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Navy Force Structure: A Bigger Fleet? Background and Issues for Congress

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Summary

Current Navy plans call for achieving and maintaining a fleet of 308 ships of certain types and numbers. Some observers have advocated increasing the Navy's force-level goal to about 350 ships. The Navy is currently conducting a force structure assessment (FSA), and some observers anticipate that this FSA will lead to a new Navy force-level goal of more than 308 ships, although not necessarily 350 ships. The Navy's actual size in recent years has generally been in the range of 270 to 290 ships.

Those who advocate increasing the planned size of the Navy to something more than 308 ships generally point to China's naval modernization effort, resurgent Russian naval activity, and challenges that the Navy has sometimes faced in meeting requests from the various regional U.S. military commanders for day-to-day, in-region presence of forward-deployed Navy ships.

The figure of 350 ships is by no means the only possibility for a Navy of more than 308 ships; fleets of more than 350 ships, or of fewer than 350 ships (but still more than 308), are also possible. There have also been proposals in recent years from other observers for fleets of less than 308 ships.

For purposes of illustration, this CRS report presents a notional force structure for a Navy of about 350 ships. (It happens to total 349 ships.) This notional 349-ship fleet may be of value as one possible point of departure for discussing Navy force structure plans for fleets of more than 308 ships, and for understanding how proposals for future fleets of about 350 ships might depart from a proportional scaling up of the current 308-ship force-structure goal. Many combinations of about 350 ships other than the notional 349-ship force structure are possible.

Achieving and maintaining the notional 349-ship force structure might require adding a total of 45 to 58 ships to the Navy's FY2017 30-year shipbuilding plan, or an average of about 1.5 to 1.9 additional ships per year over the 30-year period. Using current procurement costs for Navy ships, procuring these additional 45 to 58 ships might require an average of roughly $3.5 billion to $4.0 billion per year in additional shipbuilding funding over the 30-year period.

Given current constraints on defense spending under the Budget Control Act of 2011 (S. 365/P.L. 112-25 of August 2, 2011) as amended, as well as the Navy's current share of the defense budget, the Navy faces challenges in achieving its currently planned 308-ship fleet, let alone a fleet of more than 308 ships. If current constraints on defense spending are not lifted or relaxed, achieving and maintaining a fleet of more than 308 ships could require reducing funding for other defense programs.

A key potential reason for increasing the planned size of the Navy to something more than 308 ships would be to reestablish a larger U.S. Navy forward-deployed presence in the European theater, and particularly the Mediterranean. Forward homeporting additional Navy ships in the Mediterranean could substantially reduce the number of additional ships that the Navy would need to support a larger forward-deployed presence there. Forward homeporting, however, does not substantially change the number of ships needed for warfighting, and it poses certain challenges, costs, and risks.

The question of whether to increase the planned size of the Navy to something more than 308 ships poses a number of potential oversight issues for Congress concerning factors such as

- mission needs;

- the potential impacts on future required Navy force levels of unmanned vehicles, potential new fleet architectures, expanded use of forward homeporting, and contributions from allies and partner states;
- the potential costs of achieving and maintaining a fleet of more than 308 ships; and
- the potential impact of those costs on funding available for other defense programs.

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Introduction

This report presents background information and potential issues for Congress on the question of whether to increase the Navy's force-level goal (i.e., the planned size of the Navy) to something more than the current goal of 308 ships. Some observers have advocated adopting a new a force-level goal of about 350 ships.

The issue for Congress is whether to increase the planned size of the Navy to something more than 308 ships, and if so, what the new force-level goal should be.[1] Congress's decisions on this issue could substantially affect Navy capabilities and funding requirements and the shipbuilding industrial base.

There have also been proposals in recent years for future Navy fleets of less than 308 ships. Several of these proposals are summarized in another CRS report that provides an overview discussion of Navy force structure and shipbuilding plans.[2] This other CRS report also summarizes current legislative activity relating to Navy force structure and shipbuilding. Several additional CRS reports discuss individual Navy shipbuilding programs.[3]

Background

The Navy's Current 308-Ship Force-Level Goal

The Navy's current force-level goal is to achieve and maintain in coming years a 308-ship fleet of the types numbers and numbers shown in **Table 1**. The goal for a 308-ship fleet is the result of a 2014 update to a force structure assessment (FSA) that the Navy completed in 2012. The Navy's force-structure goal is adjusted every few years, and has been in the range of 306 to 328 ships since 2006.[4] The Navy is currently conducting a new FSA, and some observers anticipate that this FSA will lead to a new Navy force-level goal for a fleet of more than 308 ships, although not necessarily 350 ships.[5]

The Navy projects that if its current 30-year shipbuilding plan is fully implemented, the Navy would attain a fleet of 308 ships (though not with the exact mix of ships called for in the current

[1] Article I, Section 8, of the Constitution vests Congress with various powers, including the power "To provide and maintain a Navy" and to "To make Rules for the Government and Regulation of the land and naval Forces." As such, the size and composition of the Navy is a perennial topic of congressional interest and debate.

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

[3] See CRS Report R41129, *Navy Columbia Class (Ohio Replacement) Ballistic Missile Submarine (SSBN[X]) Program: Background and Issues for Congress*, by Ronald O'Rourke; CRS Report RL32418, *Navy Virginia (SSN-774) Class Attack Submarine Procurement: Background and Issues for Congress*, by Ronald O'Rourke; CRS Report RS20643, *Navy Ford (CVN-78) Class Aircraft Carrier Program: Background and Issues for Congress*, by Ronald O'Rourke; CRS Report RL32109, *Navy DDG-51 and DDG-1000 Destroyer Programs: Background and Issues for Congress*, by Ronald O'Rourke; CRS Report RL33741, *Navy Littoral Combat Ship (LCS)/Frigate Program: Background and Issues for Congress*, by Ronald O'Rourke; CRS Report R43543, *Navy LX(R) Amphibious Ship Program: Background and Issues for Congress*, by Ronald O'Rourke; and CRS Report R43546, *Navy John Lewis (TAO-205) Class Oiler Shipbuilding Program: Background and Issues for Congress*, by Ronald O'Rourke.

[4] See Table 1 in CRS Report RL32665, *Navy Force Structure and Shipbuilding Plans: Background and Issues for Congress*, by Ronald O'Rourke.

[5] See, for example, Marc Selinger, "Navy Secretary Expects Review To Find Need For More Ships," *Defense Daily*, October 13, 2016: 1; Megan Eckstein, "Admirals: Navy Needs A Bigger Fleet, And Now May Be The Best Time To Plan For It," *USNI News*, October 27, 2016.

308-ship force-structure goal) in FY2021. The Navy's actual size in recent years has generally been in the range of 270 to 290 ships.

Table 1. Navy's Current 308-Ship Force-Level Goal

Ship type	Number
Ballistic missile submarines (SSBNs)	12
Attack submarines (SSNs)	48
Aircraft carriers (CVNs)	11
Large surface combatants (LSCs) (i.e., cruisers [CGs] and destroyers [DDGs])	88
Small surface combatants (SSCS) (i.e., Littoral Combat Ships [LCSs] and frigates [FFs])	52
Amphibious ships	34
Combat logistics force (CLF) ships (i.e., resupply ships)	29
Other support ships	34
TOTAL	308

Source: Table prepared by CRS based on U.S. Navy data.

Why Are Some Observers Advocating a Bigger Navy?

Those who advocate increasing the planned size of the Navy to something more than 308 ships generally point to China's naval modernization effort;[6] resurgent Russian naval activity, particularly in the Mediterranean Sea and the North Atlantic Ocean;[7] and challenges that the Navy has sometimes faced, given the current total number of ships in the Navy, in meeting requests from the various regional U.S. military commanders for day-to-day in-region presence of forward-deployed Navy ships.[8] To help meet requests for forward-deployed Navy ships, Navy

[6] For more on China's naval modernization effort, see CRS Report RL33153, *China Naval Modernization: Implications for U.S. Navy Capabilities—Background and Issues for Congress*, by Ronald O'Rourke.

[7] See, for example, Dave Majumdar, "Chief of Naval Operations Richardson: US Navy is Focusing on Enemy Submarine Threat," *National Interest*, August 30, 2016; Dmitry Gorenburg, "Black Sea Fleet Projects Power Westward," *Russian Military Reform*, July 20, 2016; Dave Majumdar, "Russia's Submarine Force Is Back: How Worried Should America Be?" *National Interest*, July 5, 2016; Sa, LaGrone, "Admiral Warns: Russian Subs Waging Cold War-Style 'Battle of the Atlantic,'" *USNI News*, June 3, 2016; Jim Sciutto et al., "CNN Visits Nuclear Submarine As Deep-Sea Tensions with Russia Grow," *CNN*, May 5, 2016; Eric Schmitt, "Russia Bolsters Its Submarine Fleet, and Tensions With U.S. Rise," *New York Times*, April 20, 2016; Jim Sciutto, "Top navy Official: Russian Sub Aggression at Peak Since Cold War," *CNN*, April 15, 2016; Franz-Stefan Gady, "Russian Sub Combat Patrols Nearly Doubled in 2015," *The Diplomat*, March 23, 2016; Karl Soper, "Russia Confirms Higher Level of Submarine Activity," *IHS Jane's 360*, March 23, 2016; Magnus Nordenman, "Russian Subs Are Reheating a Cold War Chokepoint," *Defense One*, March 4, 2016; Richard Lardner, "US Commander Says Tracking Russian Subs Is a Key Challenge," *CNBC*, March 1, 2016; Paul McLeary, "Chinese, Russian Subs Increasingly Worrying the Pentagon," *Foreign Policy*, February 24, 2016; Thomas Gibbons-Neff, "Report: Russian Sub Activity Returns to Cold War Levels," *Washington Post*, February 4, 2016; Nicholas de Larrinaga, "Russian Submarine Activity Topping Cold War Levels," *IHS Jane's 360*, February 2, 2016.

[8] See, for example, Justin Doubleday, "CNO: High Optempo Hindering Seven-Month Deployment Goal," *Inside the Navy*, September 19, 2016; Chris Church, "Analysts: Truman Strike Group Extension Highlights Flaws in Navy's Deployment Goal," *Stars and Stripes*, May 5, 2016; David Larter, "Navy Leader Warns Long Deployments Will Harm the Fleet," *Navy Times*, April 20, 2016; Hope Hodge Seck, "Overtaxed Fleet Needs Shorter Deployments," *Military.com*, March 19, 2016; David Larter, "Carrier Scramble: CENTCOM, PACOM Face Flattop Gaps This Spring Amid Tensions," *Navy Times*, January 7, 2016; *Bryan Clark and Jesse Sloman, Deploying Beyond Their Means,*

officials in recent years have sometimes extended deployments of ships beyond (sometimes well beyond) the standard length of seven months, leading to concerns about the burden being placed on Navy ship crews and wear and tear on Navy ships.[9] Navy officials have testified that fully satisfying requests from regional U.S. military commanders for forward-deployed Navy ships would require a fleet of substantially more than 308 ships. For example, Navy officials testified in March 2014 that fully meeting such requests would require a Navy of 450 ships.[10] Proposals for future fleets of more than 308 ships sometimes form part of broader proposals for increasing U.S. defense spending or the size of the U.S. military generally.

During the Cold War, the Navy maintained substantial numbers of forward-deployed forces in three primary overseas operating areas, or "hubs"—the Western Pacific, the Indian Ocean/Persian Gulf region, and the Mediterranean. Following the end of the Cold War in the late 1980s/early 1990s, the Navy continued to maintain substantial numbers of forward-deployed ships in the Western Pacific and Indian Ocean/Persian Gulf region, but substantially reduced the number of ships forward deployed to the Mediterranean. In effect, the Navy shifted from three-hub operations to two-hub operations, with the substantially reduced levels of presence in the Mediterranean being provided in part via transit presence, meaning the temporary presence of Navy ships in the Mediterranean as they transit to or from the Indian Ocean/Persian Gulf region via the Suez Canal. Navy force-level goals were adjusted downward to reflect the shift from three-hub operations to two-hub operations.

A key potential reason for increasing the planned size of the Navy to something more than 308 ships would be to reestablish a larger U.S. Navy forward-deployed presence in the European theater, and particularly the Mediterranean, so as to respond to resurgent Russian naval activity in that area and increase U.S. capacity for responding to events in North Africa and the Middle East. Since the Navy's current 308-ship force-level goal is designed to support the current two-hub concept, reestablishing a larger number of forward-deployed Navy ships in the Mediterranean without reducing numbers of forward-deployed ships in the other two hubs could, other things held equal, require a potentially significant increase in the planned size of the Navy. For example, increasing by 8 the number of Navy ships that are continuously forward deployed in the Mediterranean and sourcing that additional deployment from ships that are homeported on the U.S. East Coast could increase the Navy's force structure requirement (other things held equal) from 308 ships to about 350 ships—an addition of about 42 ships.[11]

America's Navy and Marine Corps at a Tipping Point, Center for Strategic and Budgetary Assessments, 2015, 28 pp.; Ryan T. Tewell, "Assessing the U.S. Aircraft Carrier Gap in the Gulf," *Washington Institute for Near East Policy*, October 5, 2015.

[9] See, for example, Hope Hodge Seck, "CNO: Navy to Hit Seven-Month Deployments by End of Year," *Military.com*, February 12, 2016; Chris Church, "Analysts: Truman Strike Group Extension Highlights Flaws in Navy's Deployment Goal," *Stars and Stripes*, May 5, 2016; David Larter, "Navy Leader Warns Long Deployments Will Harm the Fleet," *Navy Times*, April 20, 2016; Hope Hodge Seck, "Overtaxed Fleet Needs Shorer Deployments," *Military.com*, March 19, 2016; *Bryan Clark and Jesse Sloman, Deploying Beyond Their means, America's Navy and Marine Corps at a Tipping Point*, Center for Strategic and Budgetary Assessments, 2015, 28 pp.; David Larter, "CNO: Shorter Carrier Cruises A Year Away," *Navy Times*, February 28, 2015; David Larter, "Uneven Burden: Some Ships See Time at Sea Surge; Others Fall Well Below Fleetwide Average," *Navy Times*, June 16, 2014; Richard Sisk, "Struggle Ahead to Reach 8-Month Sea Deployments," *Military.com*, April 8, 2016; David Larter, "Navy Fleet Boss: 9-Month Deployments Unsustainable," April 8, 2014; Lance M. Bacon, "Fleet's New Deployment Plan To Lock In 8-Month Cruises," *Defense News*, April 6, 2014.

[10] Spoken testimony of Admiral Jonathan Greenert at a March 12, 2014, hearing before the House Armed Services Committee on the Department of the Navy's proposed FY2015 budget, as shown in transcript of hearing.

[11] Source: CRS calculation based on Navy stationkeeping multipliers provided by the Navy to CRS and CBO on December 15, 2015. A stationkeeping multiplier is the number of ships of a certain kind that are needed to keep one

Where Did the Figure of 350 Ships Come From?

The figure of 350 ships that some observers advocate appears to be a rounded-off version of a recommendation for a fleet of up to (and possibly more than) 346 ships that was included in the 2014 report of the National Defense Panel (NDP), a panel that provided an independent review of DOD's report on its 2014 Quadrennial Defense Review (QDR).[12]

Four years before that, a fleet of 346 ships was recommended in the 2010 report of the independent panel that reviewed DOD's report on its 2010 QDR. The 2010 independent panel report further specified that the figure of 346 ships included 11 aircraft carriers, 55 attack submarines (SSNs), and 4 guided missile submarines (SSGNs).[13]

Seventeen years earlier, a fleet of 346 ships was recommended in DOD's 1993 report on its Bottom-Up Review (BUR), a major review of U.S. defense strategy, plans, and programs that was prompted by the end of the Cold War.[14] The 2014 NDP report cited above referred explicitly to the BUR in making its recommendation for future fleet size:

> We believe the fleet-size requirement to be somewhere between the 2012 Future Year Defense Program (FYDP) goal of 323 ships and the 346 ships enumerated in the [1993] BUR, depending on the desired "high-low mix [of ships],"[15] and an even larger fleet may be necessary if the risk of conflict in the Western Pacific increases.[16]

Is a Fleet of About 350 Ships the Only Option for a Fleet of More Than 308 Ships?

The figure of 350 ships is by no means the only possibility for a Navy of more than 308 ships; fleets of more than 350 ships, or of fewer than 350 ships (but still more than 308), are also possible. For example, as discussed in the CRS overview report on Navy force structure and shipbuilding plans, the Navy in 2002-2004 had a force-structure goal of 375 ships, and in early 2005 presented a pair of force structure plans, the larger of which called for a fleet of 325 ships.[17]

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ship of that kind on station in an overseas operating area. The calculation here is based on an additional continuous presence of a carrier strike group (CSG) consisting of one aircraft carrier and three surface combatants, an amphibious ready group (ARG) consisting of three amphibious ships, and one attack submarine.

[12] William J. Perry, et al., *Ensuring a Strong U.S. Defense for the Future: The National Defense Panel Review of the 2014 Quadrennial Defense Review*, Washington, 2014, p. 3. The statement appears again on page 49.

[13] Stephen J. Hadley and William J. Perry, co-chairmen, et al., *The QDR in Perspective: Meeting America's National Security Needs In the 21st Century, The Final Report of the Quadrennial Defense Review Independent Panel*, Washington, 2010, Figure 3-2 on pages 58-59.

[14] Department of Defense, Report on the Bottom-Up Review, October 1993, Figure 7 on page 28. For further discussion of the 1993 BUR, see CRS Report R43838, *A Shift in the International Security Environment: Potential Implications for Defense—Issues for Congress*, by Ronald O'Rourke.

[15] The term high-low mix refers to a force structure consisting of some mix of individually more-capable (and more-expensive) units, and individually less-capable (and less-expensive) units.

[16] William J. Perry, et al., Ensuring a Strong U.S. Defense for the Future: The National Defense Panel Review of the 2014 Quadrennial Defense Review, Washington, 2014, p. 3. The statement appears again on page 49.

[17] See Table 1 in CRS Report RL32665, *Navy Force Structure and Shipbuilding Plans: Background and Issues for Congress*, by Ronald O'Rourke. The 375- and 325-ship force-structure goals cited here are 25 ships more and less, respectively, than the figure of 350 ships, but there is no requirement that alternatives to a 350-ship goal must vary by increments of 25 ships (or any other number). Potential force-structure goals for fleets of more than 308 ships could include any total number of ships greater than 308.

Are There Proposals for Fleets of Less Than 308 Ships?

In addition to proposals for a fleet of about 350 ships (or some other number higher than 308), there have also been proposals in recent years from other observers for fleets of less than 308 ships. Several of these proposals are summarized in the CRS overview report on Navy force structure and shipbuilding plans.[18] For example, a November 2012 report from the Project on Defense Alternatives recommended a future fleet of 230 ships.[19] Proposals for future fleets of less than 308 ships sometimes form part of broader proposals for reducing U.S. defense spending or the size of the U.S. military generally.

What Might a 350-Ship Fleet Look Like?

Table 2 below presents a notional force structure for a Navy of about 350 ships. (It happens to total 349 ships.) It shows the Navy's current 308-ship force structure goal, the 346-ship fleet recommended in the report on the 1993 BUR, and the 346-ship fleet recommended in the 2010 report of the independent panel on the 2010 QDR. The table also shows, as an additional reference, numbers of ships (other than ballistic missile submarines [SSBNs]) that have been included in Navy force structure plans since 1993 for fleets of 300 to 400 ships. The notional plan for a fleet of about 350 ships was created by scaling up the 308-ship plan (other than the figure for SSBNs, which was held constant at 12), and then adjusting some of the resulting numbers as described in **Appendix A**.

The 349-ship fleet shown in **Table 2** is a notional fleet for purposes of illustration. It is not based on a new analysis of future Navy mission needs. Some of the figures for specific ship types are taken from past Navy force structure plans, but the analyses of future Navy mission needs on which those earlier plans were based may no longer be appropriate. The 349-ship fleet shown in **Table 2** may be of value as one possible point of departure for discussing Navy force structure plans for fleets of more than 308 ships, and for understanding how proposals for future fleets of about 350 ships might depart from a proportional scaling up of the current 308-ship force-structure goal.

Many combinations of about 350 ships other than the notional one shown in **Table 2** are possible. Such alternative combinations could place greater or lesser emphasis on ship categories such as attack submarines (SSNs), aircraft carriers, cruisers and destroyers, frigates and Littoral Combat Ships (LCSs), or amphibious ships, or could use new types of ships not present in the current fleet architecture. Regarding the possibility of a new fleet architecture, Section 1067 of the FY2016 National Defense Authorization Act (S. 1356/P.L. 114-92 of November 25, 2015) requires the Secretary of Defense to provide for three independent studies of alternative future fleet platform architectures for the Navy in the 2030 timeframe, and to submit the results of each study to the congressional defense committees by April 1, 2016.

[18] See Table 8 in CRS Report RL32665, *Navy Force Structure and Shipbuilding Plans: Background and Issues for Congress*, by Ronald O'Rourke.

[19] Carl Conetta, *Reasonable Defense: A Sustainable Approach to Securing the Nation*, Project on Defense Alternatives, November 14, 2012, 31 pp.

Table 2. Notional Navy of About 350 Ships Compared to Current 308-Ship Plan

Compared to current and past Navy force structure goals

Ship type	Navy's current 308-ship force structure goal	Bottom-Up Review (BUR) 346-ship fleet (1993)	2010 QDR Inde-pendent Review Panel 346-ship fleet (July 2010)	Numbers of ships (other than SSBNs) in force structure plans of 300 to 400 ships	308-ship plan scaled up to about 350 ships (except SSBNs held constant)	A notional Navy of about 350 ships	308-ship goal compared to notional Navy of about 350 ships
Ballistic missile submarines (SSBNs)	12	18[a]	14	n/a	12	12	—
Cruise missile submarines (SSGNs)	0	0[b]	4	0 to 4	0	0	—
Attack submarines (SSNs)	48	45 to 55[c]	55	41 to 76	55	59	+11
Aircraft carriers	11	12[d]	11	11 or 12	13	12	+1
Cruisers/destroyers	88	124[e]	n/a	88 to 104	100	100	+12
Frigates/Littoral Combat Ships	52		n/a	52 to 82	59	56	+4
Amphibious ships	34	41[f]	n/a	31 to 41	39	38	+4
Mine warfare ships	0	26	n/a	0 to 26	0	0	—
Combat Logistics Force (CLF) ships	29	43	n/a	26 to 43	33	33	+4
Support ships (including EPFs)	34	22	n/a	22 to 45	39	39	+5
TOTAL	**308**	**331 to 341[g]**	**346**	**n/a**	**350**	**349**	**+41**

Source: Table prepared by CRS based on U.S. Navy data. **Source for Navy's current 308-ship force structure goal:** Department of the Navy, *Report to Congress [on] Navy Force Structure Assessment*, February 2015, 5 pp. **Sources for Bottom-Up Review (BUR) 346-ship fleet (1993):** Department of Defense, *Report on the Bottom-Up Review*, October 1993, Figure 7 on page 28; Department of the Navy, *Highlights of the FY 1995 Department of the Navy Budget*, February 1994, p. 1; Department of the Navy, *Force 2001, A Program Guide to the U.S. Navy*, 1994 edition, p. 15; Statement of VADM T. Joseph Lopez, U.S. Navy, Deputy Chief of Naval Operations (Resources, Warfare Requirements & Assessments), Testimony to the Military Forces and Personnel Subcommittee of the House Armed Services Committee, March 22, 1994, pp. 2-5. **Source for 2010 QDR Independent Review Panel 346-ship fleet (July 2010):** Stephen J. Hadley and William J. Perry, co-chairmen, et al., *The QDR in Perspective: Meeting America's National Security Needs In the 21st Century, The Final Report of the Quadrennial Defense Review Independent Panel*, Washington, 2010, Figure 3-2 on pages 58-59. **Sources for numbers of ships other than SSBNs in ship force structure plans of between 300 to 400 ships:** Table 1, Table B-1, and footnote 38 of CRS Report RL32665, *Navy Force Structure and Shipbuilding Plans: Background and Issues for Congress*, by Ronald O'Rourke, and (for SSNs) Appendix A of CRS Report RL32418, *Navy Virginia (SSN-774) Class Attack Submarine Procurement: Background and Issues for Congress*, by Ronald O'Rourke.

Notes: n/a is not addressed in the report. EPF means Expeditionary Fast Transport (previously known as Joint High Speed Vessels, or JHSVs).

a. The SSBN force was subsequently reduced to 14 by 1994 Nuclear Posture Review.

b. The SSGN program did not exist in 1993.

c. 55 in FY1999, with a long-term goal of about 45.

d. 11 active carriers plus 1 operational/reserve carrier.

e. 114 active plus 10 NRF frigates. A total of 110-116 active ships was also cited.

f. Enough to lift assault echelons of 2.5 MEBs.

g. The Navy testified in 1994 that the planned number was adjusted from 346 to 330 to reflect reductions in numbers of tenders and early retirements of some older amphibious ships.

How Might a 350-Ship Navy Affect the Navy's 30-Year Shipbuilding Plan?

As shown in **Table 2**, the notional Navy of about 350 ships, compared to the current 308-ship plan, includes 41 additional ships, including 1 aircraft carrier, 11 SSNs, 12 cruisers and destroyers, 4 frigates and LCSs, 4 amphibious ships, 4 CLF ships, and 5 support ships. The number of ships that would need to be added to the Navy's 30-year shipbuilding plan to achieve and maintain the notional fleet of about 350 ships, however, would be different from 41, because the current 30-year shipbuilding plan does not fully support all elements of the 308-ship goal across the entire 30-year period, and because additional ships are in some cases needed to offset the retirements of existing ships that will reach the ends of their service lives during the 30-year period.

Table 3 summarizes the resulting potential impact of the notional 350-ship fleet on the Navy's 30-year shipbuilding plan. As shown in the table, although the notional fleet of 349 ships includes 41 more ships than the current 308-ship force-structure goal, achieving this notional 349-ship fleet might require adding a total of 45 to 58 ships to the Navy's 30-year shipbuilding plan, or an average of about 1.5 to 1.9 additional ships per year over the 30-year period.

For additional discussion of these notional additions to the 30-year shipbuilding plan, see **Appendix B**.

Table 3. Notional Navy of About 350 Ships: Potential Changes to 30-Year Shipbuilding Plan

Ship type	Navy's current 308-ship force structure goal	A notional Navy of about 350 ships	308-ship goal compared to notional Navy of about 350 ships	Notional additional ships in 30-year shipbuilding plan for achieving notional 350-ship fleet
Ballistic missile submarines (SSBNs)	12	12	—	—
Attack submarines (SSNs)	48	59	+11	+12
Aircraft carriers	11	12	+1	+2
Cruisers/destroyers	88	100	+12	+16
Frigates/Littoral Combat Ships	52	56	+4	+12
Amphibious ships	34	38	+4	+0 to +5
Combat Logistics Force (CLF) ships	29	33	+4	+3 or +4
Support ships (including EPFs)	34	39	+5	+0 to +7
TOTAL	**308**	**349**	**+41**	**+45 to +58**

Source: Table prepared by CRS based on U.S. Navy data.

Would a Bigger Navy Be Affordable?

Given current constraints on defense spending under the Budget Control Act of 2011 (S. 365/P.L. 112-25 of August 2, 2011) as amended, as well as the Navy's current share of the defense budget, the Navy faces challenges in achieving its currently planned 308-ship fleet, let alone a fleet of more than 308 ships. As discussed in the CRS report that provides an overview of Navy force

structure and shipbuilding plans, the Congressional Budget Office (CBO) estimates that fully implementing the Navy's current 30-year shipbuilding plan would require, on average, an additional $4.5 billion in shipbuilding funds per year.[20]

The 30-year shipbuilding plan, moreover, does not fully support all parts of the planned 308-ship force structure throughout the entire 30-year period—more ships would need to be included in the 30-year plan to do that. As suggested in **Table 3**, still more ships would need to be included to achieve and maintain a fleet of more than 308 ships. Using current procurement costs for Navy ships, procuring the additional 45 to 58 ships shown in **Table 3** might require an average of roughly $3.5 billion to $4.0 billion per year in additional shipbuilding funding over the 30-year period.[21]

Additional shipbuilding funding, moreover, is only a fraction of the additional funding that would be needed to support a larger force structure—there would be additional expenditures, for example, for additional ship weapons, for operating and maintaining the additional ships, for additional ship crews, and possibly for additional basing and support facilities. If current constraints on defense spending are not lifted or relaxed, achieving and maintaining a fleet of more than 308 ships could require reducing funding for other defense programs.

How Might Forward Homeporting in the Mediterranean Affect Required Fleet Size?

Forward homeporting additional Navy ships in the Mediterranean could substantially reduce the number of additional ships the Navy would need to support a larger forward-deployed presence there. The Navy already uses forward homeporting to reduce force levels needed to support its forward-deployed presence in various operating areas: The Navy forward homeports an aircraft carrier strike group, an Amphibious Ready Group (ARG), and mine warfare ships in Japan, and additional Navy ships are forward homeported elsewhere in the Pacific theater, at Bahrain in the Persian Gulf, and in the European theater in Spain and Italy.

As discussed earlier, increasing by 8 the number of Navy ships that are continuously forward deployed in the Mediterranean and sourcing that additional deployment with rotationally deployed ships that are homeported on the U.S. East Coast could increase the Navy's force structure requirement (other things held equal) from 308 to about 350—an addition of about 42 ships. Alternatively, forward homeporting 7 surface ships in the Mediterranean (and accounting for the fact that those 7 ships would require periodic maintenance) could reduce the additional number of ships that would be needed to support this additional forward-deployed presence from about 42 to about 14, which would result in a force structure requirement (other things held equal) of about 322 ships rather than about 350.[22]

[20] The CBO report is Congressional Budget Office, *An Analysis of the Navy's Fiscal Year 2016 Shipbuilding Plan*, October 2015, 37 pp.

[21] Source: CRS calculation based on ship procurement costs in the Navy's FY2017 budget submission.

[22] Source: CRS calculation based on Navy stationkeeping multipliers provided by the Navy to CRS and CBO on December 15, 2015. As noted in footnote 11, in the notional example here, the additional forward-deployed presence in the Mediterranean includes one aircraft carrier, three surface combatants, three amphibious ships, and one attack submarine. In the calculation here, one carrier, three surface combatants, and three amphibious ships would be forward homeported in the Mediterranean, while the attack submarine presence would continue to be sourced from submarines homeported on the U.S. East Coast. (The Navy does not currently homeport any attack submarines outside U.S. territory.)

The forward homeporting of a carrier group in Japan began in the early 1970s. The Navy at that time was also pursuing a plan for homeporting a carrier group in Greece, at the port of Piraeus, near Athens. Following a military coup in Greece, the United States canceled the plan to homeport a carrier group in Greece. If the coup had not occurred, the United States today might have a carrier group homeported in Greece, as it does in Japan. Potential locations for homeporting additional Navy ships in the Mediterranean in coming years, at least in theory, include Spain (which homeports four U.S. Navy destroyers at Rota), Italy (which homeports a Navy command ship at Gaeta), France, and Greece. Some observers have also suggested Haifa, Israel, as a possible homeporting location.

Forward homeporting is an option that has been discussed in previous CRS reports[23] and in reports from the Congressional Budget Office (CBO).[24] Aside from substantially reducing the number of ships needed to support a given level of forward-deployed presence, forward homeporting offers other potential benefits, including the following:

- **Signal of commitment to homeporting region.** Forward homeporting can send a strong signal of U.S. commitment to the region in which the ships are homeported, which can enhance deterrence of potential regional aggressors and reassurance of regional allies and partners.
- **Familiarization with homeporting region.** Forward homeporting can permit the crews of the forward-homeported ships to become very familiar with the operational conditions of the region in which the ships are homeported, which can enhance their operational effectiveness when operating in the region.
- **Engagement and interoperability in homeporting region.** If forward homeporting leads to a larger or more continuous U.S. Navy presence in a region, it can enhance opportunities for Navy ships to conduct engagement and training activities with allied and partner forces in the region, which can strengthen U.S. political bonds with those allies and partners and improve interoperability between U.S. Navy forces and allied and partner forces, potentially enhancing deterrence of potential regional aggressors.

Although it can substantially reduce the number of ships needed to support a given level of forward-deployed presence, forward homeporting does not substantially change the number of ships needed for warfighting. In addition, forward homeporting also poses certain challenges, costs, and risks, including the following:

- **Host nation access.** The United States must gain permission from a foreign government to be the host nation for the forward-homeported Navy ships.
- **Facilities construction.** Building the facilities needed to support the forward-homeported ships would cost millions or, potentially, billions of dollars, depending on the number and types of ships to be forward homeported and amount of suitable and available existing facilities at the home port location.
- **Host-nation limits on use.** The host nation might impose limits on how the forward-homeported Navy ships can be used. Such limits would reduce a key potential attribute of U.S. naval forces—their ability, when operating in

[23] See, for example, CRS Report RS21338, *Navy Ship Deployments: New Approaches—Background and Issues for Congress*, by Ronald O'Rourke. This report was archived in 2008.

[24] See, for example, Congressional Budget Office, *Preserving the Navy's Forward Presence With a Smaller Fleet*, March 2015, 29 pp.

international waters, to be used as U.S. leaders may wish, without having to ask permission from foreign governments.

- **Regional lock-in.** The host nation and other nations in the region might get used to having the forward-homeported Navy ships operate in that region, and might interpret a U.S. decision to send those ships to another region as a diminution in the U.S. commitment to the homeporting region.
- **Association with host nation policies.** The presence of homeported Navy ships in the host nation could be viewed by observers as an expression of U.S. support for the various policies of the host nation, even if the United States does not in fact support some of those policies.
- **Sudden eviction.** The homeported ships face a risk of sudden eviction from the home port due to a change in the host nation's government or host nation policies, upsetting force-structure calculations that assumed a continuation of the homeporting arrangement.

Issues for Congress

Potential oversight issues for Congress concerning the possibility of increasing the planned size of the Navy to something more than 308 ships include the following:

- How large a Navy, consisting of what mix of ships, will be needed in coming years to adequately perform Navy missions, including responding to China's naval modernization, responding to resurgent Russian naval operations, and meeting U.S. regional combatant commander requests for forward-deployed Navy ships?
- How might the answer to the preceding question be affected by developments such as greater use of unmanned vehicles, potential new fleet architectures, or expanded use of forward homeporting?
- To what degree can contributions from U.S. allies and partners offset a need for additional U.S. Navy ships?[25] What are the potential operational risks of relying on U.S. allies and partners to reduce requirements for U.S. Navy ships?
- What would be the additional cost for achieving and maintaining a fleet of more than 308 ships? In a situation of constraints on defense spending, what impact would this additional cost have on funding available for other defense programs? If funding for other defense programs would need to be reduced to help pay for a fleet of more than 308 ships, what would be the net effect on U.S. military capabilities and operational risks?

Legislative Activity for FY2017

For legislative activity for FY2017 relating to Navy ship force structure and shipbuilding, see CRS Report RL32665, *Navy Force Structure and Shipbuilding Plans: Background and Issues for Congress*, by Ronald O'Rourke.

[25] For an article from the Chief of Naval Operations (CNO) discussing this issue, see John Richardson, "CNO: US Navy Needs Foreign Help Against Russia, China, ISIS, Iran," *Defense One*, May 15, 2016.

Appendix A. Adjustments Leading to Notional 349-Ship Plan

This appendix discusses the adjustments that were made to the force-level goals for certain ship types in converting the proportional 350-ship fleet shown in the fifth column of **Table 2** to the notional 349-ship fleet shown in the sixth column of **Table 2**. The adjustments were as follows:

- **SSBNs.** The number of SSBNs was left unchanged from the figure of 12 in the Navy's 308-ship plan because discussions about the possibility of a bigger Navy have centered on changing demands for general-purpose ships rather than on changing demands for strategic nuclear deterrent ships.
- **SSGNs.** The figure of 0 SSGNs derived from scaling up the 308-ship plan was left unchanged. As under the 308-ship plan, today's 4 Ohio-class cruise missile submarines (SSGNs) would eventually retire without being replaced in kind. Discussions about compensating for the eventual retirement of the SSGNs' strike capability have centered more on building Virginia-class submarines equipped with the Virginia Payload Module (VPM) than on building replacement SSGNs. See also the next bullet.
- **SSNs.** The scaled-up figure of 55 SSNs, which happens to equal a figure shown in certain Navy force structure plans prior to 2005, was increased to 59 in the notional plan to create a figure equal to the combined total of 4 SSGNs and 55 SSNs shown in the Navy's 2002-2004 plan for a fleet of 375 ships.
- **Aircraft carriers.** The scaled-up figure of 13 carriers was reduced to 12 because Navy force structure plans for fleets of between 300 and 400 ships since 1993 have not shown more than 12 carriers.
- **Cruisers and destroyers.** The scaled-up figure of 100 cruisers and destroyers (i.e., large surface combatants) was left unchanged.
- **Frigates and LCSs.** The scaled-up figure of 59 frigates and LCSs (i.e., small surface combatants) was reduced to 56, which is the number of LCSs in the Navy's 2002-2004 plan for a 375-ship fleet. In addition, Navy plans for crewing and operating LCSs call for organizing LCSs into four-ship divisions, and 56 is evenly divisible by four. Navy force structure plans from 2006 through 2012 included a total of 55 LCSs.
- **Amphibious ships.** The scaled-up figure of 39 ships was reduced to 38, a number that Navy and Marine Corps officials have testified would be able to meet the requirement for having enough amphibious lift for the assault echelons of 2.0 Marine Expeditionary Brigades (MEBs) with less risk than the currently planned 34-ship amphibious force.[26]
- **Mine warfare ships.** The scaled up figure of 0 mine warfare ships was left unchanged. As under the current 308-ship plan, missions now carried out by mine warfare ships would in the future be performed instead by LCSs equipped with the LCS mine warfare mission package.

[26] A 41-ship amphibious force would be able to meet this requirement with still less risk. For a discussion, see Appendix A of CRS Report RL34476, *Navy LPD-17 Amphibious Ship Procurement: Background, Issues, and Options for Congress*, by Ronald O'Rourke.

- **Combat Logistics Force (CLF) ships and support ships (including Expeditionary Fast transports [EPFs]).**[27] The scaled-up figures for these two categories were left unchanged.

[27] EPFs were previously known as Joint High Speed Vessels (JHSVs).

Appendix B. Additional Ships Needed in 30-Year Shipbuilding Plan

This appendix discusses in further detail the additional ships added to the 30-year shipbuilding plan that are shown in the final column of **Table 3**.

SSNs—Notional Objective of 59

Industrial-base capacity permitting, an SSN force of 59 boats could be achieved by inserting 12 additional SSNs into the current 30-year shipbuilding plan, for a total procurement of 56 SSNs rather than 44 during the 30-year period. A notional profile could insert these 12 additional SSNs into the 12 years (FY2021, FY2024, and FY2026-FY2035) where the current plan would procure 1 SSN rather than 2. (These are the 12 years when the 12 Columbia class [Ohio replacement] SSBNs are to be procured.) Under this profile, the SSN force would reach a minimum of 43 boats around FY2028-FY2029 and then grow to 59 boats in FY2041. It would continue to grow after that, reaching 63 boats by about the end of the 30-year period, unless older SSNs are retired before the ends of their service lives to keep the force at 59.

Aircraft Carriers—Notional Objective of 12

Under the current 30-year shipbuilding plan, carriers are to be procured every five years (FY2018, FY2023, and so on). Carriers would enter service nine years after the year in which they are procured, and the resulting carrier force is projected to remain at 11 ships, except for the three-year period FY2022-FY2024, during which it would increase to 12, and the final seven years of the 30-year period (FY2040-FY2046), during which it would decline to 10 as a long-term consequence of procuring carriers every five years. A total of four carriers would be procured from FY2018 through FY2034, in FY2018, FY2023, FY2028, and FY2033.

Given this projection, a 12-ship carrier force could be achieved and maintained by procuring a total of 6 carriers, rather than 4, from FY2018 through FY2034. The 6 carriers would be procured at mostly three-year intervals, in FY2018, FY2021, FY2024, FY2028, FY2031, and FY2034. The resulting force would continue include a total of 12 ships during the three-year period FY2022-FY2024. It would then decline to 11 ships, return to 12 ships in FY2030, and remain at 12 ships through the end of the 30-year period, except for FY2032 and FY2042, when it would dip to 11 ships. Under this scenario, FY2030 could be viewed as the year when the Navy attained a 12-ship carrier force.

Cruisers and Destroyers—Notional Objective of 100

Under the current 30-year shipbuilding plan, the cruiser-destroyer force is projected to reach 100 ships in FY2024 and remain at or close to that figure through FY2028 before dropping below 90 ships in FY2032 and to 80 ships by the end of the 30-year period. Given this projection, a force of about 100 cruisers and destroyers could be achieved and maintained over the entire 30-year period by inserting 16 cruisers and destroyers into the current 30-year shipbuilding plan, for a total procurement of 82 cruisers and destroyers rather than 66. A notional profile would insert 1 additional cruiser or destroyer per year over the 16-year period FY2020-FY2035, increasing the procurement rate for this period from 2 ships per year to 3 ships per year. This notional profile would achieve a 100-ship cruiser destroyer force in FY2024 (as under the current 30-year

shipbuilding plan) and maintain a force of between 96 and 104 cruisers and destroyers for the remainder of the 30-year period.

Frigates and LCSs—Notional Objective of 56

Although the 308-ship plan calls for 52 frigates and LCSs, the LCS/frigate program has been reduced from 52 ships to 40. Under the current 30-year shipbuilding program, the annual procurement rate for the LCS/frigate program has been limited to 1 or 2 ships per year, a successor small surface combatant design is scheduled to begin procurement in FY2029, and the force of frigates and LCSs is not projected to exceed 45 during the 30-year period.

Given currently planned procurement and the resulting projected force level, one notional profile for achieving a force of 56 frigates and LCSs and maintaining about this number through the end of the 30-year period would be to insert 17 additional frigates and LCSs into the nine-year period FY2017-FY2025, and then remove 5 frigates and LCSs from the seven-year period FY2029-FY2035. This would result in a net increase of 12 frigates and LCSs procured during the 30-year period—a total procurement of 70 rather than 58. (A total of 70 frigates and LCSs are procured over the 30-year period to support a force level goal of 56 ships because the earliest of the first 56 LCSs/frigates to enter service will reach the ends of their service lives and be retired during the 30-year period.)

Under this notional profile, frigates and LCSs would be procured in FY2019-FY2023 at a rate of four ships per year, a rate that is currently shown for procuring frigates and LCSs for some of the later years of the current 30-year shipbuilding plan. Producing LCSs/frigates at a rate of four ships per year might require producing them at more than one shipyard. Under the notional profile, a force of at least 56 frigates and LCSs would be achieved in FY2029 (there would be 57 that year), procurement of the successor design would begin in FY2033 rather than FY2029, and the force would be maintained at a level of 55 to 57 ships through the remainder of the 30-year period. **Table B-1** shows, for the period FY2017-FY2035, the notional procurement profile compared to the profile in the current 30-year shipbuilding plan. (The procurement profile for the years after FY2035 would remain unchanged.)

Table B-1. Frigate and LCS procurement profiles

Fiscal year	Current 30-year shipbuilding plan	Notional profile for 56-ship force	Annual difference	Cumulative difference
17	2	3	+1	+1
18	1	3	+2	+3
19	1	4	+3	+6
20	1	4	+3	+9
21	2	4	+2	+11
22	2	4	+2	+13
23	2	4	+2	+15
24	2	3	+1	+16
25	1	2	+1	+17
26				

Fiscal year	Current 30-year shipbuilding plan	Notional profile for 56-ship force	Annual difference	Cumulative difference
27				
28				
29	1		-1	+16
30				
31	1		-1	+15
32	1		-1	+14
33	1	1	0	+14
34	2	1	-1	+13
35	2	1	-1	+12

Source: Table prepared by CRS based on U.S. Navy data.

Amphibious Ships—Notional Objective of 38

Under the current 30-year shipbuilding plan, the amphibious force is projected to grow to 38 ships in FY2033, and then decline to 32 or 33 ships by the final years of the 30-year period. Given this projection, inserting additional amphibious ships into the Future Years Defense Plan (FYDP) (i.e., FY2017-FY2021—the first five years of the 30-year shipbuilding plan) could accelerate the attainment of a 38-ship amphibious force by several years, and keep the amphibious force at or relatively close to the 38-ship level for most of the 30-year period. For example, adding 3 amphibious ships to the FYDP could accelerate the attainment of a 38-ship amphibious force to FY2025 and keep the amphibious force within 3 ships of the 38-ship figure for the remainder of the 30-year period. The situation is summarized in **Table B-2**.

Table B-2. Amphibious ship procurement

Number of additional amphibious ships inserted into FYDP	Fiscal year that a force of at least 38 ships is achieved	Maximum size of force during 30-year period (occurs in FY2033), and difference from 38-ship figure	Minimum size of force during 30-year period (occurs in FY2043-FY2044), and difference from 38-ship figure
0 (current 30-year plan)	FY2033	38 (—)	32 (-6)
1	FY2028	39 (+1)	33 (-5)
2	FY2026	40 (+2)	34 (-4)
3	FY2025	41 (+3)	35 (-3)
4	FY2025	42 (+4)	36 (-2)
5	FY2024	43 (+5)	37 (-1)

Source: Table prepared by CRS based on U.S. Navy data. Although adding 3 or 4 ships does not change the date (FY2025) for achieving a force of at least 38 ships, adding 4 ships would produce a force of 39 rather than 38 ships in FY2025.

CLF Ships—Notional Objective of 33

Under the current 30-year shipbuilding plan, the CLF force is projected to remain at 29 or 30 ships throughout the 30-year period. The 3 or 4 additional CLF ships that would need to be added to the 30-year shipbuilding plan to achieve and maintain a force of 33 CLF ships could be added so that the additional ships enter the force at about the time that they would be needed to support growing numbers of surface combatants and amphibious ships.

Support Ships (Including EPFs)—Notional Objective of 39

Under the current 30-year shipbuilding plan, the number of support ships (including Expeditionary Fast transports, or EPFs—the ships previously known as Joint High Speed Vessels, or JHSVs), is projected to increase to 35 in FY2020, increase further to a maximum of 39 in FY2025, remain at or above the current 34-ship goal until FY2038, and then decline to 32 ships for the final seven years of the 30-year period. Given this projection, the situation for these ships can be viewed as somewhat similar to the one described above for amphibious ships: adding additional support ships during the FYDP could accelerate the date for attaining a force of at least 39 ships from FY2025 to an earlier year, and keep the force closer to the 39-ship figure in the final years of the 30-year period. If one or more of the additional ships are to be EPFs, then from a production standpoint, it might be efficient for those additional ships to be added directly after the ones that have already been funded, so as to preserve production learning-curve benefits.

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