2 Message from the Secretary
Newly-appointed Secretary of the Navy Richard Danzig kicks off 'All Hands' Sixth Owner's and Operator's Manual.

4 Year in Review
A look back at the year that was as seen through the eyes of Navy photographers.

10 Navy Ships
From cruisers and destroyers to oilers and mine hunters — the ships of the Surface Navy.

16 Web Wise
Navy (and Navy-related) websites can be extremely useful whether Sailors want to expand their knowledge of ships and aircraft or learn about their next duty station. Our guide will give you an idea of what is out there and how to find it.

18 Navy Submarines
Silent and deadly, the U.S. Navy's undersea force is everywhere... and nowhere.

20 Reader Feeder
Got some spare time? You could always pick up a good book. And the MCPON's Naval Heritage/Core Values Reading Guide is a great place to find one.

22 Navy Aircraft
Whether based on board one of the Navy's 12 carriers or at a shore installation, U.S. Navy aircraft remain the best in the world.

28 Being There
On Aug. 3, 1998, while most of America was relaxing by the pool enjoying the long, hot days of summer, the U.S. Navy was forward deployed all around the world. On that particular day, 221 of the Navy's 341 ships were underway, keeping the peace — simply by being there.

30 Navy Weapons
The U.S. Navy employs a wide variety of modern weapons and weapons systems. From missiles to guns to bombs, Sailors are using cutting-edge technology to put ordnance on target.
Ranks
Seaman, Admiral and everything in between.

Enlisted Ratings
The jobs that Sailors do.

Order of Precedence
Every medal and device you will see on a Navy uniform all in one place.

Warfare Pins & Badges
All that glistens is not gold.

Special Duty
The Navy has a wide variety of special-duty assignments for Sailors who are looking for something new. Here you will find only a sampling of the hundreds of special programs available.

The Future is Now
The Navy is always moving forward with new systems, new ships and new aircraft. Find out what is coming in the 21st century.

Preparing for the Millennium
Are you ready for Y2K? Find out what it is and what the Navy is doing about it.

Re-Up
To stay or not to stay? That is the question. The Navy is committed to keeping its best Sailors "on board" and has designed these incentive programs to do just that.

Make the Call!
Sometimes it can be a real headache to find that phone number to a particular base or unit. We have collected some important numbers that may just save you some money on aspirin.

Special Insert:
Naval Reserve Activities
Reservists are everywhere. Just take a look.

Aircraft Carriers
A tribute to the men and women who make carriers the centerpiece of our battle groups.

USS Harry S. Truman
The Navy's newest nuclear-powered carrier gets underway.

Monthly Basic Pay Table
Hey, you just got a raise! Check out our pay scale to see what you're making now.

The following sources were used in the production of this issue:
Director of Surface Warfare (N86); Director of Submarine Warfare (N87); Director of Naval Aviation (N88); Commander, Naval Air Forces, Pacific; Commander, Naval Air Forces, Atlantic; Ships and Aircraft of the U.S. Fleet, by Norman Polmar; World Naval Weapons Systems, 1997-1998, by Norman Friedman; Naval Reservist News; Vision, Presence, Power: A Program Guide to the U.S. Navy, 1998 Edition; Navy Fact File; Naval Surface Warfare Center, Dahlgren, Va.; Naval Undersea Warfare Center, Newport, R.I.; Naval Sea Systems Command; Office of the Chief of Naval Personnel; Navy Uniform Board; Defense Finance and Accounting Service; OCO Y2K Project Office.
Welcome to the sixth installment of the All Hands

Essentially an almanac of your United States Navy, it is jam-packed with useful information about everything from ships and aircraft to websites and phone numbers. In the 60 pages that follow you'll get a great overview of the Navy today and even a glimpse of what is coming tomorrow. You'll see the hardware and major systems our Sailors have at their disposal and you'll get an update on some exciting new programs, a few of which are still in the early stages of development. Most importantly, you'll come to appreciate just how well-trained and motivated American Sailors really are.

The United States Navy remains the most formidable maritime force in the world. No other navy can match it. And no other navy can defeat it. Indeed, never before has there existed a more versatile and powerful fleet. History has proved it, and current events require it. As at Vicksburg or Coral Sea, Manila Bay or the Korean Peninsula, the American Navy continues to ply the world's waterways in support of our nation's security and in defense of freedom. That is our job.

That we can do that job – and do it so well – is a testament to both America's industrial might and the strength and character of her Sailors. The Navy we put to sea today is more technologically advanced and structurally sound than it has ever been, possessing weapons systems and equipment that only a decade ago would have been considered science fiction.

Consider Nimitz-class aircraft carriers. Still the centerpiece of our battle groups, these vessels and
their airwings are continually upgraded with cutting-edge, off-the-shelf technology, making every punch delivered a knockout. And on the horizon is CVN 77—a transitional ship, which will, in turn, lead to the next generation of aircraft carriers: CVX. Flying off the deck of CVX will be the F/A-18E/F Super Hornet and the Joint Strike Fighter, and augmenting future battle groups will be vessels like the DD 21 Land Attack Destroyer and Virginia-class submarine.

Yet for all this technology, the Navy would be an empty shell without its Sailors. It is they who make our Navy great. Every ship at sea, every plane that flies, every weapon that runs true to its target does so because a Sailor made it happen. Because a Sailor maintained it, fixed it and cleaned it. Because a Sailor learned how to use it. And because a Sailor knows how to fight it.

One hundred years ago, on the cusp of a new century, Theodore Roosevelt remarked that, “In a crisis, the man worth his salt is the man who meets the needs of the situation in whatever way is necessary.” He was referring to Commodore George Dewey and his Sailors on the eve of battle at Manila Bay, but the words still ring true. Today we find ourselves on the cusp of yet another new century, faced with challenges and threats Roosevelt and Dewey could never have imagined. And yet we are ready for them, because our Navy consists of men and women who still possess that same fighting spirit, that same raw courage, and that same desire to win.

I think the front cover of this issue says it all: the United States Navy in 1999 may consist of hundreds of ships, subs and aircraft, but it is our Sailors who bring it all together.

Richard Danzig
Secretary of the Navy
An F/A-18 Hornet on board USS Independence (CV 62) moves into position on the catapult. Independence was deployed to the Arabian Gulf in support of Operation Southern Watch.

BM2 Patrick Craig from Ecorse, Mich., keeps a close eye on the weather as USS Enterprise (CVN 65) gets underway to evade Hurricane Bonnie.

AM2 Brandon Benton (right) from Colorado Springs, Colo., and AMAN Todd Davenport from Crossville, Tenn., compare notes with “The Weather Channel” on board USS Enterprise (CVN 65) as Hurricane Bonnie nears the Atlantic coastline.
Sailors from USS Carney (DDG 64) transfer provisions from a RHIB boat to their shipmates on board a detained oil tanker in the Arabian Gulf during Multinational Interception Operations (MIO) in support of Operation Southern Watch.

A Navy MH-53E Sea Dragon lifts off the deck of USS Wasp (LHD 1) during Exercise Dynamic Response '98, an exercise designed to demonstrate NATO's ability to deploy strategic, Reserve forces into Bosnia-Herzegovina.

HM2 Matthew Scarbrough from Dearborn Heights, Mich., tends to the wounds of a Tanzanian woman who was injured while working on the security barriers surrounding the U.S. Embassy in Dar Es Salaam, Tanzania.

An SH-60F Seahawk from Helicopter Antisubmarine Squadron 3 (HS-3) conducts aerial reconnaissance for authorities in Jacksonville, Fla., to assist in the deployment of fire-fighting teams.
An F/A-18 Hornet from Strike Fighter Squadron 81 (VFA-81) prepares to launch from USS Dwight D. Eisenhower (CVN 69) during Operation Dynamic Mix in the Mediterranean Sea.

Secretary of the Navy John H. Dalton presents former President Jimmy Carter with a model of the Seawolf-class submarine that will bear his name. USS Jimmy Carter (SSN 23) is the third and final submarine of the Seawolf class. Carter, a 1946 graduate of the U.S. Naval Academy, is the only president to ever qualify in submarines.

More than 1,000 Sailors aboard USS Independence (CV 62) gather on the flight deck to say “sayonara” to Yokosuka. Independence, upon returning from her four-month deployment in support of Operation Southern Watch, was relieved by USS Kitty Hawk (CV 63). Kitty Hawk is now the Navy’s only forward-deployed carrier.

Secretary of the Navy John H. Dalton presents former President Jimmy Carter with a model of the Seawolf-class submarine that will bear his name. USS Jimmy Carter (SSN 23) is the third and final submarine of the Seawolf class. Carter, a 1946 graduate of the U.S. Naval Academy, is the only president to ever qualify in submarines.
More than 20 homes were destroyed in the town of Quindici, Italy, after torrential rains caused mudslides. Seabees from Naval Support Activity, Naples, traveled to Lauro, which is about two miles from the disaster area, to set up tents to house Italian relief workers.

Explosive Ordnance Disposal (EOD) Technicians from Mobile Unit 2, Whidbey Island, Wash., prepare to fast rope to the Canadian ship HMCS Regina during RIMPAC '98. Working with Australian Clearance Divers, EOD was called upon to help clear a jammed gun mount. RIMPAC is the largest multinational, maritime exercise in the Pacific.

More than 50,000 gallons of potable water were transported from Naval Station Roosevelt Roads, Puerto Rico, to the island of Vieques following Hurricane Georges.

September
As USS Carl Vinson (CVN 70) pulls into Pearl Harbor, the crew renders honors to USS Missouri (BB 63). Vinson was in Pearl Harbor to take part in RIMPAC '98.

An SH-60B Seahawk from Helicopter Squadron Light 44 (HSL-44), Det. 6, detaches for ASW exercises during UNITAS '98, an exercise designed to conduct combined tactical at-sea, amphibious, riverine operations with participating naval forces in support of U.S. policy in South America.

Marine Cpl. Scott Hobak from Atlanta forms part of a perimeter set-up to protect RIMPAC '98 forces during an amphibious assault landing at Barking Sands, Kauai, Hawaii.

An LCAC delivers vehicles and cargo into the well deck of USS Bataan (LHD 5) during the ship's first humanitarian mission, Operation Disaster Relief in Puerto Rico.
September

HTC(DV) Charles Catoe and GM2(DV) Jim Urban of Mobile Diving Salvage Unit 2 (MDSU-2) prepare for a mixed-gas dive on board USS Grapple (ARS 53). Divers from MDSU-2 worked in conjunction with Canadian authorities to retrieve victims and aircraft debris from the crash of SwissAir Flight 111 near Peggy's Cove, Nova Scotia.

July

The Navy commissions its 8th Nimitz-class aircraft carrier, USS Harry S. Truman (CVN 75), during ceremonies held at Norfolk Naval Base.

August

Navy SEALs on board USS Hampton (SSN 767) conduct fast-rope exercises with an SH-60H Seahawk assigned to Helicopter Anti-Submarine Squadron 7 (HS-7) during COMPTUEX '98.
Cruisers

**Ticonderoga-class**
- USS Ticonderoga (CG 47)
- USS Yorktown (CG 48)
- USS Vincennes (CG 49)
- USS Valley Forge (CG 50)
- USS Thomas S. Gates (CG 51)
- 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)
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**AMPHIBIOUS COMMAND**

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

- **LaSalle & Coronado-class**
  - USS LaSalle (AGF 3)
  - USS Coronado (AGF 11)

**USS Coronado (AGF 11)**
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## AUXILIARY SHIPS

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### AMPHIBIOUS TANK LANDING

**Newport-class**

- USS Frederick (LST 1184)**
- USS LaMoure County (LST 1194)**
### MINE WARFARE

**Avenger-class**
- USS Avenger (MCM 1)**
- USS Defender (MCM 2)**
- USS Sentry (MCM 3)**
- USS Champion (MCM 4)**
- USS Guardian (MCM 5)
- USS Devastator (MCM 6)
- USS Patriot (MCM 7)
- USS Scout (MCM 8)
- USS Pioneer (MCM 9)
- USS Warrior (MCM 10)
- USS Gladiator (MCM 11)
- USS Ardent (MCM 12)
- USS Dextrous (MCM 13)
- USS Chief (MCM 14)

**Iwo Jima-class**
- USS Inchon (MCS 12)**

**Osprey-class**
- USS Osprey (MHC 51)
- USS Heron (MHC 52)**
- USS Pelican (MHC 53)**
- USS Robin (MHC 54)**
- USS Oriole (MHC 55)**
- USS Kingfisher (MHC 56)**
- USS Cormorant (MHC 57)**
- USS Black Hawk (MHC 58)**
- USS Falcon (MHC 59)**
- USS Cardinal (MHC 60)**
- USS Raven (MHC 61)
- USS Shrike (MHC 62)*

**PATROL BOATS**

**Cyclone-class**
- USS Cyclone (PC 1)
- 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 Zephyr (PC 8)
- USS Chinook (PC 9)
- USS Firebolt (PC 10)
- USS Whirlwind (PC 11)
- USS Thunderbolt (PC 12)
- USS Shamal (PC 13)

*Under Construction
**Naval Reserve Force, Active
Navy (and Navy-related) sites can be extremely useful when Sailors want to expand their knowledge of ships, aircraft and weapons systems as well as those commands and areas of the world where they might be stationed next.

The list presented here is by no means comprehensive (that, of course, would be impossible). It is simply meant as a "guide" to show you what is out there and to get you started. We've attempted to list sites relating to as many areas of Navy life as possible (and many of them have links to other sites).

The list was accurate at press time. However, site addresses and composition can change, so learn to use the various search engines available to find the site (or information) you're looking for.

If you know a site that might be of interest to Sailors and their families, e-mail the URL to CyberSailor at cybersailor@mediacen.navy.mil.

Web Wise

Getting Started

U.S. Navy (www.navy.mil) – The official Navy website with news, information, images and an overview of the organization, ships, aircraft, etc., of the U.S. Navy.


Navy Jobs (www.navyjobs.com) – Know someone looking for a Navy career? Here's the place.

Navy Historical Center (www.history.navy.mil) – The past is present at the Navy's official history site.

DefenseLINK (www.defenselink.mil) – Look no further for news and information about DOD.

Publications

Navy Directives (http://neds.nebt.daps.mil) – Get the latest Navy instructions on line.


Captain's Call Kit (www.mediacen.navy.mil/pubs/cck/cckhome.htm) – A quarterly assortment of "news you can use," policy and program information.


Naval Aviation News (www.history.navy.mil/branches/nhcor5.htm) – Get the latest information about the world of naval aviation.

Naval Reserve News (www.ncts.navy.mil/navresfor/nrn) – An outstanding publication dealing with the U.S. Naval Reserve.

Organizational

U.S. Pacific Fleet (www.pac.nav.mil)
U.S. Atlantic Fleet (www.atlanticfleet.navy.mil)
U.S. 3rd Fleet (www.comthirdfli.t.navy.mil/c3f)
U.S. 6th Fleet (www.napos.navy.mil/c6f)
U.S. 7th Fleet (www.c7f.navy.mil)
Naval Forces, Europe (www.eu.nav.mil)
Naval Forces, Japan (www.navy.ja.navy.mil)
Naval Forces, Marianas (www.guam.navy.mil/home.htm)
Naval Forces, Korea (http://144.59.63.170)
Naval Forces, Central Command (www.centcom.mil/new_pages/navcent.htm)
Major Installations/Regions

SITES (Standard Installation Topic Exchange Service)  
(www.dmdc.osd.mil/sites) – One-stop shopping for information on bases around the world. A great resource at PCS time.

District of Columbia  
(www.ndw.navy.mil)

Pearl Harbor  
(www.hawaii.navy.mil)

Italy  
(www.naples.navy.mil)

Rota  
(www.rota.navy.mil)

Yokosuka  
(www.metoc.npmf.navy.mil/yoko/cfay.htm)

Norfolk  
(www.cmar.navy.mil/default.htm)

San Diego  
(www.cnbs.navy.mil)

Pacific Northwest  
(www.cnbs.navy.mil)

Surface

Naval Surface Force, Pacific  
(www.surfacenavypac.navy.mil)

Naval Surface Force, Atlantic  
(www.cnsl海军.navy.mil)

Naval Vessel Registry  

USS Constitution  
(www.navy.mil/homepages/constitution) – Visit the oldest commissioned ship in the Navy.

Aviation

Naval Air Forces, Pacific  
(www.airpac.navy.mil)

Naval Air Forces, Atlantic  
(www.airlant.navy.mil)

Blue Angels  
(www.blueangels.navy.mil)

Under Sea

Submarine Force, Atlantic  
(www.nortop.navymil/sublant/homepage.htm)

Submarine Force, Pacific  
(www.csp.navy.mil)

Special Warfare

Navy SEALs  
(www.seals.navy.mil)

Medical/Dental

BUMED  

TRICARE  
(www.ochampus.mil) – The latest information on the health services program for military personnel and their families.

United Concordia  

Personnel/Pay

BUPERS  
(www.bupers.navy.mil) – Advancements, personnel policy, detailers, etc., all in one place.

Defense Finance and Accounting Service  
(www.dfas.mil) – The military pay section has the latest pay charts and allowances information.

Training/Education

Naval Education & Training  
(www.cnet.navy.mil) – Site of the Navy’s training gurus.

Naval Air Training Command  
(www.cnet.navy.mil/airtrain/cntra.htm) – The people, planes and places where aviators are born.

NTC Great Lakes  

NIROTC  
(www.noc.navy.mil/nrotc/nrotc.htm) – All about the program that turns college students into officers.

NJROTC  
(www.noc.navy.mil/njrotc/njrotc.htm) – A program for high school students seeking the Navy experience.

Navy-related Sites

Navy/Marine Corps Relief Society  

U.S. Naval Institute  
(www.usni.org) – One of the preeminent Navy think tanks and publisher of some good books, too!

Navy Memorial  
(www.lonesailor.org)
NAVY SUBMARINES

BALLISTIC MISSILE SUBMARINES

Ohio-class

- USS Ohio (SSBN 726)
- USS Michigan (SSBN 727)
- USS Florida (SSBN 728)
- USS Georgia (SSBN 729)
- 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)
# Attack Submarines

### Virginia-class
- USS Virginia (SSN 774)*
- USS Texas (SSN 775)*

### Seawolf-class
- USS Seawolf (SSN 21)
- USS Connecticut (SSN 22)
- USS Jimmy Carter (SSN 23)*

### 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 La Jolla (SSN 701)
- USS Boston (SSN 703)**
- USS City of Corpus Christi (SSN 705)
- USS Albuquerque (SSN 706)
- USS Portsmouth (SSN 707)
- USS Minneapolis-St. Paul (SSN 708)
- USS Hyman G. Rickover (SSN 709)
- USS Augusta (SSN 710)
- USS San Francisco (SSN 711)
- USS Atlanta (SSN 712)**
- USS Houston (SSN 713)
- USS Norfolk (SSN 714)
- USS Buffalo (SSN 715)
- USS Salt Lake City (SSN 716)
- USS Olympia (SSN 717)
- USS Honolulu (SSN 718)
- 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)

### Benjamin Franklin-class
- USS Kamehameha (SSN 642)
- USS James K. Polk (SSN 645)**

### Sturgeon-class
- USS Pogy (SSN 647)**
- USS Hawkbill (SSN 666)
- USS Trepang (SSN 674)**
- USS Blffish (SSN 676)**
- USS William H. Bates (SSN 680)**
- USS Batfish (SSN 681)**
- USS Parche (SSN 683)
- USS L. Mendel Rivers (SSN 686)

### Narwhal-class
- USS Narwhal (SSN 671)**

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*Under Construction

**Inactivation in FY99
Got some spare time? Take a few minutes and check out the MCPON’s Naval Heritage/Core Values Reading Guide. You can view the complete list of books at: www.bupers.navy.mil/mcpon/readguide.html

Reader Feed

The Fighting Liberty Ships—A Memoir
by A.A. Hoehling

Inchon to Wonsan: From the Deck of a Destroyer in the Korean War
by James Edwin Alexander

Bluejacket: An Autobiography
by Fred J. Buerdiche with A. Grove Day

A Sailor's Log; Recollections of Forty Years of Naval Life
by RADM Robert D. Evans,
with introduction by Benjamin Franklin Cooling

Tin Can Sailor—Life Aboard the USS Sterett, ’39-’45
by C. Raymond Calhoun

Battleship Sailor
by Theodore C. Mason

Brave Ship, Brave Men
by Arnold S. Lott

The Fleet the Gods Forgot
by W.G. Winslow

The Ghost That Died at Sunda Strait
by W.G. Winslow

We Will Stand By You – Serving in the Pawnee, 1942-1945
by Theodore C. Mason

Crossing the Line: A Bluejacket's World War II Odyssey
by Alvin Kernan

Mother Was A Gunner's Mate: World War II in the Waves
by Josette Dermody Wingo

Man-of-War Life
by Charles Nordhoff

Thunder Below
by ADM Eugene B. Fluckey

Master of Seapower: A Biography of Fleet Admiral Ernest J. King
by Thomas B. Buell,
with introduction by John B. Lundstrom

My Fifty Years in the Navy
by ADM Charles E. Clark,
with introduction by Jack Sweetman

Raiders of the Deep
by Lowell Thomas,
with introduction by Gary E. Weir

The Atlantic War Remembered—An Oral History Collection
by John T. Mason Jr.

The Battle of Cape Esperance—Encounter at Guadalcanal
by CAPT Charles Cook

The Golden Thirteen—Recollections of the First Black Naval Officers
by Paul Stillwell with Colin L. Powell

The Last Patrol
by Harry Holmes

Proudly We Served—The Men of USS Mason
by Mary Pat Kelly

Raiders from the Sea
by John Lodwick

Ultra in the Pacific: How Breaking Japanese Codes and Ciphers Affected Naval Operations Against Japan
by John Winton

Bull Halsey: A Biography
by E. B. Potter

Submarine Diary—The Silent Stalking of Japan
by RADM Corwin Mendenhall

20
The F/A-18 is an all-weather, attack aircraft which 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 air support.

WINGSPAN: 37.5 ft.
LENGTH: 56 ft.
HEIGHT: 15.3 ft.
WEIGHT: 51,900 lbs. maximum takeoff
SPEED: Mach 1.8
RANGE: 300 nm
ARMAMENT: 20mm MK 61 Vulcan cannon; Sparrow and Sidewinder air-to-air missiles; laser-guided and general purpose bombs; Harpoon and HARM
CREW: 1 or 2

The F/A-18E/F will provide the carrier battle group with a strike fighter that has significant growth potential and increased range, endurance and ordnance-carrying capabilities. It will eventually replace the F-14 on carrier decks.

WINGSPAN: 44.9 ft.
LENGTH: 60.2 ft.
HEIGHT: 16 ft.
WEIGHT: 66,000 lbs. maximum takeoff
SPEED: Mach 1.8
CEILING: 50,000 ft.
RANGE: 475 nm
ARMAMENT: 20mm MK 61 Vulcan cannon; Sidewinder, Sparrow, and AMRAAM air-to-air missiles; Maverick, Harpoon, Sidewinder, HARM, SLAM, SLAM-ER, Joint Standoff Weapon (JSOW), Joint Direct Attack Munition (JDAM); Walleye and other bombs and rockets
CREW: 1 or 2

SQUADRONS
VFA-15 Valions
VFA-22 Fighting Redcocks
VFA-25 Fist of the Fleet
VFA-27 Chargers
VFA-34 Blue Blasters
VFA-37 Bulls
VFA-81 Sunliners
VFA-82 Marauders
VFA-83 Rampagers
VFA-86 Sidewinders
VFA-87 Golden Warriors
VFA-94 Mighty Shrikes
VFA-97 Warhawks
VFA-105 Gunslingers
VFA-106 Gladiators*
VFA-113 Stingers
VFA-115 Eagles
VFA-125 Rough Raiders*
VFA-131 Wildcats
VFA-136 Nighthawks
VFA-137 Kestrels
VFA-146 Blue Diamonds
VFA-147 Argonauts
VFA-151 Vigilantes
VFA-192 World Famous Golden Dragons
VFA-195 Dambusters
VFA-201 Hunters**
VFA-203 Blue Dolphins**
VFA-204 River Rattlers**
VFC-12 Fighting Omars**
**F-14 Tomcat**

The F-14 is a supersonic, twin-engine, variable sweep-wing fighter designed to attack and destroy enemy aircraft at night and in all weather conditions. The F-14 can track up to 24 targets simultaneously with its advanced weapons control system and engage any of them with one of its six Phoenix missiles while continuing to scan the airspace.

- **Wingspan:** 64 ft.
- **Length:** 62.7 ft.
- **Height:** 16 ft.
- **Weight:** 69,800 lbs. maximum takeoff
- **Speed:** Mach 2
- **Ceiling:** 50,000 ft.
- **Range:** 500 nm

**Armament**
- 20mm MK 61 Vulcan cannon
- Sparrow, Sidewinder and Phoenix air-to-air missiles
- Laser-guided and general purpose bombs

**Crew:** 2 (one pilot, one radar intercept officer)

**Squadrons**
- VF-2 Bounty Hunters
- VF-11 Red Rippers
- VF-14 Tophatters
- VF-31 Tomcatters
- VF-32 Swordsmen
- VF-41 Black Aces
- VF-101 Grim Reapers
- VF-102 Diamondbacks
- VF-103 Jolly Rogers
- VF-143 Pukin’ Dogs
- VF-154 Black Knights
- VF-211 Flying Checkmates
- VF-213 Black Lions

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**EA-6B Prowler**

The EA-6B, a twin-engine, mid-wing aircraft designed for carrier and advanced base operations, is used to provide "an umbrella" of protection for strike aircraft by jamming enemy radar, electronic data links and communications. The EA-6B is a fully integrated electronic warfare system, combining long-range, all-weather capabilities with advanced electronic countermeasures.

- **Wingspan:** 62 ft.
- **Length:** 59 ft.
- **Height:** 16 ft.
- **Weight:** 65,000 lbs. maximum takeoff
- **Speed:** 622 mph
- **Ceiling:** 41,000 ft.
- **Range:** 900 nm

**Armament:** HARM

**Crew:** 4 (one pilot, three electronic warfare officers)

**Squadrons**
- VAQ-126 Fighting Phoenix
- VAQ-129 Vikings
- VAQ-130 Zappers
- VAQ-131 Lancers
- VAQ-132 Scorpions
- VAQ-133 Wizards
- VAQ-134 Garudas
- VAQ-135 Black Ravens
- VAQ-136 Gauntlets
- VAQ-137 Rooks
- VAQ-138 Yellowjackets
- VAQ-139 Cougars
- VAQ-140 Patriots
- VAQ-141 Shadowhawks
- VAQ-142 Gray Wolves
- VAQ-209 Star Warriors

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*Fleet Readiness Squadron*  
*Naval Air Reserve Squadron*
### S-3B Viking

The S-3B, a jet aircraft used for anti-submarine and anti-surface warfare, is extremely versatile and can be equipped for tanking, mining and limited electronic surveillance.

<table>
<thead>
<tr>
<th>Feature</th>
<th>Specifications</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Wing span</strong></td>
<td>68.7 ft.</td>
</tr>
<tr>
<td><strong>Length</strong></td>
<td>53.3 ft.</td>
</tr>
<tr>
<td><strong>Height</strong></td>
<td>22.7 ft.</td>
</tr>
<tr>
<td><strong>Weight</strong></td>
<td>52,539 lbs. maximum takeoff</td>
</tr>
<tr>
<td><strong>Speed</strong></td>
<td>517 mph</td>
</tr>
<tr>
<td><strong>Ceiling</strong></td>
<td>40,000 ft.</td>
</tr>
<tr>
<td><strong>Armament</strong></td>
<td>torpedoes; bombs; Harpoon and Maverick</td>
</tr>
<tr>
<td><strong>Crew</strong></td>
<td>4 (one pilot, two flight officers, one sensor operator)</td>
</tr>
</tbody>
</table>

### S-3 Shadow

The ES-3 is a carrier-based, subsonic, all-weather, long-range, jet aircraft used to collect and disseminate tactical reconnaissance information.

<table>
<thead>
<tr>
<th>Feature</th>
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</tr>
</thead>
<tbody>
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<td>500 mph</td>
</tr>
<tr>
<td><strong>Ceiling</strong></td>
<td>40,000 ft.</td>
</tr>
<tr>
<td><strong>Range</strong></td>
<td>2,300 nm</td>
</tr>
<tr>
<td><strong>Crew</strong></td>
<td>4</td>
</tr>
</tbody>
</table>

### S-2C Hawkeye

The S-2C is the Navy's all-weather, carrier-based tactical warning and control system aircraft. It provides airborne early warning and command and control functions for the battle group. Additional missions include: surface surveillance coordination, strike and interceptor control, search and rescue guidance and communications relay.

<table>
<thead>
<tr>
<th>Feature</th>
<th>Specifications</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Wing span</strong></td>
<td>80.6 ft.</td>
</tr>
<tr>
<td><strong>Length</strong></td>
<td>57.5 ft.</td>
</tr>
<tr>
<td><strong>Height</strong></td>
<td>18.3 ft.</td>
</tr>
<tr>
<td><strong>Weight</strong></td>
<td>53,288 lbs. maximum takeoff</td>
</tr>
<tr>
<td><strong>Speed</strong></td>
<td>368 mph</td>
</tr>
<tr>
<td><strong>Ceiling</strong></td>
<td>56,000 ft.</td>
</tr>
<tr>
<td><strong>Range</strong></td>
<td>1,610 nm</td>
</tr>
<tr>
<td><strong>Crew</strong></td>
<td>5 (two pilots; three mission systems operators)</td>
</tr>
</tbody>
</table>

### SQUADRONS

The S-3B Viking is equipped with the following squadrons:

- VS-21 Fighting Rectails
- VS-22 Checkmates
- VS-24 Scouts
- VS-29 Screaming Dragonfires
- VS-30 Diamondcutters
- VS-31 Tophats
- VS-32 Maulers
- VS-33 Screwbirds
- VS-35 Blue Wolves
- VS-38 Fighting Red Griffins
- VS-41 Shamrocks*

The S-3 Shadow is equipped with the following squadrons:

- VQ-5 Black Ravens
- VQ-6 Sea Shadows

The S-2C Hawkeye is equipped with the following squadrons:

- VAW-77 Night Wolf**
- VAW-78 Fighting Escargots**
- VAW-112 Golden Hawks
- VAW-113 Black Hawks
- VAW-115 Liberty Bells
- VAW-116 Sun Kings
- VAW-117 Night Hawks
- VAW-120 Greyhawks*
- VAW-121 Blueetails
- VAW-123 Screwtops
- VAW-124 Bear Aces
- VAW-125 Tigertails
- VAW-126 Seahawks

*Note: An asterisk denotes special missions or designations.

E-2C airborne early warning (AEW) Hawkeye 2000
P-3C Orion/EP-3E Aries II

The P-3, a land-based, long-range, patrol aircraft, has been the Navy's frontline, maritime defense aircraft since the 1960's. Both versions provide multi-mission intelligence, surveillance, reconnaissance and combat capability to theater commanders worldwide.

WINGSPAN: 99.6 ft.
LENGTH: 116.7 ft.
HEIGHT: 33.7 ft.
WEIGHT: 142,000 lbs. maximum takeoff
SPEED: 473 mph
CEILING: 28,300 ft.
RANGE: 1,550 nm with 13 hrs. on station
ARMAMENT: Harpoon and Maverick; torpedoes, mines
CREW: 10 (Three pilots, three flight officers/engineers, three sensor operators, one in-flight technician)

SQUADRONS
VP-1 Screaming Eagles
VP-4 Skinny Dragons
VP-5 Mad Foxes
VP-8 Tigers
VP-9 Golden Eagles
VP-10 Lancers
VP-16 Eagles
VP-28 Tridents
VP-30 Pro's Nest*
VP-40 Fighting Marlins
VP-45 Pelicans
VP-48 Grey Knights
VP-47 Golden Swordsman
VP-62 Broadarrows**
VP-64 Condors**
VP-65 Tridents**
VP-66 Liberty Belle's**
VP-69 Totems**
VP-92 Minutemen**
VP-94 Crawfishers**
VQ-1 World Watchers
VQ-2 Rangers
VQ-11 Bandits**
VPU-1 Old Buzzards
VPU-2 Wizards

C-2A Greyhound

The C-2A is the principal aircraft used for COD (carrier on-board delivery) of personnel and materiel. It can deliver a payload of up to 10,000 lbs.

WINGSPAN: 80.5 ft.
LENGTH: 57.6 ft.
HEIGHT: 17 ft.
WEIGHT: 57,000 lbs. loaded
SPEED: 352 mph
CEILING: 30,000 ft.
RANGE: 1,300 nm
CREW: 3 (one pilot, one co-pilot, one flight engineer)

SQUADRONS
VRC-30 Providers
VRC-40 Rawhides

C-9B/DC-9 Skytrain II

The C-9B is used for fleet logistics support and military sealift.

WINGSPAN: 93.2 ft.
LENGTH: 119.2 ft.
HEIGHT: 27.5 ft.
WEIGHT: 110,000 lbs. maximum takeoff
SPEED: 576 mph
RANGE: 2,538 nm
CREW: 5 (one pilot, one co-pilot, one crew chief, two attendants and 90 passengers)

SQUADRONS
VR-45 Peach Airlines**
VR-52 Taskmasters**
VR-55 Globemasters**
VR-57 Conquistadors**
VR-58 Sun Seekers**
VR-59 Lone Star Express**
VR-61 Islanders**

C-130 Hercules

The C-130 is probably the most versatile tactical transport aircraft ever built. Its uses have been almost limitless: transport, electronic surveillance, search and rescue, space-capsule recovery, helicopter refueling, gunship and special cargo delivery.

WINGSPAN: 133 ft.
LENGTH: 100 ft.
HEIGHT: 38 ft.
WEIGHT: 175,000 lbs. loaded
SPEED: 374 mph
CEILING: 33,000 ft.
RANGE: 4,400 nm
CREW: 4 (two pilots, one navigator, one loadmaster)

SQUADRONS
VR-53 Capital Express**
VR-54 Revelers**
VR-55 Bicentennial Minutemen**
VR-62 Mass Transit**

E-6A/B Mercury

The E-6A provides secure, survivable, jam-resistant strategic communications while performing the Navy's TACAMO mission. The E-6B program has been established to upgrade TACAMO operational capabilities and will be capable of performing both the TACAMO and Airborne Command Post missions with installed equipment.

WINGSPAN: 146.5 ft.
LENGTH: 150.3 ft.
HEIGHT: 42.4 ft.
WEIGHT: 341,000 lbs. loaded
SPEED: 607 mph
CEILING: 42,000 ft.
RANGE: 6,400 nm (E-6A); 5,600 nm (E-6B)
CREW: 18 (E-6A); 23 (E-6B)

SQUADRONS
VQ-3 Ironmen
VQ-4 Shadows

*Fleet Readiness Squadron
**Naval Air Reserve Squadron
### VT-21 Fighting Red Hawks
- VT-22 Golden Eagles
- VT-23 Professionals

#### SH-60
- The SH-60 is a twin-engine helicopter used for anti-submarine warfare, search and rescue, interdiction, anti-ship warfare, cargo lift and special operations. The SH-60B is an airborne platform based aboard cruisers, destroyers, and frigates that deploys sonobuoys and torpedoes in an anti-submarine role while extending the range of the ship's radar capabilities. The Navy's SH-60F is carrier-based.
- **LENGTH:** 64.8 ft
- **HEIGHT:** 17 ft
- **WEIGHT:** 26,308 lbs.
- **SPEED:** 150 mph
- **RANGE:** 380 nm
- **ARMAMENT:** MK 46/50 torpedoes (SH-60B/F); 7.62mm or .50-caliber machine guns (SH-60B); Hellfire and Penguin air-to-surface missiles
- **CREW:** SH-60B - 3 (two pilots, one crewman), SH-60F - 4 (two pilots, two crewman)

### T-2C Buckeye
- The T-2C is a two-seat trainer used to school pilots and flight officers in basic and intermediate strike training.

#### SQUADRONS
- VT-8 Tigers
- VT-66 Sabre Hawks

### T-39N Sabreliner
- The seven T-39N Sabreliners in service are used to train naval flight officers in radar navigation and airborne radar-intercept procedures. These aircraft, refurbished from older versions of the T-39, replaced the Cessna T-47A during the early 1990s; the T-47As had replaced earlier T-39Ds in the training role. One T-39D and three CT-39Gs rapid-response airlift Sabreliners remained in service as of mid-1998.

#### SQUADRONS
- VT-86 Sabre Hawks

### SH/HH-60 Seahawk
- The SH-60 is a twin-engine helicopter used for anti-submarine warfare, search and rescue, as well as other replenishment and utility functions.
- **LENGTH:** 64.8 ft
- **HEIGHT:** 17 ft
- **WEIGHT:** 26,308 lbs.
- **SPEED:** 150 mph
- **RANGE:** 380 nm
- **ARMAMENT:** MK 46/50 torpedoes (SH-60B/F); 7.62mm or .50-caliber machine guns (SH-60B); Hellfire and Penguin air-to-surface missiles
- **CREW:** SH-60B - 3 (two pilots, one crewman), SH-60F - 4 (two pilots, two crewman)

#### SQUADRONS
- HS-2 Golden Falcons
- HS-3 Tridents
- HS-4 Black Knights
- HS-5 Night Dippers
- HS-6 Indians
- HS-7 Dusty Dogs
- HS-8 Eightballers
- HS-10 Warhawks
- HS-11 Dragonslayers
- HS-14 Chargers
- HS-15 Red Lions
- HCS-4 Red Wolves
- HCS-5 Firehawks
- HSL-37 Easy Riders
- HSL-40 Air Wolves
- HSL-41 Seahawks
- HSL-42 Proud Warriors
- HSL-43 Battle Cats
- HSL-44 Swamp Foxes
- HSL-45 Wolfpack
- HSL-46 Grandmasters
- HSL-47 Saberhawks
- HSL-48 Vipers
- HSL-49 Scorpions
- HSL-51 Warlords

### T-45A Goshawk
- The T-45A Goshawk, a carrier-capable trainer aircraft, is replacing the T-2C Buckeye and TA-4J Skyhawk as the Navy's strike trainer. The Navy has 187 T-45s in service.
- **WINGSPLAN:** 31 ft
- **LENGTH:** 39 ft
- **HEIGHT:** 13.5 ft
- **WEIGHT:** 12,758 lbs.
- **SPEED:** 600 mph
- **RANGE:** 995 nm
- **CEILING:** 42,500 ft
- **CREW:** 2 (one instructor, one student)

#### SQUADRONS
- VT-21 Fighting Red Hawks
- VT-22 Golden Eagles
- VT-23 Professionals

### T-44A Pegasus
- The T-44 is used to train Navy and Air Force pilots to fly multi-engine, turbo-prop aircraft such as the P-3 and the C-130.
- **WINGSPLAN:** 50.2 ft
- **LENGTH:** 35.5 ft
- **HEIGHT:** 14.5 ft
- **WEIGHT:** 9,650 lbs.
- **SPEED:** 287 mph
- **RANGE:** 1,467 nm
- **CEILING:** 27,000 ft
- **CREW:** 2 (one instructor, one student)

#### SQUADRONS
- VT-31 Wise Owls

### TA-41 Skyhawk
- The TA-41 two-seat trainer version of the famous A-4 Skyhawk attack aircraft serves on in one training squadron and one fleet composite squadron. As of mid-1998, 51 TA-4Js remained in service. The Skyhawk is being replaced in the pilot training role by the T-45A/C Goshawk.

#### SQUADRONS
- VT-7 Strike Eagles
- VC-8 Redtails
**CH-46 Sea Knight**

The CH-46 is a tandem-rotor transport helicopter designed for both land- and sea-based operations. It can accommodate 25 passengers or 15 litters, with two medical attendants or 10,000 lbs. of sling-loaded cargo.

| LENGTH: 84.3 ft. | HEIGHT: 16.7 ft. | WEIGHT: 23,000 lbs. maximum takeoff |
| SPEED: 161 mph | CEILING: 10,000 ft. | RANGE: 84 nm |

Crew: 3 (two pilots, one crewman)

**Squadrons**
- HC-3 Pack Rats
- HC-6 Providers
- HC-8 Chargers
- HC-8 Dragon Whales
- HC-11 Gunbearers

**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.

| LENGTH: 73 ft. | HEIGHT: 17 ft. | WEIGHT: 21,000 lbs. maximum takeoff |
| SPEED: 166 mph | CEILING: 14,700 ft. | RANGE: 542 nm |

Armament: MK 46/50 torpedoes; 7.62mm machine guns

Crew: 3 - 4 (two pilots, 1 or 2 crewmen)

**Squadrons**
- HC-2 Circuit Riders
- HC-11 Gunbearers
- HC-85 Golden Gaters

**H-3H Sea King**

The first version of this workhorse anti-submarine warfare helicopter was flown more than 38 years ago. The H-3's versatility was emphasized during Operation Desert Shield/Desert Storm when 36 Sea Kings flying from carriers logged more than 5,000 hours conducting combat SAR, special operations, maritime interdiction operations, logistics support, and mine-hunting.

| LENGTH: 84.3 ft. | HEIGHT: 16.7 ft. | WEIGHT: 23,000 lbs. maximum takeoff |
| SPEED: 161 mph | CEILING: 10,000 ft. | RANGE: 84 nm |

Crew: 3 (two pilots, one crewman)

**Squadrons**
- HC-3 Pack Rats
- HC-6 Providers
- HC-8 Chargers
- HC-8 Dragon Whales
- HC-11 Gunbearers

**SH-2G Seasprite**

The SH-2G Seasprite first flew in 1959 and served long as a utility and search-and-rescue helicopter and later as the first light airborne multipurpose system (LAMPS) helicopter.

| LENGTH: 40.5 ft. | HEIGHT: 15 ft. | WEIGHT: 13,500 lbs. maximum takeoff |
| SPEED: 172 mph | CEILING: 20,400 ft. | RANGE: 380 nm |

Armament: MK 46/50 torpedoes; 7.62mm machine guns

Crew: 3 (two pilots, one sensor operator)

**Squadrons**
- HSL-84 Thunderbolts
- HSL-94 Titans

**Special Squadrons**
- VR-1 Starlifters C-20D
- VR-48 Capital Skyliners C-20G
- VR-51 Windjammers C-20G
- VC-6 Skeet for the Fleet A-24
- VFC-13 Saints F-5E/F
- VX-1 Pioneers Various
- VX-9 Vampires Various
- VXE-6 Ice Pirates Various
- Blue Angels F/A-18A/B
On Aug. 3, 1998, while most of America was relaxing by the pool and enjoying the long, hot days of summer, the U.S. Navy was forward deployed all around the world. On that particular day, 221 of the Navy’s 341 ships were underway, covering thousands of miles, launching and recovering hundreds of aircraft, conducting countless shipboard drills, and helping to keep the peace — simply by being there. The third day in August wasn’t necessarily a special day. In fact, there were 364 other days just like it last year. And on each and every one of them, American Sailors stood the watch. And they did what they do best — their jobs.
As the Navy heads into the 21st century, we will need men and women who are not afraid of new challenges and new horizons. The future of the Navy — and the destiny of America — rests in the hands of our Sailors.

Will you be one of them?

Stay the course.

Talk to your Command Career Information Team today, or call 1-800-FOR-NAVY.

NAVY... Let the Journey Continue.
As the world's most dominant fighting force, the U.S. Navy employs a wide variety of modern weapons and weapons systems. From missiles to guns to bombs, Sailors are using cutting-edge technology to put ordnance on target.

## NAVY WEAPONS

### MISSILES

#### Trident I (C-4)

<table>
<thead>
<tr>
<th>The Trident I is carried on Ohio-class ballistic missile submarines.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>DIMENSIONS:</strong> 34 ft. long; 74 in. diameter</td>
</tr>
<tr>
<td><strong>WEIGHT:</strong> 70,000 lbs.</td>
</tr>
<tr>
<td><strong>WARHEAD:</strong> Eight to 12 MK 4 MIRV</td>
</tr>
<tr>
<td><strong>PROPOSITION:</strong> Solid-fuel rocket</td>
</tr>
<tr>
<td><strong>RANGE:</strong> 4,950 nm</td>
</tr>
<tr>
<td><strong>MANUFACTURER:</strong> Lockheed Martin</td>
</tr>
</tbody>
</table>

#### Trident II (D-5)

<table>
<thead>
<tr>
<th>Larger and with longer range than the Trident I.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>DIMENSIONS:</strong> 44 ft. long; 83 in. diameter</td>
</tr>
<tr>
<td><strong>WEIGHT:</strong> 130,000 lbs.</td>
</tr>
<tr>
<td><strong>WARHEAD:</strong> Eight to 12 MK 5 RV or 14 150-KT MIRV or seven 300-KT MARV</td>
</tr>
<tr>
<td><strong>PROPOSITION:</strong> Three-stage, solid-fuel rocket</td>
</tr>
<tr>
<td><strong>RANGE:</strong> 6,000 nm</td>
</tr>
<tr>
<td><strong>MANUFACTURER:</strong> Lockheed Martin</td>
</tr>
</tbody>
</table>

#### Joint Stand-Off Weapon (JSOW)

<table>
<thead>
<tr>
<th>Planned to replace the Paveway, Skipper and Maverick laser-guided weapons. Designed as a drop-and-forget weapon to protect delivery aircraft.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>DIMENSIONS:</strong> 13.3 ft. long; 106 in. wingspan</td>
</tr>
<tr>
<td><strong>WEIGHT:</strong> 1,065 lbs.</td>
</tr>
<tr>
<td><strong>WARHEAD:</strong> BLU-97 or BLU-108 bomblets</td>
</tr>
<tr>
<td><strong>PROPOSITION:</strong> Unpowered; glide range of 15 nm (low alt.), 40 nm (high alt.); in excess of 120 nm if powered</td>
</tr>
<tr>
<td><strong>MANUFACTURER:</strong> Raytheon</td>
</tr>
</tbody>
</table>

#### Bullpup (AGM-12)

<table>
<thead>
<tr>
<th>Carried aboard anti-submarine warfare aircraft for delivery on surfaced submarines and smaller warships.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>DIMENSIONS:</strong> 13.6 ft. long; 18 in. diameter, 48 in. wingspan</td>
</tr>
<tr>
<td><strong>WEIGHT:</strong> 1,760 lbs.</td>
</tr>
<tr>
<td><strong>WARHEAD:</strong> 970 lbs.</td>
</tr>
<tr>
<td><strong>PROPOSITION:</strong> Storable, liquid-fuel rocket</td>
</tr>
<tr>
<td><strong>SPEED:</strong> Mach 1.8</td>
</tr>
<tr>
<td><strong>RANGE:</strong> 10 nm</td>
</tr>
<tr>
<td><strong>MANUFACTURER:</strong> Lockheed Martin</td>
</tr>
</tbody>
</table>

#### SLAM: A modified Harpoon designed for use against land targets.

| **DIMENSIONS:** 14.6 ft. long |
| **WEIGHT:** 1,470 lbs. |
| **SPEED:** 120 nm |
| **MANUFACTURER:** Boeing |

#### SLAM-ER: SLAM-ER has a greater range, a titanium warhead for increased penetration and software improvements which allow the pilot to re-target the impact point of the missile during the terminal phase of attack (the last five miles).

| **DIMENSIONS:** 14.3 ft. long; 7.9 ft. wingspan |
| **WEIGHT:** 1,100 lbs. |
| **SPEED:** 150 nm |
| **MANUFACTURER:** Boeing |

#### Harpoon/SLAM/SLAM-ER

<table>
<thead>
<tr>
<th>Harpoon: Air/surface/submarine-launched, anti-ship, all-weather cruise missile. Originally designed as an air-to-surface missile for the P-3 Orion, the Harpoon can now be carried by virtually all naval platforms.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>DIMENSIONS:</strong> 12.5 ft. long (air-launched); 15.2 ft. long (surface- and submarine-launched); 13.5 in.</td>
</tr>
<tr>
<td><strong>WEIGHT:</strong> 1,100 lbs. (air launch); 1,459 lbs. (ASROC launcher); 1,520 lbs. (SAM launcher); 1,523 lbs. (capsule/canister launch)</td>
</tr>
<tr>
<td><strong>SPEED:</strong> High subsonic speeds</td>
</tr>
<tr>
<td><strong>WARHEAD:</strong> 488.5 lbs., semi-armor piercing</td>
</tr>
<tr>
<td><strong>PROPOSITION:</strong> Turbojet/cruise w/solid-fuel booster for surface/submarine launch</td>
</tr>
<tr>
<td><strong>RANGE:</strong> 75-80 nm (surface-launched); 120 nm (air-launched)</td>
</tr>
<tr>
<td><strong>MANUFACTURER:</strong> Boeing</td>
</tr>
</tbody>
</table>

#### HARM (High-Speed Anti-Radar Missile)

<table>
<thead>
<tr>
<th>The standard anti-radar missile in the U.S. inventory. Used as both a strike-protection and anti-ship weapon.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>DIMENSIONS:</strong> 13.5 ft. long; 10 in. diameter; 44 in. wingspan</td>
</tr>
<tr>
<td><strong>WEIGHT:</strong> 788 lbs.</td>
</tr>
<tr>
<td><strong>WARHEAD:</strong> 146 lbs.</td>
</tr>
<tr>
<td><strong>RANGE:</strong> Dependent on launch speed/altitude</td>
</tr>
<tr>
<td><strong>PROPOSITION:</strong> Dual-thrust rocket motor</td>
</tr>
<tr>
<td><strong>MANUFACTURER:</strong> Raytheon</td>
</tr>
</tbody>
</table>

#### Maverick

<table>
<thead>
<tr>
<th>Short-range, air-to-surface, tactical missile.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>DIMENSIONS:</strong> 8.2 ft. long; 12 in. diameter; 2.4 ft. wingspan</td>
</tr>
<tr>
<td><strong>WEIGHT:</strong> 635 lbs.</td>
</tr>
<tr>
<td><strong>WARHEAD:</strong> 300 lbs.</td>
</tr>
<tr>
<td><strong>PROPOSITION:</strong> Two-stage, solid-fuel rocket motor</td>
</tr>
<tr>
<td><strong>SPEED:</strong> Supersonic</td>
</tr>
<tr>
<td><strong>RANGE:</strong> 14 nm</td>
</tr>
</tbody>
</table>
| **MANUFACTURER:** Hughes/Raytheon

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[Image of Harpoon]
### Tomahawk Cruise Missile

An all-weather, ship- or submarine-launched cruise missile.

**DIMENSIONS**: 18.3 ft. long; 20.6 ft. with booster; 10.4 in. diameter; 8.9 ft. wingspan
**WEIGHT**: 2,650 lbs. (3,200 lbs. with booster)
**PROPULSION**: Solid-fuel rocket motor
**WARHEAD**: Blast fragmentation, high explosive
**SPEED**: Subsonic
**RANGE**: 200 nm (land attack/conventional warhead)
**MANUFACTURER**: General Dynamics

### Phoenix Missile

Long-range, air-to-air missile designed for use in an all-weather, heavy-jamming environment.

**DIMENSIONS**: 13 ft. long; 15 in. diameter; 3 ft. wingspan
**WEIGHT**: 1,024 lbs.
**PROPULSION**: Solid-fuel rocket motor
**WARHEAD**: 135 lbs., proximity fuse, high explosive
**SPEED**: Supersonic
**RANGE**: 100 nm
**MANUFACTURER**: Hughes/Raytheon

### Sidewinder

A short-range, heat-seeking, anti-air missile carried by fighter aircraft. One of the oldest, least-expensive and most-successful missiles in the entire U.S. inventory.

**DIMENSIONS**: 9.6 ft. long; 5 in. diameter; 2.1 ft. wingspan
**WEIGHT**: 190 lbs.
**PROPULSION**: Single-stage, solid-fuel rocket motor
**WARHEAD**: 20.8 lbs., blast fragmentation
**SPEED**: Supersonic
**RANGE**: 3.7 nm
**MANUFACTURER**: Raytheon/Ford Aerospace/Loral

### Rolling Airframe Missile (RAM)

Low-cost, self-defense system against anti-ship missiles.

**DIMENSIONS**: 9.25 ft. long; 5 in. diameter; 1.5 ft. wingspan
**WEIGHT**: 162 lbs.
**WARHEAD**: 25 lbs., high explosive
**PROPULSION**: Solid-fuel rocket motor
**RANGE**: 5 nm
**SPEED**: Supersonic
**MANUFACTURER**: Kongsberg Vaapenfabrikk (Norway)

### Standard Missile-1 (SM-1)/Standard Missile-2 (SM-2)

Currently employed in two variations: SM-1/SM-2 MR (medium range) and SM-2 ER (Extended Range).

**SM-1/SM-2 MR**
- **DIMENSIONS**: 14.7 ft. long; 13.5 in. diameter; 3.6 ft. wingspan
- **WEIGHT**: 1,100 lbs. (SM-1); 1,380 lbs. (SM-2)
- **WARHEAD**: Proximity fuse/high explosive
- **PROPULSION**: Dual thruster solid-fuel rocket
- **RANGE**: 15-20 nm (SM-1); 40-90 nm (SM-2 ER)
- **MANUFACTURER**: Raytheon

**SM-2 ER**
- **DIMENSIONS**: 26.2 ft. long; 13.5 in. diameter; 5.2 ft. wingspan
- **WEIGHT**: 2,580 lbs.
- **WARHEAD**: Proximity fuse, high explosive
- **PROPULSION**: Two-stage, solid-fuel rocket; sustainer motor and booster motor
- **RANGE**: 65-100 nm
- **MANUFACTURER**: Raytheon

### Sparrow

A highly-maneuverable, all-weather, all-altitude, air-to-air missile. A surface ship version, the Sea Sparrow, provides U.S. Navy and NATO ships with an effective, anti-air weapon.

**DIMENSIONS**: 12 ft. long; 8 in. diameter; 3.4 ft. wingspan
**WEIGHT**: 500 lbs.
**WARHEAD**: 80 lbs., annular blast fragmentation
**PROPULSION**: Solid-fuel rocket motor
**RANGE**: 30 nm
**SPEED**: Supersonic
**MANUFACTURER**: Raytheon/General Dynamics

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

An all-weather, beyond-visual-range, air-to-air missile designed as a follow-on to the Sparrow-missile series.

**DIMENSIONS**: 12 ft. long; 7 in. diameter; 21 in. wingspan
**WEIGHT**: 335 lbs.
**PROPULSION**: High performance, directed rocket motor
**WARHEAD**: Blast fragmentation, high explosive
**SPEED**: Supersonic
**MANUFACTURER**: Hughes/Raytheon

### Penguin Anti-ship Missile

Anti-ship missile carried aboard Lamps III helicopters.

**DIMENSIONS**: 10 ft. long; 11.2 in. diameter; 39 in. wingspan
**WEIGHT**: 647 lbs.
**PROPULSION**: Solid-fuel rocket motor/solid-fuel booster
**WARHEAD**: 285 lbs., semi-armor piercing
**RANGE**: 25 nm
**SPEED**: Mach 1.2
**MANUFACTURER**: Kongsberg Vaapenfabrikk (Norway)
### TORPEDOES

<table>
<thead>
<tr>
<th>MK 46</th>
<th>MK 48/ADCAP</th>
<th>MK 50</th>
</tr>
</thead>
<tbody>
<tr>
<td>The MK 46 torpedo is designed to be launched from surface combatants, ASROC missile launchers and fixed- and rotary-wing aircraft.</td>
<td>The MK 48 is designed to combat fast, deep-diving, nuclear submarines and high-performance, surface ships.</td>
<td>An advanced lightweight torpedo for use against faster, deeper-diving and more-sophisticated submarines. The MK 50 can be launched from all ASW aircraft and from torpedo tubes aboard surface combatants. The MK 50 will eventually replace the MK 46 as the fleet's lightweight torpedo.</td>
</tr>
</tbody>
</table>

### MINES

<table>
<thead>
<tr>
<th>MK 67 SLMM (Submarine Launched Mobile Mine)</th>
<th>MK 60 Captor</th>
</tr>
</thead>
<tbody>
<tr>
<td>Based on the MK 37 torpedo, the SLMM is a submarine-deployed mine used for covert mining in hostile environments.</td>
<td>Deep-water mine laid by aircraft or submarines designed to seek hostile submarines, while ignoring surface craft and friendly submarine acoustic signatures. Upon detection of a hostile submarine, the Captor launches an MK 46, Mod 4 torpedo.</td>
</tr>
<tr>
<td>TYPE: Submarine-laid bottom mine.  DIMENSIONS: 13.4 ft. long; 19 in. diameter  DETECTION SYSTEM: Magnetic/seismic or magnetic/seismic/pressure target detection devices (TDDs)  DEPTH RANGE: 600 ft.  WEIGHT: 1,958 lbs.  EXPLOSIVES: 330 lbs. high explosive</td>
<td>TYPE: Aircraft-, ship- or submarine-laid, magnetically-moored mine.  DIMENSIONS: 12 ft. long, 21 in. diameter (aircraft/ship-laid); 11 ft. long, 21 in. diameter (submarine-laid)  DETECTION SYSTEM: Reliable acoustic path (RAP) sound propagation  DEPTH RANGE: 1,000 ft.  WEIGHT: 2,370 lbs. (aircraft/ship-laid); 2,056 lbs. (submarine-laid)  EXPLOSIVES: 96 lbs. high explosive (MK 46 torpedo)</td>
</tr>
</tbody>
</table>

### BOMBS

#### Paveway Laser-Guided Bomb

The Paveway series was developed to increase the accuracy of laser-guided bombs. All employ standard MK 80 series bombs with Paveway kits attached to guide the explosives to their targets.

#### MK 80 Series

The MK 80 series was developed in the late 1940s and has been the standard for Navy bombs ever since. The Mark (MK) number designates the weight of the bomb.

- MK 81 (250 lbs.; 9 ft. long; 78.1 in. diameter)
- MK 82 (500 lbs.; 10.8 ft. long; 90.9 in. diameter)
- MK 83 (1,000 lbs.; 14 ft. long; 110.9 in. diameter)
- MK 84 (2,000 lbs.; 18 ft. long; 154 in. diameter)
## SHIPBOARD GUNS

### MK 45
**5 inch/54 caliber Lightweight Gun Mount**

The 5 inch/54 caliber lightweight gun provides surface combatants accurate naval gunfire against fast, highly maneuverable surface targets, air threats and shore targets during amphibious operations.

- **Shell Weight:** 70 lbs.
- **Rate of Fire:** 20 rounds/min.
- **Muzzle Velocity:** 2,650 ft./sec.
- **Range:** 13 nm
- **Magazine Capacity:** 475-500 rounds
- **Weight:** 47,820 lbs.

### MK 45 MOD
**5 inch/62 caliber Lightweight Gun Mount**

This latest version of the MK 45 gun mount is designed for use with the Extended Range Guided Munition (ERGM) to provide over-the-horizon range and improved lethality to meet near-term naval surface fire support needs.

- **Shell Weight:** 70 lbs. conventional ammunition, 110 lbs. ERGM projectile
- **Rate of Fire:** 20 rounds/min. (conventional ammunition), 10 rounds/min. (ERGM)
- **Muzzle Velocity:** 2,650 ft./sec.
- **Range:** 60 nm
- **Weight:** 42,800 lbs.

### MK 30
**25 mm/87 caliber Machine Gun System**

Single-barreled, air-cooled heavy machine gun.

- **Shell Weight:** 1.1 lbs
- **Muzzle Velocity:** 1,100 m/sec.
- **Range:** 2,700 yds.
- **Rate of Fire:** 175 rounds/min.
- **Manufacturer:** Crane Division, Naval Surface Warfare Center

### 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.

- **Rate of Fire:** 80 rounds/min.
- **Muzzle Velocity:** 3,000 ft./sec.
- **Range:** 10 nm
- **Weight:** 13,680 lbs.
- **Manufacturer:** FMC Naval Systems Division and OTO Melara

### Phalanx Close-In Weapons System

The Phalanx CIWS combines a 20mm Gatling gun with search and tracking radar to provide surface ships with terminal defense against anti-ship missiles which have penetrated other fleet defense systems.

- **Rate of Fire:** 4,500 rounds/min.
- **Muzzle Velocity:** 3,660 ft./sec.
- **Range:** 6,000 yds.
- **Manufacturer:** General Dynamics
**Ranks**

### Commissioned Officers

- Ensign
- Lieutenant Junior Grade
- Lieutenant
- Lieutenant Commander
- Commander
- Captain
- Rear Admiral (Lower Half)
- Rear Admiral (Upper Half)
- Vice Admiral
- Admiral

### Warrant Officers

- Chief Warrant Officer
- Chief Warrant Officer
- Chief Warrant Officer
- Chief Warrant Officer
- Chief Warrant Officer
## Enlisted Members

<table>
<thead>
<tr>
<th>Rank</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>E-1</td>
<td>Seaman Recruit</td>
</tr>
<tr>
<td>E-2</td>
<td>Seaman Apprentice</td>
</tr>
<tr>
<td>E-3</td>
<td>Seaman</td>
</tr>
<tr>
<td>E-4</td>
<td>Petty Officer Third Class</td>
</tr>
<tr>
<td>E-5</td>
<td>Petty Officer Second Class</td>
</tr>
<tr>
<td>E-6</td>
<td>Petty Officer First Class</td>
</tr>
<tr>
<td>E-7</td>
<td>Chief Petty Officer</td>
</tr>
<tr>
<td>E-8</td>
<td>Senior Chief Petty Officer</td>
</tr>
<tr>
<td>E-9</td>
<td>Master Chief Petty Officer</td>
</tr>
</tbody>
</table>

## Line/Staff/Warrant Officer Sleeve Devices

<table>
<thead>
<tr>
<th>Corps</th>
<th>Device</th>
</tr>
</thead>
<tbody>
<tr>
<td>Line</td>
<td>Cryptologic Technician</td>
</tr>
<tr>
<td>Supply Corps</td>
<td>Repair Technician</td>
</tr>
<tr>
<td>Medical Corps</td>
<td>Intelligence Technician</td>
</tr>
<tr>
<td>Nurse Corps</td>
<td>Boatswain</td>
</tr>
<tr>
<td>Medical Service Corps</td>
<td>Data Processing Technician</td>
</tr>
<tr>
<td>Dental Corps</td>
<td>Engineering/Nuclear Power Technician</td>
</tr>
<tr>
<td>Physician's Assistant</td>
<td>Aerographer</td>
</tr>
<tr>
<td>Judge Advocate General Corps</td>
<td>Air Traffic Controller</td>
</tr>
<tr>
<td>Law Community</td>
<td>Aviation Boatswain</td>
</tr>
<tr>
<td>Christian Chaplain</td>
<td>Explosive Ordnance Disposal</td>
</tr>
<tr>
<td>Jewish Chaplain</td>
<td>Aviation Electronics Technician</td>
</tr>
<tr>
<td>Civil Engineer Corps</td>
<td>Aviation Ordnance Technician</td>
</tr>
<tr>
<td>Ship's Clerk</td>
<td>Band Master</td>
</tr>
<tr>
<td>Ordnance Technician</td>
<td>&quot;Devices for Diving Officer and Security Technician not pictured&quot;</td>
</tr>
</tbody>
</table>
### Aircraft

**Nimitz-class**

<table>
<thead>
<tr>
<th>USS Nimitz (CVN 68)</th>
</tr>
</thead>
<tbody>
<tr>
<td>USS Dwight D. Eisenhower (CVN 69)</td>
</tr>
<tr>
<td>USS Carl Vinson (CVN 70)</td>
</tr>
<tr>
<td>USS Theodore Roosevelt (CVN 71)</td>
</tr>
<tr>
<td>USS Abraham Lincoln (CVN 72)</td>
</tr>
<tr>
<td>USS George Washington (CVN 73)</td>
</tr>
<tr>
<td>USS John C. Stennis (CVN 74)</td>
</tr>
<tr>
<td>USS Harry S. Truman (CVN 75)</td>
</tr>
<tr>
<td>USS Ronald Reagan (CVN 76)*</td>
</tr>
</tbody>
</table>

**Enterprise-class**

<table>
<thead>
<tr>
<th>USS Enterprise (CVN 65)</th>
</tr>
</thead>
</table>

**Kitty Hawk- and John F. Kennedy-class**

<table>
<thead>
<tr>
<th>USS Kitty Hawk (CV 63)</th>
</tr>
</thead>
<tbody>
<tr>
<td>USS Constellation (CV 64)</td>
</tr>
<tr>
<td>USS John F. Kennedy (CV 67)**</td>
</tr>
</tbody>
</table>

*Under Construction
**Naval Reserve Force, Active
Carriers
AN AIRWING consisting of more than 80 combat aircraft and 2,000 Sailors is assigned to each carrier. Squadrons assigned to airwings – and airwings assigned to carriers – change periodically based on the mission of the carrier battle group. Carrier-based squadrons fly six different types of aircraft: F/A-18 Hornets, F-14 Tomcats, SH-60 Seahawks, S-3B Vikings, E-2C Hawkeyes and EA-6B Prowlers. Missions range from reconnaissance and search and rescue to logistics and interdiction.

**EA-6B Prowler**

**S-3B Viking**
Twin-turbofan Lockheed submarine hunter. 517 mph. Wingspan 68.7 ft. Maximum takeoff weight 52,539 lbs.

**SH-60 Seahawk**
Twin-engine Sikorsky anti-submarine helicopter. 150 mph. Rotor diameter 53.7 ft. Weight 20,508 lbs.

**F/A-18 Hornet**

**THE CATAPULT** has two rows of slotted, cylindrical nosegear of the aircraft attaches to a shuttle protruding in the trough. A holdback device installed on the nose of the aircraft releases a signal from the catapult safety observer on the flight deck. Steam surges into the cylindrical valves assembly. The length of time the valves remain open is determined by the wind over the deck. Steam surges into the cylinder, causing the shuttle forward while accelerating the aircraft to speeds in excess of 150 mph in less than two seconds. The aircraft then plunges into water brakes cylinders. A cable and pulley system is used for the next launch. From its four catapults, USS Har...
An image of USS HARRY is shown, with various labeled parts of the aircraft carrier. The carrier can launch up to 51,900 lbs. piping in a trough beneath the flight deck. A bar on the forward end from the flight deck and connects to a pair of pistons. Arresting gear holds the aircraft in place as tension is applied. On the flight deck, the catapult is fired by opening the launching-in open is determined by the weight of the aircraft and seconds, releasing the holdback and forcing the pistons and the 300-foot deck. A 60,000-pound aircraft can reach 600 feet. The shuttle is stopped when spears on the pistons assembly then pulls the shuttle back down the catapult. USS S. Truman can launch an aircraft every 20 seconds.
S. TRUMAN

18 Main deck
19 Two rudders
20 Four catapults
21 Catapult steam vessel
22 Catapult piping room
23 Saluting gun
24 Crew living spaces
25 .50-caliber machine guns

E-2C Hawkeye
F-14 Tomcat

USS HARRY S. TRUMAN (CVN 75) is the ninth nuclear-powered aircraft carrier to be commissioned by the U.S. Navy and is homeported in Norfolk. The Nimitz-class supercarrier is powered by two Westinghouse nuclear reactors and four steam turbines, which can move the 100,000-ton warship at speeds of more than 35 mph. Truman is 1,096 feet long. She has an extreme breadth of 257 feet and a 4.5-acre flight deck. With the airwing on board, she carries some 6,000 people.

FOUR 1.375-INCH-THICK, STEEL CABLES run 5.5 inches above the deck at 35-foot intervals and connect with a hydraulic cylinder below the deck, which serves as a giant shock absorber. As an aircraft approaches, all four wires are set to accommodate that aircraft’s weight. When the aircraft’s arresting hook snags a wire, the wire pulls a piston within a fluid-filled chamber. As the piston is drawn down the cylinder, hydraulic fluid is forced through the small holes in the cylinder end, thus absorbing the energy of the aircraft and braking it to a stop. An arresting wire can stop a 54,000-pound aircraft traveling more than 130 mph in a distance less than 350 feet. When the aircraft drops the wire, the piston is retracted and made ready to recover another aircraft in 45 seconds.

Illustration courtesy of John Batchelor and USS Harry S. Truman Public Affairs.
# Monthly Basic Pay Table

**Effective Jan. 1, 1999**

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**Note:** Basic pay is limited to $9,225.00.
The above display represents the correct order of precedence for ribbons most likely to be worn today on the Navy uniform. Devices worn on these ribbons must be worn in a specified manner and are used to denote additional awards or participation in a specific event. For additional information about the proper order of display, placement of devices or about ribbons not shown, refer to SECNAVINST 1650.1F and the U.S. Navy Uniform Regulations (NAVPERS 1556.5G).
<table>
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<tr>
<td>Naval Flight Surgeon</td>
<td>Naval Flight Nurse</td>
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<td>Naval Aviation Supply Corps</td>
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<td>Surface Warfare (medical service)</td>
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<tr>
<td>Seabee Combat Warfare Specialist (officer)</td>
<td>Seabee Combat Warfare Specialist (enlisted)</td>
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USS Constitution (ENLTRANSMAN 9.24):
USS Constitution is an important part of our American heritage. She earned her nickname “Old Ironsides” during the War of 1812 and is the oldest commissioned warship afloat in the world. Constitution is permanently berthed in Boston where her crew of active-duty Sailors maintains and presents her to approximately 1 million visitors each year. Sailors seeking duty aboard Constitution must be able to deal with the public with maturity and tact and always be a model representative of today’s Navy. Ratings: Various.


The Navy has a wide variety of special-duty assignments for Sailors who are looking for something new—and something different. On the next few pages you will find only a
sampling of the hundreds of special programs available. Pick up a copy of the Enlisted Transfer Manual (ENLTRANSMAN) to find out which jobs you may be eligible for.

**Duty**

**Physical Security-Law Enforcement Specialist** *(ENLTRANSMAN 9.07)*: The Law Enforcement Specialist performs duties in internal security at installations and facilities as a member of the Navy Internal Security Force. Personnel selected for assignment attend the Law Enforcement Specialist Training School and earn the Law Enforcement Specialist NEC (9545). Ratings: All ratings except HM, DT and those serving in pay grades E-7 to E-9.

**U.S. Navy Flight Demonstration Squadron (Blue Angels)** *(ENLTRANSMAN 9.23)*: Only the “best of the best” are selected to service these Hornets and provide administrative and logistic support for this world-famous squadron. Ratings: AD, AE, AK, AME, AMH, AMS, AO, AS, AT, AZ, DM, JO, PH, PR, YN and Airman (AN).

**Navy Music Program** *(ENLTRANSMAN 9.34)*: The Navy Music Program is comprised of men and women who possess musical skills in varying styles, to include martial, classical, jazz, rock and country/western. All applicants must audition prior to requesting conversion. Approval/disapproval is determined by “Special Assistant for Music” (PERS-6MM). Due to fluctuating NEC manning requirements, contact with local band directors or the MU detailers is recommended. Ratings: All.

**Naval Reserve Officer Training Corps (NROTC)** *(ENLTRANSMAN 9.52)*: Personnel selected for duty as instructors at any NROTC unit must be mature, emotionally stable individuals and must demonstrate aptitude for such an assignment. Ratings: Various.
Landing Craft, Air Cushion (LCAC) (ENLTRANSMAN 9.67): The LCAC is a non-self-sustaining, high-speed, ship-to-shore, over-the-beach, air-cushioned vehicle (ACV) designed to operate from the welldeck of amphibious assault ships in support of Marine amphibious forces. It is capable of carrying a 60-ton payload at 30 knots in sea state 3, delivering equipment, personnel and weapon systems to the beach from over-the-horizon standoff distances. In its secondary configuration as a Multi-mission Craft, Air Cushion (MCAC), it can support the Personnel Transport Module (PTM) which is capable of transporting up to 180 troops. When configured for mine countermeasures (MCM), it is capable of conducting mine hunting/sweeping and lane breaching. The craft has a crew of five Sailors. The LCAC program includes duty as craft master (NEC 0167), craft engineer (NEC 4131), craft navigator (NEC 0304), load master (NEC 4133) and deck mechanic (NEC 4135). Ratings: Various.

Advancement Examination and Rate Training Manual Writer (ENLTRANSMAN 9.47): These billets must be filled at or above the pay grades indicated. Screening is required to ensure the prospective writer has recent, technical experience in the rating. Senior petty officers whose current assignments involve general duties outside the rating should not be ordered to these billets. Writers must be mature, stable individuals who are able to function independently, and must demonstrate aptitude for such assignment. Although writers work with civilian education specialists, their writing responsibilities are accomplished independently. Ratings: All (E-7 and above).

SEAL/UDT (Naval Special Warfare) Program

SEAL/UDT (Naval Special Warfare) Program (ENLTRANSMAN 9.13): The Navy Special Warfare Community includes enlisted personnel qualified for and assigned secondary NECs (SN/EC) 5321, 5322, 5326 and 5327. Once qualified, personnel perform Special Warfare Operations as SEAL/UDT Combatant Swimmers. Ratings: Various

Personnel Exchange Program (PEP) (ENLTRANSMAN 9.25): This program provides the opportunity for U.S. Navy personnel to become an integrated part of the host country’s service. The intent of the program is to provide a better understanding and appreciation of our Allies, allow foreign nations to become better acquainted with the United States through personal contact, and to provide interesting foreign duty assignments. Nations may include Australia, Belgium, Canada, Italy, Germany, the Netherlands and Norway. Ratings: Various.
Command Career Counselor Program (ENLTRANSMAN 9.09): Command Career Counselors (CCC) assist commanders and commanding officers with their retention efforts. Sailors filling full-time CCC billets are trained to provide the support required in the Retention Manual. Ratings: All ratings, E-6 and above. Naval Reserve activities may designate an E-5 as long as all other qualifications are met and a qualified E-6 is not available.

USS Arizona Memorial (ENLTRANSMAN 9.55): The Arizona Memorial is the premier tourist attraction in Hawaii. More than 1 million visitors annually pay their respects to the ship and her crew. Volunteers seeking duty at the memorial must be able to deal with the public with maturity and tact and always be a model representative of today's Navy. Non-petty officers (E-3 and below) will preferably have fleet experience, but may be assigned directly from recruit training or academic (non-disciplinary) attrition from Class "A" school. Petty officers nominated should be eligible for shore duty and preferably warfare qualified. Ratings: Various.

Navy Manpower Analysis Center (NAVMAC) (ENLTRANSMAN 9.35): NAVMAC conducts detailed analyses of workload, manning standards and mission statements to determine optimum levels of manpower required for units to meet their respective wartime missions. Duties include conducting extensive on-site surveys, using collected data to develop ship, squadron or fleet manpower documents. Ratings: Various.

U.S. Navy Ceremonial Guard (ENLTRANSMAN 9.11): The Ceremonial Guard is the official ceremonial unit of the Navy and, as such, is a Presidential Support Activity. The Ceremonial Guard is a component of Naval District Washington (NDW). Non-petty officers are assigned directly from Recruit Training Centers. Ratings: All.

Naval Test Parachutists (ENLTRANSMAN 9.42): A naval test parachutist performs live jump testing and evaluation of personnel parachutes and related equipment used in both aircraft emergency escape systems and premeditated tactical parachute operations. Technical expertise is provided to recovery systems engineers and test engineers in parachute design, fabrication and packing techniques; testing procedures and testing support; and fleet operational requirements and utilization techniques. Equipment used in the performance of duties includes a variety of emergency egress and premeditated parachute systems, related packing tools, sewing machines and test hardware. Ratings: PR.
Navy Recruiting Exhibit Center (ENLTRANSMAN 9.44): Personnel assigned serve as tractor trailer exhibit drivers and showmen and deploy throughout the nation performing Navy awareness exhibit shows at high schools, colleges, air shows and other city, county and state events. Driver/showmen personnel develop community relations and are often the only image of the Navy presented to the general public when performing their duties as showmen for the exhibit. Ratings: All.

EOD Program (ENLTRANSMAN 9.14): The Explosive Ordnance Disposal (EOD) Community includes enlisted personnel qualified for and assigned secondary NECs (SNEC) 5332 and 5333. Additionally, these personnel carry the enlisted designator (PJ) and/or (DV). Once qualified, personnel perform explosive ordnance disposal operations as EOD technicians. Ratings: Various.

Naval Special Warfare Mobile Communication Teams (MCT) (ENLTRANSMAN 9.57): Members assigned to MCT require special screening and interview by a commissioned officer to determine eligibility. MCT billets require duty in arduous field environments (many times isolated and independent) supporting real operations. Units are homeported at the Naval Amphibious Bases in Coronado, Calif., and Little Creek, Va., but make continuous deployments to overseas locations. Ratings: Various.

Assignment to Marine Helicopter Squadron 1 (HMX-1) (ENLTRANSMAN 9.68): HMX-1 is the designated Presidential helicopter support squadron based at Quantico, Va. The Marine Corps and Navy personnel assigned to HMX-1 perform a wide range of duties including the transport of executives and heads of state, as well as providing support to various commands attached to the Marine Corps Combat Development Command located at Quantico. Ratings: AK and HM (NEC 8406/8425).

Naval Aircrew Program (ENLTRANSMAN 9.12): Naval Aircrewmen perform duties in fixed- and rotary-wing aircraft based ashore and afloat in those crew member positions determined by CNO. Personnel assigned to this program are under permanent flight orders, which are governed by BUPERSINST 1326.4. Ratings: Various aviation ratings.
Family Service Centers (ENLTRANSMAN 9.54): Family Service Centers (FSCs) provide a full range of counseling, education and training and information and referral services for service members and their families. Volunteers for these billets must be highly motivated for service in the family support field. The more specialized information and referral specialist is covered by this program. Ratings: Various.

Historic Ship Nautilus (SSN 571) (ENLTRANSMAN 9.36): USS Nautilus (SSN 571) is an important part of U.S. naval history. Located in Groton, Conn., the ship hosts more than 250,000 visitors each year. The crew of Nautilus is in constant contact with the public, requiring outstanding personal appearance and military bearing. Ratings: All, but must be submarine qualified.

Staff Duty with the Broadened Opportunity for Officer Selection and Training (BOOST) Program (ENLTRANSMAN 9.40): BOOST is a Navy upward mobility program which allows educationally disadvantaged young men and women to prepare themselves to gain entrance to the Naval Academy or to accept NROTC Scholarships. Ratings: All.

Enlisted TAR (Training and Administration of Reserve) Conversion (ENLTRANSMAN 9.41): Increased emphasis has been placed on integration of the Naval Reserve into the operating forces by making Reserve commands substantially more capable of rapid mobilization and augmentation. In addition to new hardware, aircraft and ships, growth of the Reserve force requires additional talented, career-oriented personnel. Conversion of Navy members currently on active duty is essential to meet the manning requirements of the TAR program. Ratings: Various.
**CVX and Nimitz-Class Aircraft Carriers**

*Nimitz*-class, nuclear-powered aircraft carriers are currently replacing the Navy’s aging, conventionally-powered carriers on a one-for-one basis, while preserving and recapitalizing carrier battle group (CVBG) force levels and meeting forward-presence, crisis-response and warfighting requirements. The Navy’s 12 carriers are forward deployed worldwide in support of U.S. policy and are increasingly important as more emphasis is placed on littoral regions and land-based forces are brought home.

**Program Status:** Eight *Nimitz*-class carriers have been delivered; *Ronald Reagan* (CVN 76) is currently under construction and is expected to be delivered in FY02. The FY98 to FY02 Future Years Defense Plan (FYDP) includes funding for CVN 77, a modified-version of CVN 76, to replace USS *Kitty Hawk* (CV 63) in 2008. CVN 77 will be a “transition ship,” incorporating new technologies and features in anticipation of the move to a next-generation carrier design (CVX), which is currently in research and development. The first CVX could be requested as early as FY06, with a target-delivery date of FY13.

**Developer/Manufacturer:** Newport News Shipbuilding
**CH-60 Fleet Combat Support Helicopter**

The CH-60 Fleet Combat Support Helicopter will complement and eventually replace the Navy's aging fleet of H-46 helicopters. The mission of the CH-60 includes combat search and rescue, special operations and logistics. Combining the Army's UH-60 Blackhawk fuselage and the Navy's SH-60 Seahawk dynamic components, the CH-60 promises to be a superb aircraft. The commonality bred into the helicopter will contribute to mission effectiveness and provide for better parts resupply.

**Program Status:** The first demonstration aircraft was built in FY97 and first flew in October 1997. The Navy has since joined in a multi-service, multi-year procurement with the Army. The Navy intends to take delivery of its first CH-60 in late FY99. In FY00, the Navy plans to procure 18 to 20 CH-60s, eventually buying up to 237 of these new aircraft.

**Developer/Manufacturer:** Sikorsky, General Electric and Lockheed Martin

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**JSF (Joint Strike Fighter)**

The Joint Strike Fighter (JSF) program, formerly the Joint Advanced Strike Technology (JAST) program, will develop and field a tri-service “family” of next-generation, strike aircraft with an emphasis on affordability. The “family” concept allows for a high level of commonality while meeting unique service and allied needs. The focus of the JSF program is to reduce the cost of developing, producing and operating new aircraft. The joint approach is anticipated to produce significant savings when compared to the costs of separate programs.

**Program Status:** In November 1996, the designs from Lockheed Martin and Boeing were selected to compete in the JSF Concept Demonstration Phase. This phase is ongoing and is designed to lead to an affordable, low-risk transition to the Engineering and Manufacturing Development (EMD) phase in FY01. The first aircraft are scheduled to be delivered in FY08.

**Developer/Manufacturer:** Weapon system concept definition and design – Boeing and Lockheed Martin. Propulsion system – Pratt & Whitney and General Electric/Allison Engine Company

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**DD 21 (Land Attack Destroyer)**

The first member of the SC-21 “family” of ships is DD 21, the 21st Century, Land Attack Destroyer. The mission of the ship is to provide credible, independent forward presence/deterrence while operating as an integral part of naval, joint or combined maritime forces. DD 21 is the first surface combatant which has been designed from the keel up based entirely on post-Cold War requirements. DD 21 is a multi-mission destroyer which will provide an advanced level of land attack in support of ground campaigns and contribute to battlespace dominance in littoral regions.

**Program Status:** The DD 21 program has been authorized to proceed with Program Definition and Risk Reduction (Phase I). In April 1998, Program Executive Office DD 21 was established, placing DD 21-related programs and technologies under the control of a single acquisition manager. Currently, two industry teams are under contract to develop independent DD 21 designs; a winning design will be selected in FY01. Detailed design and construction of the lead ship will begin in FY04. The Navy plans to buy 32 of these new ships, procured at a rate of three ships per year beginning in 2005, to replace the Spruance-class destroyer and Oliver Hazard Perry-class frigate.

**Developer/Manufacturer:** TBD
ASDS (Advanced Swimmer Delivery System)

ASDS is a dry mini-submarine with a two-man crew capable of carrying a SEAL squad. The craft's mission is long-range, clandestine insertion and extraction in support of special operations. The vehicle will be launched from a host submarine or the well deck of an amphibious ship and, unlike current swimmer-delivery systems, will almost completely eliminate the SEALs' exposure to cold water, greatly reducing physical and mental fatigue.

Program Status: The first ASDS will be completed in late FY99 and delivered to SEAL Delivery Team 1 (SDVT-1) in Pearl Harbor.

Developer/Manufacturer: Northrop Grumman Oceanic Division

Virginia-Class Attack Submarine

The Virginia-class attack submarines will eventually replace the aging Los Angeles-class SSNs. The Virginia class will maintain the traditional, open-ocean, anti-submarine and anti-surface warfare capability, but have increased capability for littoral and regional operations. These submarines will be equipped to perform mining operations, Special Forces insertion/extraction, battle group support, intelligence collection, sea control and land attack. The ships' design will allow for the incorporation of new technology and changing mission requirements.

Program Status: Advance procurement for the Virginia was funded in FY96 and FY97. Construction began in FY98.

Developer/Manufacturer: General Dynamics, Electric Boat and Newport News Shipbuilding
F/A-18E/F Super Hornet

The introduction of the F/A-18E/F Super Hornet to the fleet in 2000 will provide critical growth capacity, weapon-bring-back improvements, survivability enhancements and range/payload improvements – all of which are required to keep the strike-fighter force viable well into the 21st century. There will be extensive commonality with weapons systems, avionics and software between F/A-18 variants. Ultimately, the F/A-18E will replace older F/A-18s while the two-seat F/A-18F will replace the F-14.

**Program Status:** The F/A-18E/F program is in the final year of its three-year, Engineering and Manufacturing Development (EMD) phase. Aircraft E-1 completed its first flight Nov. 29, 1995. The Super Hornet successfully completed sea trials and its first carrier landing in January 1997. There are currently seven test aircraft on site at NAS Patuxent River, Md. The first deliveries of Super Hornet are scheduled for FY01.

**Developer/Manufacturer:** Boeing

CSA (Common Support Aircraft)

The Common Support Aircraft (CSA) will serve as the Navy’s carrier-based surveillance, control and support aircraft for the 21st century, replacing the S-3B, ES-3A, E-2C and C-2A aircraft. The CSA will be able to carry multiple sensor suites and avionics to fulfill future mission requirements and will possess significant capacity for logistics support and aerial refueling.

**Program Status:** The CSA Feasibility Study, which concluded in November 1997, determined that a single-airframe-platform concept is technically and economically feasible. The Mission Need Statement (MNS) was submitted in early 1998 and is pending official approval.

**Developer/Manufacturer:** TBD

JANUARY 1999
What is the Year 2000 problem?
The Year 2000 (Y2K) problem refers to the potential failure of devices that rely on embedded chips for date/time information. Back in the early days of the computer boom, memory was expensive and processing speeds were painfully slow. To save memory space and increase processing time, programmers opted to represent years by only their last two digits (1975 became 75, 1982 became 82, etc.). However, this presents a problem as we approach the year 2000 as many machines that rely on embedded chips and software will not be able to comprehend the calendar rollover from 1999 to 2000 and may fail. For example, if you were born in 1980, a non-Y2K-compliant computer will see your birthday as 80 and could conclude either that you haven’t been born yet or that you are 80 years old. Either way, you will have no business being in the Navy!

Compounding this problem is the fact that the year 2000 is a leap year, and some systems may be unable to compensate for the extra day.

What is the Navy doing about it?
The Navy has taken a bold and aggressive approach to ensuring that the Y2K problem will not impact any mission critical systems. The CNO ordered the stand-up of a Y2K Project Office in March 1998. That office, headed by RADM Stephen Johnson, has been managing the Navywide effort and acting as a clearinghouse for innovative ideas and fixes. “It’s been a real challenge,” said Johnson. “But we’re seeing real results more and more often now. This is definitely a battle we can win.”

Training seminars have also been set up to teach Sailors how to properly inventory their Y2K vulnerable equipment and then track its progress toward compliance.

Managing that process is a full-time job. In addition to an initial-awareness phase, the Navy’s management plan involves a four-phase attack to fix vulnerable equipment and systems. The first phase, Assessment, requires finding those potentially faulty systems and software. The second phase, Renovation, involves the installation of Y2K-compliant...
What's a mission critical system?
A mission critical system is one that, if not functional, would preclude a commander from conducting operations across a broad spectrum of national security requirements. Examples include: weapons systems, transportation systems, security systems, financial systems and nuclear systems.

What's a mission support system?
The Navy defines a system as mission support if its operation is not inherently integral to mission accomplishment. A good example is the recruiting data system.

What can you do to help?
Though you may not think your job has much to do with the Y2K problem, just stop to consider how it could impact you. Take a good look around you and evaluate your work space. Try to find all the ways in which a faulty chip or software program can affect your mission. Chances are you won't have to look very hard. Does your workspace have a computer in it? Is your space climate controlled? Do you use a computer to order parts and supplies?

Once you've identified your vulnerable systems, tell someone! Grab your LPO or Leading Chief and make sure they have considered that particular equipment for further inspection. Solving the Navy's Y2K problem is everyone's responsibility. So pitch in and do your part.
And the answer can be difficult to come by, especially among first- and second-term Sailors. The oath of enlistment carries with it a commitment – a commitment to serve. And while that service has its rewards, it also has its hardships.

The Navy is committed to keeping the best Sailors “on board.” The following incentive programs (which are detailed in Chapter 8 of the Enlisted Transfer Manual) are designed to do just that. For complete descriptions and provisions of the programs, Sailors should contact their Command Career Counselors.

**GUARD III (Guaranteed Assignment Retention Detailing) Program**

The GUARD III Program offers Sailors two guaranteed assignments during a 25-year Navy career. The Sailor electing to use a GUARD III assignment must obligate for a four-, five- or six-year reenlistment.

The first assignment under GUARD III must be used at the Sailor’s first reenlistment. The second can be exercised during any subsequent reenlistment.

Some important things to remember about GUARD III:

- All assignments are negotiated between the Sailor and the detailer. As always, orders will be for valid requirements and in accordance with current manning policies.
- All Sailors from pay grades E-4 through E-9 can use GUARD III. E-3s must pass an E-4 examination to qualify.
- All assignments must meet minimum performance requirements.
- GUARD III for Nuclear-trained Personnel has specific requirements for specific ratings and NECs.
- Guaranteed assignments include ship/aircraft type, homeport (sea duty), geographic location (shore duty) and split tour.
- Training schools are not part of the GUARD III program. Certain assignments may require specific skills and Sailors will be ordered to training as a result. Other incentive programs provide Sailors a way to obtain desired training.
- Coast-to-coast transfers are not guaranteed under GUARD III.

Reference: Article 8.01 and 8.02, Enlisted Transfer Manual.

**SCORE (Selective Conversion and Reenlistment) Program**

SCORE offers incentives to Sailors who wish to convert to undermanned (CREO 1) ratings.

SCORE incentives include: assignment to Class “A” and, if available, Class “C” schools; possible advancement to third or second class petty officer; and, if eligible, Selective Reenlistment Bonus (SRB).

The program requirements include:

- Must be presently assigned in a rating listed as Category 2 or 3 in the most current CREO listing.
- Must be in pay grades E-3 through E-6.
- Must meet requirements for entrance to appropriate schools.
- Must have sustained superior performance in their present rating.
- Can not have received previous benefits from the STAR, SCORE or RESCORE programs.


**Rescore (Recruiting Selective Conversion and Reenlistment) Program**

The RESCORE Program offers similar incentives as SCORE for Navy Veterans who reenlist after a 24-hour break in service.

Reference: Article 1060011, Military Personnel Manual (MILPERSMAN)

**Star (Selective Training and Reenlistment) Program**

Under the STAR Program, Sailors can receive a career designation and become eligible for the following incentives:

- Guaranteed assignment to Class “A” or “C” school.
- Guaranteed advancement to third or second class petty officer upon completion of required schools or training packages.
- Selective Reenlistment Bonus (SRB), if eligible.

The program requirements include:

- Must be a designated striker (E-3) or second or third class petty officer.
- Must have at least 21 months and not more than six years of continuous naval service. Veterans of other services cannot have more than eight years of total military service.
- Must meet minimum performance requirements and have a clear military record.


**School Assignment as a Reenlistment Incentive**

Some Sailors place specific training desires above ultimate duty stations. For them, a set of orders with a school en route is the greater good.

The program requirements include:

- Must be willing to incur additional obligated service in exchange for training.
- Must maintain minimum performance standards.
- Must provide some assurance that the training received will be effectively used. For instance, a skill gained through training that can only be used at sea will not be provided for someone heading to shore duty. Likewise, a chief petty officer won’t be assigned to a school whose training is intended for use by junior petty officers.

Reference: Article 8.03, Enlisted Transfer Manual
Sometimes it can be a real headache to find a phone number to a particular base or unit. Even with the vast resources on the World Wide Web, it's not always possible to track down a specific unit. Relax! We have collected some important numbers that may just save you some money on aspirin. Our list includes the numbers for several base operators who can then direct your call to specific units or ships. With this list nearby, finding that number you need might just be a little bit easier.

**NAS Atlanta/Dobbins Air Reserve Base**
(770) 919-5000, DSN 925-1110

**Naval Submarine Base, Kings Bay**
(912) 673-2000, DSN 573-2111

**All Hawaiian Commands**
(808) 471-7110, DSN 315-471-7110

**NAS New Brunswick**
(207) 990-7700, DSN 694-4500

**NAS New London**
(860) 694-4500, DSN 694-4500

**Naval Submarine Base, Bangor**
(207) 990-7700, DSN 694-4500

**Naval Air Station Patuxent River**
(301) 342-3000, DSN 342-3000

**Mississippi**
(601) 679-2211, DSN 637-2211/2528

**Naval Air Station Whidbey Island**
(360) 257-2211, DSN 671-2211

**Washington**
(206) 398-2211, DSN 671-2211

**Missouri**
(816) 221-2211, DSN 671-2211

**Naval Air Station Pensacola**
(850) 452-0111, DSN 922-0111

**Florida**
(850) 452-0111, DSN 922-0111

**Vermont**
(802) 221-2211, DSN 671-2211

**North Carolina**
(919) 448-2211, DSN 671-2211

**Naval Air Station Key West**
(305) 297-2268, DSN 483-2268
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