



Navy Force Structure and Shipbuilding Plans: Background and Issues for Congress

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Summary

The planned size of the Navy, the rate of Navy ship procurement, and the prospective affordability of the Navy's shipbuilding plans have been matters of concern for the congressional defense committees for the past several years.

In February 2006, the Navy presented to Congress a goal of achieving and maintaining a fleet of 313 ships, consisting of certain types and quantities of ships. In September 2011, the Navy began briefing congressional offices on a revised 313-ship plan that altered planned numbers for certain ship categories while staying within the overall total of 313 ships. On January 31, 2012, the Navy announced that it had begun a force structure assessment, to be completed in several months, that could lead to a new force structure goal for the Navy.

On January 26, 2012, the Department of Defense (DOD) announced certain program decisions that are to be incorporated into DOD's proposed FY2013 budget. The proposed changes include the early retirement of nine Navy ships and the deferrals of certain ships in the Navy's shipbuilding plan. DOD also announced that it plans to maintain the current force of 11 aircraft carriers and 10 carrier air wings.

The Navy's proposed FY2012 budget requested funding for the procurement of 10 new battle force ships (i.e., ships that count against the 313-ship goal). The 10 ships included two Virginia-class attack submarines, one DDG-51 class Aegis destroyer, four Littoral Combat Ships (LCSs), one LPD-17 class amphibious ship, one Mobile Landing Platform (MLP) ship (i.e., a maritime prepositioning ship), and one Joint High Speed Vessel (JHSV). The Navy's five-year (FY2012-FY2016) shipbuilding plan, submitted to Congress in conjunction with the Navy's proposed FY2012 budget, included a total of 55 new battle force ships, or an average of 11 per year. Of the 55 ships in the plan, 27, or almost half, are relatively inexpensive LCSs or JHSVs.

The Navy's FY2012 30-year (FY2012-FY2041) shipbuilding plan, submitted to Congress in late May 2011, does not include enough ships to fully support all elements of the Navy's 313-ship goal over the long run. Among other things, the Navy projects that the cruiser-destroyer and attack submarine forces would drop substantially below required levels in the latter years of the 30-year plan.

A June 2011 Congressional Budget Office (CBO) report on the cost of the Navy's FY2012 30-year (FY2012-FY2041) shipbuilding plan estimates that the plan would cost an average of \$18.0 billion per year in constant FY2011 dollars to implement, or about 16% more than the Navy estimates. CBO's estimate is about 7% higher than the Navy's estimate for the first 10 years of the plan, about 10% higher than the Navy's estimate for the second 10 years of the plan, and about 31% higher than the Navy's estimate for the final 10 years of the plan.

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Introduction

This report provides background information and presents potential issues for Congress concerning the Navy's ship force-structure goals and shipbuilding plans. The planned size of the Navy, the rate of Navy ship procurement, and the prospective affordability of the Navy's shipbuilding plans have been matters of concern for the congressional defense committees for the past several years. Decisions that Congress makes on Navy shipbuilding programs can substantially affect Navy capabilities and funding requirements, and the U.S. shipbuilding industrial base.

Background

Navy's 313-Ship Force Structure Plan of September 2011

The Navy in February 2006 presented to Congress a goal of achieving and maintaining a fleet of 313 ships, consisting of certain types and quantities of ships. The Navy in subsequent years changed its desired quantities for certain ship types, and by mid-2011 the Navy's desired fleet appeared to have grown to a total of 328 ships.

In September 2011, the Navy began briefing congressional offices on a revised 313-ship plan that incorporated some of the changes that the Navy made over the years to the 313-ship plan of February 2006 while staying within the overall total of 313 ships. Among other things, the revised 313-ship plan of September 2011 reduced the planned number of Joint High Speed Vessels (JHSVs) to 10, compared to a previously planned total of 21.

Navy officials sometimes refer to the figure of 313 ships as a "floor," meaning a minimum required number. The Navy stated that the revised 313-ship plan of September 2011 "will provide the capability and capacity to meet projected future missions with acceptable risk."¹

Table 1 compares the revised 313-ship goal of September 2011 to earlier Navy ship force structure plans.

¹ Source: Navy briefing slide on new (2011) 313-ship plan provided to CRS by Navy Office of Legislative Affairs on October 7, 2011.

Table I. Navy Ship Force Structure Plans Since 2001

Ship type	Revised 313-ship plan of September 2011	Changes to February 2006 313-ship plan announced through mid-2011	February 2006 Navy plan for 313-ship fleet	Early-2005 Navy plan for fleet of 260-325 ships		2002-2004 Navy plan for 375-ship Navy ^a	2001 QDR plan for 310-ship Navy
				260-ships	325-ships		
Ballistic missile submarines (SSBNs)	12 ^b	12 ^b	14	14	14	14	14
Cruise missile submarines (SSGNs)	4	0 ^c	4	4	4	4	2 or 4 ^d
Attack submarines (SSNs)	48	48	48	37	41	55	55
Aircraft carriers	11 ^e	11 ^e	11 ^f	10	11	12	12
Cruisers and destroyers	94	94 ^g	88	67	92	104	116
Frigates	0	0	0	0	0	0	
Littoral Combat Ships (LCSs)	55	55	55	63	82	56	0
Amphibious ships	33	33 ^h	31	17	24	37	36
MPF(F) ships ⁱ	0 ⁱ	0 ⁱ	12 ⁱ	14 ⁱ	20 ⁱ	0 ⁱ	0 ⁱ
Combat logistics (resupply) ships	30	30	30	24	26	42	34
Dedicated mine warfare ships	0	0	0	0	0	26 ^k	16
Joint High Speed Vessels (JHSVs)	10 ^l	21 ^l	3	0	0	0	0
Other ^m	16	24 ⁿ	17	10	11	25	25
Total battle force ships	313	328	313	260	325	375	310 or 312

Sources: Table prepared by CRS based on U.S. Navy data. Source for revised 313-ship plan of September 2011: Navy briefing slide on new (2011) 313-ship plan provided to CRS by Navy Office of Legislative Affairs on October 7, 2011.

Note: QDR is Quadrennial Defense Review.

- a. Initial composition. Composition was subsequently modified.
- b. The Navy plans to replace the 14 current Ohio-class SSBNs with a new class of 12 next-generation SSBNs. For further discussion, see CRS Report R41129, *Navy Ohio Replacement (SSBN[X]) Ballistic Missile Submarine Program: Background and Issues for Congress*, by Ronald O'Rourke.
- c. Although the Navy plans to continue operating its four SSGNs until they reach retirement age in the late 2020s, the Navy does not plan to replace these ships when they retire, and the 328-ship presentation reflected the post-2020s force level of zero SSGNs.
- d. The report on the 2001 QDR did not mention a specific figure for SSGNs. The Administration's proposed FY2001 Department of Defense (DOD) budget requested funding to support the conversion of two available Trident SSBNs into SSGNs, and the retirement of two other Trident SSBNs. Congress, in marking up this request, supported a plan to convert all four available SSBNs into SSGNs.
- e. With congressional approval, the goal will temporarily be reduced to 10 carriers during 33-month period between the retirement of the carrier *Enterprise* (CVN-65) in November 2012 and the scheduled entry into service of the carrier *Gerald R. Ford* (CVN-78) in September 2015.
- f. For a time, the Navy characterized the goal as 11 carriers in the nearer term, and eventually 12 carriers.
- g. The 94-ship goal was announced by the Navy in an April 2011 report to Congress on naval force structure and missile defense.
- h. The Navy acknowledges that meeting a requirement for being able to lift the assault echelons of 2.0 Marine Expeditionary Brigades (MEBs) would require a minimum of 33 amphibious ships rather than the 31 ships

shown in the February 2006 plan. For further discussion, see CRS Report RL34476, *Navy LPD-17 Amphibious Ship Procurement: Background, Issues, and Options for Congress*, by Ronald O'Rourke.

- i. Today's Maritime Prepositioning Force (MPF) ships are intended primarily to support Marine Corps operations ashore, rather than Navy combat operations, and thus are not counted as Navy battle force ships. The MPF (Future) ships, however, would have contributed to Navy combat capabilities (for example, by supporting Navy aircraft operations). For this reason, the ships in the planned MPF(F) squadron were counted by the Navy as battle force ships.
- j. The Navy no longer plans to acquire an MPF(F) squadron. The Navy, however, has procured or plans to procure six ships that were previously planned for the MPF(F) squadron—three modified TAKE-I class cargo ships, and three Mobile Landing Platform (MLP) ships. These six ships are now included in the total shown for "Other" ships.
- k. The figure of 26 dedicated mine warfare ships includes 10 ships maintained in a reduced mobilization status called Mobilization Category B. Ships in this status are not readily deployable and thus do not count as battle force ships. The 375-ship proposal thus implied transferring these 10 ships to a higher readiness status.
- l. Totals shown include 5 ships transferred from the Army to the Navy and operated by the Navy primarily for the performance of Army missions.
- m. This category includes, among other things, command ships and support ships.
- n. The increase in this category from 17 ships under the February 2006 313-ship plan to 24 ships under the apparent 328-ship goal includes the addition of one TAGOS ocean surveillance ship and the transfer into this category of six ships—three modified TAKE-I class cargo ships, and three Mobile Landing Platform (MLP) ships—that were previously intended for the planned (but now canceled) MPF(F) squadron.

January 2012 Announcement of New Force Structure Assessment

On January 31, 2012, the Navy announced that it had begun a force structure assessment, to be completed in several months, that could lead to a new force structure goal for the Navy. The Navy stated that the force structure assessment will reflect a new strategic guidance document released by the Administration on January 5, 2012.²

Navy's FY2012 Five-Year and 30-Year Shipbuilding Plans

Five-Year (FY2012-FY2016) Shipbuilding Plan

Table 2 shows the Navy's FY2012 five-year (FY2012-FY2016) shipbuilding plan.

² Frank Oliveri, "Navy Structure Study Could Alter Minimum Number of Ships Required," *CQToday*, February 1, 2012: 10; Mike McCarthy, "Navy Evaluating 313-Ship Goal," *Defense Daily*, February 1, 2012; Michael Fabey, "U.S. Navy Studies Force Structure," *Aerospace Daily & Defense Report*, February 1, 2012: 4; Megan Eckstein, "Harvey: Force Structure Review Will Take Into Account Fewer Ships," *Inside the Navy*, February 6, 2012. See also Dan Taylor, "Navy: No Decision On 313-Ship Floor Yet, Despite Cutbacks In Fleet," *Inside the Navy*, January 30, 2012.

The strategic guidance document released on January 5, 2012, is Department of Defense, *Sustaining U.S. Global Leadership: Priorities for 21st Century Defense*, January 2012, 8 pp. For more on this document, see CRS Report R42146, *In Brief: Assessing DOD's New Strategic Guidance*, by Catherine Dale and Pat Towell.

Table 2. Navy FY2012 Five-Year (FY2012-FY2016) Shipbuilding Plan

(Battle force ships—i.e., ships that count against 313-ship goal)

Ship type	FY12	FY13	FY14	FY15	FY16	Total
Ford (CVN-78) class aircraft carrier		1				1
Virginia (SSN-774) class attack submarine	2	2	2	2	2	10
Arleigh Burke (DDG-51) class destroyer	1	2	2	2	1	8
Littoral Combat Ship (LCS)	4	4	4	4	3	19
San Antonio (LPD-17) class amphibious ship	1					1
LHA(R) amphibious assault ship					1	1
Fleet tug (TATF)				1		1
Mobile Landing Platform (MLP) ship	1	1				2
Joint High Speed Vessel (JHSV)	1	2	2	2	1	8
TAO(X) oiler			1	1	1	3
TAGOS ocean surveillance ship		1				1
TOTAL	10	13	11	12	9	55

Source: FY2012 Navy budget submission.**Notes:** The FY2012-FY2016 shipbuilding plan also includes, in FY2012, an oceanographic ship that does not count against the 313-ship goal.

Until FY2012, JHSVs were being procured by both the Navy and the Army. The Army was to procure its fifth and final JHSV in FY2012; this ship was included in the Army's FY2012 budget submission and is not shown in this table. In May 2011, the Navy and Army signed a Memorandum of Agreement (MOA) transferring the Army's JHSVs to the Navy. In the FY2012 DOD Appropriations Act (Division A of H.R. 2055/P.L. 112-74 of December 23, 2011), the JHSV that was in the Army's FY2012 budget submission was funded through the Shipbuilding and Conversion, Navy (SCN) appropriation account, along with the JHSV that the Navy had included in its FY2012 budget submission.

Observations that can be made about the Navy's proposed five-year (FY2012-FY2016) shipbuilding plan include the following:

- The FY2012-FY2016 plan includes a total of 55 battle force ships, or 5 more than the FY2011-FY2015 plan. The net increase of five ships includes the addition of six ships and the subtraction of one previously planned ship. The six added ships include a second DDG-51 in FY2014, a fourth Littoral Combat Ship (LCS) in FY2012, three TAO(X) oilers in FY2014-FY2016, and a TAGOS ocean surveillance ship in FY2013. The ship that was subtracted was a second JHSV that was previously planned for FY2016.
- The FY2012-FY2016 plan includes an average of 11 battle force ships per year, making this the second year in a row that the Navy has presented a five-year shipbuilding plan showing an average of 10 or more battle force ships per year. Given the single-digit numbers of battle force ships that have been procured from FY1993 through FY2010, shipbuilding supporters for some time have wanted to increase the shipbuilding rate to 10 or more battle force ships per year. A rate of 10 battle force ships per year is above the steady-state replacement rate for a fleet of 313 ships with an average service life of 35 years, which is about 8.9 ships per year. The average shipbuilding rate since FY1993 has been substantially below 8.9 ships per year (see **Appendix C**).

- Although LCSs and JHSVs account for about 21% of the ships in the Navy's planned force structure (65 of 313 ships), they account 49% of the ships in the FY2012-FY2016 shipbuilding plan (27 of 55 ships). In this sense, these relatively inexpensive ships are overrepresented in the five-year shipbuilding plan relative to their portion of the 313-ship goal, making it easier to procure an average of 11 ships per year within available resources. Starting a few years from now, when the LCS and JHSV programs are no longer overrepresented in the shipbuilding plan, and particularly when procurement of next-generation SSBN(X) ballistic missile submarines begins, procuring an average of 10 or more ships per year will become a considerably more expensive proposition. In this sense, the FY2012-FY2016 shipbuilding program's average of 11 ships per year does not necessarily imply that the Navy has solved the challenge it faces concerning the long-term affordability of its shipbuilding plans.
- The addition of the fourth LCS in FY2012 brings planned annual LCS procurement quantities into line with those called for in the dual-award acquisition strategy that Congress approved in December 2010 for the LCS program.³
- The San Antonio (LPD-17) class amphibious ship planned for FY2012 is to be the 11th and final ship in the class. The 33-ship force-structure goal for amphibious ships includes 11 LPD-17s.⁴
- The FY2011-FY2015 plan requested the first of three planned Mobile Landing Platform ships (MLPs) in FY2011, and the second and third MLPs in FY2012 and FY2013. As part of its action on the FY2011 defense budget, Congress funded the procurement of two MLPs in FY2011 (i.e., one more than requested). Congress completed its action on the FY2011 budget after the Navy submitted its proposed FY2012 budget, and the FY2012 budget submission does not account for the funding of a second MLP in FY2011. The Navy states that since two MLPs were funded in FY2011, the Navy no longer plans to request an MLP in FY2013.
- The addition of the three TAO(X) oilers in FY2014-FY2016 reflects an acceleration of the start of this program from FY2017 to FY2014. This acceleration was one of a series of measures that the Navy announced on September 17, 2010, for sustaining the shipbuilding capability in Louisiana.⁵ The Navy plans to compete the TAO(X), so it is not certain that the program will be awarded to a shipyard in Louisiana, such as the Avondale shipyard near New Orleans that forms part of Huntington Ingalls Industries (HII). National Steel and Shipbuilding Company (NASSCO) of San Diego, CA, is generally considered to be a likely competitor for the program.

³ For further discussion, see CRS Report RL33741, *Navy Littoral Combat Ship (LCS) Program: Background, Issues, and Options for Congress*, by Ronald O'Rourke.

⁴ For further discussion, see CRS Report RL34476, *Navy LPD-17 Amphibious Ship Procurement: Background, Issues, and Options for Congress*, by Ronald O'Rourke.

⁵ For the text of the Navy's announcement, see <http://www.wtlv.com/news/Sec-of-Navy-remarks-on-shipyard-in-Avondale-103150169.html>.

30-Year (FY2012-FY2041) Shipbuilding Plan

The Navy did not submit an FY2012 30-year (FY2012-FY2041) shipbuilding plan in February 2011, in conjunction with the proposed FY2012 budget.⁶ At the request of the House Armed Services Committee, the Navy submitted the FY2012 30-year (FY2012-FY2041) shipbuilding plan in late May 2011.⁷ **Table 3** shows the Navy's proposed FY2012 30-year (FY2012-FY2041) shipbuilding plan. The first five years of this plan include the same ships as those in the FY2012 five-year (FY2012-FY2016) shipbuilding plan shown in **Table 2**. The FY2012 30-year (FY2012-2041) plan includes a total of 276 ships.⁸

⁶ Section 1023 of the FY2011 defense authorization act (H.R. 6523/P.L. 111-383 of January 7, 2011) amended the law (10 U.S.C. 231) that had required DOD to submit a 30-year shipbuilding plan each year. As amended by Section 1023, 10 U.S.C. 231 now requires DOD to submit a 30-year shipbuilding plan once every four years, in the same year that DOD submits a Quadrennial Defense Review (QDR). Regarding the three years between each QDR, the joint explanatory statement of the House and Senate Armed Services Committees on H.R. 6523 stated:

The committees expect that, following the submission of the President's budget materials for a fiscal year, the Secretary of the Navy, at the written request of one of the congressional defense committees, will promptly deliver the Navy's long-term shipbuilding plan used to develop the President's budget request for that fiscal year, as well as a certification from the Secretary of the Navy that both the President's budget request for that fiscal year and the budget for the future-years defense program is sufficient to fund the construction schedule provided in that plan. The committees expect that such a plan would include the quantity of each class of ship to be constructed in that fiscal year and the nine following fiscal years.

⁷ The Navy's cover letter for the plan is dated May 23, 2011. CRS received the plan on May 24, 2011. The Navy's cover letter states that the plan was submitted in response to a letter dated February 15, 2011, from Representative Todd Akin, the chairman of the Seapower and Projection Forces subcommittee of the House Armed Services Committee, requesting a 30-year plan.

⁸ The total of 276 ships includes a Mobile Landing Platform (MLP) ship in FY2013. The Navy says that, as a result of Congress funding two MLPs in FY2011, or one more than the Navy requested for FY2011, the Navy no longer plans to request an MLP in FY2013. Subtracting this MLP from the plan would leave a total of 275 ships.

Table 3. Navy FY2012 30-Year (FY2012-FY2041) Shipbuilding Plan

FY	CVN	LSC	SSC	SSN	SSBN	AWS	CLF	Supt	Total
12		1	4	2		1		2	10
13	1	2	4	2				4	13
14		2	4	2			1	2	11
15		2	4	2			1	3	12
16		1	3	2		1	1	1	9
17		2	3	2		1	1	3	12
18	1	1	3	1			1	3	10
19		2	3	2	1	1	1	2	12
20		1	2	2			1	2	8
21		2	2	2		2	1		9
22		1	2	2	1		1	2	9
23	1	2	2	1		1	1	3	11
24		1	2	1	1		1	2	8
25		1	1	1	1	2	1	1	8
26		2	2	1	1		1		7
27		2	1	1	1	1	1		7
28	1	1	2	1	1		1	1	8
29		2	1	1	1	2	1	2	10
30		1	2	1	1		1	2	8
31		2		1	1	1	1	2	8
32		2	2	1	1		1	2	9
33	1	2		1	1	2		3	10
34		2	2	1				2	7
35		2	2	2		1		2	9
36		3	3	1				1	8
37		2	3	2		2		2	11
38	1	2	3	1				2	9
39		2	3	2				1	8
40		2	3	1		1			7
41		2	3	2		1			8

Source: U.S. Navy data provided to CRS on May 24, 2011.

Key: **FY** = Fiscal Year; **CVN** = aircraft carriers; **LSC** = surface combatants (i.e., cruisers and destroyers); **SSC** = small surface combatants (i.e., Littoral Combat Ships [LCSs]); **SSN** = attack submarines; **SSGN** = cruise missile submarines; **SSBN** = ballistic missile submarines; **AWS** = amphibious warfare ships; **CLF** = combat logistics force (i.e., resupply) ships; **Supt** = support ships.

Navy's Projected Force Levels Under 30-Year (FY2012-FY2041) Shipbuilding Plan

Table 4 shows the Navy's projection of force levels for FY2012-FY2041 that would result from implementing the FY2012 30-year (FY2012-FY2041) shipbuilding plan shown in **Table 3**.

Table 4. Projected Force Levels Resulting from FY2012 30-Year (FY2012-FY2041) Shipbuilding Plan

	CVN	LSC	SSC	SSN	SSGN	SSBN	AWS	CLF	Supt	Total
Goal in 313-ship plan	11	94	55	48	4	12	33	30	26	313
FY12	11	84	41	54	4	14	30	31	21	290
FY13	10	84	35	55	4	14	30	30	25	287
FY14	10	85	30	55	4	14	30	30	28	286
FY15	11	86	26	54	4	14	30	30	31	286
FY16	11	90	31	52	4	14	31	30	34	297
FY17	11	91	32	50	4	14	33	29	37	301
FY18	11	93	36	50	4	14	33	30	40	311
FY19	11	95	36	51	4	14	33	30	42	316
FY20	12	97	40	49	4	14	33	30	43	322
FY21	12	97	40	49	4	14	34	30	44	324
FY22	12	96	42	48	4	14	34	30	45	325
FY23	11	95	40	48	4	14	36	30	47	325
FY24	11	95	41	46	4	14	36	30	47	324
FY25	12	93	42	45	4	14	36	30	45	321
FY26	12	90	44	44	2	14	36	30	44	316
FY27	12	88	46	43	1	13	36	30	45	314
FY28	11	86	47	41	0	13	36	30	45	309
FY29	11	82	49	40	0	13	35	30	45	305
FY30	12	78	50	39	0	12	33	30	45	299
FY31	12	74	52	41	0	12	34	30	45	300
FY32	11	72	53	41	0	12	32	30	45	296
FY33	11	70	54	42	0	12	32	30	45	296
FY34	11	68	54	43	0	12	33	30	45	296
FY35	12	69	55	44	0	12	31	30	45	298
FY36	11	71	55	45	0	12	30	30	45	299
FY37	11	73	55	46	0	12	30	30	45	302
FY38	11	75	57	45	0	12	29	30	45	304
FY39	11	77	58	45	0	12	30	30	43	306
FY40	11	77	58	45	0	12	30	30	43	306
FY41	11	78	56	45	0	12	30	30	43	305

Source: U.S. Navy data provided to CRS on May 24, 2011.

Note: Figures for support ships include five JHSVs transferred from the Army to the Navy and operated by the Navy primarily for the performance of Army missions.

Key: FY = Fiscal Year; CVN = aircraft carriers; LSC = surface combatants (i.e., cruisers and destroyers); SSC = small surface combatants (i.e., frigates, Littoral Combat Ships [LCSs], and mine warfare ships); SSN = attack submarines; SSGN = cruise missile submarines; SSBN = ballistic missile submarines; AWS = amphibious warfare ships; CLF = combat logistics force (i.e., resupply) ships; Supt = support ships.

Late 2011 Press Reports About Possible Navy Force Structure and Procurement Reductions

Press reports in September and October 2011 stated that the Navy, in response to anticipated reductions in planned levels of defense spending, was examining options for maintaining a fleet with considerably fewer than 300 ships; for retiring certain ships in the near term, well before the ends of their expected service lives; and for deferring or cancelling certain planned ship procurements.⁹ The Administration's January 26, 2012, announcement of selected program decisions for the FY2013 budget (see next section) suggests that at least some of these options were scaled back or not implemented.

⁹ A September 1, 2011, press report stated that the Navy was considering the following options, among others:

- reducing the Navy to a 250-ship fleet that includes 10 aircraft carriers or a 240-ship fleet that includes 8 aircraft carriers (a fleet with 9 carriers is another option);
- retiring (rather than performing a nuclear-refueling overhaul on) the aircraft carrier George Washington (CVN-73), which would be one measure for reducing the size of the carrier force;
- delaying the procurement of the aircraft carrier John F. Kennedy (CVN-79) by two years, to FY2015 (an option that was first reported in July 2011);
- eliminating six aircraft squadrons;
- retiring at least some of the Navy's 22 Ticonderoga (CG-47) class Aegis cruisers;
- reducing the planned number of next-generation Ohio replacement ballistic missile submarines (SSBN[X]s) by two boats, from 12 to 10, and consequently delaying the procurement of the first SSBN(X), perhaps by two years; and
- maintaining funding for procurement of two Virginia-class submarines per year, and for Arleigh Burke (DDG-51) class Aegis destroyers and Littoral Combat Ships (LCSs).

(Christopher J. Castelli, "Navy Of Tomorrow Could Have Fewer Cruisers, Aircraft Carriers," *Inside the Pentagon*, September 1, 2011.)

An October 6, 2011, press report similarly stated that the Navy was examining the option of retiring the rather than performing a mid-life refueling on the aircraft carrier George Washington (CVN-73). (Christopher P. Cavas, "U.S. Navy May Cut Carrier's Life In Half To Save Money," *DefenseNews.com*, October 6, 2011.) Implementing this option would reduce the Navy's carrier force a few years from now from 11 ships to 10.

An October 14, 2011, press report stated that the Navy is considering retiring four Aegis cruisers in FY2013, another five Aegis cruisers in FY2014, and three Whidbey Island/Harpers Ferry (LSD-41/49) class amphibious ships in FY2014. The report also mentioned the option of retiring rather than performing a mid-life refueling on the aircraft carrier George Washington (CVN-73), the option of delaying the procurement of the John F. Kennedy (CVN-79) to FY2015, and the option of shifting carrier procurement generally to seven-year intervals. (Carlo Munoz, "Navy Delays Carrier, Cuts Cruisers, Amphibs In Draft Budget," *AOL Defense* (<http://defense.aol.com>), October 14, 2011.) A blog entry identified the four cruisers that would be retired in FY2013 as *Normandy* (CG-60), *Anzio* (CG-CG-68), *Vicksburg* (CG-69), and *Cape St. George* (CG-71), the five cruisers that would be retired in FY2014 as *Princeton* (CG-59), *Cowpens* (CG-63), *Gettysburg* (CG-64), *Chosin* (CG-65), and *Hue City* (CG-66), and the four amphibious ships that would be retired in FY2014 as *Whidbey Island* (LSD-41), *Fort McHenry* (LSD-43), and *Tortuga* (LSD-46). ("ALT POM Early Decommission Plans," *Information Dissemination* (www.information dissemination.net), October 17, 2011.)

In a December 2011 journal article, Admiral Jonathan Greenert, the Chief of Naval Operations, stated that the Navy in 2025 "may be smaller than [it is] today as a result of fiscal constraints" and that "Budget limitations over the next 10 to 15 years may constrain the number of ships and aircraft the Navy can buy." (Jonathan Greenert, "Navy, 2025: Forward Warfighters," *U.S. Naval Institute Proceedings*, December 2011: 19 and 22.)

January 26, 2012, Announcement of FY2013 Budget Decisions

On January 26, 2012, the Administration issued a 16-page document outlining selected program decisions that will appear in the Department of Defense's (DOD's) proposed FY2013 budget. The document states the following in part:

The focus on the Asia-Pacific region places a renewed emphasis on air and naval forces while sustaining ground force presence. The Middle East has been dominated by ground force operations over the last decade; however, as we gradually transition security in Afghanistan and reestablish peacetime ground force presence, this region will also become increasingly maritime. Therefore we: ...

- Maintained the aircraft carrier fleet at 11 ships and 10 [carrier] air wings
- Maintained the big-deck amphibious fleet ...¹⁰
- Budgeted to forward station Littoral Combat Ships in Singapore and patrol craft in Bahrain
- Funded development of a new afloat forward staging base that can be dedicated to support missions in areas where ground-based access is not available, such as counter-mine operations

For these forces to remain capable, we had to invest in capabilities required to maintain our military's continued freedom of action in the face of new technologies designed to frustrate access advantages. Consequently, we increased or protected investment in capabilities that preserve the U.S. military's ability to project power in contested areas and strike quickly from over the horizon, including:...

- Design changes to increase cruise missile capacity of future Virginia-class submarines¹¹
- Design of a conventional prompt strike option from submarines¹²
- Upgraded radars for tactical aircraft and ships

To ensure sufficient resources to protect these strategic priorities, we will reduce the number of ships by slowing the pace of building new ships and by accelerating the retirement of some existing ships. These include:

- Retiring 7 cruisers early – 6 did not have ballistic missile defense (BMD) capability, and the seventh with BMD capability is in need of costly hull repairs¹³

¹⁰ This is a reference to the Navy's inventory of LHA- and LHD-type amphibious assault ships. These ships, which resemble medium-sized aircraft carriers, are often referred to as big-deck or large-deck amphibious ships because their flight decks are much larger than those of the Navy's smaller (i.e., LPD- and LSD-type) amphibious ships.

¹¹ This appears to be a reference to a plan to build future Virginia (SSN-774) class attack submarines to a lengthened design that includes an additional mid-body section, called the Virginia Payload Module (VPM) containing four large-diameter vertical launch tubes for firing cruise missiles and other payloads. For more on the VPM, see CRS Report RL32418, *Navy Virginia (SSN-774) Class Attack Submarine Procurement: Background and Issues for Congress*, by Ronald O'Rourke.

¹² This appears to refer to a new, fast-flying weapon that would be launched from submarines.

¹³ The Navy currently has 22 Ticonderoga (CG-47) class Aegis cruisers; retiring seven early would reduce the (continued...)

- Slipping a large deck amphibious ship (LHA) by 1 year¹⁴
- Slipping 1 new Virginia class submarine outside the FYDP [Five Year Defense Plan]
- Reducing Littoral Combat Ships by 2 ships in the FYDP¹⁵
- Reducing Joint High Speed Vessels by 8 in the FYDP¹⁶
- Retiring 2 smaller amphibious ships (LSD) early and moving their replacement outside the FYDP ...¹⁷

This strategic precept puts a premium on self- and rapidly-deployable forces that can project power and perform multiple mission types. This reinforces the need to maintain existing numbers of aircraft carriers, large-deck amphibious ships, and bombers. Furthermore, as the Marine Corps withdraws from the ground in Afghanistan, it will return to afloat posture, with the capability to rapidly respond to crises as they emerge. These choices are consistent with our strategic emphasis on the Asia-Pacific region and the Middle East, but are applicable anywhere on the globe where U.S. national security or vital interests are threatened....

Under the new strategic guidance, we will maintain a safe, secure, and effective nuclear deterrent.... However, we will delay the new Ohio submarine replacement by two years without undermining our partnership with the UK.¹⁸ While this delay will create challenges in maintaining current at-sea presence requirements in the 2030s, we believe this risk can be managed....

Because we will continue to be engaged in counter terrorism operations around the globe, we protected key components of the force that are adept in executing this mission:....

- Sea-based unmanned intelligence, surveillance and reconnaissance (ISR) systems such as Fire Scout – important ISR assets where ground basing is not available....¹⁹

Our ability to project power is a key component of our strategic guidance. We protected... aircraft carriers, surface combatant modernization.... We also protected capabilities that allow us to project power in denied environments. In addition to those discussed earlier, such

(...continued)

inventory of these ships to 15.

¹⁴ Under the FY2012 budget submission, the next LHA-type ship was to be procured in FY2016; the deferral would thus appear to be FY2017.

¹⁵ This may be a deferral of the procurement of two LCSs, but not a reduction in the planned total LCS procurement of 55 ships.

¹⁶ This may reflect a reduction in the JHSV force-level goal from 21 ships to 10.

¹⁷ The Navy currently operates 12 LSD-type amphibious ships; retiring two early would reduce the inventory to 10. The planned replacement for these LSDs is a new ship class called the LSD(X). The Navy had previously announced that the first LSD(X) was to be procured in FY2017; the new announcement here suggests that the procurement date for this ship has been deferred to a later year.

¹⁸ Under the FY2012 budget submission, the first Ohio Replacement ballistic missile submarine was to be procured in FY2019; the announcement suggests that the procurement date for this ship has been deferred to FY2021. The United States is cooperating with the UK on the design of a common missile compartment to be used on both the Ohio Replacement boats and a new class of UK ballistic missile submarines.

¹⁹ The Fire Scout is an unmanned helicopter that can be operated from Navy ships.

as... increasing the cruise missile capacity of future submarines, we protected anti-submarine warfare and counter-mine capabilities....

In support of the strategic guidance's tenet of reversibility, this budget plan sustains, where possible, these segments of the industrial base.... For example, adding the afloat forward staging base addresses urgent operational shortfalls and will help sustain the shipbuilding industry in the near-term and mitigate the impact of reducing ship procurement in the FYDP.²⁰

Oversight Issues for Congress

Future Size and Structure of Navy in Light of Changes in Strategic and Budgetary Circumstances

Changes in strategic and budgetary circumstances have led to a broad debate over the appropriate future size and structure of the military, including the future size and structure of the Navy. Changes in strategic circumstances include, among other things, the winding down of U.S. combat operations in Iraq, the planned winding down of such operations in Afghanistan, and the growth of China's military capabilities.²¹ Changes in budgetary circumstances center on reductions in planned levels of defense spending resulting from the Budget Control Act of 2011 (S. 365/P.L. 112-25 of August 2, 2011).

On January 5, 2012, the Administration announced that, in light of the winding down of U.S. combat operations in Iraq, the planned winding down of such operations in Afghanistan, and developments in the Asia-Pacific region, U.S. defense strategy in coming years will include a stronger focus on the Asia-Pacific region.²² Since the Asia-Pacific region is to a significant degree a maritime and aerospace theater for the United States, this shift in strategic focus is expected by many observers to result in a shift in the allocation of DOD resources toward the Navy and Air Force.

As mentioned earlier (see "January 2012 Announcement of New Force Structure Assessment" in "Background"), on January 31, 2012, the Navy announced that it had begun a force structure assessment, to be completed in several months, that could lead to a new force structure goal for the Navy.

Some study groups have made their own proposals for Navy ship force structure. **Table 5** shows some of these proposals. For purposes of comparison, **Table 5** also shows the Navy's 313-ship goal of September 2011.

²⁰ Department of Defense, *Defense Budget: Priorities and Choices*, January 2012, pp. 5, 6, 7, 8, 9, 13.

²¹ For more on the growth in China's military (particularly naval) capabilities and its potential implications for required U.S. Navy capabilities, see CRS Report RL33153, *China Naval Modernization: Implications for U.S. Navy Capabilities—Background and Issues for Congress*, by Ronald O'Rourke.

²² Department of Defense, *Sustaining U.S. Global Leadership: Priorities for 21st Century Defense*, January 2012, 8 pp. For more on this document, see CRS Report R42146, *In Brief: Assessing DOD's New Strategic Guidance*, by Catherine Dale and Pat Towell.

In assessing proposals for the future size and structure of the Navy, Congress may consider various factors, such as potential future defense spending levels, U.S. interests and potential threats to those interests, the value of naval forces in defending those interests, and the relative cost-effectiveness of various ship types for performing various missions.²³

Table 5. Recent Study Group Proposals for Navy Ship Force Structure

Ship type	Navy's 313-ship goal of September 2011	Heritage Foundation (April 2011)	Cato Institute (September 2010) ^a	Independent Panel Assessment of 2010 QDR (July 2010)	Sustainable Defense Task Force (June 2010)	Center for a New American Security (CNAS) (November 2008)	Center for Strategic and Budgetary Assessments (CSBA) (2008) ^b
<i>Submarines</i>							
SSBN	12	14 ^c	6	14	7	14	12
SSGN	4	4	0	4	4	0	2
SSN	48	55	40	55	37	40	41
<i>Aircraft carriers</i>							
CVN	11	11	8	11	9	8	11
CVE	0	0	0	0	0	0	4
<i>Surface combatants</i>							
Cruiser	94	88	22	n/a	85	18	14
Destroyer			65	n/a		56	73
Frigate	0	28 ^d	14	n/a	0	0	9 ^e
LCS	55		4	n/a	25	48	55
SSC	0	0	0	n/a	0	40	0 ^f
<i>Amphibious and Maritime Prepositioning Force (Future) (MPF[F]) ships</i>							
Amphibious ships	33	37	23	n/a	27	36	33
MPF(F) ships	0	0	0	n/a	n/a	0	3 ^g
LSD station ships	0	0	0	n/a	n/a	n/a	7 ^h
<i>Other: Mine warfare (MIW) ships; Combat logistics force (CLF) ships (i.e., at-sea resupply ships), and support ships</i>							
MIW	0	14	11	0	0	0	0
CLF ships	30	33	21	n/a	36	40	31
Support ships	26	25	27	n/a			31
TOTAL battle force ships	313	309	241	346	230	300	326ⁱ

²³ Another possible method for assessing proposals for the future size and structure of the Navy is to compare them to historical figures for total Navy fleet size. As discussed in **Appendix A**, however, historical figures for total fleet size might not be a reliable yardstick for assessing the appropriateness of proposals for the future size and structure of the Navy, particularly if the historical figures are more than a few years old, because the missions to be performed by the Navy, the mix of ships that make up the Navy, and the technologies that are available to Navy ships for performing missions all change over time.

Source: Table prepared by CRS based on the following sources: **For Heritage Foundation:** *A Strong National Defense[.] The Armed Forces America Needs and What They Will Cost*, Heritage Foundation, April 5, 2011, pp. 25-26. **For Cato Institute:** Benjamin H. Friedman and Christopher Preble, *Budgetary Savings from Military Restraint*, Washington, Cato Institute, September 23, 2010 (Policy Analysis No. 667), pp. 6, 8-10, and additional information provided by Cato Institute to CRS by e-mail on September 22, 2010. **For Independent Panel Assessment:** 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. **For Sustainable Defense Task Force:** *Debt, Deficits, and Defense, A Way Forward[.] Report of the Sustainable Defense Task Force*, June 11, 2010, pp. 19-20. **For CNAS:** Frank Hoffman, *From Preponderance to Partnership: American Maritime Power in the 21st Century*. Washington, Center for a New American Security, November 2008. p. 19 (Table 2). **For CSBA:** Robert O. Work, *The US Navy[.] Charting a Course for Tomorrow's Fleet*. Washington, Center for Strategic and Budgetary Assessments, 2008. p. 81 (Figure 5).

Notes: **n/a** is not addressed in the report. **SSBN** is nuclear-powered ballistic missile submarine; **SSGN** is nuclear-powered cruise missile and special operations forces submarine; **SSN** is nuclear-powered attack submarine; **CVN** is large nuclear-powered aircraft carrier; **CVE** is medium-sized aircraft carrier; **LCS** is Littoral Combat Ship; **SSC** (an acronym created by CRS for this table) is small surface combatant of 1,000+ tons displacement—a ship similar to late-1990s Streetfighter concept; **MPF(F)** is Maritime Prepositioning Force (Future) ship; **LSD** is LSD-41/49 class amphibious ship operating as a station ship for a formation like a Global Fleet Station (GFS); **MIW** is mine warfare ship; **CLF** is combat logistics force (i.e., resupply) ship.

- a. Figures shown are for the year 2020; for subsequent years, reductions from these figures would be considered.
- b. Figures shown are for the year 2028.
- c. The report calls for a force of 280 SLBMs, which appears to equate to a force of 14 SSBNs, each with 20 SLBM tubes.
- d. The report calls for a force of 28 small surface combatants, and appears to use the term small surface combatants the same way that the Navy does in the 30-year shipbuilding plan—as a way of collectively referring to frigates and LCSs. The small surface combatants (SSCs) called for in the November 2008 CNAS report are separate from and smaller than the LCS.
- e. Maritime Security Frigates.
- f. Plan includes 28 patrol craft (PCs) of a few hundred tons displacement each, as well as 29 boat detachments and seven riverine squadrons.
- g. Plan shows three Mobile Landing Platform (MLP) ships that the Navy currently plans for the MPF(F) squadron, plus 16 existing current-generation maritime prepositioning force (MPF) ships and 17 existing prepositioning ships for Army and other service/agency equipment. Plan also shows 67 other DOD sealift ships.
- h. T-LSDs, meaning LSDs operated by the Military Sealift Command (MSC) with a partly civilian crew.
- i. The CSBA report shows a total of 488 units by including 162 additional force units that do not count toward the 313-ship goal under the battle force ships counting method that has been used since the early 1980s for public policy discussions of the size of the Navy. These 162 additional force units include 16 existing current-generation maritime prepositioning force (MPF) ships and 17 existing prepositioning ships for Army and other service/agency equipment, 67 other DOD sealift ships, 28 PCs, 29 boat detachments, and certain other small-scale units. The CSBA report proposes a new counting method for naval/maritime forces that includes units such as these in the total count.

Issues Relating to Current 313-Ship Force-Level Objective

Sufficiency of FY2012 30-Year Shipbuilding Plan

One potential oversight issue for Congress concerns the sufficiency of the FY2012 30-year (FY2012-FY2041) shipbuilding plan. As shown in **Table 4**, the plan does not include enough ships to fully support all elements of the 313-ship goal over the long run:

- The Navy projects that if the 30-year shipbuilding plan were fully implemented, the fleet would grow from 290 ships in FY2012 to a peak of 325 ships in FY2022-FY2023, decline to 296 ships in FY2032-FY2034, and then increase back to 305 ships by FY2041.
- The Navy projects that the attack submarine and cruiser-destroyer forces will drop substantially below required levels in the latter years of the 30-year plan. The projected number of cruisers and destroyers drops below the required level of 94 ships in 2025, reaches a minimum of 68 ships in FY2034, and remains below 94 ships through FY2041. The projected number of attack submarines drops below the required level of 48 boats in FY2024, reaches a minimum of 39 boats in FY2030, and remains below 48 boats through 2041.
- There would also be shortfalls in certain years in small surface combatants (i.e., frigates and LCSs) and amphibious ships.

The projected shortfalls in cruisers and destroyers, attack submarines, and other ships could make it difficult or impossible for the Navy to fully perform its projected missions, particularly during the latter years of the 30-year plan. In light of the projected shortfalls in cruisers-destroyers and attack submarines, policymakers may wish to consider two options:

- increasing planned procurement rates of destroyers and attack submarines, perhaps particularly in years prior to the start of SSBN(X) procurement, and
- extending the service lives of older destroyers to 40 or 45 years, and refueling older attack submarines and extending their service lives to 40 or more years.

Regarding the second option above, possible candidates for service life extensions include the first 28 DDG-51 destroyers (i.e., the Flight I/II DDG-51s), the final 23 Los Angeles (SSN-688) attack submarines (i.e., the Improved 688s), and the 3 Seawolf (SSN-21) class attack submarines. Whether such service life extensions would be technically feasible or cost-effective is not clear. Feasibility would be a particular issue for the attack submarines, given limits on submarine pressure hull life.

Extending the service lives of any of these ships could require increasing funding for their maintenance, possibly beginning in the near term, above currently planned levels, so that the ships would be in good enough condition years from now to remain eligible for service life extension work. Such funding increases would be in addition to those the Navy has recently programmed for ensuring that its surface ships can remain in service to the end of their currently planned service lives.

Affordability of FY2012 30-Year Shipbuilding Plan

Another potential oversight issue for Congress concerns the prospective affordability of the FY2012 30-year (FY2012-FY2041) shipbuilding plan. In assessing this issue, a key factor to consider is the estimated cost to implement the plan. In recent years, the Congressional Budget Office (CBO) has estimated that the Navy's 30-year shipbuilding plan would cost more to implement than the Navy has estimated, and this is again the case for the Navy's FY2012 30-year shipbuilding plan. A June 2011 CBO report on the cost of the Navy's FY2012 30-year (FY2012-FY2041) shipbuilding plan estimates that the plan would cost an average of \$18.0 billion per year in constant FY2011 dollars to implement, or about 16% more than the Navy estimates. CBO's estimate is about 7% higher than the Navy's estimate for the first 10 years of the plan, about 10%

higher than the Navy's estimate for the second 10 years of the plan, and about 31% higher than the Navy's estimate for the final 10 years of the plan.²⁴ Some of the difference between CBO's estimate and the Navy's estimate, particularly in the latter years of the plan, is due to a difference between CBO and the Navy in how to treat inflation in Navy shipbuilding. **Table 6** summarizes the Navy and CBO estimates of the FY2012 30-year shipbuilding plan, as presented in the June 2011 CBO report.

Table 6. Navy and CBO Estimates of Cost of FY2012 30-Year (FY2012-FY2041) Shipbuilding Plan

Funding for new-construction ships, in billions of constant FY2011 dollars

	First 10 years (FY2012-FY2021)	Next 10 years (FY2022-2031)	Final 10 years (FY2032-FY2041)	Entire 30 years (FY2012-FY2041)
Navy estimate	14.6	17.2	14.7	15.5
CBO estimate	15.7	19.0	19.2	18.0
% difference between Navy and CBO estimates	7%	10%	31%	16%

Source: Congressional Budget Office, *An Analysis of the Navy's Fiscal Year 2012 Shipbuilding Plan*, June 2011, Table 2 (Page 9).

The June 2011 CBO report also estimates the cost of a revised 30-year shipbuilding plan created by CBO that would fully meet the various force-level goals in the apparent 328-ship force-level objective of mid-2011. Compared to the Navy's FY2012 30-year plan, this revised 30-year plan would include 24 additional destroyers, 5 additional attack submarines, and 2 additional large-deck (i.e., LHA-type) amphibious assault ships. CBO estimated the cost of implementing this revised plan at an average of \$19.7 billion per year in constant FY2011 dollars, including an average of \$19.1 billion per year for the first 10 years of the plan, an average of \$21.3 billion per year for the second 10 years of the plan, and an average of \$18.6 billion per year for the final 10 years of the plan.²⁵

As mentioned earlier, the Navy was able to assemble a five-year (FY2012-FY2016) shipbuilding plan with a total of 55 ships, or an average of 11 per year, within available resources in part because almost half of those ships are relatively inexpensive LCSs and JHSVs. Starting a few years from now, when the LCS and JHSV programs are no longer overrepresented in the shipbuilding plan, and particularly when procurement of next-generation SSBN(X) ballistic missile submarines begins, procuring an average of 10 or more ships per year will become a considerably more expensive proposition.

The Navy wants to procure 12 SSBN(X)s, and is working to reduce the estimated unit procurement cost of ships 2 through 12 in the program to \$4.9 billion in FY2010 dollars.²⁶ To help pay for the SSBN(X)s without reducing other shipbuilding programs, the shipbuilding

²⁴ Congressional Budget Office, *An Analysis of the Navy's Fiscal Year 2012 Shipbuilding Plan*, June 2011, Table 2 (page 9).

²⁵ Congressional Budget Office, *An Analysis of the Navy's Fiscal Year 2012 Shipbuilding Plan*, June 2011, Table 2 (page 9).

²⁶ For more on the SSBN(X) program, see CRS Report R41129, *Navy Ohio Replacement (SSBN(X)) Ballistic Missile Submarine Program: Background and Issues for Congress*, by Ronald O'Rourke

funding profile in the Navy's FY2011 30-year shipbuilding plan included a "hump" of approximately \$2 billion per year in constant FY2010 dollars during the years (FY2019-FY2033) when the 12 SSBN(X)s are to be procured. The Navy's report on the FY2011 30-year plan, however, contained little explanation of how this \$2-billion-per-year hump in shipbuilding funding would be realized, particularly if the Navy's budget experiences little or no real growth in coming years. If the \$2-billion-per-year hump were not realized, the total number of ships of various kinds procured in FY2019-FY2033 could be less than the figures shown in the FY2011 30-year plan. If so, the shortfalls projected for cruisers and destroyers, attack submarines, and other categories of ships could be larger than those shown in **Table 4**.

Legislative Activity for FY2012

FY2012 Funding Request

The Navy's proposed FY2012 budget requests funding for the procurement of 10 new battle force ships (i.e., ships that count against the 313-ship goal). The 10 ships include two Virginia-class attack submarines, one DDG-51 class Aegis destroyer, four Littoral Combat Ships (LCSs), one LPD-17 class amphibious ship, one Mobile Landing Platform (MLP) ship (i.e., a maritime prepositioning ship), and one Joint High Speed Vessel (JHSV). These ships are funded through the Shipbuilding and Conversion, Navy (SCN) account, except for the MLP, which is funded through the National Defense Sealift Fund (NDSF).

FY2012 National Defense Authorization Act (H.R. 1540/P.L. 112-81)

House (Committee Report)

The House Armed Services Committee, in its report (H.Rept. 112-78 of May 17, 2011) on H.R. 1540, recommends approving, with two exceptions, the Navy's requests for FY2012 procurement and advance procurement funding in the SCN and NDSF accounts for construction of new battle force ships. (See pages 345-346 and 460 of the report.)

One exception concerns LHA-7, an amphibious assault ship that was authorized in FY2011 but is being partially funded in FY2012. The committee's report recommends a net reduction of \$50 million from the amount requested for LHA-7 for FY2012. The recommended net reduction of \$50 million includes a \$200 million reduction for "contract delay" and a \$150 million increase for "program increase." Section 1604 of H.R. 1540 as reported by the committee provides for the recommended \$150 million increase. Section 121 of H.R. 1540 as reported by the committee would permit the final increment of procurement funding for LHA-7 to be provided in FY2013. Regarding LHA-7, the committee's report states:

The delivery of the first ship of the America-class, LHA-6, has been significantly delayed. According to the Department of Defense "Selected Acquisition Report" of December 31, 2010, the delays are "due to changing conditions in the shipyard portfolio which are driving labor demands in various trades". These delays have had a cascading effect on LHA-7, which was scheduled to go on contract for detail design and construction in November 2010, but now the Navy estimates the contract will be delayed until the end of fiscal year 2011. Elsewhere in this title, the committee includes a provision that would authorize the Navy to conclude funding for LHA-7 in fiscal year 2013. (page 33)

The second exception is that the committee's report recommends an undistributed increase of \$150 million in the SCN account for advance procurement and economic order quantity (EOQ) funding, and an offsetting undistributed reduction of \$150 million in the SCN account for "program decrease."

The committee's report also states:

The committee is pleased that the Navy has turned around the downward spiral in battle force ship quantities, and the plan to achieve the floor of 313 ships appears to be achievable. To obtain the required capability and to provide the required stability to the fragile shipbuilding industrial base, the committee believes the following programs are crucial. (page 33)

The report at this point goes on to discuss the CVN-78 aircraft carrier program, the Virginia class attack submarine program, the Ohio replacement (SSBN[X]) ballistic missile submarine program, the DDG-51 destroyer program, and amphibious ships.

Section 1021 of H.R. 1540 as reported states:

SEC. 1021. BUDGETING FOR CONSTRUCTION OF NAVAL VESSELS.

(a) Annual Plan- Section 231 of title 10, United States Code, is amended to read as follows:

`Sec. 231. Budgeting for construction of naval vessels: annual plan and certification

`(a) Annual Naval Vessel Construction Plan and Certification- The Secretary of Defense shall include with the defense budget materials for a fiscal year—

`(1) a plan for the construction of combatant and support vessels for the Navy developed in accordance with this section; and

`(2) a certification by the Secretary that both the budget for that fiscal year and the future-years defense program submitted to Congress in relation to such budget under section 221 of this title provide for funding of the construction of naval vessels at a level that is sufficient for the procurement of the vessels provided for in the plan under paragraph (1) on the schedule provided in that plan.

`(b) Annual Naval Vessel Construction Plan- (1) The annual naval vessel construction plan developed for a fiscal year for purposes of subsection (a)(1) should be designed so that the naval vessel force provided for under that plan is capable of supporting the national security strategy of the United States as set forth in the most recent national security strategy report of the President under section 108 of the National Security Act of 1947 (50 U.S.C. 404a), except that, if at the time such plan is submitted with the defense budget materials for that fiscal year, a national security strategy report required under such section 108 has not been submitted to Congress as required by paragraph (2) or paragraph (3), if applicable, of subsection (a) of such section, then such annual plan should be designed so that the naval vessel force provided for under that plan is capable of supporting the ship force structure recommended in the report of the most recent quadrennial defense review.

`(2) Each such naval vessel construction plan shall include the following:

`(A) A detailed program for the construction of combatant and support vessels for the Navy over the next 30 fiscal years.

`(B) A description of the necessary naval vessel force structure to meet the requirements of the national security strategy of the United States or the most recent quadrennial defense review, whichever is applicable under paragraph (1).

`(C) The estimated levels of annual funding necessary to carry out the program, together with a discussion of the procurement strategies on which such estimated levels of annual funding are based.

`(c) Assessment When Vessel Construction Budget Is Insufficient to Meet Applicable Requirements- If the budget for a fiscal year provides for funding of the construction of naval vessels at a level that is not sufficient to sustain the naval vessel force structure specified in the naval vessel construction plan for that fiscal year under subsection (a), the Secretary shall include with the defense budget materials for that fiscal year an assessment that describes and discusses the risks associated with the reduced force structure of naval vessels that will result from funding naval vessel construction at such level. Such assessment shall be coordinated in advance with the commanders of the combatant commands.

`(d) CBO Evaluation- Not later than 60 days after the date on which the congressional defense committees receive the plan under subsection (a)(1), the Director of the Congressional Budget Office shall submit to such committees a report assessing the sufficiency of the estimated levels of annual funding included in such plan with respect to the budget submitted during the year in which the plan is submitted and the future-years defense program submitted under section 221 of this title.

`(e) Definitions- In this section:

`(1) The term `budget`, with respect to a fiscal year, means the budget for that fiscal year that is submitted to Congress by the President under section 1105(a) of title 31.

`(2) The term `defense budget materials`, with respect to a fiscal year, means the materials submitted to Congress by the Secretary of Defense in support of the budget for that fiscal year.

`(3) The term `quadrennial defense review` means the review of the defense programs and policies of the United States that is carried out every four years under section 118 of this title.`

(b) Clerical Amendment- The table of sections at the beginning of chapter 9 of such title is amended by striking the item relating to section 231 and inserting the following new item:

`231. Budgeting for construction of naval vessels: annual plan and certification`.

Regarding Section 1021, the committee's report states:

This section would repeal an amendment made by section 1023 of the Ike Skelton National Defense Authorization Act for Fiscal Year 2011 (Public Law 111–383). This section would require that a 30-year shipbuilding plan be delivered to Congress periodically. The section that would be repealed changed the periodicity from an annual requirement to once every 4 years to be delivered with the Quadrennial Defense Review.

The committee believes that returning to an annual submittal of the plan would promote stability and continuity in the planning process, both in the plan itself, and in the shipbuilding industrial base. One aspect of the section that would be retained is the requirement that the Director of the Congressional Budget Office, within 60 days of

submittal of the plan, provide an assessment of the sufficiency of funds to execute the plan in the budget year and Future Years Defense Program to the congressional defense committees. (page 208)

Section 1094 of H.R. 1540 as reported states:

SEC. 1094. NUMBER OF NAVY CARRIER AIR WINGS AND CARRIER AIR WING HEADQUARTERS.

The Secretary of the Navy shall ensure that the Navy maintains—

- (1) a minimum of 10 carrier air wings; and
- (2) for each such carrier air wing, a dedicated and fully staffed headquarters.

House (Floor Consideration)

On May 26, 2011, as part of its consideration of H.R. 1540, the House rejected, 176-241, H.Amdt. 335, which would have deleted Section 1604, which provides for \$150 million in procurement funding for LHA-7 (see “House (Committee Report)” above).

Senate (S. 1867)

S. 1867, an original measure reported by Senator Levin on November 15, 2011, without written report, in effect supersedes S. 1253 (see below). S. 1867 recommends approving the Navy’s requests for FY2012 procurement and advance procurement funding in the SCN and NDSF accounts for construction of new battle force ships. (See Sections 4101 and 4401 of the bill as reported by Senator Levin. In the printed version of the bill, the relevant tables within these two sections appear on pages 611 and 662.)

Section 1021 of S. 1867 states:

SEC. 1021. LIMITATION ON AVAILABILITY OF FUNDS FOR PLACING MARITIME PREPOSITIONING SHIP SQUADRONS ON REDUCED OPERATING STATUS.

No amounts authorized to be appropriated by this Act may be obligated or expended to place a Maritime Prepositioning Ship squadron, or any component thereof, on reduced operating status until the later of the following:

- (1) The date on which the Commandant of the Marine Corps submits to the congressional defense committees a report setting forth an assessment of the impact on military readiness of the plans of the Navy for placing such Maritime Prepositioning Ship squadron, or component thereof, on reduced operating status.
- (2) The date on which the Chief of Naval Operations submits to the congressional defense committees a report that—
 - (A) describes the plans of the Navy for placing such Maritime Prepositioning Ship squadron, or component thereof, on reduced operating status; and
 - (B) sets forth comments of the Chief of Naval Operations on the assessment described in paragraph (1).

(3) The date on which the Secretary of Defense certifies to the congressional defense committees that the risks to readiness of placing such Maritime Prepositioning squadron, or component thereof, on reduced operating status are acceptable.

Section 1022 of S. 1867 states:

SEC. 1022. MODIFICATION OF CONDITIONS ON STATUS OF RETIRED AIRCRAFT CARRIER EX-JOHN F. KENNEDY.

Section 1011(c)(2) of the John Warner National Defense Authorization Act for Fiscal Year 2007 (P.L. 109-364; 120 Stat. 2374) is amended by striking 'shall require' and all that follows and inserting 'may, notwithstanding paragraph (1), demilitarize the vessel in preparation for the transfer.'

Senate (S. 1253)

S. 1253 has been, in effect, superseded by S. 1867 (see above). S. 1253 as reported by the Senate Armed Services Committee (S.Rept. 112-26 of June 22, 2011) recommends approving the Navy's requests for FY2012 procurement and advance procurement funding in the SCN and NDSF accounts for construction of new battle force ships. (See Sections 4101 and 4401 of the bill as reported by the committee. In the printed version of the bill as reported by the committee, the relevant tables within these two sections appear on pages 606 and 647.)

Section 1021 of S. 1253 as reported by the committee states:

SEC. 1021. LIMITATION ON AVAILABILITY OF FUNDS FOR PLACING MARITIME PREPOSITIONING SHIP SQUADRONS ON REDUCED OPERATING STATUS.

No amounts authorized to be appropriated by this Act may be obligated or expended to place a Maritime Prepositioning Ship squadron, or any component thereof, on reduced operating status until the later of the following:

(1) The date on which the Commandant of the Marine Corps submits to the congressional defense committees a report setting forth an assessment of the impact on military readiness of the plans of the Navy for placing such Maritime Prepositioning Ship squadron, or component thereof, on reduced operating status.

(2) The date on which the Chief of Naval Operations submits to the congressional defense committees a report that—

(A) describes the plans of the Navy for placing such Maritime Prepositioning Ship squadron, or component thereof, on reduced operating status; and

(B) sets forth comments of the Chief of Naval Operations on the assessment described in paragraph (1).

(3) The date on which the Secretary of Defense certifies to the congressional defense committees that the risks to readiness of placing such Maritime Prepositioning squadron, or component thereof, on reduced operating status are acceptable.

Regarding this section, the committee's report states:

Limitation on availability of funds for placing Maritime Prepositioning Ships squadrons on reduced operating status (sec. 1021)

The committee recommends a provision that would prohibit funding to place a maritime prepositioning ship squadron (MPSRON), or any component thereof, on reduced operating status until: the Commandant of the Marine Corps (CMC) submits a report to Congress assessing the impact on military readiness for placing such MPSRON on reduced operating status; the Chief of Naval Operations describes the Navy's plan and comments on the CMC's report for placing such MPSRON on reduced operating status; and the Secretary of Defense certifies to Congress that the risks to readiness of placing such MPSRON on reduced operating status are acceptable. (Page 175)

Section 1022 of S. 1253 as reported by the committee states:

SEC. 1022. MODIFICATION OF CONDITIONS ON STATUS OF RETIRED AIRCRAFT CARRIER EX-JOHN F. KENNEDY.

Section 1011(c)(2) of the John Warner National Defense Authorization Act for Fiscal Year 2007 (P.L. 109-364; 120 Stat. 2374) is amended by striking 'shall require' and all that follows and inserting 'may, notwithstanding paragraph (1), demilitarize the vessel in preparation for the transfer.'

Regarding this section, the committee's report states:

Modification of conditions on status of retired aircraft carrier ex-John F. Kennedy (sec. 1022)

The committee recommends a provision that would amend section 1011 of the John Warner National Defense Authorization Act for Fiscal Year 2007 (Public Law 109-364) to allow the Navy to dispose of the ex-John F. Kennedy. The provision would amend section 1011 to remove the requirement that the Navy ensure the ship is maintained in a status that would permit the Navy to return the ship to active service in event of a national emergency. (Page 176)

Conference

The conference report (H.Rept. 112-329 of December 12, 2011) on H.R. 1540/P.L. 112-81 of December 31, 2011 recommends approving the procurement of all the ships requested by the Navy for FY2012, but recommends reductions to the specific amounts the Navy had requested for some of the ships (see pages 811-812 for the ships funded through the SCN account, and page 941 for the MLP ship funded through the NDSF).

Section 1011 of the conference report states:

SEC. 1011. BUDGETING FOR CONSTRUCTION OF NAVAL VESSELS.

(a) Annual Plan- Section 231 of title 10, United States Code, is amended to read as follows:

'Sec. 231. Budgeting for construction of naval vessels: annual plan and certification

'(a) Annual Naval Vessel Construction Plan and Certification- The Secretary of Defense shall include with the defense budget materials for a fiscal year—

`(1) a plan for the construction of combatant and support vessels for the Navy developed in accordance with this section; and

`(2) a certification by the Secretary that both the budget for that fiscal year and the future-years defense program submitted to Congress in relation to such budget under section 221 of this title provide for funding of the construction of naval vessels at a level that is sufficient for the procurement of the vessels provided for in the plan under paragraph (1) on the schedule provided in that plan.

`(b) Annual Naval Vessel Construction Plan- (1) The annual naval vessel construction plan developed for a fiscal year for purposes of subsection (a)(1) should be designed so that the naval vessel force provided for under that plan is capable of supporting the national security strategy of the United States as set forth in the most recent national security strategy report of the President under section 108 of the National Security Act of 1947 (50 U.S.C. 404a), except that, if at the time such plan is submitted with the defense budget materials for that fiscal year, a national security strategy report required under such section 108 has not been submitted to Congress as required by paragraph (2) or paragraph (3), if applicable, of subsection (a) of such section, then such annual plan should be designed so that the naval vessel force provided for under that plan is capable of supporting the ship force structure recommended in the report of the most recent quadrennial defense review.

`(2) Each such naval vessel construction plan shall include the following:

`(A) A detailed program for the construction of combatant and support vessels for the Navy over the next 30 fiscal years.

`(B) A description of the necessary naval vessel force structure to meet the requirements of the national security strategy of the United States or the most recent quadrennial defense review, whichever is applicable under paragraph (1).

`(C) The estimated levels of annual funding necessary to carry out the program, together with a discussion of the procurement strategies on which such estimated levels of annual funding are based.

`(c) Assessment When Vessel Construction Budget Is Insufficient to Meet Applicable Requirements- If the budget for a fiscal year provides for funding of the construction of naval vessels at a level that is not sufficient to sustain the naval vessel force structure specified in the naval vessel construction plan for that fiscal year under subsection (a), the Secretary shall include with the defense budget materials for that fiscal year an assessment that describes and discusses the risks associated with the reduced force structure of naval vessels that will result from funding naval vessel construction at such level. Such assessment shall be coordinated in advance with the commanders of the combatant commands.

`(d) CBO Evaluation- Not later than 60 days after the date on which the congressional defense committees receive the plan under subsection (a)(1), the Director of the Congressional Budget Office shall submit to such committees a report assessing the sufficiency of the estimated levels of annual funding included in such plan with respect to the budget submitted during the year in which the plan is submitted and the future-years defense program submitted under section 221 of this title.

`(e) Definitions- In this section:

`(1) The term 'budget', with respect to a fiscal year, means the budget for that fiscal year that is submitted to Congress by the President under section 1105(a) of title 31.

`(2) The term `defense budget materials`, with respect to a fiscal year, means the materials submitted to Congress by the Secretary of Defense in support of the budget for that fiscal year.

`(3) The term `quadrennial defense review` means the review of the defense programs and policies of the United States that is carried out every four years under section 118 of this title.`.

(b) Clerical Amendment- The table of sections at the beginning of chapter 9 of such title is amended by striking the item relating to section 231 and inserting the following new item:

`231. Budgeting for construction of naval vessels: annual plan and certification`.

Section 1013 of the conference report states:

SEC. 1013. LIMITATION ON AVAILABILITY OF FUNDS FOR PLACING MARITIME PREPOSITIONING SHIP SQUADRONS ON REDUCED OPERATING STATUS.

No amounts authorized to be appropriated by this Act may be obligated or expended to place a Maritime Prepositioning Ship squadron, or any component thereof, on reduced operating status until the later of the following:

(1) The date on which the Commandant of the Marine Corps submits to the congressional defense committees a report setting forth an assessment of the impact on military readiness of the plans of the Navy for placing such Maritime Prepositioning Ship squadron, or component thereof, on reduced operating status.

(2) The date on which the Chief of Naval Operations submits to the congressional defense committees a report that—

(A) describes the plans of the Navy for placing such Maritime Prepositioning Ship squadron, or component thereof, on reduced operating status; and

(B) sets forth comments of the Chief of Naval Operations on the assessment described in paragraph (1).

(3) The date on which the Secretary of Defense certifies to the congressional defense committees that the risks to readiness of placing such Maritime Prepositioning squadron, or component thereof, on reduced operating status are acceptable.

Section 1016 of the conference report states:

SEC. 1016. MODIFICATION OF CONDITIONS ON STATUS OF RETIRED AIRCRAFT CARRIER EX-JOHN F. KENNEDY.

Section 1011(c)(2) of the John Warner National Defense Authorization Act for Fiscal Year 2007 (P.L. 109-364; 120 Stat. 2374) is amended by striking `shall require` and all that follows and inserting `may, notwithstanding paragraph (1), demilitarize the vessel in preparation for the transfer.`.

Section 1093 of the conference report states:

SEC. 1093. NUMBER OF NAVY CARRIER AIR WINGS AND CARRIER AIR WING HEADQUARTERS.

The Secretary of the Navy shall ensure that the Navy maintains—

- (1) a minimum of 10 carrier air wings; and
- (2) for each such carrier air wing, a dedicated and fully staffed headquarters.

FY2012 Military Construction and Veterans Affairs and Related Agencies Appropriations Act (H.R. 2055/P.L. 112-74)

Conference

In final action, H.R. 2055 became a “megabus” appropriations vehicle incorporating nine appropriations bills, including the FY2012 DOD appropriations bill, which was incorporated as Division A. The conference report (H.Rept. 112-331 of December 15, 2011) on H.R. 2055/P.L. 112-74 of December 23, 2011, approves the procurement of all the ships requested by the Navy for FY2012, but reduces the specific amounts the Navy had requested for some of the ships (see pages 628-629 for the ships funded through the SCN account, and page 734 for the MLP ship funded through the NDSF).

FY2012 DOD Appropriations Act (H.R. 2219)

House

The House Appropriations Committee, in its report (H.Rept. 112-110 of June 16, 2011) on H.R. 2219, supports the procurement of the new-construction ships requested by the Navy for FY2012, but recommends reductions to the Navy’s requested funding amounts for some of the ships. (Pages 153-154 and, for the MLP program, page 255). As detailed on page 276 of the report, Section 8040 of the bill as reported would rescind, among other funds, \$110.351 million in FY2011 advance procurement funding for the LCS program. Section 8072 of the bill as reported details the use of \$73.992 million in funding provided on page 153 of the committee’s report for the completion of prior-year shipbuilding programs. The report also states:

SHIPBUILDING OVERSIGHT

The Committee understands that a number of issues related to quality have recently been identified on Navy ships. Most recently, a failed weld joint caused structural damage to a mast mounted antenna on an Arleigh Burke-class destroyer. Incorrect installation of key subsystems on several Virginia-class submarines required corrections to avoid jeopardizing the mission performance of the submarines. Faulty welds were identified on a number of ship classes, including at least four aircraft carriers. Additionally, several issues have arisen regarding the LPD-17 class of amphibious transport dock ships. These issues were severe enough to cause the USS San Antonio to miss a scheduled deployment.

The Committee directs the Comptroller General to review the Navy’s process for quality assurance in shipbuilding. This review should identify the extent to which quality assurance processes identified known quality problems, including an examination of what analyses the Navy has performed and what actions have been taken to address identified problems. The review should also examine the extent to which the American Bureau of Shipbuilding plays a role in quality assurance in Navy shipbuilding and how this role complements or duplicates

reviews conducted by Navy Supervisor of Shipbuilding and Conversion personnel. As part of this analysis, a comparison should be made between the Navy, commercial shipbuilders, and commercial ship buyers' approaches to quality assurance. The results of this review should be provided to the congressional defense committees not later than 180 days after enactment of this Act. (Page 155)

Senate

The Senate Appropriations Committee, in its report (S.Rept. 112-77 of September 15, 2011) on H.R. 2219, recommends fully funding all of the Navy ships requested for procurement in the Shipbuilding and Conversion, Navy (SCN) account (page 120), but recommends denying the request for \$425.9 million in the National Defense Sealift Fund (NDSF) for the procurement of a Mobile Landing Platform (MLP) ship (page 221). Regarding the MLP, the committee's report states:

Mobile Landing Platform [MLP].—The fiscal year 2012 budget request includes \$425,865,000 to procure one Mobile Landing Platform [MLP]. The Navy has a requirement for three MLPs, and the Committee notes that in its previous budget submission, the Navy proposed procuring the three MLPs over the course of 5 years, beginning in fiscal year 2011. The fiscal year 2012 budget submission proposes to condense this acquisition to 3 years, concluding in fiscal year 2013. However, the Committee notes that the fiscal year 2012 budget submission does not take into account that Congress adjusted the MLP acquisition profile in the Fiscal Year 2011 Department of Defense Appropriations Act by accelerating the planned schedule by 2 years and procuring two MLPs in fiscal year 2011 instead of one. The Committee notes that this acceleration, coupled with procuring an additional MLP in fiscal year 2013, as the Navy has planned for the last two budget cycles, concludes the program's acquisition in 3 years, as the Navy proposes in its fiscal year 2012 budget submission. The Committee believes that a further acceleration of the MLP acquisition schedule is unwarranted and high-risk and does not allow for sufficient learning to occur, nor cost efficiencies to be absorbed prior to initiating construction of the third and final ship of the class. The Committee notes that Navy has already procured long lead materials for the third ship to avoid shipyard production breaks prior to award of the fiscal year 2013 MLP. Therefore, the Committee recommends denying the proposed additional acceleration of the program and recommends that the Navy retain its original plan of procuring a MLP in fiscal year 2013. (Pages 221-222)

The committee's report also states:

Ballistic Missile Defense [BMD] Capable Ships.—The Committee notes that the Navy has established a requirement for fiscal year 2024 of having a force of 94 multi-mission large surface combatants (including ballistic missile defense [BMD] capability), but the Navy's fiscal year 2012 30-year shipbuilding plan projects that the Navy will achieve the 94-ship goal for BMD-capable ships in 2020 and 2021, with force levels declining thereafter. Specifically, the Navy projects that it will have, at most, 92 BMD-capable ships in 2024 before declining to 65 in 2034. The Committee is concerned about this projected shortfall and believes that the Navy should begin to review and consider options to close this gap. The Navy has indicated that it intends to pursue a multiyear procurement contract for DDG-51 vessels in fiscal year 2013 that could result in significant cost savings. Historic production rates of three DDG-51s per fiscal year reflected substantial unit cost savings in the past and would likely be realized by procuring DDG-51 ships at a more economical procurement rate than currently planned. The Committee directs the Secretary of the Navy to provide a report, at the same time as the President submits the budget request for fiscal year 2013, which provides options for closing this gap. (Page 121)

Conference

For the conference version of the FY2012 DOD Appropriations Act, see the above discussion of H.R. 2055.

CRS Reports Tracking Legislation on Specific Navy Shipbuilding Programs

For funding levels and legislative activity on individual Navy shipbuilding, conversion, and modernization programs, see the following CRS reports:

- CRS Report RS20643, *Navy Ford (CVN-78) Class Aircraft Carrier Program: Background and Issues for Congress*, by Ronald O'Rourke.
- CRS Report R41129, *Navy Ohio Replacement (SSBN[X]) Ballistic Missile Submarine 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 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) Program: Background, Issues, and Options for Congress*, by Ronald O'Rourke.

Appendix A. Using Past Ship Force Levels to Assess Proposed Force Levels

One possible method for assessing proposals for the future size and structure of the Navy is to compare them to historical figures for total Navy fleet size. Historical figures for total fleet size, however, might not be a reliable yardstick for assessing the appropriateness of proposals for the future size and structure of the Navy, particularly if the historical figures are more than a few years old, because the missions to be performed by the Navy, the mix of ships that make up the Navy, and the technologies that are available to Navy ships for performing missions all change over time.

The Navy, for example, reached a late-Cold War peak of 568 battle force ships at the end of FY1987,²⁷ and as of October 13, 2011, had declined to a total of 284 battle force ships. The FY1987 fleet, however, was intended to meet a set of mission requirements that focused on countering Soviet naval forces at sea during a potential multi-theater NATO-Warsaw Pact conflict, while the October 2011 fleet is intended to meet a considerably different set of mission requirements centered on influencing events ashore by countering both land- and sea-based military forces of potential regional threats other than Russia, including improved Chinese military forces and non-state terrorist organizations. In addition, the Navy of FY1987 differed substantially from the October 2011 fleet in areas such as profusion of precision-guided air-delivered weapons, numbers of Tomahawk-capable ships, and sophistication of C4ISR systems.²⁸

In coming years, Navy missions may shift again, and the capabilities of Navy ships will likely have changed further by that time due to developments such as more comprehensive implementation of networking technology and increased use of ship-based unmanned vehicles.

The 568-ship fleet of FY1987 may or may not have been capable of performing its stated missions; the 284-ship fleet of October 2011 may or may not be capable of performing its stated missions; and a fleet years from now with a certain number of ships may or may not be capable of performing its stated missions. Given changes over time in mission requirements, ship mixes, and technologies, however, these three issues are to a substantial degree independent of one another.

For similar reasons, trends over time in the total number of ships in the Navy are not necessarily a reliable indicator of the direction of change in the fleet's ability to perform its stated missions. An increasing number of ships in the fleet might not necessarily mean that the fleet's ability to perform its stated missions is increasing, because the fleet's mission requirements might be increasing more rapidly than ship numbers and average ship capability. Similarly, a decreasing

²⁷ Some publications, such as those of the American Shipbuilding Association, have stated that the Navy reached a peak of 594 ships at the end of FY1987. This figure, however, is the total number of active ships in the fleet, which is not the same as the total number of battle force ships. The battle force ships figure is the number used in government discussions of the size of the Navy. In recent years, the total number of active ships has been larger than the total number of battle force ships. For example, the Naval Historical Center states that as of November 16, 2001, the Navy included a total of 337 active ships, while the Navy states that as of November 19, 2001, the Navy included a total of 317 battle force ships. Comparing the total number of active ships in one year to the total number of battle force ships in another year is thus an apples-to-oranges comparison that in this case overstates the decline since FY1987 in the number of ships in the Navy. As a general rule to avoid potential statistical distortions, comparisons of the number of ships in the Navy over time should use, whenever possible, a single counting method.

²⁸ C4ISR stands for command and control, communications, computers, intelligence, surveillance, and reconnaissance.

number of ships in the fleet might not necessarily mean that the fleet's ability to perform stated missions is decreasing, because the fleet's mission requirements might be declining more rapidly than numbers of ships, or because average ship capability and the percentage of time that ships are in deployed locations might be increasing quickly enough to more than offset reductions in total ship numbers.

Previous Navy force structure plans, such as those shown in **Table 1**, might provide some insight into the potential adequacy of a proposed new force-structure plan, but changes over time in mission requirements, technologies available to ships for performing missions, and other force-planning factors suggest that some caution should be applied in using past force structure plans for this purpose, particularly if those past force structure plans are more than a few years old. The Reagan-era plan for a 600-ship Navy, for example, was designed for a Cold War set of missions focusing on countering Soviet naval forces at sea, which is not an appropriate basis for planning the Navy today.²⁹

²⁹ Navy force structure plans that predate those shown in **Table 1** include the Reagan-era 600-ship plan of the 1980s, the Base Force fleet of more than 400 ships planned during the final two years of the George H. W. Bush Administration, the 346-ship fleet from the Clinton Administration's 1993 Bottom-Up Review (or BUR, sometimes also called Base Force II), and the 310-ship fleet of the Clinton Administration's 1997 QDR. The table below summarizes some key features of these plans.

Features of Recent Navy Force Structure Plans

Plan	600-ship	Base Force	1993 BUR	1997 QDR
Total ships	~600	~450/416 ^a	346	~305/310 ^b
Attack submarines	100	80/~55 ^c	45-55	50/55 ^d
Aircraft carriers	15 ^e	12	11+1 ^f	11+1 ^f
Surface combatants	242/228 ^g	~150	~124	116
Amphibious ships	~75 ^h	51 ⁱ	41 ⁱ	36 ⁱ

Source: Prepared by CRS based on DOD and U.S. Navy data.

a. Commonly referred to as 450-ship plan, but called for decreasing to 416 ships by end of FY1999.

b. Original total of about 305 ships was increased to about 310 due to increase in number of attack submarines to 55 from 50.

c. Plan originally included 80 attack submarines, but this was later reduced to about 55.

d. Plan originally included 50 attack submarines but this was later increased to 55.

e. Plus one additional aircraft carrier in the service life extension program (SLEP).

f. Eleven active carriers plus one operational reserve carrier.

g. Plan originally included 242 surface combatants but this was later reduced to 228.

h. Number needed to lift assault echelons of one Marine Expeditionary Force (MEF) plus one Marine Expeditionary Brigade (MEB).

i. Number needed to lift assault echelons of 2.5 MEBs. Changing numbers needed to meet this goal reflect in part changes in the design and capabilities of amphibious ships.

Appendix B. Independent Panel Assessment of 2010 QDR

The law that requires DOD to perform QDRs once every four years (10 U.S.C. 118) states that the results of each QDR shall be assessed by an independent panel. The report of the independent panel that assessed the 2010 QDR was released on July 29, 2010. The independent panel's report recommended a Navy of 346 ships, including 11 aircraft carriers and 55 attack submarines.³⁰ The report stated the following, among other things:

- “The QDR should reflect current commitments, but it must also plan effectively for potential threats that could arise over the next 20 years.... we believe the 2010 QDR did not accord sufficient priority to the need to counter anti-access challenges, strengthen homeland defense (including our defense against cyber threats), and conduct post-conflict stabilization missions.” (Page 54)
- “In this remarkable period of change, global security will still depend upon an American presence capable of unimpeded access to all international areas of the Pacific region. In an environment of ‘anti-access strategies,’ and assertions to create unique ‘economic and security zones of influence,’ America’s rightful and historic presence will be critical. To preserve our interests, the United States will need to retain the ability to transit freely the areas of the Western Pacific for security and economic reasons. Our allies also depend on us to be fully present in the Asia-Pacific as a promoter of stability and to ensure the free flow of commerce. A robust U.S. force structure, largely rooted in maritime strategy but including other necessary capabilities, will be essential.” (Page 51)
- “The United States will need agile forces capable of operating against the full range of potential contingencies. However, the need to deal with irregular and hybrid threats will tend to drive the size and shape of ground forces for years to come, whereas the need to continue to be fully present in Asia and the Pacific and other areas of interest will do the same for naval and air forces.” (Page 55)
- “The force structure in the Asia-Pacific needs to be increased. In order to preserve U.S. interests, the United States will need to retain the ability to transit freely the areas of the Western Pacific for security and economic reasons. The United States must be fully present in the Asia-Pacific region to protect American lives and territory, ensure the free flow of commerce, maintain stability, and defend our allies in the region. A robust U.S. force structure, one that is largely rooted in maritime strategy and includes other necessary capabilities, will be essential.” (Page 66)
- “Force structure must be strengthened in a number of areas to address the need to counter anti-access challenges, strengthen homeland defense (including defense against cyber threats), and conduct post-conflict stabilization missions: First, as a Pacific power, the U.S. presence in Asia has underwritten the regional stability that has enabled India and China to emerge as rising economic powers. The

³⁰ 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 page 58.

United States should plan on continuing that role for the indefinite future. The Panel remains concerned that the QDR force structure may not be sufficient to assure others that the United States can meet its treaty commitments in the face of China's increased military capabilities. Therefore, we recommend an increased priority on defeating anti-access and area-denial threats. This will involve acquiring new capabilities, and, as Secretary Gates has urged, developing innovative concepts for their use. Specifically, we believe the United States must fully fund the modernization of its surface fleet. We also believe the United States must be able to deny an adversary sanctuary by providing persistent surveillance, tracking, and rapid engagement with high-volume precision strike. That is why the Panel supports an increase in investment in long-range strike systems and their associated sensors. In addition, U.S. forces must develop and demonstrate the ability to operate in an information-denied environment.” (Pages 59-60)

- “To compete effectively, the U.S. military must continue to develop new conceptual approaches to dealing with operational challenges, like the Capstone Concept for Joint Operations (CCJO). The Navy and Air Force’s effort to develop an Air-Sea Battle concept is one example of an approach to deal with the growing anti-access challenge. It will be necessary to invest in modernized capabilities to make this happen. The Chief of Naval Operations and Chief of Staff of the Air Force deserve support in this effort, and the Panel recommends the other military services be brought into the concept when appropriate.” (Page 51; a similar passage appears on page 67)

In recommending a Navy of 346 ships, the independent panel’s report cited the 1993 Bottom-Up Review (BUR) of U.S. defense plans and policies. **Table B-1** compares the Navy’s 313-ship goal of September 2011 to the 346-ship Navy recommended in the 1993 BUR (as detailed partly in subsequent Navy testimony and publications) and the ship force levels recommended in the independent panel report.

Table B-1. Comparison of Navy's 313-ship goal, Navy Plan from 1993 BUR, and Navy Plan from 2010 QDR Review Panel

Ship Type	Navy's 313-ship goal of September 2011	Bottom-Up Review (BUR) (1993)	2010 QDR Independent Review Panel (July 2010)
SSBNs	12	18 (SSBN force was later reduced to 14 as a result of the 1994 Nuclear Posture Review)	14
SSGNs	4	0 (SSGN program did not yet exist)	4
SSNs	48	45 to 55 (55 in FY99, with a long-term goal of about 45)	55
Aircraft carriers	11 active	11 active + 1 operational/reserve	11 active
Surface combatants	149	124 (114 active + 10 frigates in Naval Reserve Force; a total of 110-116 active ships was also cited)	n/a
Cruisers and destroyers	94	n/a	n/a
Frigates (to be replaced by LCSs)	0	n/a	n/a
LCSs	55	0 (LCS program did not exist)	n/a
Amphibious ships	33 (33 needed to lift 2.0 MEBs)	41 (Enough to lift 2.5 MEBs)	n/a
Dedicated mine warfare ships (to be replaced by LCSs)	0	26 (LCS program did not exist)	n/a
CLF ships	30	43	n/a
Support ships	26	22	n/a
TOTAL ships	313	346 (numbers above add to 331-341) ^a	346

Source: Table prepared by CRS. **Sources for 1993 Bottom-Up Review:** 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 independent panel report:** 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.

Notes: **n/a** is not addressed in the report. **SSBN** is nuclear-powered ballistic missile submarine; **SSGN** is nuclear-powered cruise missile and special operations forces submarine; **SSN** is nuclear-powered attack submarine; **LCS** is Littoral Combat Ship; **MPF(F)** is Maritime Prepositioning Force (Future) ship; **CLF** is combat logistics force (i.e., resupply) ship; **MEB** is Marine Expeditionary Brigade.

- a. 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.

In a letter dated August 11, 2010, Secretary of Defense Robert Gates provided his comments on the independent panel's report. The letter stated in part:

I completely agree with the Panel that a strong navy is essential; however, I disagree with the Panel's recommendation that DoD should establish the 1993 Bottom Up Review's (BUR's) fleet of 346 ships as the objective target. That number was a simple projection of the then-planned size of [the] Navy in FY 1999, not a reflection of 21st century, steady-state requirements. The fleet described in the 2010 QDR report, with its overall target of 313 to 321 ships, has roughly the same number of aircraft carriers, nuclear-powered attack submarines, surface combatants, mine warfare vessels, and amphibious ships as the larger BUR fleet. The main difference between the two fleets is in the numbers of combat logistics, mobile logistics, and support ships. Although it is true that the 2010 fleet includes fewer of these ships, they are all now more efficiently manned and operated by the Military Sealift Command and meet all of DoD's requirements....

I agree with the Panel's general conclusion that DoD ought to enhance its overall posture and capabilities in the Asia-Pacific region. As I outlined in my speech at the Naval War College in April 2009, "to carry out the missions we may face in the future... we will need numbers, speed, and the ability to operate in shallow waters." So as the Air-Sea battle concept development reaches maturation, and as DoD's review of global defense posture continues, I will be looking for ways to meet plausible security threats while emphasizing sustained forward presence – particularly in the Pacific.³¹

³¹ Letter dated August 11, 2010, from Secretary of Defense Robert Gates to the chairmen of the House and Senate Armed Services and Appropriations Committees, pp. 3 and 4. The ellipsis in the second paragraph appears in the letter.

Appendix C. Size of the Navy and Navy Shipbuilding Rate

Size of the Navy

Table C-1 shows the size of the Navy in terms of total number of ships since FY1948; the numbers shown in the table reflect changes over time in the rules specifying which ships count toward the total. Differing counting rules result in differing totals, and for certain years, figures reflecting more than one set of counting rules are available. Figures in the table for FY1978 and subsequent years reflect the battle force ships counting method, which is the set of counting rules established in the early 1980s for public policy discussions of the size of the Navy.

As shown in the table, the total number of battle force ships in the Navy reached a late-Cold War peak of 568 at the end of FY1987 and began declining thereafter.³² The Navy fell below 300 battle force ships in August 2003 and included 284 battle force ships as of October 13, 2011.

As discussed in **Appendix A**, historical figures for total fleet size might not be a reliable yardstick for assessing the appropriateness of proposals for the future size and structure of the Navy, particularly if the historical figures are more than a few years old, because the missions to be performed by the Navy, the mix of ships that make up the Navy, and the technologies that are available to Navy ships for performing missions all change over time. For similar reasons, trends over time in the total number of ships in the Navy are not necessarily a reliable indicator of the direction of change in the fleet's ability to perform its stated missions. An increasing number of ships in the fleet might not necessarily mean that the fleet's ability to perform its stated missions is increasing, because the fleet's mission requirements might be increasing more rapidly than ship numbers and average ship capability. Similarly, a decreasing number of ships in the fleet might not necessarily mean that the fleet's ability to perform stated missions is decreasing, because the fleet's mission requirements might be declining more rapidly than numbers of ships, or because average ship capability and the percentage of time that ships are in deployed locations might be increasing quickly enough to more than offset reductions in total ship numbers.

³² Some publications, such as those of the American Shipbuilding Association, have stated that the Navy reached a peak of 594 ships at the end of FY1987. This figure, however, is the total number of active ships in the fleet, which is not the same as the total number of battle force ships. The battle force ships figure is the number used in government discussions of the size of the Navy. In recent years, the total number of active ships has been larger than the total number of battle force ships. For example, the Naval Historical Center states that as of November 16, 2001, the Navy included a total of 337 active ships, while the Navy states that as of November 19, 2001, the Navy included a total of 317 battle force ships. Comparing the total number of active ships in one year to the total number of battle force ships in another year is thus an apples-to-oranges comparison that in this case overstates the decline since FY1987 in the number of ships in the Navy. As a general rule to avoid potential statistical distortions, comparisons of the number of ships in the Navy over time should use, whenever possible, a single counting method.

Table C-1. Total Number of Ships in the Navy Since FY1948

FY ^a	Number	FY ^a	Number	FY ^a	Number
1948	737	1970	769	1992	466
1949	690	1971	702	1993	435
1950	634	1972	654	1994	391
1951	980	1973	584	1995	373
1952	1,097	1974	512	1996	356
1953	1,122	1975	496	1997	354
1954	1,113	1976	476	1998	333
1955	1,030	1977	464	1999	317
1956	973	1978	468	2000	318
1957	967	1979	471	2001	316
1958	890	1980	477	2002	313
1959	860	1981	490	2003	297
1960	812	1982	513	2004	291
1961	897	1983	514	2005	282
1962	959	1984	524	2006	281
1963	916	1985	541	2007	279
1964	917	1986	556	2008	282
1965	936	1987	568	2009	285
1966	947	1988	565	2010	288
1967	973	1989	566	2011	284
1968	976	1990	547	2012	
1969	926	1991	526	2013	

Source: Compiled by CRS using U.S. Navy data. Numbers shown reflect changes over time in the rules specifying which ships count toward the total. Figures for FY1978 and subsequent years reflect the battle force ships counting method, which is the set of counting rules established in the early 1980s for public policy discussions of the size of the Navy.

- a. Data for earlier years in the table may be for the end of the calendar year (or for some other point during the year), rather than for the end of the fiscal year.

Shipbuilding Rate

Table C-2 shows past (FY1982-FY2011) and requested (FY2012-FY2016) rates of Navy ship procurement.

Table C-2. Battle Force Ships Procured or Requested, FY1982-FY2016

(Procured FY1982-FY2011; requested FY2012-FY2015)

82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99
17	14	16	19	20	17	15	19	15	11	11	7	4	4	5	4	5	5
00	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	
6	6	6	5	7	8	4 ^a	5 ^a	3 ^a	8	7	10	11 ^b	13	11	12	9	

Source: CRS compilation based on examination of defense authorization and appropriation committee and conference reports for each fiscal year. The table excludes non-battle force ships that do not count toward the 313-ship goal, such as certain sealift and prepositioning ships operated by the Military Sealift Command and oceanographic ships operated by agencies such as the National Oceanic and Atmospheric Administration (NOAA).

- The totals shown for FY2006, FY2007, and FY2008, reflect the cancellation two LCSs funded in FY2006, another two LCSs funded in FY2007, and an LCS funded in FY2008.
- The total shown for FY2012 includes two JHSVs—one that was included in the Navy's FY2012 budget submission, and one that was included in the Army's FY2012 budget submission. Until FY2012, JHSVs were being procured by both the Navy and the Army. The Army was to procure its fifth and final JHSV in FY2012, and this ship was included in the Army's FY2012 budget submission. In May 2011, the Navy and Army signed a Memorandum of Agreement (MOA) transferring the Army's JHSVs to the Navy. In the FY2012 DOD Appropriations Act (Division A of H.R. 2055/P.L. 112-74 of December 23, 2011), the JHSV that was in the Army's FY2012 budget submission was funded through the Shipbuilding and Conversion, Navy (SCN) appropriation account, along with the JHSV that the Navy had included in its FY2012 budget submission. The four JHSVs that were procured through the Army's budget prior to FY2012, however, are *not* included in the annual totals shown in this table.

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