



October 14, 2016

## Defense Primer: Naval Forces

### “Naval Forces” Refers to Both the Navy and Marine Corps

Although the term “naval forces” is often used to refer specifically to Navy forces, it more properly refers to both Navy and Marine Corps forces, because both the Navy and Marine Corps are naval services. For further discussion, see “Defense Primer: Department of the Navy.” For a discussion of the Marine Corps that focuses on its operations as a ground-combat force, see “Defense Primer: Ground Forces.”

### U.S. Strategy and Naval Forces

U.S. naval forces give the United States the ability to convert the world’s oceans—a global commons that covers more than two-thirds of the planet’s surface—into a medium of maneuver and operations for projecting U.S. power ashore and otherwise defending U.S. interests around the world. The ability to use the world’s oceans in this manner—and to deny other countries the use of the world’s oceans for taking actions against U.S. interests—constitutes an immense asymmetric advantage for the United States.

As discussed elsewhere (see “Defense Primer: Geography, Strategy, and U.S. Force Design), the size and composition of U.S. naval forces reflect the position of the United States as a Western Hemisphere power with a goal of preventing the emergence of a regional hegemon in one part of Eurasia or another. As a result, the U.S. Navy includes significant numbers of aircraft carriers, nuclear-powered attack submarines, large surface combatants, large amphibious ships, and underway replenishment ships.

### Navy Ship Types

The Navy’s **ballistic missile submarines (SSBNs)** are dedicated to performing a singular mission of strategic nuclear deterrence. The Navy’s other ships, which are sometimes referred to as the Navy’s general-purpose ships, are generally multimission ships capable of performing a variety of missions other than strategic nuclear deterrence. The principal types of general-purpose ships in the Navy include **attack submarines (SSNs)**; **aircraft carriers (CVNs)**; **large surface combatants**, meaning cruisers (CGs) and destroyers (DDGs); **small surface combatants**, meaning frigates (FFs), Littoral Combat Ships (LCSs), patrol craft (PCs), and mine warfare (MIW) ships; **amphibious ships**, whose primary function is to transport Marines and their equipment and supplies to distant operating areas and support Marine ship-to-shore movements and Marine operations ashore; **combat logistics force (CLF) ships**, which perform underway replenishment (UNREP) operations, meaning the at-sea resupply of combat ships; and **other support ships** of various types.

The Navy’s aircraft carriers embark multimission carrier air wings (CVWs) consisting of 60+ aircraft—mostly fixed-

wing aircraft, plus a few helicopters. Each CVW typically includes 40 or more strike fighters that are capable of air-to-ground (strike) and air-to-air (fighter) combat operations.

### Size of the Navy

The total number of ships in the Navy is a one-dimensional metric that leaves out many other important factors bearing on naval capability. Notwithstanding this limitation, observers often cite the total number of ships in the U.S. Navy as a convenient way of summarizing the Navy’s capabilities.

The quoted size of the Navy reflects the battle force ships counting method, which is a set of rules for which ships count (or do not count) toward the quoted number of ships. The battle force ships counting method was established in the early 1980s and has been modified by legislation in recent years. Essentially, it includes ships that are readily deployable overseas, and which contribute to the Navy’s overseas combat capability. The Naval History and Heritage Command maintains a database on numbers of ships in the Navy from 1886 to the present. (It is available here: <https://www.history.navy.mil/research/histories/ship-histories/us-ship-force-levels.html>.) Since this database extends back to 1886, it uses a different counting method that is more suitable for working with older historical data. This alternate counting method produces, for the 1980s onwards, figures for the total size of the Navy that are different than the figures produced by the battle force ships counting method. For this reason, using figures from the NHHC database to quote the size of the Navy in recent years can cause confusion.

### Navy Force-Level Goal

The Navy determines its force-level goal—the size and composition of the fleet it would like to reach and maintain in coming years—through a Force Structure Analysis (FSA). For each type of ship, the FSA calculates the number required for warfighting, and the number required for maintaining day-to-day forward-deployed presence overseas. Navy officials then work with these two calculations to select a final required number for each ship type. The Navy’s current force-level goal is to reach and maintain a fleet of 308 battle force ships, including 48 SSNs, 11 CVNs, 84 large surface combatants, 52 smaller surface combatants, and 34 amphibious ships. FSAs are conducted every few years. The Navy is currently conducting a new FSA that will lead to a revised force-level goal.

### Actual Size of the Navy

The size of the Navy in recent years has generally ranged between 270 and 290 battle force ships. The current total figure can be found here: [http://www.navy.mil/navydata/nav\\_legacy.asp?id=146](http://www.navy.mil/navydata/nav_legacy.asp?id=146). The navy projects that at the end

of FY2017, the Navy will include 287 ships, including 52 SSNs, 11 CVNs, 90 large surface combatants, 25 small surface combatants, and 32 amphibious ships.

### Nuclear-Powered Ships

The Navy's submarines and aircraft carriers are all nuclear powered, meaning that they use on-board nuclear reactors to generate power for propulsion and for running shipboard equipment. Navy submarines each have one reactor; Navy aircraft carriers each have two. All other Navy ships are conventionally powered, meaning that they burn petroleum-based fuels for propulsion and shipboard power.

### Navy Nuclear Weapons

The Navy maintains a neither-confirm-nor-deny (NCND) policy regarding the presence or absence of nuclear weapons on specific ships. In general, however, it is understood that the only Navy ships that carry nuclear weapons are SSBNs, which carry nuclear-armed submarine-launched ballistic missiles (SLBMs). All of the Navy's other nuclear weapons, which were referred to collectively as non-strategic naval nuclear weapons, were withdrawn from the fleet as part of a unilateral initiative announced by President George H.W. Bush in 1991.

### Navy Formations

Naval forces are modular and scalable—Navy ships can be combined into formations of various types and sizes that are tailored for their intended missions. The two most prominent types of naval formations are **carrier strike groups (CSGs)** and **amphibious ready groups (ARGs)**. The composition of a CSG can vary, but typically includes a CVN with its embarked CVW, perhaps three to five surface combatants (typically one cruiser, plus some destroyers), a CLF ship, and perhaps an SSN. An ARG typically includes three amphibious ships—one LHA/LHD type “big deck” amphibious assault ship (which resembles a medium-sized aircraft carrier) and two smaller (but still sizeable) amphibious ships known as LPDs and LSDs. An ARG typically embarks a Marine Expeditionary Unit (MEU), which includes more than 2,000 Marines and their equipment (including some aircraft) and supplies. A third type of naval formation is a **Surface Action Group (SAG)**, which consists of a few or several surface combatants, without an aircraft carrier.

Navy ships sometimes operate by themselves—all SSBNs and many SSNs operate this way, as do some surface combatants and amphibious ships that are deployed to lower-threat areas (such as South America or parts of Africa) for purposes of engaging with allied or partner forces in those areas.

### Forward-Deployed Operations

The U.S. Navy is unique among the world's navies in that, at any given moment, a sizeable fraction of the Navy is forward-deployed to distant operating areas, particularly the Western Pacific and the Indian Ocean/Persian Gulf region. At any given moment, 30% or more of the Navy, including two or three CSGs and two or three ARGs, is forward-deployed. Having enough ships to maintain these forward deployments is a major influence on calculations that determine the Navy's force-level goal.

The forward-deployed presence of Navy ships is intended to support a number of ongoing or potential missions, including deterrence of potential aggressors; reassurance of allies and partners; engagement operations with foreign naval and other military forces (which can strengthen political bonds and improve interoperability between the Navy and those other forces); intelligence, surveillance, and reconnaissance (ISR) operations; rapid response in humanitarian assistance/disaster response (HA/DR) situations; non-combatant evacuation operations (NEOs); counter-terrorist operations, crisis response and containment, and timely initial actions during the early (and potentially critical) stages of a conflict.

### Forward-Homeported Ships

Most of the Navy's ships are homeported in the United States. To help support its ability to maintain its forward-deployed presence, some Navy ships are homeported in forward locations. The Navy's largest forward-homeporting location is Japan, where a CSG, an ARG, and some mine warfare ships are homeported. Additional Navy ships are forward-homeported elsewhere in the Pacific, in the Persian Gulf (at Bahrain), and in the Mediterranean (in Spain and Italy).

#### Relevant Statutes

Title 10, U.S. Code, Subtitle C – Navy and Marine Corps

#### CRS Products

CRS Report RL32665, *Navy Force Structure and Shipbuilding Plans: Background and Issues for Congress*, by Ronald O'Rourke

#### Other Resources

Congressional Budget Office, *The U.S. Military's Force Structure: A Primer*, July 2016, particularly Chapter 3 (pp. 45-79).

Department of the Navy, *Highlights of the Department of the Navy FY2017 Budget*, 194 pp., accessed September 27, 2016, at [http://www.secnav.navy.mil/fmc/fmb/Documents/17pres/Highlights\\_book.pdf](http://www.secnav.navy.mil/fmc/fmb/Documents/17pres/Highlights_book.pdf)

*U.S. Navy Program Guide 2015*, accessed September 27, 2016, at <http://www.navy.mil/strategic/top-npg15.pdf>.

Ronald O'Rourke, [rorourke@crs.loc.gov](mailto:rorourke@crs.loc.gov), 7-7610

IF10486