATIONS INSIGNIA**
For Navy personnel attached to Fleet Marine Force units participating in combat operations.

**SILVER “E”**
Denotes Expert Marksman qualification.

**BATTLE “E” DEVICE**

**BRONZE “S”**
Denotes Sharpshooter Marksman qualification.

**“M” DEVICE**
Denotes Naval Reserve mobilization in support of certain operations.

**STRIKE/FLIGHT DEVICE**
Bronze Arabic numeral denotes the total number of strike/flight awards of the Air Medal earned subsequent to April 9, 1962.

**“3/16” PALM**
Worn on the Republic of Vietnam Gallantry Cross Unit Citation and Republic of Vietnam Civil Actions Unit Citation ribbons.

**“E” DEVICE**
Denotes four or more Battle “E” Awards.

**KUWAIT LIBERATION CLUSTER**

**REPUBLIC OF VIETNAM CAMPAIGN CLASP**
## U.S. Armed Forces Ranks

### Air Force • Army • Marines

**Officer Ranks**
- **0-10**: General of the Air Force / Army (Reserved for Wartime)
- **0-9**: Lieutenant General
- **0-8**: Major General
- **0-7**: Brigadier General
- **0-6**: Colonel
- **0-5**: General
- **0-4**: Admiral / Commandant of the Coast Guard
- **0-3**: Rear Admiral
- **0-2**: Rear Admiral (Lower Half)
- **0-1**: Captain
- **0**: Lieutenant Colonel

### Navy • Coast Guard

**Officer Ranks**
- **0-10**: Fleet Admiral (Reserved for Wartime)
- **0-9**: Vice Admiral
- **0-8**: Rear Admiral
- **0-7**: Rear Admiral (Lower Half)
- **0-6**: Captain
- **0-5**: Lieutenant Commander
- **0-4**: Commander
- **0-3**: Lieutenant
- **0-2**: First Lieutenant
- **0-1**: Second Lieutenant

### Warrant Officers

**Air Force**
- No Warrant
- Warrant Officer 1
- Chief Warrant Officer 2
- Chief Warrant Officer 3
- Chief Warrant Officer 4
- Chief Warrant Officer 5

**Army**
- No Warrant
- Warrant Officer 1
- Chief Warrant Officer 2
- Chief Warrant Officer 3
- Chief Warrant Officer 4
- Chief Warrant Officer 5

**Marine Corps**
- No Warrant
- Warrant Officer 1
- Chief Warrant Officer 2
- Chief Warrant Officer 3
- Chief Warrant Officer 4
- Chief Warrant Officer 5

**Navy & Coast Guard**
- No Warrant
- Warrant Officer 1
- Chief Warrant Officer 2
- Chief Warrant Officer 3
- Chief Warrant Officer 4
- Chief Warrant Officer 5

Chiefs Warrant Officer 1 (Coast Guard only)
## Order of Precedence

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<td>Presidential Unit Citation</td>
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<td>Inter American Defense Board Medal</td>
<td>Republic of Vietnam Campaign Medal</td>
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<td>Kuwait Liberation (Kuwait)</td>
<td>Rifle Marksmanship Medal</td>
<td>Pistol Marksmanship Medal</td>
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Working Uniforms

**Rank Insignia:**
The appropriate embroidered rate/rank insignia will be worn on the front of the NWU cap and on each collar by all Sailors E-4 to O-10.

**Sleeve Rolling:**
- 3-inch wide band covered with fabric side out and cuff clearly visible
- 2 inches above elbow

**Sleeve Length:**
- When shirt cuff is fastened length of sleeve should cover the wrist bone, but not extend further than the first knuckle at the base of the thumb.

**NWU Boots:**
- Boot laces must be tied and tucked into the cuff of the boots.
- Boots should be worn with boot socks.
- Smooth finish boots are authorized for shore and shipboard use.
- Rough-out boots are authorized for shore duty only.

* All buttons and closures shall be secured
* Recommend uniforms be washed inside out

**8-Point Cover:**
- Square on head, not resting on ears
- Visor just above eye level and parallel to deck

**T-Shirt & Mockneck Sweater:**
- Collar should fit comfortably around neck.
- Mockneck sweater sleeve length shall not extend beyond the length of the NWU shirt sleeve.

**Shirt Length:**
- Shirt length must extend to the bottom of the crotch, but not lower than the middle of the cargo pocket flap.
- No gapping at blouse front, both sides of shirt opening must overlap

**Trousers:**
- Trousers worn at waistline with belt

**Trouser Blousing:**
- Blouse trousers using blousing straps. The blousing straps should be affixed between the 3rd and 4th eyelets from the top.

**Warfare Insignia:**
- Primary warfare insignia shall be sewn centered and flush with the top of U.S. Navy tape. The fabric strip shall be sewn with a ¼ inch border on the left and right of the embroidery.

**NWU Boots:**
- Boot laces must be tied and tucked into the cuff of the boots.
- Smooth finish boots are authorized for shore and shipboard use.
- Rough-out boots are authorized for shore duty only.

* All buttons and closures shall be secured
* Recommend uniforms be washed inside out

Photo by MC2(AW/SW) Jhi Scott
Ships

CRUISERS
Modern U.S. Navy guided-missile cruisers perform primarily in a battle force role. These ships are multimission, anti-air warfare (AAW), anti-submarine warfare (ASUW), long-range strike and anti-surface warfare (ASW) surface combatants capable of supporting carrier and expeditionary strike groups, amphibious forces, or of operating independently and as flagships of surface strike groups.

Ticonderoga-class
- USS Bunker Hill (CG 52)
- USS Mobile Bay (CG 53)
- USS Antietam (CG 54)
- USS Leyte Gulf (CG 55)
- USS San Jacinto (CG 56)
- USS Lake Champlain (CG 57)
- USS Philippine Sea (CG 58)
- USS Princeton (CG 59)
- USS Normandy (CG 60)
- USS Monterey (CG 61)
- USS Chancellorsville (CG 62)
- USS Cowpens (CG 63)
- USS Gettysburg (CG 64)
- USS Chosin (CG 65)
- USS Hue City (CG 66)
- USS Shiloh (CG 67)
- USS Anzio (CG 68)
- USS Vicksburg (CG 69)
- USS Lake Erie (CG 70)
- USS Cape St. George (CG 71)
- USS Vella Gulf (CG 72)
- USS Port Royal (CG 73)

DESTROYERS
Guided-missile destroyers are multimission AAW, ASW and ASUW surface combatants. They operate independently for support of carrier and expeditionary strike groups and surface strike groups.

Arleigh Burke-class
- USS Arleigh Burke (DDG 51)
- USS Barry (DDG 52)
- USS John Paul Jones (DDG 53)
- USS Curtis Wilbur (DDG 54)
- USS Stout (DDG 55)
- USS John S. McCain (DDG 56)
- USS Mitscher (DDG 57)
- USS Laboon (DDG 58)
- USS Russell (DDG 59)
- USS Paul Hamilton (DDG 60)
- USS Ramage (DDG 61)
- USS Fitzgerald (DDG 62)
- USS Stethem (DDG 63)
- USS Carney (DDG 64)
- USS Benfold (DDG 65)
- USS Gonzalez (DDG 66)
- USS Cole (DDG 67)
- USS The Sullivans (DDG 68)
- USS Milius (DDG 69)
- USS Hopper (DDG 70)
- USS Ross (DDG 71)
- USS Mahan (DDG 72)
- USS Decatur (DDG 73)
- USS McFaul (DDG 74)
- USS Donald Cook (DDG 75)
- USS Higgins (DDG 76)
- USS O’Kane (DDG 77)
- USS Porter (DDG 78)
- USS Oscar Austin (DDG 79)
- USS Roosevelt (DDG 80)
- USS Winston S. Churchill (DDG 81)
- USS Lassen (DDG 82)
- USS Howard (DDG 83)
- USS Bulkeley (DDG 84)
- USS McCampbell (DDG 85)
- USS Shoup (DDG 86)
- USS Mason (DDG 87)
- USS Preble (DDG 88)
- USS Mustin (DDG 89)
- USS Chafee (DDG 90)
- USS Pinckney (DDG 91)
- USS Momsen (DDG 92)
- USS Chung-Hoon (DDG 93)
- USS Nitze (DDG 94)
- USS James E. Williams (DDG 95)
- USS Bainbridge (DDG 96)
- USS Halsey (DDG 97)
- USS Forrest Sherman (DDG 98)
- USS Farragut (DDG 99)
- USS Kidd (DDG 100)
- USS Gridley (DDG 101)
- USS Sampson (DDG 102)
- USS Truxtun (DDG 103)
- USS Sterett (DDG 104)
- USS Dewey (DDG 105)
- USS Stockdale (DDG 106)
- PCU Gravely (DDG 107)*
- USS Wayne E. Meyer (DDG 108)
- PCU Jason Dunham (DDG 109)*
- PCU William P. Lawrence (DDG 110)*
- PCU Spruance (DDG 111)*
- PCU Michael Murphy (DDG 112)*

Zumwalt-class
- Zumwalt (DDG 1000)*
- Michael Monsoor (DDG 1001)*

FRIGATES
Frigates fulfill a protection-of-shipping mission as ASW combatants for amphibious expeditionary forces, underway replenishment groups and merchant convoys.

Oliver Hazard Perry-class
- USS McInerney (FFG 8)
- USS Boone (FFG 28)**
- USS Stephen W. Groves (FFG 29)**
- USS John L. Hall (FFG 32)
- USS Jarrett (FFG 33)
- USS Underwood (FFG 36)
- USS Crommelin (FFG 37)**
- USS Curtis (FFG 38)**
- USS Doyle (FFG 39)**
- USS Halyburton (FFG 40)
- USS McClasky (FFG 41)**
- USS Klausing (FFG 42)**
- USS Thach (FFG 43)
- USS DeWert (FFG 45)
- USS Rentz (FFG 46)
- USS Nicholas (FFG 47)
- USS Vandegrift (FFG 48)
- USS Robert G. Bradley (FFG 49)
- USS Taylor (FFG 50)
- USS Gary (FFG 51)
- USS Carr (FFG 52)
- USS Haws (FFG 53)
- USS Ford (FFG 54)

*Under construction or authorized for construction
**Navy Reserve Force
AMPHIBIOUS ASSAULT

Operating as part of the modern U.S. Navy, amphibious assault ships project power and maintain presence by serving as the cornerstone of the expeditionary strike groups. These ships use Air Cushion Landing Craft (LCAC), conventional landing craft and helicopters to move Marine assault forces ashore.

In a secondary role, using AV-8B Harrier aircraft and anti-submarine warfare helicopters, these ships perform sea control and limited power projection missions.

Marines from the 24th Marine Expeditionary Unit ride in Landing Craft Unit 1645 enroute to USS Nassau (LHA 4) during COMPTUEX off the East Coast of the United States.

Photo by MC1 Brien Aho
Ships

**Tarawa-class**
- USS Nassau (LHA 4)
- USS Peleliu (LHA 5)

**Wasp-class**
- USS Wasp (LHD 1)
- USS Essex (LHD 2)
- USS Kearsarge (LHD 3)
- USS Boxer (LHD 4)
- USS Bataan (LHD 5)
- USS Bonhomme Richard (LHD 6)
- USS Iwo Jima (LHD 7)
- USS Makin Island (LHD 8)

**America-class**
- PCU America (LHA 6)*

**AMPHIBIOUS TRANSPORT DOCK**

Amphibious transport dock ships are used to transport and land elements of a landing force for a variety of expeditionary warfare missions. These ships are used to transport Marines, their equipment and supplies by embarked air cushion or conventional landing craft or amphibious vehicles, augmented by helicopters or vertical take off and landing aircraft in amphibious assault, special operations, or expeditionary warfare missions.

**San Antonio-class**
- USS San Antonio (LPD 17)
- USS New Orleans (LPD 18)
- USS Mesa Verde (LPD 19)
- USS Green Bay (LPD 20)
- USS New York (LPD 21)
- San Diego (LPD 22)*
- Anchorage (LPD 23)*
- Arlington (LPD 24)*
- Somerset (LPD 25)*

**AMPHIBIOUS DOCK LANDING**

Dock landing ships support amphibious operations including landings via air, LCAC, conventional landing craft and helicopters, onto hostile shores.

**Whidbey Island-class**
- USS Whidbey Island (LSD 41)
- USS Germantown (LSD 42)
- USS Fort McHenry (LSD 43)
- USS Gunston Hall (LSD 44)
- USS Comstock (LSD 45)
- USS Tortuga (LSD 46)
- USS Rushmore (LSD 47)
- USS Ashland (LSD 48)

**Harpers Ferry-class**
- USS Harpers Ferry (LSD 49)
- USS Carter Hall (LSD 50)
- USS Oak Hill (LSD 51)
- USS Pearl Harbor (LSD 52)

**AMPHIBIOUS COMMAND**

Amphibious Command ships provide command and control for fleet commanders. Commissioned in 1970, these are the only ships to be designed initially for an amphibious command ship role. Earlier amphibious command ships lacked sufficient speed to keep up with a 20-knot amphibious force. USS Blue Ridge (LCC 19) became the 7th Fleet command ship in 1979, and USS Mount Whitney (LCC/JCC 20) became the 6th Fleet command ship in 2005. Mount Whitney was transferred to Military Sealift Command, but is still in commission.

**Blue Ridge-class**
- USS Blue Ridge (LCC 19)
- USS Mount Whitney (LCC/JCC 20)

**MINE COUNTERMEASURES SHIPS**

Avenger-class ships are designed as mine hunter-killers capable of finding, classifying and destroying moored and bottom mines. The last three MCM ships were purchased in 1990, bringing the total to 14 fully deployable, oceangoing Avenger-class ships. These ships use sonar and video systems, cable cutters and a mine detonating device that can be released and detonated by remote control. They are also capable of conventional sweeping measures.

**Avenger-class**
- USS Avenger (MCM 1)
- USS Defender (MCM 2)
- USS Sentry (MCM 3)
- USS Champion (MCM 4)

**COASTAL PATROL SHIPS**

The primary mission of these ships is coastal patrol and interdiction surveillance, an important aspect of littoral operations. These ships provide the U.S. Navy with a fast, reliable platform that can respond to emergent requirements in a shallow water environment. Five of these ships have been forward-deployed to the Gulf Region in support of the war on terrorism.

The Cyclone-class have all been employed jointly with the U.S. Coast Guard to help protect the nation’s coastline. The Navy and Coast Guard signed an agreement in August 2004 that allowed five ships to be under the operational command of the Coast Guard beginning in October 2004. Two of five ships returned to the Navy in 2008; the remainder will return in 2011. Beginning in 2009, the ships will undergo a sustainment program to update the ships’ communication, engineering and support systems.
**Cyclone-class**
USS Tempest (PC 2)
USS Hurricane (PC 3)
USS Monsoon (PC 4)
USS Typhoon (PC 5)
USS Sirocco (PC 6)
USS Squall (PC 7)
USS Chinook (PC 9)
USS Firebolt (PC 10)
USS Whirlwind (PC 11)
USS Thunderbolt (PC 12)

**Emory S. Land-class**
USS Emory S. Land (AS 39)
USS Frank Cable (AS 40)

**LITTORAL COMBAT SHIP**
The littoral combat ship is a fast craft designed to operate in hostile near-shore environments yet capable of open-ocean operations. It is designed to defeat asymmetric "anti-access" threats such as mines, quiet diesel submarines and fast surface craft. Freedom-class consists of two different hullforms – a semiplanning monohull and an aluminum trimaran. Both have reconfigurable payloads for interchangeable mission packages that focus on antisubmarine, mine and surface warfare.

**Ships**
USS Freedom (LCS 1)
USS Independence (LCS 2)*
Fort Worth (LCS 3)
Coronado (LCS 4)

**SUBMARINE TENDERS**
Submarine tenders furnish maintenance and logistic support for nuclear-powered attack submarines and are the largest of the active auxiliaries. Their crews are made up mostly of technicians and repair personnel.

**Emory S. Land-class**
USS Emory S. Land (AS 39)
USS Frank Cable (AS 40)

**OTHER SHIPS IN COMMISSION**
USS Constitution
USS Pueblo (AGER 2)
Self Defense Test Ship (EDDG 31)

*Under construction or authorized for construction
**Navy Reserve Force
(Source: Naval Sea Systems Command)
Military Sealift Command Ships

Military Sealift Command (MSC) operates approximately 110 noncombatant, civilian-crewed ships that replenish U.S. Navy ships, conduct specialized missions, strategically preposition combat cargo at sea around the world and move military equipment and supplies used by deployed U.S. forces. In wartime, more than 90 percent of all equipment and supplies needed by U.S. military forces is carried by sea.

MSC, headquartered in Washington, D.C., has six major subordinate commands worldwide. Military Sealift Fleet Support Command in Norfolk, crews, trains, equips and maintains MSC’s government-owned, government-operated ships around the globe. In addition, five operational commands called Sealift Logistics Commands, or SEALOGs, are located in Norfolk; San Diego; Naples, Italy; Manama, Bahrain; and Singapore.

NAVAL FLEET AUXILIARY FORCE

The ships of MSC’s Naval Fleet Auxiliary Force (NFAF) are the supply lines to U.S. Navy ships at sea. These ships provide virtually everything that Navy ships need, including fuel, food, ordnance, spare parts, mail and other supplies. All NFAF ships are government-owned and crewed by civil service mariners. Some of the ships also have a small contingent of Navy personnel aboard for operations support, supply coordination and helicopter operations. When needed, some NFAF ships also carry military or civilian helicopter detachments.

Ammunition Ships (T-AE)

- USNS Flint (T-AE 32) (1)
- USNS Shasta (T-AE 33)
- USNS Mount Baker (T-AE 34) (3)
- USNS Kiska (T-AE 35)
- USNS John Ericsson (T-AO 194)
- USNS Leroy Grumman (T-AO 195)
- USNS Kanawha (T-AO 196)
- USNS Pecos (T-AO 197)
- USNS Big Horn (T-AO 198)
- USNS Tippecanoe (T-AO 199)
- USNS Guadalupe (T-AO 200)
- USNS Pataxent (T-AO 201)
- USNS Yukon (T-AO 202)
- USNS Laramie (T-AO 203)
- USNS Rappahannock (T-AO 204)

Combat Stores Ships (T-AFS)

- USNS San Jose (T-AFS 7)
- USNS Supply (T-AOE 6)
- USNS Rainier (T-AOE 7)
- USNS Arctic (T-AOE 8)
- USNS Bridge (T-AOE 10)
- First Combat Support Ships (T-AOE)
- USNS Mercy (T-AH 19)
- USNS Comfort (T-AH 20)

Dry Cargo/Ammunition Ships (T-AKE)

- USNS Lewis and Clark (T-AKE 1)
- USNS Sacagawea (T-AKE 2)
- USNS Alan Shepard (T-AKE 3)
- USNS Richard E. Byrd (T-AKE 4)
- USNS Robert E. Peary (T-AKE 5)
- USNS Amelia Earhart (T-AKE 6)
- USNS Carl Brashear (T-AKE 7)
- USNS Wally Schirra (T-AKE 8)
- USNS Matthew Perry (T-AKE 9) (2)
- USNS Charles Drew (T-AKE 10) (2)
- USNS Washington Chambers (T-AKE 11) (2)
- USNS William McLean (T-AKE 12) (3)

Fleet Replenishment Oilers (T-AO)

- USNS Henry J. Kaiser (T-AO 187)
- USNS John Lenthall (T-AO 189)
- USNS Walter S. Diehl (T-AO 193)
- USNS Zeus (T-ARC 7)

Cable Laying/Repair Ship (T-ARC)

- USNS Zeus (T-ARC 7)

Command Ship (LCC)

- USN Mount Whitney (LCC/JCC 20)

Missile Range Instrumentation Ships (T-AGM)

- USNS Observation Island (T-AGM 23)
- USNS Invincible (T-AGM 24)

Navigation Test Support Ships (T-AGS)

- USNS Waters (T-AGS 45)

Ocean Surveillance Ships (T-AGOS)

- USNS Victorious (T-AGOS 19)
- USNS Able (T-AGOS 20)
- USNS Effective (T-AGOS 21)
- USNS Loyal (T-AGOS 22)
- USNS Impeccable (T-AGOS 23)

Oceanographic Survey Ships (T-AGS)

- USNS John McDonnell (T-AGS 51) (1)
- USNS Pathfinder (T-AGS 60)
- USNS Sunner (T-AGS 61)
- USNS Bowditch (T-AGS 62)
- USNS Henson (T-AGS 63)
- USNS Bruce C. Heezen (T-AGS 64)
- USNS Mary Sears (T-AGS 65)

SPECIAL MISSION SHIPS

MSC’s Special Mission Program provides operating platforms and services for a wide variety of U.S. military and other U.S. government missions. Services such as oceanographic and hydrographic surveys, underwater surveillance, missile tracking, command and control, and submarine support are just a few of the specialized capabilities this program provides.

(1) Expected deactivation in 2010
(2) Under construction
(3) Construction to begin in September 2010
(4) Transferring to MSC in February 2010
(5) Transferring to Pre-positioning in 2010

- USNS John Ericsson (T-AO 194)
- USNS Leroy Grumman (T-AO 195)
- USNS Kanawha (T-AO 196)
- USNS Pecos (T-AO 197)
- USNS Big Horn (T-AO 198)
- USNS Tippecanoe (T-AO 199)
- USNS Guadalupe (T-AO 200)
- USNS Pataxent (T-AO 201)
- USNS Yukon (T-AO 202)
- USNS Laramie (T-AO 203)
- USNS Rappahannock (T-AO 204)

Fleet Ocean Tugs (T-ATF)

- USNS Catabwa (T-ATF 168)
- USNS Navajo (T-ATF 169)
- USNS Sioux (T-ATF 171)
- USNS Apache (T-ATF 172)

Rescue and Salvage Ships (T-ARS)

- USNS Safeguard (T-ARS 50)
- USNS Grasp (T-ARS 51)
- USNS Salvor (T-ARS 52)
- USNS Grapple (T-ARS 53)

Oceanographic Survey Ships (T-AGS)

- USNS John McDonnell (T-AGS 51) (1)
- USNS Pathfinder (T-AGS 60)
- USNS Sunner (T-AGS 61)
- USNS Bowditch (T-AGS 62)
- USNS Henson (T-AGS 63)
- USNS Bruce C. Heezen (T-AGS 64)
- USNS Mary Sears (T-AGS 65)
Sailors hook-up a pole pendant to a Military Sealift Command-contracted SA-330J Puma helicopter assigned to USNS Amelia Earhart (T-AKE 6) during vertical replenishment aboard USS Tortuga (LSD 46) during exercise Talisman Saber 2009.

Photo by MC1 Geronimo Aquino
Military Sealift Command Ships

USNS Kanawha (T-AO 196) transits alongside USS Fort McHenry (LSD 43) while conducting a replenishment at sea in support of maritime security operations in the 5th Fleet Area of Responsibility.

Photo by MC2 Kristopher Wilson
### Submarine and Special Warfare Support Ships
- MV C-Commando
- MV C-Champion
- MV Dolores Chouest
- MV HOS Arrowhead
- MV HOS Eagle View
- MV HOS Blackpowder
- MV HOS Westwind

### Submarine Tender (AS)
- USS Emory S. Land (AS 39)
- USS Frank Cable (AS 40) (4)

### PREPOSITIONING
The MSC Pre-positioning Program supports the U.S. Army, U.S. Navy, U.S. Air Force, U.S. Marine Corps and Defense Logistics Agency. Afloat pre-positioning strategically places military equipment and supplies aboard ships located in key ocean areas to ensure rapid availability to U.S. combat troops during a conflict, a humanitarian operation or other contingency. In addition, two high-speed vessels support geographic combatant command and service requirements for intra-theater lift and theater security cooperation.

### Air Force Container Ships (T-AK)
- MV CAPT Steven L. Bennett (T-AK 4296)
- MV TSGT John A. Chapman (T-AK 323)

### Army Container Ships (T-AK)
- MV LTC John U.D. Page (T-AK 4496)
- MV SSGT Edward A. Carter Jr. (T-AK 4544)

### Maritime Prepositioning and Force Container Roll-on/Roll-off and Tanker (T-AK, T-AKR and T-AOT)
- USNS Lawrence H Gianella (T-AOT 1125)
- USNS SGT Matej Kocak (T-AK 3005)
- SS PFC Eugene A. Obregon (T-AK 3006)
- USNS MAJ Stephen W. Pless (T-AK 3007)
- USNS 2nd LT John P. Bobo (T-AK 3008)
- USNS PFC Dewayne T. Williams (T-AK 3009)

### Marine Corps Container Ship
- MV MAJ Bernard F. Fisher (T-AK 4396)

### Offshore Petroleum Distribution System (T-AG)
- MV VADM K.R. Wheeler (T-AG 5001)

### Aviation Logistics Support Ships (T-AVB)
- SS Wright (T-AVB 3)
- SS Curtiss (T-AVB 4)

### Large, Medium-speed Roll-on/Roll-off Ships (T-AKR)
- USNS Watson (T-AKR 310)
- USNS Red Cloud (T-AKR 313)
- USNS Charlton (T-AKR 314)
- USNS Watkins (T-AKR 315)
- USNS Pomeroy (T-AKR 316)
- USNS Soderman (T-AKR 317)

### High-Speed Vessel (HSV)
- HSV WestPac Express (HSV 4676)
- HSV Swift (HSV 2)

### Modular Cargo Distribution System (T-AK)
- SS Cape Jacob (T-AK 5029)

### SEALIFT FORCE
MSC’s Sealift Program provides high-quality, efficient and cost-effective ocean transportation for DoD and other federal agencies during peacetime and war.

### Dry Cargo Ships
- MV American Tern (T-AK 4729)
- MV Mohegan
- MV Virginian (T-AK 9205)
- T/B Megan Beyel

(1) Expected deactivation in 2010
(2) Under construction
(3) Construction expected to begin in September 2010
(4) Transferring to MSC in February 2010
(5) Transferring to Pre-positioning in 2010

(Source: Military Sealift Command)
Submarines

Attack submarines
Attack submarines are designed to seek and destroy enemy submarines and surface ships; project power ashore with Tomahawk cruise missiles and special operation forces (SOF); carry out intelligence, surveillance and reconnaissance (ISR); conduct irregular warfare (IW) missions; and engage in mine warfare.

There are three classes of attack submarines (SSN). The Los Angeles-class is the backbone of the submarine force with 45 subs now in commission.

The Seawolf-class submarine is a multimission vessel designed to be exceptionally quiet, fast and well-armed, with advanced sensors. The Virginia-class is the Navy’s next generation SSN and is built to excel in a wide variety of missions including anti-submarine and surface ship warfare; special operations forces; strike; ISR; IW; and mine warfare.

Los Angeles-class
USS Los Angeles (SSN 688)
USS Philadelphia (SSN 690)
USS Memphis (SSN 691)
USS Bremerton (SSN 698)
USS Jacksonville (SSN 699)
USS Dallas (SSN 700)
USS Los Angeles (SSN 701)
USS City of Corpus Christi (SSN 705)
USS Albuquerque (SSN 706)
USS San Francisco (SSN 711)
USS Houston (SSN 713)
USS Norfolk (SSN 714)
USS Buffalo (SSN 715)
USS Olympia (SSN 717)
USS Providence (SSN 719)
USS Pittsburgh (SSN 720)
USS Chicago (SSN 721)
USS Key West (SSN 722)
USS Oklahoma City (SSN 723)
USS Louisville (SSN 724)
USS Helena (SSN 725)
USS Newport News (SSN 750)
USS San Juan (SSN 751)
USS Pasadena (SSN 752)
USS Albany (SSN 753)
USS Topeka (SSN 754)
USS Miami (SSN 755)
USS Scranton (SSN 756)
USS Alexandria (SSN 757)
USS Ashville (SSN 758)
USS Jefferson City (SSN 759)
USS Annapolis (SSN 760)
USS Springfield (SSN 761)
USS Columbus (SSN 762)
USS Santa Fe (SSN 763)
USS Boise (SSN 764)
USS Montpelier (SSN 765)
USS Charlotte (SSN 766)
USS Hampton (SSN 767)
USS Hartford (SSN 768)
USS Toledo (SSN 769)
USS Tucson (SSN 770)
USS Columbia (SSN 771)
USS Greeneville (SSN 772)
USS Cheyenne (SSN 773)

Seawolf - Class
USS Seawolf (SSN 21)
USS Connecticut (SSN 22)
USS Jimmy Carter (SSN 23)

Virginia-class
USS Virginia (SSN 774)
USS Texas (SSN 775)
USS Hawaii (SSN 776)
USS North Carolina (SSN 777)
USS New Hampshire (SSN 778)
USS New Mexico (SSN 779)
PCU Missouri (SSN 780)*
PCU California (SSN 781)*
Mississippi (SSN 782)*
Minnesota (SSN 783)*
North Dakota (SSN 784)*
John Warner (SSN 785)*

Ballistic missile submarines
Strategic deterrence has been the sole mission of the fleet ballistic missile submarine (SSBN) since its inception in 1959. The SSBN provides the nation’s most survivable and enduring nuclear strike capability. The Ohio-class submarine replaced aging fleet ballistic missile submarines built in the 1960s and is far more capable. Ohio-class Trident ballistic missile submarines provide the sea-based “leg” of the nuclear deterrence triad. Ohio-class SSBNs have the capability to carry up to 24 Trident II (D5) submarine launched ballistic missiles with multiple, independently-targeted warheads.

The first four Ohio-class submarines have been converted to guided-missile submarines (SSGN) with an additional capability to transport and support Navy special operations forces.

Ohio-class
USS Henry M. Jackson (SSBN 730)
USS Alabama (SSBN 731)
USS Alaska (SSBN 732)
USS Nevada (SSBN 733)
USS Tennessee (SSBN 734)
USS Pennsylvania (SSBN 735)
USS West Virginia (SSBN 736)
USS Kentucky (SSBN 737)
USS Maryland (SSBN 738)
USS Nebraska (SSBN 739)
USS Rhode Island (SSBN 740)
USS Maine (SSBN 741)
USS Wyoming (SSBN 742)
USS Louisiana (SSBN 743)

Guided missile submarines
The 1994 Nuclear Posture Review determined that the United States needed only 14 SSBNs to meet the nation’s strategic force needs. The decision was made to transform four Ohio-class submarines into conventional land attack and SOF platforms. This allowed the Navy to leverage existing submarine technology while expanding capability to meet the current and future needs of U.S. combatant commanders.

The SSGN Program Office converted four Ohio-class SSBNs into SSGNs in a little more than five years at a significantly lower cost than building a new platform.

USS Ohio (SSGN 726)
USS Michigan (SSGN 727)
USS Florida (SSGN 728)
USS Georgia (SSGN 729)

Submarine rescue diving and recompression system
The Submarine Diving and Recompression System (SRDRS) is a rapidly deployable rescue asset that can be delivered by air or ground,
installed on pre-screened military or commercial vessels of opportunity via a ship interference template and mated to a distressed submarine within 72 hours of first notification. SRDRS' rescue module, *Falcon*, can conduct rescue operations to a depth of 2,000 feet, can mate to a disabled submarine at a list of up to 45 degrees and can transfer up to 1 personnel at a time.

**LARGE SCALE VEHICLE 2 (LSV 2)**

LSV 2 *Cutthroat*, the world’s largest unmanned autonomous submarine, offers the capability to conduct a wide variety of studies dramatically improving the acoustic and operational performance of future submarines. *Cutthroat*, a 205-ton, large-scale submarine test vehicle, is used to affordably explore and test emerging technologies and to conduct physics-based experiments. Specific emphasis will be on stealth, hydrodynamics, hydro-acoustics and propulsion designs to permit technology insertion into current and future submarines.

**Ships**

*Cutthroat* (LSV 2)

* Under construction or authorized for construction
(Note: Virginia-class submarines (SSN 786 to SSN 791 have been authorized, but not named.)
(Source: Naval Sea Systems Command)

USS Connecticut (SSN 22) is underway in the Pacific Ocean while participating in Annual Exercise 21G, a bilateral exercise designed to enhance the capabilities of U.S. and Japanese naval forces.

Photo by MCSN Adam K. Thomas
Aircraft Carriers

Aircraft carriers are the centerpiece of America’s naval forces. On any given day, aircraft carriers exercise the Navy core capabilities of power projection, forward presence, humanitarian assistance, deterrence, sea control and maritime security. In times of crisis, the first question leaders ask is: “Where are the carriers?”

USS Enterprise (CVN 65) and 10 ships of the Nimitz-class make up the fleet of active aircraft carriers. These in-service carriers, and Gerald R. Ford-class (under construction) are each designed for a service life of approximately 50 years. These ships are the centerpiece of America’s naval forces.

**Enterprise-class**
USS Enterprise (CVN 65)

**Nimitz-class**
USS Nimitz (CVN 68)
USS Dwight D. Eisenhower (CVN 69)
USS Carl Vinson (CVN 70)
USS Theodore Roosevelt (CVN 71)
USS Abraham Lincoln (CVN 72)
USS George Washington (CVN 73)
USS John C. Stennis (CVN 74)
USS Harry S. Truman (CVN 75)
USS Ronald Reagan (CVN 76)
USS George H.W. Bush (CVN 77)

**Gerald R. Ford-class**
Gerald R. Ford (CVN 78)*

* Keel Laying, Nov. 14, 2009
(Source: Naval Air Forces)

USS George Washington (CVN 73) transits the Pacific Ocean while an SH-60B Sea Hawk helicopter assigned to Helicopter Anti-Submarine Squadron Light 51 conducts flight operations in the background.

Photo by MC3 Charles Oki
CARRIER BASED

EA-18G Growler
A variant of the U.S. Navy F/A-18F two-crew strike fighter, the EA-18G combines the combat-proven F/A-18F strike fighter with the proven Improved Capability III (ICAP III) AEA avionics suite.

Squadrons
VAQ-129 Vikings
VAQ-132 Scorpions
VAQ-138 Yellowjackets
VAQ-141 Shadowhawks

F/A-18 Hornt
The F/A-18 is an all-weather, attack aircraft that can also be used as a fighter. In its fighter mode, the F/A-18 is used primarily as an escort and for fleet air defense. In its attack mode, it is used for force projection, interdiction and close and deep air support.

SQUADRONS
Blue Angels
VFA-15 Valions
VFA-25 Fist of the Fleet
VFA-34 Blue Blasters
VFA-37 Bulls
VFA-83 Rampagers
VFA-86 Sidewinders
VFA-87 Golden Warriors
VFA-94 Mighty Shrikes
VFA-97 Warhawks
VFA-106 Gladiators
VFA-113 Stingers
VFA-125 Rough Raiders
VFA-146 Blue Diamonds
VFA-151 Vigilantes
VFA-192 Golden Dragons
VFA-195 Dambusters
VFA-204 (USNR) River Rattlers
VFC-12 (USNR) Fighting Omars

EA-6B Prowler
The EA-6B Prowler, a twin-engine, mid-wing aircraft designed for carrier and advanced base operations, provides an umbrella of protection for strike aircraft, ground troops and ships by jamming communications. The primary mission of the EA-6B Prowler is suppression of enemy air defenses in support of strike aircraft and ground troops by interrupting enemy electronic activity and obtaining tactical electronic intelligence within the combat area.

SQUADRONS
VAQ-130 Zappers
VAQ-131 Lancers
VAQ-133 Wizards
VAQ-134 Garudas
VAQ-135 Black Ravens
VAQ-136 Gauntlets
VAQ-137 Rooks
VAQ-139 Cougars
VAQ-140 Patriots
VAQ-142 Gray Wolves
VAQ-209(USNR) Star Warriors

E-2C Hawkeye
The E-2C Hawkeye is the Navy’s all-weather, carrier-based tactical battle management airborne early warning, command and control aircraft. The Hawkeye provides all-weather airborne early warning, airborne battle management and command and control functions for the carrier strike group and joint force commander.

SQUADRONS
VAW-77(USNR) Nightwolves
VAW-112 Golden Hawks
VAW-113 Black Eagles
VAW-115 Liberty Bells
VAW-116 Sun Kings
VAW-117 Wallbangers
VAW-120 Greyhawks
VAW-121 Bluetails
VAW-123 Screwtops
VAW-124 Bear Aces
VAW-125 Tigertails
VAW-126 Seahawks

C-2A Greyhound
The C-2A provides critical logistics support to Carrier Strike Groups. Its primary mission is the transport of high-priority cargo, mail and passengers between carriers and shore bases and can deliver a combined payload of 10,000 pounds over a distance in excess of 1,000 nm. The interior arrangement of the cabin can readily accommodate cargo, passengers and litter patients. Priority cargo such as jet engines can be transported from shore to ship in a matter of hours. A cargo cage system or transport stand provides restraint for loads during launches and landings.

SQUADRONS
VFA-136 Knighthawks
VFA-137 Kestrels
VFA-143 Puking Dogs
VFA-147 Argonauts
VFA-154 Black Knights
VFA-211 Fighting Checkmates
VFA-213 Black Lions

F/A-18E/F Super Hornet
The F/A-18E/F provides the carrier strike group with a strike fighter that has significant growth potential and increased range, endurance and ordnance-carrying capabilities.

SQUADRONS
VFA-2 Bounty Hunters
VFA-11 Red Rippers
VFA-14 Tophatters
VFA-22 Fighting Redcocks
VFA-27 Royal Maces
VFA-31 Tomcatters
VFA-32 Swordsmen
VFA-41 Black Aces
VFA-81 Sunliners
VFA-102 Diamondbacks
VFA-103 Jolly Rogers
VFA-105 Gunslingers
VFA-106 Gladiators
VFA-115 Eagles
VFA-122 Flying Eagles
VFA-131 Wildcats

V-22 Osprey
The V-22 Osprey is a joint-service tiltrotor designed for the Navy’s all-weather, carrier-based tactical battle management airborne early warning, command and control aircraft. The V-22 Osprey provides all-weather airborne early warning, airborne battle management and command and control functions for the carrier strike group and joint force commander.

Additional missions include surface surveillance coordination, air interdiction, offensive and defensive counter air control, close air support coordination, time critical strike coordination, search and rescue airborne coordination and communications relay.

SQUADRONS
VAW-77(USNR) Nightwolves
VAW-112 Golden Hawks
VAW-113 Black Eagles
VAW-115 Liberty Bells
VAW-116 Sun Kings
VAW-117 Wallbangers
VAW-120 Greyhawks
VAW-121 Bluetails
VAW-123 Screwtops
VAW-124 Bear Aces
VAW-125 Tigertails
VAW-126 Seahawks

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Aircraft

SQUADRONS
VRC-30 Providers
VRC-40 Rawhides

SHORE BASED

E-6B Mercury
The E-6B Mercury aircraft provides a survivable communications link between national decision makers and the country’s arsenal of strategic nuclear weapons. The E-6B enables the President of the United States and the Secretary of Defense to directly contact submarines, bombers and missile silos protecting our national security through deterrence.

SHORE BASED Aircraft
SQUADRONS
VRC-30 Providers
VRC-40 Rawhides

SQUADRONS
VQ-3 Ironman
VQ-4 Shadows
VQ-7 Roughnecks

P-3C Orion/EP-3E Aries II
Originally designed as a land-based, long-range, anti-submarine warfare patrol aircraft, the P-3C’s mission has evolved in the late 1990s and early 21st century to include surveillance of the battle space, either at sea or over land. Its long range and long loiter time have proved invaluable assets during Operation Iraqi Freedom as it can view the battlespace and instantaneously provide that information to ground troops, especially U.S. Marines.

The P-3C has advanced submarine detection sensors such as directional frequency and ranging sonobuoys and magnetic anomaly detection equipment. The P-3C can carry a mixed payload of weapons internally and on wing pylons. The EP-3E Aries II (Airborne Reconnaissance Integrated Electronic System II) is the Navy’s only land-based signals intelligence (SIGINT) reconnaissance aircraft. The 11 aircraft in the Navy’s inventory are based on the Orion P-3 airframe and provide fleet and theater commanders worldwide with near real-time tactical SIGINT. With sensitive receivers and high-gain dish antennas, the EP-3E exploits a wide range of electronic emissions from deep within targeted territory.

SQUADRONS
VP-1 Screaming Eagles
VP-4 Skinny Dragons
VP-5 Mad Foxes
VP-8 Tigers
VP-9 Golden Eagles
VP-10 Red Lancers
VP-16 War Eagles
VP-26 Tridents
VP-30 Pro’s Nest
VP-40 Fighting Marlins
VP-45 Pelicans
VP-46 Grey Knights
VP-47 Golden Swordsmen
VP-62(USNR) Broad Arrows
VP-69(USNR) Totems
VQ-1 World Watchers
VQ-2 Sandeman
VPU-1 Old Buzzards
VPU-2 Wizards

C-130T Hercules
The C-130T is the workhorse of the fleet and its primary mission is to satisfy Navy-specific fleet essential airlift requirements worldwide, to include flexible response to the fleet and short notice operational requirements for both training and deployed units. The C-130T operates from shore installations to provide intra-theater logistics support for all aspects of naval power. It is a four engine, turbo-prop aircraft capable of landing and taking off from short, rough dirt runways. It can transport up to 92 personnel, or 42,000 pounds of cargo, and can be configured to perform the air medical evacuation mission carrying up to 70 litters.

SQUADRONS
VR-53 (USNR) Capital Express
VR-54 (USNR) Revelers
VR-55 (USNR) Minutemen
VR-62 (USNR) Nomads
VR-64 (USNR) Condors

C-9B/DC-9 Skytrain II
The C-9B fleet is located throughout CONUS, Europe, and Asia. The Navy C-9B aircraft provides cargo and passenger transportation as well as forward deployment logistics support.

SQUADRONS
VR-46(USNR) Eagles
VR-52(USNR) Task Masters
VR-56(USNR) Globe Masters
VR-61(USNR) Islanders

C-40A Clipper
The C-40A Clipper provides critical logistics support to the Navy. Its flight deck features a flight management computer

An F-18E Super Hornet assigned to the Royal Maces of Strike Fighter Squadron 2 launches off the flight deck of USS George Washington (CVN 73) in support of security and stability in the Western Pacific Ocean.

Photo by ATAN Josiah Connelly
system with an integrated GPS. The U.S. Navy Reserve, which operates and maintains the aircraft, is the first customer for the newest member of the Boeing Next-Generation 737 family.

The Clipper was ordered by the Navy to replace its fleet of aging C-9B Skytrains. The C-40A is the first new logistics aircraft in 19 years to join the Navy Reserve. Currently, the Navy Reserve provides 100 percent of the Navy’s worldwide in-theater medium and heavy airlift.

**SQUADRONS**

VR-57 (USNR) Conquistadors  
VR-58 (USNR) Sunseekers  
VR-59 (USNR) Lonestar Express

**C-12 Huron**

The C-12 Huron is the military variant of the commercial King Air series aircraft. It is an all-metal, low-wing, T-Tail monoplane with two turbo-prop engines. The flight deck and cabin are pressurized for high altitude flight. This aircraft incorporates a cargo door with an integral air-stair door to permit easy entry and egress. With an effective payload capacity of up to 4,215 pounds, the cabin can readily be configured to accommodate passengers, cargo or both.

The mission of the C-12 Huron is to provide rapid, high priority movement of personnel and cargo; range clearance, courier flights, medical evacuation, and humanitarian rescue; multi-engine pilot training; and testing assets.

C-12 Huron’s are located at Naval Air Station (NAS) North Island, Calif.; NAS Norfolk; NAS Patuxent River, Md.; NAS Joint Reserve Base (JRB) Willow Grove, Pa.; NAS JRB New Orleans; NAS Fort Worth; NAS Jacksonville, Fla.; NAS Corpus Christi, Texas; Naval Air Facility (NAF) Andrews Air Force Base, Washington, D.C.; MCAS Yuma, Ariz.; MCAS Miramar, Calif.; MCAS Beaufort, S.C.; MCAS New River, N.C.; MCAS Iwakuni, Japan; MCAS Futenma, Japan; NAVSTA Guantanamo Bay, Cuba; Naval Support Activity Bahrain; NAF Atsugi, Japan; NAF Kadena, Japan; and NAF Misawa, Japan.

**C-20A/D**

The C-20A and D are commercial derivative Gulfstream III aircraft that provides world-wide airlift for senior leadership and dignitaries.

**SQUADRONS**

ETD Sigonella (USNR) (C-20A)  
VR-1 (USNR) Starlifters (C-20D)

**C-20G**

The C-20G is a commercial derivative Gulfstream IV aircraft that provides long-range, medium airlift logistics support for fleet battle groups. The C-20G is a Gulfstream IV variant with a cargo door providing long-range, medium lift capability.

**SQUADRONS**

VR-48 (USNR) Skyliners  
VR-51 (USNR) Windjammers  
VMR Det. MCAF Kaneohe Bay, Hawaii (USMC)

**C-26**

The C-26 is the military variant of the commercial Model SA-227-DC (Metro 23) aircraft series manufactured by Fairchild Aircraft Corporation. It’s an all-metal, low wing, cabin-class aircraft with two Allied Signal TPE331-12 turboprop engines. With a maximum payload capacity of 5,020 pounds, the cabin can be configured to accommodate up to 19 passengers, cargo or a combination of both. The four European-based aircraft provide rapid response cargo and passenger transportation as well as forward deployment logistics support, and the two RC-26D aircraft and one EC-26D aircraft in Hawaii support range operations at Pacific Missile Range Facility (PMRF) Barking Sands, Kauai.

NAF Sigonella  
NAF Naples  
PRMF Kauai

**C-37**

The C-37A/B is a Gulfstream 5/550 respectively, providing executive transport to Secretary of the Navy and Chief of Naval Operations, CMC, VCNO, ACMC, CFFC and DNNP.

**SQUADRONS**

VR-1 ETD Pacific (USNR) Starlifters (C-37A)  
VR-1 (USNR) Starlifters (C-37B)

**F-5N/F Tiger**

The F-5N is a single seat, twin-engine, tactical fighter providing air-to-air combat training for carrier air wings. The F-5F aircraft is a dual-seat version, twin-engine, tactical fighter trainer commonly used for training adversary pilots. The F-5F can also be used in the adversary mission. Both aircraft serve in an adversary-training role with simulation capability of current threat aircraft in air to air combat mode.

**SQUADRONS**

VFC-13 Saints  
VFC-111 Sundowners  
VMFT-401 Snipers
Test and Evaluation (T&E) Squadrons

T&E squadrons thoroughly test new and modified fixed-wing, rotary, and unmanned aircraft headed to the fleet. Avionics, weapons, flying qualities, software and ergonomics are just a few out of the long list of aircraft aspects that get tested. Successful completion of T&E is normally required for full-rate acquisition approval.

SQUADRONS

VX-1
VX-20
VX-23 (Growler), Patuxent River, Md.
VX-30
VX-31
HX-21

HELICOPTERS

SH-60F/HH-60H Seahawk

The Seahawk is a twin-engine helicopter used for anti-submarine warfare, search and rescue, drug interdiction, anti-ship warfare, cargo lift, and special operations. The Navy's SH-60B Seahawk is an airborne platform based aboard cruisers, destroyers, and frigates and deploys sonobuoys (sonic detectors) and torpedoes in an antisubmarine role. They also extend the range of the ship's radar capabilities. The Navy's SH-60F is carrier-based.

SQUADRONS

HS-3 Tridents
HS-4 Black Knights
HS-5 Nightdippers
HS-6 Indians
HS-7 Dusty Dogs
HS-10 War Hawks
HS-11 Dragonslayers
HS-14 Chargers
HS-15 Red Lions
HSC-84 (USNR) Red Wolves

SH-60B/MH-60R

The MH-60R continues the legacy of the SH-60B mission by conducting ASW and ASUW from the decks of cruisers, destroyers and frigates and also deploys as a carrier-based squadron. The MH-60R adds a dipping sonar, multi-mode ISAR radar, enhanced ESM, EO/IR, self-defense suite digital torpedos and air-to-ground weapons.

SQUADRONS

HSL-37 Easy Riders
HSL-40 Airwolves
HSL-41 Seahawks (MH-60R)
HSL-42 Proud Warriors
HSL-43 Battle Cats
HSL-44 Swamp Foxes
HSL-45 Wolfpack
HSL-46 Grandmasters
HSL-48 Vipers
HSL-49 Scorpions
HSL-51 Warlords
HSL-60 (USNR) Jaguars
HSM-71 Raptors (MH-60R)
HSM-77 Saberhawks (MH-60R)

MH-60S Knighthawk

The MH-60S is a twin-engine helicopter used for logistics support, vertical replenishment, search and rescue, naval special warfare support and future missions to include organic airborne mine countermeasures and combat search and rescue.

SQUADRONS

HMX-1 The Nighthawks
HM-14 (USNR) Vanguard
HM-15 (USNR) Blackhaws

UNMANNED AIRCRAFT SYSTEMS

RQ-7B Shadow Unmanned Aerial Vehicle (UAV)

The Shadow is a joint UAS employed by the Marine Corps' VMU squadrons (VMU-1, VMU-2, and VMU-3) to provide MAGTF commanders with both planned and immediate air reconnaissance. Each VMU operates three systems and each system possesses four air vehicles. The RQ-7B carries electro-optical and infrared sensors to provide day and night imagery as well as a laser spotter to support targeting. It serves in the air reconnaissance function to produce intelligence, target acquisition, and battle damage assessment. It also supports the replacement for the VH-1N.

SQUADRONS

MH-53E Sea Dragon

The MH-53E, a mine-countermeasures derivative of the CH-53E Super Stallion, is heavier and has a greater fuel capacity than the Super Stallion. Capable of transporting up to 55 troops, the MH-53E can carry a 16-ton payload 50 nautical miles, or a 10-ton payload 500 nautical miles. In its primary mission of airborne mine countermeasures, the MH-53E is capable of towing a variety of mine countermeasures systems.

SQUADRONS

HM-14 (USNR) Vanguard
HM-15 (USNR) Blackhaws
command and control function by serving as a platform for airborne communications relay.

**MQ-8B Navy Fire Scout**

*Fire Scout* has the ability to autonomously take-off from and land on any Ship Control Station equipped aviation-capable warship and also at unprepared landing zones close to the forward edge of the battle area (FEBA). It can carry out surveillance, find tactical targets, track and designate targets and provide accurate targeting data to strike platforms such as strike aircraft, helicopters and ships. The UAV is also able to carry out battle damage assessment.

**TRAINERS**

**T-6A Texan II**

The T-6A *Texan II* is a tandem-seat, turboprop trainer whose mission is to train Navy and Marine Corps pilots and naval flight Officers. The aircraft is one component of the Joint Primary Aircraft Training System along with simulators, computer-aided academics, and a Training Integration Management System.

The joint program, that will replace Navy T-34C aircraft, uses commercial off-the-shelf subsystems to the maximum extent possible. The Navy’s total T-6A requirement is 315 aircraft. The Navy aircraft and ground-based training systems will be completely supported and maintained by commercial vendors with intermediate maintenance provided for selected systems at the operating site.

**SQUADRONS**

VT-4 Mighty Warbucks
VT-10 Wildcats

**T-34C Turbomentor**

The T-34C is used to provide primary flight training for student pilots. As a secondary mission, approximately 10 percent of the aircraft provide pilot proficiency and other aircraft support services to Commander, Naval Air Force, U.S. Atlantic Fleet; Commander, Naval Air Force, U.S. Pacific Fleet; and Naval Air Systems Command’s “satellite sites” operated throughout CONUS. The T-34C was procured as a commercial derivative aircraft certified under an FAA-Type Certificate. Throughout its life, the aircraft has been operated and commercially supported by the Navy using FAA processes, procedures and certifications.

**SQUADRONS**

VT-2 Doer Birds
VT-3 Red Knights
VT-6 Shooters

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**VT-27 Boomers**
**VT-28 Rangers**

**T-45A/C Goshawk**

The T-45A, the Navy version of the British Aerospace *Hawk* aircraft, is used for intermediate and advanced portions of the Navy/Marine Corps pilot training program for jet carrier aviation and tactical strike missions. The T-45 includes an integrated training system that includes the aircraft, operations and instrument fighter simulators, academics and training integration system. There are two versions of T-45 aircraft currently in operational use at this time, the T-45A and T-45C derivatives. The T-45A, which became operational in 1991, contains an analog design cockpit while the new T-45C (delivery began in 1997) is built around a new digital “glass cockpit” design.
Aircraft

SQUADRONS
VT-7 Eagles
VT-9 Tigers
VT-21 Redhawks
VT-22 Golden Eagles

T-44A Pegasus and the TC-12 Huron
The T-44A and the TC-12 are used to train Navy and Air Force pilots to fly multi-engine, turbo-prop aircraft such as the P-3 and the C-130.

SQUADRONS
VT-31 Wise Owls (T-44A)
VT-35 Stingrays (TC-12)

T-39N/G Sabreliner
The T-39N Sabreliner is a multipurpose, low-wing, twin-jet aircraft. The 14 T-39Ns – derivatives of the commercial Sabre model 265-40 – are used for training undergraduate military flight officer students in radar navigation and airborne radar-intercept procedures. The eight T-39Gs – derivatives of the commercial Sabre model 265-60 - are used for student non-radar training.

SQUADRONS
VT-4 Mighty Warbucks
VT-86 Sabre Hawks

TH-57 Sea Ranger
The TH-57 Sea Ranger is a derivative of the commercial Bell Jet Ranger 206 and its primary mission is to provide advanced rotary-wing training to Navy and Marine Corps pilots. The TH-57 has two variants – TH-57B and TH-57C models. The TH-57B is used for primary visual flight rules training and the TH-57C is used for advanced instrument flight rules training.

SQUADRONS
HT-8 Eightballers
HT-18 Vigilants

SPECIAL SQUADRONS
VC-6 Firebees
VC-8 Redtails
VX-1 Pioneers
VX-9 Vampires
TACRON-11 Dirigimi
TACRON-12 Talons
TACRON-21 Blackjacks
TACRON-22 Skylords

F-5N/F Tiger
The F-5N is a single seat, twin-engine, tactical fighter and attack aircraft providing simulated air-to-air combat training. The aircraft is a dual-seat version, twin-engine, tactical fighter commonly used for training and adversary combat tactics. The aircraft serves in an aggressor-training role with simulation capability of current threat aircraft in fighter combat mode.

SQUADRONS
VFC-13 Saints
VFC-111 Sundowners
(Source: Naval Air Forces)

An MH-53E Sea Dragon helicopter assigned to Helicopter Mine Countermeasures Squadron 14 prepares to land on the flight deck of USS Harry S. Truman (CVN 75) during a joint task force exercise.
Weapons

STRATEGIC STRIKE

Trident II (D-5)

Larger and with longer range than Trident I, the Trident II was first tested aboard a submarine in March 1989 and deployed in 1990.

GENERAL-PURPOSE BOMBS

The MK-80 series general-purpose bomb family was created in the late 1940s and has been the standard air-launched bomb for the services ever since. The general-purpose bomb family is designed to provide blast and fragmentation effects and is used extensively in a number of configurations including laser-guided bombs, Joint Direct Attack Munitions (JDAM) and air-delivered mining applications. The unguided versions of the general-purpose bomb can also be delivered in freefall or retarded modes depending upon mission requirements. There were three basic versions of these bombs in inventory for many years:

* 2,000 pound MK 82/BLU 117
* 1,000 pound MK 83/BLU 110
* 2,500 pound MK 82/BLU 111

The remaining versions of the MK 80 series bombs are being converted from the MK designation to the Bomb-Live Unit (BLU) designation during new production.

The Navy’s MK 80 series bombs remaining in inventory are filled with H-6 high explosive; the newer BLU series bombs incorporate a PBXN-109 explosive that provides less sensitive characteristics and is considered safer to handle and stow.

The Navy’s newest member to the BLU series is the BLU-126 low-collateral (LOCO) warhead. It is identical to the BLU-111 with the exception of the amount of PBXN-109 explosive filler. The aft end of the BLU-126 bomb is packed with approximately 27 pounds of explosive filler with the remainder of the bomb being filled with inert material.

Laser-Guided Bomb Kits (LGB)

LGBs were developed to enhance the terminal accuracy of air-launched, general-purpose bombs and entered the fleet’s inventory in 1968. An LGB kit consists of a Computer Control Group (CCG) and Air Foil Group (AFG) normally attached to a general-purpose bomb to form an LGB.

The Dual Mode Laser Guided kit enhances existing LGB kits by adding GPS/INS capabilities. Like the LGB it consists of a CCG and an AFG.

Joint Direct Attack Munition (JDAM)

JDAM kits were jointly developed with the U.S. Air Force to provide increased accuracy for air-launched bombs. The JDAM kit consists of a tail kit and mid-body strakes attached to a general purpose or penetrator bomb body -500, 1,000 and 2,000 lbs.

Guidance and control is provided by Global Positioning System-aided inertial navigation system.

Laser Joint Direct Attack Munition (LJDAM)

LJDAM is a precision guided bomb, consisting of a modular laser sensor integrated with inventory JDAM kits to provide moving target kill capability. The laser sensor kit is field-installed on the 500-lb version of JDAM.

Joint Stand-off Weapon (JSOW)

The JSOW is an air-launched “drop-and-forget” weapon that is capable of approximately 60 nautical mile stand-off ranges. JSOW variants provide the fleet with a strike interdiction capability against soft and hardened targets such as fixed and relocatable air defense elements, parked aircraft, command and control facilities, light combat vehicles, industrial elements, bunkers, personnel and, beginning in FY10, enemy surface ships.

Currently, two variants of JSOW are in the fleet:

AGM-154A, which uses GPS/INS guidance and general purpose submunitions, and AGM-154C, which adds a terminal imaging infrared seeker and a two-stage Broach warhead.

HARM (High-speed Anti-Radar Missile)

HARM is the standard anti-radar missile in the U.S. inventory. It’s used as both a strike-protection and anti-ship weapon. First deployed aboard USS Kitty Hawk (CV 63) in January 1984, it was first used in combat in April 1986 during raids on Libya.

HARPOON/SLAM-ER

The Harpoon and Stand-Off Land Attack Missile - Expanded Response (SLAM-ER) missiles are derivatives from the original Harpoon, that was conceived in 1965.

Harpoon

The Harpoon Block 1C is an air or surface-launched, anti-ship, all-weather cruise missile which employs an autonomous active radar seeker to attack a wide variety of surface ship targets from standoff ranges. The Harpoon, which entered service in 1977, is currently carried by F/A-18 and P-3C aircraft as well as a portion of the DDG 51 and CG 47 surface ship classes for the U.S. Navy.

Numerous air, surface and submarine platforms currently deploy Harpoon for 27 Foreign Military Sales (FMS) international customers. Harpoon Block III is a retrofit kit currently under development to add a Network Enabled Weapon (NEW) datalink and GPS guidance to provide target selectivity to the combat proven Harpoon missile.

Stand-Off Land Attack Missile - Expanded Response (SLAM-ER)

SLAM-ER is an upgrade to the SLAM missile which adds Tomahawk derivative planar wings to increase flight range to more than 150 nautical miles and a titanium warhead for increased hardened target penetration. SLAM-ER also includes software improvements which allow the pilot to precisely select a target...
impact point from a cockpit display of the infrared image of the target. Improved mission planning is provided to simplify and shorten operator mission planning timelines.

SLAM-ER is used to attack critical nodes of high value fixed and relocatable land targets as well as surface ship targets underway or pier side. SLAM-ER is currently deployed from F/A-18 and P-3C aircraft and is planned for the P-8A aircraft. SLAM-ER is currently in production for foreign military sales (FMS) international customers.

**Maverick**

The Maverick is a short-range, air-to-surface, tactical missile. The version used by the Navy carries a warhead designed to penetrate large, hard targets. First deployed in August 1972.

**TOMAHAWK Cruise Missile**

An all-weather, ship- or submarine-launched cruise missile. Tomahawks have proven to be highly survivable weapons due to their low radar detectability and terrain/wave-skimming flight. First deployed in 1986.

The Tomahawk Land-Attack Missile (TLAM) is an all-weather subsonic cruise missile that can be fired from surface or submarine launch platforms. The Tomahawk carries a nuclear or conventional payload. The conventional, land-attack, unitary variant carries a 1,000-pound-class warhead (TLAM-C) while the submunitions dispenser variant carries 166 combined-effects bomblets (TLAM-D). The Block III version incorporates engine improvements, an insensitive extended range warhead, time-of-arrival control and navigation capability using an improved Digital Scene Matching Area Correlator and Global Positioning system (GPS) – which can significantly reduce mission-planning time and increase navigation and terminal accuracy.

The Tomahawk was used operationally for the first time during Operation Desert Storm. Tomahawks were fired against targets in Afghanistan in October 2001 during Operation Enduring Freedom. During Operation Iraqi Freedom in March 2003, 802 Tomahawks were fired against Iraq.

Tomahawk Block IV (TLAM-E) or “Tactical Tomahawk,” has capability enhancements that include (a) increased flexibility using two-way satellite communications to reprogram the missile in-flight to a new aimpoint or preplanned mission, send a new mission to the missile en route to a new target and missile health and status messages during the flight; (b) increased responsiveness with faster launch timelines, mission-planning capability aboard the launch platform, loiter capability in the area of emerging targets, the ability to provide battle-damage indication in the target area and the capability to provide a single-frame image of the target or other area of interest along the missile flight path; and (c) improved affordability: Full-rate production of the Tactical Tomahawk began in July 2004.

**ANTI-AIR WARFARE (AAW) AIRCRAFT GUNS M-61-A1**

This 20mm Gatling gun, which also forms the basis for the Phalanx Close-In Weapons System (see “Anti-aircraft Warfare” section), is mounted aboard the F/A-18 Hornet.

**SURFACE-TO-AIR MISSILES**

**RIM-116 Rolling Airframe Missile (RAM)**

Developed jointly with the Federal Republic of Germany, RAM provides ships with a low-cost, self-defense system against anti-ship missiles and asymmetric air and surface threats.

**Standard Missile**

Standard Missile 2 (SM-2) is the Navy’s primary surface-to-air defense weapon. It is an integral part of the AEGIS Weapons System aboard Ticonderoga and Arleigh Burke-class destroyers.SM-2 MR (Block III, IIIA, IIIB)

**AIR-TO-AIR MISSILES**

**Advanced, Medium-Range, Air-to-Air Missile (AMRAAM)**

An all-weather, all-environment, radar-guided missile developed as a follow-on to the Sparrow missile series. AMRAAM is smaller, faster, lighter and has improved capabilities against very low-altitude and high-altitude targets in an electronic countermeasure environment. Its active radar, in conjunction with an inertial reference unit and microcomputer system, makes the missile less dependent on the aircraft fire control system enabling the pilot to aim and fire several missiles at multiple targets.

The AMRAAM is a result of a joint U.S. Navy and U.S. Air Force development effort and is in service with numerous NATO and Allied countries. The AMRAAM was deployed in September 1991 and is carried on the F/A-18 Hornet.

**AIM-54 Phoenix Missile**

The Phoenix missile is the Navy’s only long-range, air-to-air missile. The missile is designed for use in all-weather and heavy jamming environments. The improved Phoenix, the AIM-54C, can better counter projected threats from tactical aircraft and cruise missiles.

**Sparrow/Sea Sparrow**

A highly-maneuverable, all-weather, beyond-visual-range, semi-active radar homing air-to-air missile used by the United States, NATO and other allied forces. Current air-to-air versions are carried on the F/A-18 aircraft.

In a shipboard version, the Sea Sparrow, provides U.S. Navy and NATO ships
with an effective, anti-air weapon. First deployed in 1958, numerous models and upgrades have occurred to the Sparrow missile family.

**Evolved Sea Sparrow Missiles (ESSM)**

The first Evolved Sea Sparrow Missile (ESSM) was delivered to the fleet in late 2002. The new missile provides the primary air defense for capital ships of 10 nations participating in the program.

**Sidewinder**

The Sidewinder is a short-range, infrared, within visual range air-to-air missile used by the United States, NATO and other allied nations. The missile has been through a number of modernizations and the current fleet weapon is the AIM-9M. The missile is an all-aspect, heat-seeking missile with improved capabilities against countermeasures.

A major modification to the AIM-9M Sidewinder is the AIM-9X. The AIM-9X is a joint U.S. Navy and U.S. Air Force program that upgrades the missile with a staring focal plan array in the seeker, and extremely agile airframe and state-of-the-art signal processors resulting in enhanced target acquisition, missile kinematics and improved infrared counter-countermeasure capabilities. The missile’s high, off-bore sight capability can be coupled to a helmet-mounted cueing system that will revolutionize the way that air-to-air missiles are employed. The Sidewinder is currently deployed on the F/A-18, AV-8 and AH-1 aircraft.

**SHIPBOARD GUNS**

**MK 45 – 5-inch 54/62 caliber gun**

This fully-automatic naval gun provides surface combatants accurate naval, gunfire against fast, highly-maneuverable, surface targets, air threats and shore batteries during amphibious operations.

**MK 38 – 25 mm machine gun system**

This single-barrel, air-cooled, heavy machine gun is effective up to 2,000 yards (Mod 2). The stabilized Mod 2 was developed in 2003 to improve ship self-defense and meet the needs of ships throughout the fleet, especially those operating in the Persian Gulf.

**MK 75 – 76mm/62 caliber, 3-inch gun**

Best suited for use aboard smaller combat vessels, the MK 75 features rapid fire capability with low manning requirements. The gun was approved for fleet use in 1975 and was first deployed aboard USS Oliver Hazard Perry (FFG 7) in 1978.

**Phalanx Close-In Weapons System (CIWS)**

The Phalanx CIWS combines a 20mm Gatling gun with search and tracking radar to provide surface ships with terminal defense against anti-ship missiles. The system underwent operational tests and evaluation aboard USS Bigelow (DD 942) in 1977 and went into production in 1978 with the first systems installed aboard USS Coral Sea (CV 43) in 1980.

Phalanx automatically detects, tracks, and engages air warfare threats while the Block 1B’s man-in-the-loop system counters emerging littoral warfare threats.

**ANTI-SUBMARINE WARFARE (ASW) TORPEDOES**

**MK 46**

The MK 46 Mod 5A(S) torpedo achieved its initial operational capability and was introduced into the fleet in 1979. It can be launched from fixed and rotary wing aircraft and surface combatants VLA and torpedo tubes. Full-up MK 46 torpedoes are no longer being produced. In 1987, a major upgrade program enhanced the performance of the MK 46 Mod 5A(S) in shallow water.

A service life extension program was initiated in 1992 to extend the life of the MK 46 Mod 5A(S), convert it to the MK 46 Mod 5A(SW), and to provide additional shallow water and bottom avoidance modes. The MK 46 Mod 5A(SW) was introduced to the fleet in 1996.

**MK 48**

The MK 48 heavyweight torpedo is used solely by submarines and is employed as the primary ASW and anti-surface ship weapon aboard attack, ballistic missile and guided missile submarines. Developed by the Applied Research Laboratory, Pennsylvania State University and Westinghouse Electric Corporation, Baltimore, the MK 48 and its subsequent variants have been in service with the Navy since 1972.

USS Benfold (DDG 65) fires a missile during training exercise Stellar Daggers in the Pacific Ocean. Benfold engaged multiple targets with Standard Missile-2 (SM-2) Block IIIA and modified SM-2 BLK IV missiles. U.S. Navy photo
Its latest version, MK 48 Mod 7 Common Broad Advanced Sonar System (CBASS) torpedo is optimized for both deep and littoral waters and has advanced counter-countermeasure capabilities.

**MK 50**

The MK 50 is a highly capable undersea weapon for U.S. Navy aircraft and surface ships. It is an advanced lightweight digital torpedo designed for use against faster, deeper-diving and more sophisticated submarines.

The stored chemical energy propulsion system develops full power at all depths and is capable of multi-speed operations required by the tactical situation. Although full-up torpedoes have not been produced since 1993, the Block I software upgrade program has enhanced the MK 50’s shallow water and countermeasure capability.

**MK 54**

The MK 54 “MAKO” Lightweight Torpedo integrates existing torpedo hardware and software from the MK 46, MK 50 and MK 48 with state-of-the-art commercial-off-the-shelf digital signal processing technology. It incorporates an advanced guidance and control section and tactical software improvements to significantly increase shallow water counter-countermeasure capability at reduced lifecycle costs.

**MINES**

**MK 67 Submarine Launched Mobile Mine (SLMM)**

Based on the MK 37 torpedo, the SLMM is a submarine-deployed mine used for covert mining in hostile environments. The MK 67 began active service in 1987.

**Quickstrike**

The *Quickstrike* is a family of shallow water, aircraft-laid mines used primarily against surface ships. The MK 65 mine is a thin-walled mine casing. MK 62 and MK 63 mines are converted, general purpose bombs. All were approved for service use in the early 1980s.

**MK 56**

The MK 56 aircraft-laid, moored mine is primarily an ASW mine (the oldest still in use). It reached initial operating capability in 1962.

(Source: Naval Sea Systems Command and Naval Air Systems Command)


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