Coast Guard Cutter Procurement: Background and Issues for Congress

Ronald O'Rourke
Specialist in Naval Affairs

June 29, 2012

Congressional Research Service
7-5700
www.crs.gov
R42567

CRS Report for Congress
Prepared for Members and Committees of Congress

Summary

The Coast Guard's program of record (POR) calls for procuring eight National Security Cutters (NSCs), 25 Offshore Patrol Cutters (OPCs), and 58 Fast Response Cutters (FRCs) as replacements for 90 aging Coast Guard cutters and patrol craft. The NSC, OPC, and FRC programs have a combined estimated acquisition cost of about $16.8 billion, and the Coast Guard's proposed FY2013 budget requests a total of $852 million in acquisition funding for the three programs.

NSCs are the Coast Guard's largest and most capable general-purpose cutters. They have an estimated average procurement cost of about $684 million per ship. The first three are now in service, and the fourth and fifth are under construction. The Coast Guard's proposed FY2013 budget requests $683 million for the NSC program, including $658 million to complete the funding for the sixth NSC.

OPCs are to be smaller, less expensive, and in some respects less capable than NSCs. They have an estimated average procurement cost of about $324 million per ship. The first OPC is to be procured in FY2017. The Coast Guard's proposed FY2013 budget requests $30 million for the OPC program.

FRCs are considerably smaller and less expensive than OPCs. They have an estimated average procurement cost of about $68 million per boat. A total of 18 have been funded through FY2012. The first entered service on April 14, 2012; the second was delivered to the Coast Guard on May 26, 2012; and the third is scheduled to be delivered by the end of FY2012. The Coast Guard's proposed FY2013 budget requests $139 million for the FRC program.

Potential oversight issues for Congress regarding the NSC, OPC, and FRC programs include the following:

- the absence of funding in the Coast Guard's FY2013 five-year (FY2013-FY2017) capital investment plan for the seventh and eighth NSCs;
- hull corrosion and leaks in the third NSC;
- the Coast Guard's proposal to restructure the use of FY2012 FRC acquisition funding so as to procure four FRCs in FY2012 rather than six, and to defer the procurement of the other two FY2012-funded FRCs to FY2013;
- delays, cost growth, and testing issues in the FRC program;
- the Coast Guard's acquisition strategy for the OPC;
- the potential for using multiyear procurement (MYP) in acquiring new cutters;
- the adequacy of the Coast Guard's planned NSC, OPC, and FRC procurement quantities;
- whether eight NSCs, 25 OPCs, and 58 FRCs is the best mix of cutters that could be procured for roughly the same total amount of acquisition funding; and
- the adequacy of information available to Congress to support review and oversight of Coast Guard procurement programs, including cutter procurement programs.

Contents

Introduction 1
Background 1
Older Ships to Be Replaced by NSCs, OPCs, and FRCs 1
Missions of NSCs, OPCs, and FRCs 2
NSC Program 3
OPC Program 5
FRC Program 7
NSC, OPC, and FRC Funding in Five-Year Capital Investment Plan 9
Issues for Congress 9
NSC Program: No Funding in Five-Year Plan for 7th and 8th Ships 9
NSC Program: Hull Corrosion and Leaks on Third Ship 14
FRC Program: Proposed Restructuring of FY2012 Funds 15
FRC Program: Delays, Cost Growth, and Testing 17
OPC Program: Cost, Design, and Acquisition Strategy 18
Multiyear Procurement (MYP) 21
Adequacy of Planned Procurement Quantities 21
Alternative Force Mixes Equal in Cost to Program of Record 28
Information for Supporting Congressional Oversight of Procurement Programs 31
Legislative Activity for FY2013 33
Summary of Appropriations Action on FY2013 Funding Request 33
FY2013 Department of Homeland Security Appropriations Act (H.R. 5855/S. 3216) 33
House 33
Senate 38

Figures

Figure 1. National Security Cutter 3
Figure 2. Offshore Patrol Cutter (Conceptual Rendering) 6
Figure 3. Fast Response Cutter 7
Figure 4. Projected Mission Demands vs. Projected Capability/Performance 24
Figure A-1. Budget Item Justification Sheet (Exhibit P-40) 42
Figure A-2. Weapon System Cost Analysis Sheet (Exhibit P-5) 43
Figure A-3. Ship Production Schedule (Exhibit P-27) 44

Tables

Table 1. NSC Acquisition Funding, by Hull 4
Table 2. FRC Acquisition Funding, by Hull 8
Table 3. NSC, OPC, and FRC Funding in Five-Year Capital Investment Plan 9
Table 4. Program of Record Compared to Objective Fleet Mix 22

Table 5. POR Compared to FMAs 1 Through 4 23
Table 6. Force Mixes and Mission Performance Gaps 23
Table 7. POR Compared to Objective Mixes in FMA Phases 1 and 2 25
Table 8. Alternative Force Mixes Examined in DHS Cutter Study 29
Table 9. FY2013 Congressional Appropriations Action 33
Table B-1. Navy Ship Force Structure Goal 45
Table C-1. Navy FY2013 Five-Year (FY2013-FY2017) Shipbuilding Plan 46
Table D-1. Navy FY2013 30-Year (FY2013-FY2042) Shipbuilding Plan 47
Table D-2. Projected Force Levels Resulting from FY2013 30-Year (FY2013-FY2042) Shipbuilding Plan 48

Appendixes

Appendix A. P-5, P-40, and P-27 Data Exhibits for Littoral Combat Ship (LCS) Program 41
Appendix B. Navy Ship Force Structure Objective 45
Appendix C. Navy FY2013 Five-Year Shipbuilding Plan 46
Appendix D. Navy FY2013 30-Year Shipbuilding Plan 47

Contacts

Author Contact Information 49

Introduction

This report provides background information and potential oversight issues for Congress on the Coast Guard's programs for procuring eight National Security Cutters (NSCs), 25 Offshore Patrol Cutters (OPCs), and 58 Fast Response Cutters (FRCs). These 91 planned cutters are intended as replacements for 90 aging Coast Guard cutters and patrol craft. The Coast Guard began procuring NSCs and FRCs a few years ago, and the first few NSCs and FRCs are now in service. The Coast Guard plans to begin procuring OPCs within the next few years. The NSC, OPC, and FRC programs have a combined estimated acquisition cost of about $16.8 billion, and the Coast Guard's proposed FY2013 budget requests a total of $852 million in acquisition funding for the three programs.

The issue for Congress is whether to approve, reject, or modify the Coast Guard's funding requests and acquisition strategies for the NSC, OPC, and FRC programs. Congress's decisions on these three programs could substantially affect Coast Guard capabilities and funding requirements, and the U.S. shipbuilding industrial base.

The NSC, OPC, and FRC programs have been subjects of congressional oversight for several years, and were previously covered in an earlier CRS report that is now archived.[1] The Coast Guard's plans for modernizing its fleet of polar icebreakers are covered in a separate CRS report.[2]

Background

Older Ships to Be Replaced by NSCs, OPCs, and FRCs

The 91 planned NSCs, OPCs, and FRCs are intended to replace 90 older Coast Guard ships—the service's 12 high-endurance cutters (WHECs), 29 medium-endurance cutters (WMECs), and 49 110-foot patrol craft (WPBs).[3] The Coast Guard's 12 Hamilton (WHEC-715) class high-endurance cutters entered service between 1967 and 1972.[4] The Coast Guard's 29 medium-endurance cutters include 13 Famous (WMEC-901) class ships that entered service between 1983

[1] The earlier report was CRS Report RL33753, *Coast Guard Deepwater Acquisition Programs: Background, Oversight Issues, and Options for Congress*, by Ronald O'Rourke. From the late 1990s until 2007, the Coast Guard's efforts to acquire NSCs, OPCs, and FRCs were parts of a larger, integrated Coast Guard acquisition effort aimed at acquiring several new types of cutters and aircraft that was called the Integrated Deepwater System (IDS) program, or Deepwater for short. In 2007, the Coast Guard broke up the Deepwater effort into a series of individual cutter and aircraft acquisition programs, but continued to use the term Deepwater as a shorthand way of referring collectively to these now-separated programs. In its FY2012 budget submission, the Coast Guard stopped using the term Deepwater entirely as a way of referring to these programs. Congress, in acting on the Coast Guard's proposed FY2012 budget, did not object to ending the use of the term Deepwater. Reflecting this development, CRS Report RL33753, *Coast Guard Deepwater Acquisition Programs: Background, Oversight Issues, and Options for Congress* was archived in early 2012, following final congressional action on the FY2012 budget, and remains available to congressional readers as a source of historical reference information on Deepwater acquisition efforts.

[2] CRS Report RL34391, *Coast Guard Polar Icebreaker Modernization: Background and Issues for Congress*, by Ronald O'Rourke.

[3] In the designations WHEC, WMEC, and WPB, W means Coast Guard ship, HEC stands for high-endurance cutter, MEC stands for medium-endurance cutter, and PB stands for patrol boat.

[4] Hamilton-class cutters are 378 feet long and have a full load displacement of about 3,400 tons.

and 1991,[5] 14 Reliance (WMEC-615) class ships that entered service between 1964 and 1969,[6] and two one-of-a-kind cutters that originally entered service with the Navy in 1944 and 1971 and were later transferred to the Coast Guard.[7] The Coast Guard's 49 110-foot Island (WPB-1301) class patrol boats entered service between 1986 and 1992.[8]

Many of these 90 ships are manpower-intensive and increasingly expensive to maintain, and have features that in some cases are not optimal for performing their assigned missions. Some of them have already been removed from Coast Guard service: eight of the Island-class patrol boats were removed from service in 2007 following an unsuccessful effort to modernize and lengthen them to 123 feet; the one-of-a-kind cutter that originally entered service with the Navy in 1944 was decommissioned in 2011; and three of the Hamilton-class cutters have been decommissioned as of April 2012, having been replaced by the first three NSCs.

Missions of NSCs, OPCs, and FRCs

NSCs, OPCs, and FRCs, like the ships they are intended to replace, are to be multimission ships for routinely performing 7 of the Coast Guard's 11 statutory missions, including

- search and rescue (SAR);
- drug interdiction;
- migrant interdiction;
- ports, waterways, and coastal security (PWCS);
- protection of living marine resources;
- other/general law enforcement; and
- defense readiness operations.[9]

Smaller Coast Guard patrol craft and boats contribute to the performance of some of these seven missions close to shore. NSCs, OPCs, and FRCs perform them both close to shore and in the deepwater environment, which generally refers to waters more than 50 miles from shore.

[5] Famous class cutters are 270 feet long and have a full load displacement of about 1,800 tons.

[6] Reliance class cutters are 210 feet long and have a full load displacement of about 1,100 tons.

[7] The two one-of-a-kind cutters are the *Acushnet* (WMEC-167), which originally entered service with the Navy in 1944, and the *Alex Haley* (WMEC-39), which originally entered service with the Navy in 1971. The *Acushnet* served in the Navy from until 1946, when it was transferred to the Coast Guard. The ship was about 214 feet long and had a displacement of about 1,700 tons. The *Alex Haley* served in the Navy until 1996. It was transferred to the Coast Guard in 1997, converted into a cutter, and re-entered service with the Coast Guard in 1999. It is 282 feet long and has a full load displacement of about 2,900 tons.

[8] Island-class boats are 110 feet long and have a full load displacement of about 135 to 170 tons.

[9] The four statutory Coast Guard missions that are not to be routinely performed by NSCs, OPCs, and FRCs are marine safety, aids to navigation, marine environmental protection, and ice operations. These missions are performed primarily by other Coast Guard ships. The Coast Guard states, however, that "while [NSCs, OPCs, and FRCs] will not routinely conduct [the] Aids to Navigation, Marine Safety, or Marine Environmental Protection missions, they may periodically be called upon to support these missions (i.e., validate the position of an Aid to Navigation, transport personnel or serve as a Command and Control platform for a Marine Safety or Marine Environmental Response mission, etc.)." (Source: Coast Guard information paper provided to CRS on June 1, 2012.)

NSC Program

National Security Cutters (**Figure 1**), also known as Legend (WMSL-750) class cutters,[10] are the Coast Guard's largest and most capable general-purpose cutters.[11] The Coast Guard's program of record (POR)—the service's list, established in 2004, of planned procurement quantities for various new types of ships and aircraft—calls for procuring eight NSCs as replacements for the service's 12 Hamilton class high-endurance cutters. Although the NSC program's official total acquisition cost estimate is $4.749 billion, or an average of about $594 million per ship,[12] the Coast Guard more recently has estimated the combined procurement cost of the eight ships at $5.474 billion, or an average of about $684 million per ship, assuming the seventh and eighth ships were funded in FY2014 and FY2015, respectively.[13] The first three NSCs are now in service, and the fourth and fifth are under construction.

Figure 1. National Security Cutter

Source: U.S. Coast Guard photo accessed May 2, 2012, at http://www.flickr.com/photos/coast_guard/5617034780/sizes/l/in/set-72157629650794895/.

[10] In the designation WMSL, W means Coast Guard ship and MSL stands for maritime security cutter, large. NSCs are being named for legendary Coast Guard personnel.

[11] The Coast Guard's three polar icebreakers are much larger than NSCs, but are designed for a more specialized role of operations in polar waters.

[12] *Department of Homeland Security, United States Coast Guard, Fiscal Year 2013 Congressional Justification*, p. CG-AC&I-12 (pdf page 166 of 400).

[13] Source: Coast Guard information paper on NSC procurement costs provided to CRS on May 14, 2012.

NSCs are larger and technologically more advanced than Hamilton-class cutters.[14] The Coast Guard states that the NSC

> is designed to be the flagship of the U.S. Coast Guard's fleet, capable of executing the most challenging maritime security missions including supporting the mission requirements of the joint U.S. combatant commanders....
>
> Compared to legacy cutters, the NSC's design will provide better sea keeping and higher sustained transit speeds, greater endurance and range, and the ability for launch and recovery, in higher sea states of improved small boats, helicopters, and unmanned aerial vehicles—all key attributes in enabling the Coast Guard to implement increased security responsibilities. Such duties include exerting more effective jurisdiction over foreign-flagged ships transiting U.S. waters. The National Security Cutter, for example, will enable the Coast Guard to screen and target vessels faster, more safely and reliably before they arrive in U.S. waters—to include conducting onboard verification through boardings and, if necessary, taking enforcement-control actions. The NSC will serve as an integral part of the Coast Guard's collaborative inter-agency effort to achieve maritime domain awareness and ensure the safety of the American public and sovereignty of U.S. maritime borders.[15]

NSCs are built by Ingalls Shipbuilding of Pascagoula, MS, a shipyard that forms part of Huntington Ingalls Industries (HII).

Table 1 summarizes acquisition funding for the first six NSCs.

Table 1. NSC Acquisition Funding, by Hull

Millions of then-year dollars, rounded to nearest million

Hull	Fiscal years funded	Total acquisition funding (millions)	Production contract award date	Entered service
1	FY02-FY09 and FY15	$701	FY04	August 2008
2	FY04-FY09 and FY15	$528	FY05	May 2010
3	FY04-FY09	$551	FY07	March 2012
4	FY04-FY10, FY13, FY15-FY16	$690	FY11 (1st Quarter)	
5	FY10-FY11	$697	FY11 (4th Quarter)	
6	FY12 and FY13	$735[a]		

Source: Coast Guard e-mail to CRS, December 9, 2011, and FY2013 Coast Guard budget submission.

a. Includes $77 million in FY2012 and $658 million requested for FY2013. The FY2013 funding request for the NSC program also includes $25 million for post-production activities for the fourth NSC to replace $25 million in funding for post-production activities provided in FY2010.

The Coast Guard's proposed FY2013 budget requests $658 million in acquisition funding to complete the funding for the sixth NSC. (The sixth NSC also received $77 million in FY2012 for the procurement of long-lead time materials.) The FY2013 budget additionally requests $25

[14] The NSC design is 418 feet long and has a full load displacement of about 4,500 tons. The displacement of the NSC design is about equal to that of Navy's Oliver Hazard Perry (FFG-7) class frigates, which are 453 feet long and have a full load displacement of about 4,200 tons.

[15] U.S. Coast Guard description of the NSC, accessed May 2, 2012, at http://www.uscg.mil/hq/cg9/nsc/projectdescription.asp.

million for post-production activities for the fourth NSC, to replace $25 million in funds appropriated for this purpose in FY2010, which the Coast Guard states are "likely to expire, are cancelled and [are requested to be] re-appropriated in [FY]2013."[16]

The Coast Guard's FY2013 five-year (FY2013-FY2017) capital investment plan (see **Table 3**) includes no funding for the seventh or eighth NSCs. The Coast Guard's FY2012 five-year (FY2012-FY2016) capital investment plan, in contrast, included funding for the seventh and eighth NSCs in FY2014 and FY2015, respectively. Although there is no funding in the FY2013 five-year plan for the seventh and eighth NSCs, the Coast Guard's POR continues to call for a total force of eight NSCs. The Coast Guard estimates that the seventh and eighth NSCs would cost $777 million and $795 million, respectively, if they were funded in FY2014 and FY2015, respectively.[17]

OPC Program

Offshore Patrol Cutters (**Figure 2**) are to be smaller, less expensive, and in some respects less capable than NSCs. The Coast Guard's POR calls for procuring 25 OPCs as replacements for the service's 29 medium-endurance cutters. The Coast Guard estimates the OPC program's total acquisition cost at $8.098 billion, or an average of about $324 million per ship.[18] The Coast Guard's draft Request for Proposal (RFP) for the program, released on June 15, 2012, establishes an affordability requirement for the program of an average construction price of not more than $276 million per ship in constant FY2016 dollars for ships 4 through 9 in the program.[19] Under the Coast Guard's FY2013 five-year (FY2013-FY2017) capital investment plan, the first OPC is to be procured in FY2017.

[16] *Department of Homeland Security, United States Coast Guard, Fiscal Year 2013 Congressional Justification*, p. CG-AC&I-21 (pdf page 175 of 400).

[17] Source: Coast Guard information paper on NSC procurement costs provided to CRS on May 14, 2012.

[18] *Department of Homeland Security, United States Coast Guard, Fiscal Year 2013 Congressional Justification*, p. CG-AC&I-12 (pdf page 166 of 400).

[19] Section C.3 of the draft RFP states the following as the affordability requirement for the program: "The affordability requirement for this procurement is as follows: the average unit price of Hulls #4 through #9 shall be $276,000,000.00, or less, in Fiscal Year 16 dollars. This requirement is computed by the following formula: for hulls #4 through #9, the target price for ship construction plus the corresponding long lead time material price, divided by six. (Source: Section C of draft RFP, accessed June 29, 2012, at http://www.uscg.mil/ACQUISITION/opc/pdf/SectionC.pdf.)

Figure 2. Offshore Patrol Cutter (Conceptual Rendering)

Source: U.S. Coast Guard conceptual rendering accessed May 3, 2012, at http://www.uscg.mil/hq/cg9/opc/default.asp.

The service states that OPCs

> will complement the Coast Guard's legacy fleet and next-generation cutters to extend operational capabilities across the mission spectrum. The OPC will recapitalize the service's Medium Endurance Cutters and will feature increased range and endurance; more powerful weapons; larger flight decks; improved command, control, communications, computers, intelligence, surveillance and reconnaissance (C4ISR) equipment; and will accommodate aircraft and small boat operations in higher sea states.[20]

The Coast Guard has defined operational requirements for OPC, released a technical data package on the OPC to industry on March 14, 2012, and released the draft RFP for the OPC to industry on June 15, 2012, with responses due by July 16, 2012.[21] The Coast Guard plans to award preliminary and contract design (P&CD) contracts to as many as three competitors in FY2013. The Coast Guard plans to evaluate the P&CD efforts and then award one of the competitors a contract for detailed design development and ship construction.[22]

The Coast Guard's proposed FY2013 budget requests $30 million in acquisition funding for the OPC program, including $15.2 million for preliminary and contract design work on the ship and $14.8 million for technical and project management work for the program.

[20] Coast Guard fact sheet on the OPC accessed May 3, 2012, at http://www.uscg.mil/hq/cg9/programs/pdf/opc.pdf.

[21] The draft FRP documents were posted at http://www.uscg.mil/ACQUISITION/opc/draftrfp.asp.

[22] *Department of Homeland Security, United States Coast Guard, Fiscal Year 2013 Congressional Justification*, p. CG-AC&I-25 (pdf page 179 of 400).

FRC Program

Fast Response Cutters (**Figure 3**), also called Sentinel (WPC-1101) class patrol boats, are considerably smaller and less expensive than OPCs, but are larger than the Coast Guard's older patrol boats.[23] The Coast Guard's POR calls for procuring 58 FRCs as replacements for the service's 49 Island-class patrol boats. The Coast Guard estimates the FRC program's total acquisition cost at $3.928 billion, or an average of about $68 million per boat.[24] A total of 18 FRCs have been funded through FY2012. The first FRC entered service on April 14, 2012, and the second and third are scheduled to be delivered to the Coast Guard by the end of FY2012.

Figure 3. Fast Response Cutter

(With an older Island-class patrol boat behind)

Source: U.S. Coast Guard photo accessed May 4, 2012, at http://www.flickr.com/photos/coast_guard/6871815460/sizes/l/in/set-72157629286167596/.

The Coast Guard states that

> The planned fleet of FRCs will conduct primarily the same missions as the 110' patrol boats being replaced. In addition, the FRC will have several increased capabilities enhancing overall mission execution. The FRC is designed for rapid response, with approximately a 28 knot speed capability, and will typically operate in the coastal zones. Examples of missions

[23] FRCs are 154 feet long and have a full load displacement of about 360 tons.

[24] *Department of Homeland Security, United States Coast Guard, Fiscal Year 2013 Congressional Justification*, p. CG-AC&I-12 (pdf page 166 of 400).

> that FRCs will complete include SAR, Migrant Interdiction, Drug Interdiction and Ports Waterways and Coastal Security.
>
> FRCs will provide enhanced capabilities over the 110's including improved C4ISR capability and interoperability; stern launch and recovery (up through sea state 4) of a 40 knot, Over-the-Horizon, 7m cutter boat; a remote operated, gyro stabilized MK38 Mod 2, 25mm main gun; improved sea keeping; and enhanced crew habitability.[25]

FRCs are currently built by Bollinger Shipyards of Lockport, LA. Bollinger's contract with the Coast Guard originally included options to build up to 34 FRCs, but some of the options were not fully exercised by the Coast Guard, so Bollinger's contract can now cover up to 30 FRCs. The builder of the remaining 28 planned FRCs has not yet been determined. The Coast Guard holds the data rights for the Sentinel-class design and plans to hold a competition in 2015 for the contract to build the remaining boats in the class.[26]

Table 2 summarizes acquisition funding for the first 18 FRCs.

Table 2. FRC Acquisition Funding, by Hull

Millions of then-year dollars, rounded to nearest million

Quantity	Hulls	Fiscal years funded	Total acquisition funding (millions)	Average unit cost (millions)
0	n/a	FY07 and prior years	$2	n/a
4	1 to 4	FY05, FY07, FY09	$267	$66.75
4	5 to 8	FY2010	$243	$60.75
4	9 to 12	FY2011	$240	$60.00
4[a]	13 to 16[a]	FY2012	$358[b]	$59.00[b]

Source: Coast Guard e-mail to CRS, December 9, 2011, and FY2013 Coast Guard budget submission.

a. The FY2012 budget funded the procurement of six boats (numbers 13 through 18). The Coast Guard's FY2013 budget proposes deferring the procurement of boats 17 and 18 to FY2013, which would reduce the FY2012 figure to 4 boats (hulls 13 to 16). Under this proposal, of the $358 million provided for the program in FY2012, $95 million provided for boats 17 and 18 would be, in effect, transferred to FY2013.

b. Includes $27 million for FRC reprocurement data and licensing package (RDLP) and $95 million to be used for procuring two additional FRCs (numbers 17 and 18) in FY2013. These two sums are excluded from the unit cost calculation.

The Coast Guard's proposed FY2013 budget requests $139 million in acquisition funding for the FRC program, including $78.5 million for 19th and 20th FRCs, and $60.5 million for other program costs. The Coast Guard's FY2013 budget also proposes to restructure the use of the funding that was provided in FY2012 for the procurement of six FRCs. Under the Coast Guard's proposal, four (rather than six) FRCs would be procured in FY2012, and the remaining two FRCs that were funded in FY2012 (numbers 17 and 18) would instead be procured in FY2013, along with two more FRCs (numbers 19 and 20). Of the $358 million in funds provided in FY2012, $95 million would be transferred to FY2013 to fund the procurement FRCs 17 and 18.

[25] *Department of Homeland Security, United States Coast Guard, Fiscal Year 2013 Congressional Justification*, p. CG-AC&I-28 (pdf page 182 of 400).

[26] Mike McCarthy, "House Markup Would Avoid Slipping USCG's New Cutters," *Defense Daily*, May 15, 2012: 3.

This proposal would result in the procurement of four FRCs (numbers 13 through 16) in FY2012, and another four (numbers 17 through 20) in FY2013.[27] The Coast Guard states that "this plan will allow the Coast Guard to procure FRCs under the current contract terms and conditions, maintaining the same steady production rate as the previous year."[28]

NSC, OPC, and FRC Funding in Five-Year Capital Investment Plan

Table 3 shows annual acquisition funding for the NSC, OPC, and FRC programs in the Coast Guard's FY2013 five-year (FY2013-FY2017) capital investment plan.

Table 3. NSC, OPC, and FRC Funding in Five-Year Capital Investment Plan

(millions of then-year dollars)

	FY2013	FY2014	FY2015	FY2016	FY2017
NSC	683[a]	0	0	0	0
OPC	30	50	40	200[b]	530[c]
FRC	139[d]	360	360	360	360
Total	**852**	**410**	**400**	**560**	**890**

Source: *Department of Homeland Security, United States Coast Guard, Fiscal Year 2013 Congressional Justification*, p. CG-AC&I-12 (pdf page 166 of 400).

a. Includes $658 million to complete acquisition funding for the sixth NSC, and $25 million in post-production activities for the fourth NSC.

b. Includes funding for detailed design and long-lead time materials for the first OPC.

c. Includes funding to complete the acquisition cost of the first OPC.

d. The Coast Guard's FY2013 budget proposes to shift an additional $95 million in FY2012 funding to FY2013, resulting in a total of $234 million available to the FRC program in FY2013.

Issues for Congress

NSC Program: No Funding in Five-Year Plan for 7th and 8th Ships

One potential oversight issue for Congress for FY2013 concerns the absence of funding in the Coast Guard's FY2013 five-year (FY2013-FY2017) capital investment plan for the seventh and eighth National Security Cutters. As mentioned earlier, in contrast to the Coast Guard's FY2013

[27] The Coast Guard states that the FY2013 request

> funds production of FRC hulls #19 – 20, associated contract line items, and project management costs. Hulls #17 - 20 will be procured in FY 2013 using FY 2012 and FY 2013 funds. Specifically, the Coast Guard will procure four FRCs in FY 2012 (two less than funded in the FY 2012 enacted [budget]) and carry forward $95 million from FY 2012, combining these funds with the FY 2013 request to procure a total of four FRCs in FY 2013.
>
> (*Department of Homeland Security, United States Coast Guard, Fiscal Year 2013 Congressional Justification*, p. CG-AC&I-28 (pdf page 182 of 400).

[28] *Department of Homeland Security, United States Coast Guard, Fiscal Year 2013 Congressional Justification*, p. CG-AC&I-28 (pdf page 182 of 400).

five-year capital investment plan, the Coast Guard's FY2012 five-year (FY2012-FY2016) capital investment plan included funding for the seventh and eighth NSCs in FY2014 and FY2015, respectively. Since the Coast Guard's POR continues to call for a total of eight NSCs, the suggestion from the FY2013 five-year plan is that the Coast Guard now anticipates funding (or hopes to be able to fund) the seventh and eighth NSCs some time after FY2017. Potential oversight questions for Congress include the following:

- The Coast Guard's FY2013 five-year capital investment plan includes a total of $860 million in acquisition funding through FY2017 for the design and procurement of a new polar icebreaker. This funding was not included in the FY2012 five-year capital investment plan—the project to design and build a polar icebreaker is a new acquisition project initiated in the FY2013 budget.[29] In preparing the FY2013 five-year capital investment plan, was a budgetary tradeoff made between the new polar icebreaker and the seventh and eighth NSCs? Was the new polar icebreaker, in other words, funded in the FY2013 five-year capital investment plan at the expense of the seventh and eighth NSCs?
- In what fiscal years does the Coast Guard now anticipate funding (or hope to be able to fund) the procurement of the seventh and eighth NSCs? If the Coast Guard's time frame for procuring the seventh and eighth ships is currently unclear, when does the Coast Guard anticipate having a better understanding of when those ships might be procured?
- How efficient would it be to have a multiyear break in the procurement sequence between the sixth NSC and the seventh and eighth NSCs? For each year that procurement of the seventh and eighth NSCs is deferred beyond FY2014 and FY2015, respectively, how much would the procurement cost of the seventh and eighth NSCs increase in real (i.e., inflation-adjusted) terms due to loss of learning and program shutdown and restart costs at the shipyard and component makers?
- What would be the operational implications of limiting NSC procurement to six ships rather than the planned total of eight? How, in other words, would having six NSCs rather than eight affect the Coast Guard's ability to perform its missions in coming years?
- To what degree could the operational impact of having six NSCs rather than eight in coming years be mitigated by extending the service lives of older high- or medium-endurance cutters? Would such service life extensions be feasible and cost effective?

Some of the above questions have been discussed at hearings on the Coast Guard's proposed FY2013 budget. For example, at a March 6, 2012, hearing on the Coast Guard's proposed FY2013 budget before the Homeland Security Committee of the House Appropriations Committee, the following exchange occurred:

> REPRESENTATIVE ADERHOLT:
>
> The president's budget includes funding for the six NSC, which has been referred to earlier, but that does not provide any funding in the out-years for the NSC number 7 and number 8,

[29] For more information on the proposed new polar icebreaker, see CRS Report RL34391, *Coast Guard Polar Icebreaker Modernization: Background and Issues for Congress*, by Ronald O'Rourke.

> but not—but nor does the funding profile show the shutdown of cost associated within the program. Is the program of record for 8 NSC still a relative requirement?
>
> ADMIRAL ROBERT J. PAPP, JR., COMMANDANT, U.S. COAST GUARD:
>
> Yes, sir. And I have confirmed that with our secretary [Secretary of Homeland Security Janet Napolitano]. She has stated that it's still the program of record.
>
> This year, our acquisition budget—our acquisition portion of the budget, although our overall budget is reduced by about four percent. The [FY]'13 budget represents a 20 percent reduction in our acquisition monies. That's caused us to work across our entire portfolio. And quite frankly, we're ordering the minimum production level in almost every project that we have, including the National Security Cutter.
>
> I acknowledge right up front that in the five-year plan, there are zeros next to 7 and 8, but the secretary remains committed that is the program of record. And I think given the constraints of the Budget Control Act, we're going to have to look at each and every asset in every portfolio in each and every year as we go forward and work doubly hard to justify whatever we can get to spend on those projects.
>
> ADERHOLT:
>
> In order to maintain the core production rate, when does the Coast Guard need funding to begin construction of the NSC 7?
>
> PAPP:
>
> NSC 7 would be within the [FY]'14 budget is what we had programmed in order to keep the flow at the shipyard in proper sequence, and to get the—under the original construct, if you are back to the [FY]'12 budget submission, we were looking at Year [FY]'14 and [FY]'15 for 7 and 8 in order to keep the flow going, and also make room in the budget for starting the offshore patrol cutter.[30]

Later in the hearing, the following exchange occurred:

> ADERHOLT:
>
> If you don't get the funds for the NSC 7 and 8, what will that mean for your legacy fleet?
>
> PAPP:
>
> Well, we would have to look at all the options that are available. One option might be keeping the 300—some of the 378-foot [Hamilton-class] High Endurance Cutters on active duty. That presents a challenge.
>
> Just two years ago—I'm sorry, three—four years ago now when I was the Atlantic Area commander, I had to shut down both Dallas and Gallatin—the two [Hamilton-class] ships that are home-ported in Charleston. We found major structural problems in those ships that made them unsafe to go to sea.

[30] Source: Transcript of hearing.

> The commandant, at the time, again under my recommendation, we decided to reactivate those ships. It took us $20 million and two years to get Gallatin back in the sea. So I was confronted with that decision today as commandant. We wouldn't spend the money, we'll just decommission the ship or lay it up because it's just unsafe to send people to sea in.
>
> The remainder of the ships that we have in service right now are rapidly approaching that as well. We only get about a million dollars a year in sustainment funds for each one of those ships. If you spend $20 million on one ship or you spend $2 million on one ship, it comes at the expense of other ships and other programs, which worsens their condition as well. So that's a risky proposition going forward, trying to keep the Hamilton class, 378-foot High Endurance Cutters in service because they're just increasingly expensive each year.
>
> But if the NSC program is curtailed, I need to look at what the options are to keep some of those ships in the budget, which would push them up into the 50-year range by the time. We'll probably look at decommissioning them.[31]

Later in the hearing, Papp stated: "We need the National Security Cutter as well, and if we push that off, one estimate we did last year is we pushed it off as much as the [sic: a] year. You increase that [cost] by about $50 million on that ship if you push it off."[32]

At a March 7, 2012, hearing before the Oceans, Atmosphere, Fisheries, and Coast Guard subcommittees of the Senate Commerce, Science, and Transportation Committee, the following exchange occurred:

> SENTOR LAUTENBERG:
>
> One of the things I wanna ask Admiral Papp that is the delay in fully complimenting the fleet, [NSC] ships seven and eight. What missions will be impacted? I mean if you said that you might not be able to carry out the same level of mission involvement as you've had, what—what kind of missions might be affected by the inability that order up and get the eight ships going?
>
> PAPP:
>
> Well, senator, first of all, if there's a delay in building the ships, one of the options that we'll look at is the extending the life of the 378-foot high endurance cutters that are out there right now. I don't want to do that, because they are very expensive [to operate and maintain]. They're obsolete. The habitability conditions for the crews are not good. And they're quite clearly not as effective as the new ships we're building.
>
> But they are ships and they're out there and filling the hole and they're doing the missions. It's just very expensive (inaudible). So I have to look at some option or keeping the three 378s going for a number of years longer rather than to take cut back the missions. If we didn't have the budget room to be able to do that then we would have to look at the potential for cutting back their missions. And as I said earlier, it varies. We have to set priorities.
>
> Clearly, we've got a lot of ships to voted [sic: devoted] to the traffic zones in the eastern pacific and Caribbean where the—where the cocaine is flowing. We could perhaps put fewer ships down there. Right now, we're down to almost the bare minimum in terms of our

[31] Source: Transcript of hearing.

[32] Source: Transcript of hearing.

> presence in the bearing sea and the Gulf of Alaska to protect the fisheries and to rescue fisherman. We're involved in the western pacific doing high seas driftnet. Its potential for cutting back there. And those are the types of things that we would have to look at. My job is come up with the plan and keeping enough ships out there running within the budget so that we don't have to cut back on those missions.[33]

At a May 9, 2012, hearing on the Coast Guard's proposed FY2013 budget before the Homeland Security subcommittee of the Senate Appropriations Committee, the following exchange occurred:

> SENATOR LANDRIEU:
>
> The budget request includes funding for the six[th NSC], but no funding is projected for [the] out years for the final two. I know in the past that you've testified that the seventh and eighth are necessary to meet your requirements[.] [W]hen Secretary Napolitano testified before the subcommittee in March, she said quote, "Before moving ahead on number seven and eight, we wanna make sure we're coordinated with the Navy." Her point, was to make sure the Coast Guard and the Navy fleets are not duplicative and complement each other. Have you talked with Chief of Naval Operations about your respective fleet plan? Did your conversation provide more clarity on the need for seven and eight? And what are the impacts to our nation that seven and eight are not built?
>
> PAPP:
>
> The answer to your immediate question, chairman [is:] Yes, I have spoken with Admiral [Jonathan] Greenert [the Chief of Naval Operations]. We meet regularly. We see each other, usually, about twice a week. But we held a specific meeting—[to] discuss ship building in particular and make sure that both of our services are giving the American citizens the best return on their investment.
>
> And last week, even though I was still recovering, our staffs got together, and they compared our ship building programs as well. And what we've determined is that the Navy is building ships that the Navy needs. The Coast Guard is building ships that the Coast Guard needs. And while these fleets are complementary for best services to the American people, we need to be able to be interoperable, share some systems so that if the worst case happens, Coast Guard Cutters can be used to support the United States Navy, and likewise, under domestic or security situations, Navy assets can help supplement the Coast Guard. So, what we do is we build complementary vessels that I can assure you, they're non-redundant. You ask the CNO, I'm sure he'll tell you, he doesn't have enough ships to do all the things he needs to do. And I'll tell you that I don't have enough ships to do all the things I need to do.
>
> As regards to number seven and eight. I actually see a ray of optimism there. The fact of the matter is, it remains the program of record, eight National Security Cutters, and Secretary Napolitano, has confirmed that. And in fact, seven and eight are listed in the five-year plan. And it's regrettable that there are zeroes on there, I would like that to be different. But, having said that, when I look at the cumulative figures that have been projected by the administration in our five-year plan, it really brings us closer to the level of funding that I think is adequate to recapitalize the Coast Guard.
>
> In Fiscal Year '14, it calls for almost $1.5 billion. I've gone on record saying that I think the Coast Guard needs closer to $2 billion dollars a year to recapitalize—[to] do proper

[33] Source: Transcript of hearing.

> recapitalization. And over that five-year period, we build up to $1.7 billion. So, that is a ray of hope for me that we're getting closer to what we need to recapitalize the service.
>
> As regards the figures beneath the columns for each one of those years, I think, we all know that year-to-year, that's a negotiation process. It's a projection, but every year, it seems to change. So, what the secretary has done is she said, "We need to compare with the Navy. We need to make sure that we're not building something that's redundant. That is a[n] unfair burden on the taxpayers because the Navy can do it or vise versa." And I think that we have determined in my discussion with the CNO that we are not.[34]

Later in this hearing, when asked about the potential cost of a production break between the sixth NSC and the seventh and eight NSCs, Papp stated that "if there's any break in subsequent funding for follow (ph) [sic: follow-on] National Security Cutters, you can expect probably a cost increase at every year [of] delay. It's probably about 10 percent [per year] as what we estimate."[35]

NSC Program: Hull Corrosion and Leaks on Third Ship

Another potential oversight issue for Congress concerns hull corrosion and leaks in the third National Security Cutter. A May 17, 2012, press report states:

> The Coast Guard will send its third National Security Cutter, the Stratton, in for an emergency dry docking shortly after the service found premature corrosion in a portion of the aft hull last month, congressional and Coast Guard officials said yesterday.
>
> The unexpected dry docking will keep the Stratton out of service until around mid-July and the repairs of the hull plating will cost more than $600,000, according to briefing material prepared by the House Transportation and Infrastructure Coast Guard Subcommittee, which held a hearing yesterday on the service's recapitalization program....
>
> The Stratton was commissioned on March 31 and in April its crew found seawater in the ship. A subsequent inspection of the hull found small cracks and pitting, which is unusual for a new ship, Vice Adm. John Currier, deputy commandant for Mission Support in the Coast Guard, testified at the hearing. The dry docking is slated to begin later this month or early in June and last between 30 and 45 days, he said.
>
> Hull inspections of the first two NSCs, the Bertholf and Waesche, uncovered no problems so the hull corrosion is not a class-wide issue, Currier said.
>
> As for what caused the premature hull corrosion, Currier said that will have to wait until inspections are completed during the upcoming dry docking and said a permanent fix will be done in "short order." Currier says trying to explain the cause now would be speculation but said that from his experience the problem could range anywhere between a quality of steel issue to the impact of a recent localized repair where some welding had to be done where the Stratton bumped into the pier. He noted that the issue with the Stratton is consistent with improper welding but refrained from suggesting this is the cause of the problem.
>
> Currier also said that it's premature to discuss whether the hull leaks are covered by warranty. Huntington Ingalls Industries [HII] is the prime contractor for the 418-foot NSCs.

[34] Source: Transcript of hearing.

[35] Source: Transcript of hearing.

> That said, he doesn't believe there were problems with either the Coast Guard's acquisition process or HII's shipyard.[36]

Potential oversight questions for Congress include the following:

- What caused the corrosion and leaks—a design problem, a manufacturing problem, or something else?
- Who is paying the cost of repairing the leaks—the Coast Guard or the shipbuilder? What is the shipbuilder's contractual obligation regarding repairs for problems of this kind?
- What is the likelihood that similar problems will be found on other NSCs?

FRC Program: Proposed Restructuring of FY2012 Funds

Another potential oversight question for Congress concerns the Coast Guard's proposal to restructure the use of FY2012 FRC acquisition funding so as to procure four Fast Response Cutters in FY2012 rather than six, and to defer the procurement of the other two FY2012-funded FRCs to FY2013. Potential oversight questions for Congress include the following:

- The Coast Guard states that "this plan will allow the Coast Guard to procure FRCs under the current contract terms and conditions, maintaining the same steady production rate as the previous year."[37] Would procuring six FRCs in FY2012 prevent the Coast Guard from procuring FRCs under the current contract terms and conditions, and if so, why? Why would it be important to maintain in FY2012 the same production rate (four boats per year) as the previous year?
- In requesting funding in its FY2012 budget for procurement of six FRCs, the Coast Guard last year stated that "procuring six FRCs maximizes the production line and generates a cost savings of nearly $5 million per hull."[38] Why is that logic no longer compelling to the Coast Guard?
- What impact, if any, does this proposal to restructure the use of these FY2012 funds have on the credibility of Coast Guard funding requests for the FRC program or other programs for FY2013 and beyond?

Some of the above questions have been discussed at hearings on the Coast Guard's proposed FY2013 budget. For example, at a March 7, 2012, hearing on the proposed FY2013 budgets for the Coast Guard and maritime transportation programs before the Coast Guard and Maritime Transportation subcommittee of the House Transportation and Infrastructure Committee, the following exchange occurred:

---

[36] Calvin Biesecker, "Leaky Hull Sending Newest National Security Cutter To Emergency Dry Dock," *Defense Daily*, May 17, 2012: 4-5. Material in brackets as in original. See also Associated Press, "Crew of New Coast Guard Cutter Making Emergency Repairs After Rust, Holes Found in Hull," *Washington Post (www.washingtonpost.com)*, May 8, 2012.

[37] *Department of Homeland Security, United States Coast Guard, Fiscal Year 2013 Congressional Justification*, p. CG-AC&I-28 (pdf page 182 of 400).

[38] *Department of Homeland Security, United States Coast Guard, Fiscal Year 2012 Congressional Justification*, p. CG-AC&I-41 (pdf page 209 of 421).

REPRESENATIVE LOBIONDO:

Admiral Papp, on the fast response cutter, the Coast Guard proposes to withhold up to $135 million provided by Congress in the F.Y. '12 budget to construct six new fast response cutters, and instead construct four fast response cutters in F.Y. '12. The service proposes to combine the withheld $139 million from [FY]'12 funding with an additional $130 million from F.Y. '13 to construct four FRCs in 2013.

Can you talk to us a little bit about why the Coast Guard has apparently decided to disregard the intent of Congress and abandon plans to build the six FRCs in [FY]2012?

ADMIRAL ROBERT J. PAPP, JR., COMMANDANT, U.S. COAST GUARD:

Well, sir, I—I think almost every question that you asked today I could probably start off by saying that I have a budget. At the end of the day, I've been given a budget. I have to live within that budget. I have to make decisions on priorities and what we're going to maintain. You noted that there's a four percent reduction in the overall budget, but when you look at our acquisition funds, it's a 20 percent reduction this year. So all of our acquisition portfolio, every project that we have an approved baseline on, what we're forced to do is go to the minimum ordering quantity for each and every product including the national security cutter and other projects.

So for the fast response cutter, our contract requires us to build a minimum of four each year or maximum of six. We haven't ramped up to six yet. Right now, with the shipyard, we've been ordering four a year. We're grateful that we got the money in the [FY]'12 budget to build out six.

We don't want to do anything contrary to the—what the Congress—congressional intent is, but what we would to do is work with the Congress to get permission to withhold that money so that we can spread out four each year to keep the minimum level order going for the fast response cutter.

I could only find enough money within our [FY]'13 appropriation and acquisitions to pay for two fast response cutters. So in order to live up to the contract and build a minimum of four a year, we looked at that option of moving the money from [FY]'12 into [FY]'13 to bounce it out at four a year. Hopefully, in future years, we'll be able to go back up to six [a year].[39]

At a May 9, 2012, hearing on the Coast Guard's proposed FY2013 budget before the Homeland Security subcommittee of the Senate Appropriations Committee, the following exchange occurred:

SENATOR LANDRIEU:

In 2012, we fully funded the department's request for six fast response cutters the department sold this committee on the fact that building six maximizes the production line, and actually save taxpayers $30 million when you get the efficiency of building a line and keeping the production going. It also obviously, accelerates the delivery of these ships that are important in your priority.

Last year's budget request indicated that another six were necessary, but the budget before us includes funding for only two. Yesterday, the House of Appropriations Committee released

[39] Source: Transcript of hearing.

> their draft [of the FY2013 Department of Homeland Security budget], and it includes funds for four. If our senate bill would include funds for four or more, will you be in a position to award a contract for six that continuing the savings in the efficiencies that we tried to create last year, Admiral.
>
> PAPP:
>
> Yes, chairman. Absolutely. You know, it's regrettable and I understand that the confidence and the support that you gave to Coast Guard by putting six patrol boats in last year's budget. Unfortunately, in trying to fit within the top line this year of my acquisition funding, acquisition funding was reduced by 20 percent. I was forced into a position to having to maintain the minimum production level in all our acquisition projects just to keep the lines going, so we don't have to restart lines later on at great cost.
>
> So, I admit there's a little bit of a shell game. What I did was I fit in as many things as I could, and then ended up with two FRC's in the [FY]'13 budget, and I was hopeful that we would get permission to be able to use the [FY]'12 money to keep the production in line going at a least four per year. But given the scenario that—that you've suggested here from the House mark, absolutely, if there are four FRC's in the [FY]'13 budget, that will allow me to execute this year, six. And that's absolutely the way ships should be produced.
>
> You give the ship builder a constant stream of funding or a predictable stream of funding, they can keep their employees on, they can buy a long lead time parts, it's the most efficient way around the shipyard, much the same way as we need to run the National Security Cutter program as well at Huntington Ingalls. They need to have predictability, steady funding stream so that we can get the best efficiencies, and get the best price from the taxpayer as we build these ships.[40]

FRC Program: Delays, Cost Growth, and Testing

Another potential oversight issue for Congress concerns delays, cost growth, and testing issues in the FRC program. A March 2012 report on the FRC program by Office of the Inspector General (OIG) of the Department of Homeland Security (DHS—the parent department of the Coast Guard) stated:

> The Coast Guard's oversight of the Fast Response Cutter acquisition has helped ensure that the provisions of the contract reflect the Coast Guard's operational requirements and that the contractor is meeting the contract's provisions. However, the Coast Guard has executed an aggressive, schedule-driven strategy that allowed construction of the Fast Response Cutters to start before operational, design, and technical risks were resolved. Consequently, six cutters under construction required rework that resulted in at least 270 days of schedule delays for each cutter and a total cost increase of $6.9 million for the acquisition. This aggressive acquisition strategy also allowed the Coast Guard to procure 12 Fast Response Cutters before testing the lead cutter in actual operations. It is uncertain whether the Fast Response Cutter will perform as intended until it completes operational test and evaluation in actual maritime environments.
>
> If operational test and evaluation on the lead Fast Response Cutter reveals deficiencies, the Fast Response Cutters may incur additional costly rework and delays, or the Coast Guard may have to accept Fast Response Cutters that do not fully meet its mission requirements.

[40] Source: Transcript of hearing.

> This may hinder the Coast Guard's ability to fill the critical shortages in its patrol boat fleet.[41]

The report also stated:

> **Recommendations**
>
> We recommend that the Assistant Commandant for Acquisitions, U.S. Coast Guard:
>
> **Recommendation #1:** Ensure that future acquisitions employ a knowledge-based acquisition strategy to the maximum extent practicable by revising the U.S. Coast Guard's Major Systems Acquisition Manual to allow for a schedule-driven acquisition strategy to be employed only when it is properly authorized and supported by the results of a risk assessment and cost-benefit analysis.
>
> **Recommendation #2:** Improve low-rate initial production decisions for the U.S. Coast Guard Surface Acquisition programs by issuing a policy memorandum that requires that it achieve a specific level of design maturity at Critical Design Review.
>
> **Recommendation #3:** Issue a policy memorandum that requires authorization to proceed with low-rate initial production be supported by the reported results of operational assessments.
>
> **Recommendation #4:** Revise the Coast Guard's acquisition policy to require a documented risk assessment when low-rate initial production quantity exceeds 10%, or other Coast Guard established minimum, of the total quantity approved for the acquisition.
>
> **Recommendation #5:** Mitigate risk by executing plans for an operational assessment prior to delivery of the lead FRC and take immediate action to implement recommendations from the operational assessment. Any recommendations not implemented should be supported by the results of a risk assessment and cost-benefit analysis.[42]

The Coast Guard partially concurred with the first three recommendations and concurred with the final two.[43]

OPC Program: Cost, Design, and Acquisition Strategy

Another potential oversight issue for Congress concerns the Coast Guard's acquisition strategy for the Offshore Patrol Cutter. Potential oversight questions for Congress include the following:

- Has the Coast Guard fully incorporated into the OPC acquisition strategy lessons learned from the NSC and FRC programs? What, in the Coast Guard's view, are those lessons?

[41] Department of Homeland Security, Office of Inspector General, *U.S. Coast Guard's Acquisition of the Sentinel Class – Fast Response Cutter*, OIG-12-68, March 2012, p. 1. Accessed June 29, 2012 at http://www.oig.dhs.gov/assets/Mgmt/2012/OIG_12-68_Mar12.pdf. See also Calvin Biesecker, "Coast Guard's Aggressive Schedule On FRC Carries Technical Risks, IG Cautions," *Defense Daily*, April 13, 2012: 3-4.

[42] Department of Homeland Security, Office of Inspector General, *U.S. Coast Guard's Acquisition of the Sentinel Class – Fast Response Cutter*, OIG-12-68, March 2012, p. 13.

[43] Department of Homeland Security, Office of Inspector General, *U.S. Coast Guard's Acquisition of the Sentinel Class – Fast Response Cutter*, OIG-12-68, March 2012, pp. 14-17.

- As mentioned earlier, the Coast Guard's draft RFP for the OPC program establishes an affordability requirement of an average construction price of not more than $276 million per ship in constant FY2016 dollars for ships 4 through 9 in the program. How was the $276 million figure determined?
- What process is the Coast Guard using to evaluate tradeoffs in OPC performance features against this target construction price? What performance features have been reduced or eliminated to meet the target construction price?
- How much confidence does the Coast Guard have that the OPC that emerges from the tradeoff process could be built within the Coast Guard's target construction price?
- As mentioned earlier, the Coast Guard plans to award preliminary and contract design (P&CD) contracts as many as three competitors in FY2013. Is the number of potential P&CD contracts too high, too low, or about right? How did the Coast Guard arrive at this number?
- As also mentioned earlier, the Coast Guard plans to evaluate the P&CD efforts and then award one of the competitors a contract for detailed design development and ship construction. What process does the Coast Guard plan to use in evaluating the P&CD efforts? What evaluation factors does the Coast Guard plan to use, and how much weight will be assigned to each?

Some of the above questions have been discussed at hearings on the Coast Guard's proposed FY2013 budget. For example, at a March 6, 2012, hearing on the Coast Guard's proposed FY2013 budget before the Homeland Security Committee of the House Appropriations Committee, Admiral Robert J. Papp, Jr., the Commandant of the Coast Guard, stated:

> When I came in as commandant, I realized that this [the OPC program] was the most expensive project that the Coast Guard has ever taken on, honestly, as each [of the] 25 ships are a significant investment. And I also understood looking out at the horizon and seeing the storm clouds that restrict the budgets coming up there we needed to build a ship that was affordable.
>
> We rescrubbed the requirements. We have battled ourselves within the Coast Guard to make sure we're asking for just exactly what we need, nothing more nothing less. And I have said three things to my staff as we go on forward—affordable, affordable, affordable.
>
> And now I'm very pleased to say that just last week that the department [DHS] has reviewed—we passed a major milestone with acquisition decision event number two which validated our requirements for the type of cutter that we're looking for and we are ready to go towards the preliminary and contract design work this next year.[44]

Later in the hearing, the following exchange occurred:

> ADERHOLT:

[44] Source: Transcript of hearing.

And there has been a discussion as to the capability of the OPC with objective design being more capable than the—than the threshold capability.[45] What is the current plan and capability of the OPC and what capability thresholds are you considering?

PAPP:

We—the driving one as I said is affordability, but having said that—and I'm not—I'm not trying to be funny here, but the—the sea-keeping capability being, you know, to operate in Sea State 5 is probably the most important to us right now because with fewer national security cutters, at least fewer than the hindrance posed that we have right now.

None of our medium endurance cutters—the 210 foot and 270 foot [medium-endurance] cutters that we have—can operate in the Gulf of Alaska and the Bering Sea and they do not have the long legs to be able to send them out in the—on some of the longer deployments that we do in the Pacific.

So it has to be able to launch the aircraft and boats in Sea State 5, you know, which is standard offset in the Bering Sea and also have endurance that we'll be able to keep it out there on station. And I believe it was 45 days [of operation at sea] we're looking for without refueling.[46]

---

[45] In the design of many U.S. weapon systems, *threshold* refers to a minimally acceptable level of capability, and *objective* refers to a higher (but also more expensive or technically challenging) level of capability.

[46] Source: Transcript of hearing. At a March 7, 2012, hearing on the proposed FY2013 budgets for the Coast Guard and maritime transportation programs before the Coast Guard and Maritime Transportation subcommittee of the House Transportation and Infrastructure Committee, the following similar exchange occurred:

REPRESENATIVE LARSEN:

Admiral Papp, some questions about the offshore patrol cutter. Obviously, we're—we're a little bit (inaudible) before that's operational. And I have a question about whether or not the requirements for the OPC will prioritize one set of factors over a different set of factors. (inaudible) and Endurance, that might be more helpful in the Pacific versus speed, armament, and other requirements. How are you approaching the requirement—setting requirements to the OPC?

PAPP:

Sir, realizing that this is going to be the largest acquisition project that the Coast Guard has ever done and recognizing that these ships are going to last us 40 years, we're taking the law beyond this [sic: a long look at this?]. And I realize there are some people that feel like we have dragged our feet a little bit or pushed this to the right a little bit, and I would say that's just not the case. It is a little delayed from where we started out.

But when I came in as commandant, I realized that we were going to be facing constrained budgets. So I had the staff take a look at the OPC once again, scrub the requirements with a direction that the primary requirement is affordability. We just could not afford everything that was in the requirements before, so we set new thresholds for it.

But the most important is the sea-keeping capability because with a reduced number of national security cutters, if we only have eight national security cutters replacing the 12 Hamilton class cutters, we have to have a ship that's capable of going up into the Gulf of Alaska, the Bering Sea, the Western Pacific.

Our medium endurance cutters right now, and speaking as a captain of a 270-foot cutter, we cannot—those ships cannot perform in the extreme weather conditions that you find sometimes in the North Atlantic much less the Arctic, and the—the Bering Sea.

So keeping the requirements for sea state five for helicopter launching and boat launching, and the Endurance were most important. And I'm really pleased to say that we have finally passed that hurdle. We went through acquisition decision event number two with the Department of Homeland Security last week, and they approved our requirements so we're—we're stepping out smartly now, moving ahead.

(continued...)

Multiyear Procurement (MYP)

Another potential oversight issue for Congress concerns the potential for using multiyear procurement (MYP), also known as multiyear contracting, in acquiring new cutters. With congressional approval, certain Department of Defense (DOD) programs for procuring ships, aircraft, and other items employ MYP as a way of reducing procurement costs. As part of its FY2013 budget submission, for example, the Navy is requesting congressional approval for using MYP arrangements for DDG-51 destroyers to be procured in FY2013-FY2017, for Virginia-class submarines to be procured in FY2014-FY2018, and for V-22 Osprey tilt-rotor aircraft to be procured in FY2013-FY2017. Compared to the standard or default approach of annual contracting, MYP has the potential for reducing procurement costs by several percent.[47]

The statute that governs the use of MYP—10 U.S.C. 2306b—makes MYP available with congressional approval not only to DOD, but to other government departments, including DHS, the parent department of the Coast Guard.[48] Unlike the Navy and other DOD services, however, the Coast Guard is not using MYP for any of its ship or aircraft procurement programs. Potential oversight questions for Congress include the following:

- Has the Coast Guard considered using MYP for procuring NSCs, OPCs, or FRCs? If not, why not?
- What would be the potential savings of using MYP for procuring the final two or three NSCs, for procuring OPCs, or for procuring FRCs?
- What are the potential risks or downsides of using MYP for procuring NSCs, OPCs, or FRCs?

Adequacy of Planned Procurement Quantities

Another oversight issue for Congress concerns the adequacy of the Coast Guard's planned NSC, OPC, and FRC procurement quantities. The POR's planned force of 91 NSCs, OPCs, and FRCs is about equal in number to the Coast Guard's legacy force of 90 high-endurance cutters, medium-endurance cutters, and 110-foot patrol craft. NSCs, OPCs, and FRCs, moreover, are to be individually more capable than the older ships they are to replace. Even so, Coast Guard studies have concluded that the planned total of 91 NSCs, OPCs, and FRCs would be considerably fewer ships than the number that would be needed to fully perform the service's statutory missions in coming years, in part because Coast Guard mission demands are expected to be greater in coming years than they were in the past. CRS first testified about this issue in 2005.[49]

(...continued)

(Transcript of hearing)

[47] For more on MYP, see CRS Report R41909, *Multiyear Procurement (MYP) and Block Buy Contracting in Defense Acquisition: Background and Issues for Congress*, by Ronald O'Rourke and Moshe Schwartz.

[48] 10 U.S.C. 2306b(b)(2)(B).

[49] See Statement of Ronald O'Rourke, Specialist in National Defense, Congressional Research Service, Before the Senate Commerce, Science, and Transportation Committee, Subcommittee on Fisheries and the Coast Guard, Hearing on The Coast Guard's Revised Deepwater Implementation Plan, June 21, 2005, pp. 1-5.

The Coast Guard estimates that with the POR's planned force of 91 NSCs, OPCs, and FRCs, the service would have capability or capacity gaps[50] in 6 of its 11 statutory missions—search and rescue (SAR); defense readiness; counter-drug operations; ports, waterways, and coastal security (PWCS); protection of living marine resources (LMR); and alien migrant interdiction operations (AMIO). The Coast Guard judges that some of these gaps would be "high risk" or "very high risk."

Public discussions of the POR frequently mention the substantial improvement that the POR force would represent over the legacy force. Only rarely, however, have these discussions explicitly acknowledged the extent to which the POR force would be smaller in number than the force that would be required, by Coast Guard estimate, to fully perform the Coast Guard's statutory missions in coming years. Discussions that focus on the POR's improvement over the legacy force while omitting mention of the considerably larger number of cutters that would be required, by Coast Guard estimate, to fully perform the Coast Guard's statutory missions in coming years could encourage audiences to conclude, contrary to Coast Guard estimates, that the POR's planned force of 91 cutters would be capable of fully performing the Coast Guard's statutory missions in coming years.

In a study completed in December 2009 called the Fleet Mix Analysis (FMA) Phase 1, the Coast Guard calculated the size of the force that in its view would be needed to fully perform the service's statutory missions in coming years. The study refers to this larger force as the objective fleet mix. **Table 4** compares planned numbers of NSCs, OPCs, and FRCs in the POR to those in the objective fleet mix.

Table 4. Program of Record Compared to Objective Fleet Mix

From Fleet Mix Analysis Phase 1 (2009)

Ship type	Program of Record (POR)	Objective Fleet Mix From FMA Phase 1	Objective Fleet Mix compared to POR	
			Number	%
NSC	8	9	+1	+13%
OPC	25	57	+32	+128%
FRC	58	91	+33	+57%
Total	**91**	**157**	**+66**	**+73%**

Source: Fleet Mix Analysis Phase 1, Executive Summary, Table ES-8 on page ES-13.

As can be seen in **Table 4**, the objective fleet mix includes 66 additional cutters, or about 73% more cutters than in the POR. Stated the other way around, the POR includes about 58% as many cutters as the objective fleet mix.

As intermediate steps between the POR force and the objective fleet mix, FMA Phase 1 calculated three additional forces, called FMA-1, FMA-2, and FMA-3. (The objective fleet mix was then relabeled FMA-4.) **Table 5** compares the POR to FMAs 1 through 4.

[50] The Coast Guard uses *capability* as a qualitative term, to refer to the kinds of missions that can be performed, and *capacity* as a quantitative term, to refer to how much (i.e., to what scale or volume) a mission can be performed.

Table 5. POR Compared to FMAs 1 Through 4

From Fleet Mix Analysis Phase 1 (2009)

Ship type	Program of Record (POR)	FMA-1	FMA-2	FMA-3	FMA-4 (Objective Fleet Mix)
NSC	8	9	9	9	9
OPC	25	32	43	50	57
FRC	58	63	75	80	91
Total	**91**	**104**	**127**	**139**	**157**

Source: Fleet Mix Analysis Phase 1, Executive Summary, Table ES-8 on page ES-13.

FMA-1 was calculated to address the mission gaps that the Coast Guard judged to be "very high risk." FMA-2 was calculated to address both those gaps and additional gaps that the Coast Guard judged to be "high risk." FMA-3 was calculated to address all those gaps, plus gaps that the Coast Guard judged to be "medium risk." FMA-4—the objective fleet mix—was calculated to address all the foregoing gaps, plus the remaining gaps, which the Coast Guard judge to be "low risk" or "very low risk." **Table 6** shows the POR and FMAs 1 through 4 in terms of their mission performance gaps.

Table 6. Force Mixes and Mission Performance Gaps

From Fleet Mix Analysis Phase 1 (2009)—an X mark indicates a mission performance gap

Missions with performance gaps	Risk levels of these performance gaps	Program of Record (POR)	FMA-1	FMA-2	FMA-3	FMA-4 (Objective Fleet Mix)
Search and Rescue (SAR) capability	Very high	X				
Defense Readiness capacity	Very high	X				
Counter Drug capacity	Very high	X				
Ports, Waterways, and Coastal Security (PWCS) capacity[a]	High	X	X			
Living Marine Resources (LMR) capability and capacity[a]	High	X	X			[all gaps addressed]
PWCS capacity[b]	Medium	X	X	X		
LMR capacity[c]	Medium	X	X	X		
Alien Migrant Interdiction Operations (AMIO) capacity[d]	Low/very low	X	X	X	X	
PWCS capacity[e]	Low/very low	X	X	X	X	

Source: Fleet Mix Analysis Phase 1, Executive Summary, page ES-11 through ES-13.

Notes: In the first column, The Coast Guard uses *capability* as a qualitative term, to refer to the kinds of missions that can be performed, and *capacity* as a quantitative term, to refer to how much (i.e., to what scale or volume) a mission can be performed.

a. This gap occurs in the Southeast operating area (Coast Guard Districts 7 and 8) and the Western operating area (Districts 11, 13, and 14).

b. This gap occurs in Alaska.

c. This gap occurs in Alaska and in the Northeast operating area (Districts 1 and 5).

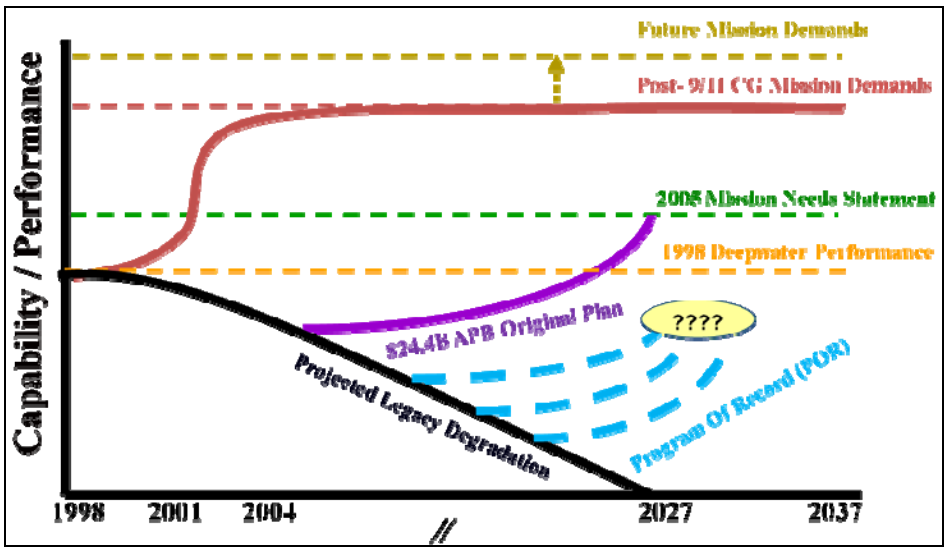
d. This gap occurs in the Southeast and Western operating areas.

e. This gap occurs in the Northeast operating area.

Figure 4, taken from FMA Phase 1, depicts the overall mission capability/performance gap situation in graphic form. It appears to be conceptual rather than drawn to precise scale. The black line descending toward 0 by the year 2027 shows the declining capability and performance of the Coast Guard's legacy assets as they gradually age out of the force. The purple line branching up from the black line shows the added capability from ships and aircraft to be procured under the POR, including the 91 planned NSCs, OPCs, and FRCs. The level of capability to be provided when the POR force is fully in place is the green line, labeled "2005 Mission Needs Statement." As can be seen in the graph, this level of capability is substantially below a projection of Coast Guard mission demands made after the terrorist attacks of September 11, 2001 (the red line, labeled "Post-9/11 CG Mission Demands"), and even further below a Coast Guard projection of future mission demands (the top dashed line, labeled "Future Mission Demands"). The dashed blue lines show future capability levels that would result from reducing planned procurement quantities in the POR or executing the POR over a longer time period than originally planned.

Figure 4. Projected Mission Demands vs. Projected Capability/Performance

From Fleet Mix Analysis Phase 1, Executive Summary



Source: Fleet Mix Analysis Phase 1, Executive Summary, Figure ES-1 on p. ES-2.

FMA Phase 1 was a fiscally unconstrained study, meaning that the larger force mixes shown in **Table 5** were calculated primarily on the basis of their capability for performing missions, rather than their potential acquisition or life-cycle operation and support (O&S) costs.

Although the FMA Phase 1 was completed in December 2009, the figures shown in **Table 5** were generally not included in public discussions of the Coast Guard's future force structure needs

until April 2011, when the Government Accountability Office (GAO) presented them in testimony.[51] GAO again presented them in a July 2011 report.[52]

The Coast Guard completed a follow-on study, called Fleet Mix Analysis (FMA) Phase 2, in May 2011. Among other things, FMA Phase 2 includes a revised and updated objective fleet mix called the refined objective mix. **Table 7** compares the POR to the objective fleet mix from FMA Phase 1 and the refined objective mix from FMA Phase 2.

Table 7. POR Compared to Objective Mixes in FMA Phases 1 and 2

From Fleet Mix Analysis Phase 1 (2009) and Phase 2 (2011)

Ship type	Program of Record (POR)	Objective Fleet Mix from FMA Phase 1	Refined Objective Mix from FMA Phase 2
NSC	8	9	9
OPC	25	57	49
FRC	58	91	91
Total	**91**	**157**	**149**

Source: Fleet Mix Analysis Phase 1, Executive Summary, Table ES-8 on page ES-13, and Fleet Mix Analysis Phase 2, Table ES-2 on p. iv.

As can be seen in **Table 7**, compared to the objective fleet mix from FMA Phase 1, the refined objective mix from FMA Phase 2 includes 49 OPCs rather than 57. The refined objective mix includes 58 additional cutters, or about 64% more cutters than in the POR. Stated the other way around, the POR includes about 61% as many cutters as the refined objective mix.

Compared to the POR, the larger force mixes shown in **Table 5** and **Table 7** would be more expensive to procure, operate, and support than the POR force. Using the average NSC, OPC, and FRC procurement cost figures presented earlier (see "Background"), procuring the 58 additional cutters in the Refined Objective Mix from FMA Phase 2 might cost an additional $10.7 billion, of which most (about $7.8 billion) would be for the 24 additional FRCs. (The actual cost would depend on numerous factors, such as annual procurement rates.) O&S costs for these 58 additional cutters over their life cycles (including crew costs and periodic ship maintenance costs) would require billions of additional dollars.[53]

The larger force mixes in the FMA Phase 1 and 2 studies, moreover, included not only increased numbers of cutters, but also increased numbers of Coast Guard aircraft. In the FMA Phase 1 study, for example, the objective fleet mix included 479 aircraft—93% more than the 248 aircraft

[51] Government Accountability Office, *Coast Guard[:]Observations on Acquisition Management and Efforts to Reassess the Deepwater Program, Testimony Before the Subcommittee on Coast Guard and Maritime Transportation, Committee on Transportation and Infrastructure, House of Representatives, Statement of John P. Hutton, Director Acquisition and Sourcing Management*, GAO-11-535T, April 13, 2011, p. 10.

[52] Government Accountability Office, *Coast Guard[:]Action Needed As Approved Deepwater Program Remains Unachievable*, GAO-11-743, July 2011, p. 46.

[53] The FMA Phase 1 and Phase 2 studies present acquisition and life-cycle ownership cost calculations for force mixes that include not only larger numbers of NSC, OPCs, and FRCs, but corresponding larger numbers of Coast Guard aircraft.

in the POR mix. A decision to procure larger numbers of cutters like those shown in **Table 5** and **Table 7** might thus also imply a decision to procure, operate, and support larger numbers of Coast Guard aircraft, which would require billions of additional dollars. The FMA Phase 1 study estimated the procurement cost of the objective fleet mix of 157 cutters and 479 aircraft at $61 billion to $67 billion in constant FY2009 dollars, or about 66% more than the procurement cost of $37 billion to $40 billion in constant FY2009 dollars estimated for the POR mix of 91 cutters and 248 aircraft. The study estimated the total ownership cost (i.e., procurement plus life-cycle O&S cost) of the objective fleet mix of cutters and aircraft at $201 billion to $208 billion in constant FY2009 dollars, or about 53% more than the total ownership cost of $132 billion to $136 billion in constant FY2009 dollars estimated for POR mix of cutters and aircraft.[54]

The POR was originally defined in 2004 as the optimal mix of assets that could be acquired for a total estimated acquisition cost of about $24 billion, and the $24 billion figure is often referenced as a baseline in discussing Coast Guard plans for acquiring new deepwater-capable ships and aircraft. GAO's July 2011 report, for example, notes that the total estimated acquisition cost of the POR has grown to as much as $29.3 billion, or about $5 billion more than the original estimate of $24.2 billion, and that there could be additional cost growth beyond that figure.[55]

GAO has expressed strong doubts, given growth in the estimated acquisition cost of the POR and the amounts of acquisition funding that the Coast Guard has received in recent years, about the Coast Guard's ability to afford the POR, let alone any larger force mix, and has recommended in its July 2011 report and subsequent work that the Coast Guard instead examine force mixes that are smaller than the POR.[56] At a March 7, 2012, hearing before the Oceans, Atmosphere, Fisheries, and Coast Guard subcommittees of the Senate Commerce, Science, and Transportation Committee, Admiral Robert J. Papp, the Commandant of the Coast Guard, in commenting on GAO's July 2011 report, stated in part: "And I think part of the GAO report as I read it was also saying maybe we need to recalculate getting fewer ships or whatever else. But what I don't have is people taking—giving us fewer missions. Our missions continue to increase so I remain committed to the original baseline of the eight national security cutters, the 25 OPCs and others [other systems] as they are in the projects [sic: POR?]."[57]

Although the annual amounts of acquisition funding that the Coast Guard has received in recent years are one potential guide to what Coast Guard acquisition funding levels might or should be in coming years, there may be other potential guides. For example, one could envision potential guides that focus on whether Coast Guard funding for ship acquisition and sustainment is commensurate with Coast Guard funding for the personnel that in many cases will operate the ships. Observations that might be made in connection with this example include the following:

- The Coast Guard has about 12.5% as many active-duty personnel as the Navy.[58] If the amount of funding for surface ship acquisition and sustainment in the Coast

[54] Fleet Mix Analysis Phase 1, Executive Summary, Table ES-11 on page ES-19, and Table ES-10 on page ES-18. The life-cycle O&S cost was calculated through 2050.

[55] Government Accountability Office, *Coast Guard[:]Action Needed As Approved Deepwater Program Remains Unachievable*, GAO-11-743, July 2011, summary page.

[56] See, for example, Government Accountability Office, *Coast Guard[:]Action Needed As Approved Deepwater Program Remains Unachievable*, GAO-11-743, July 2011, p. 46; and Government Accountability Office, *Observations on the Coast Guard's and the Department of Homeland Security's Fleet Studies*, GAO-12-751R, May 31, 2012.

[57] Source: Transcript of hearing.

[58] The Coast Guard for FY2013 is requesting an active-duty end strength (i.e., number of permanent positions) of (continued...)

Guard's budget were equivalent to 12.5% of the amount of funding in the Navy's shipbuilding account, it would be about $1.7 billion per year, or about 93% more than the $879.5 million that the Coast Guard has requested for FY2013 for surface ship acquisition and sustainment programs.[59]

- Funding in the Navy's shipbuilding account is equivalent to about 50% of the Navy's funding for active-duty personnel.[60] If Coast Guard funding for surface ship acquisition and sustainment were equivalent to 50% of Coast Guard funding for military pay and allowances, it would again be about $1.7 billion per year.[61]

It is not clear whether either of the two above observations would be appropriate as guides for determining appropriate levels of funding for Coast Guard surface ship acquisition and sustainment in coming years, or more appropriate than other guides. But it might also be argued that is not clear that recent Coast Guard acquisition funding levels are the sole or most appropriate guide for determining appropriate levels of such funding in coming years, particularly since the Coast Guard has entered a period where it is seeking to replace multiple classes of assets.

At a May 9, 2012, hearing on the Coast Guard's proposed FY2013 budget before the Homeland Security subcommittee of the Senate Appropriations Committee, Admiral Papp testified, "I've gone on record saying that I think the Coast Guard needs closer to $2 billion dollars a year [in acquisition funding] to recapitalize—[to] do proper recapitalization."[62] The Coast Guard received $1.464 billion in acquisition funding in FY2012, and the Coast Guard's proposed FY2013 budget requests $1.192 billion in acquisition funding.

Potential oversight questions for Congress include the following:

- Under the POR force mix, how large a performance gap, precisely, would there be in each of the missions shown in **Table 6**? What impact would these performance gaps have on public safety, national security, and protection of living marine resources?

(...continued)

40,444; the Navy for FY2013 is requesting an active-duty end strength of 322,700.

[59] The Navy's proposed FY2013 budget requests $13,580 million for the Shipbuilding and Conversion, Navy (SCN) appropriation account.

[60] The Navy's proposed FY2013 budget requests $27,091 million for the Military Personnel, Navy (MPN) appropriation account.

[61] The Coast Guard's proposed FY2013 budget requests $3,415.6 million for military pay and allowances.

[62] Source: transcript of hearing. Papp may have been referring to remarks he made to the press before giving his annual state of the Coast Guard speech on February 23, 2012, in which reportedly stated that the Coast Guard would require about $2 billion per year in acquisition funding to fully replace its current assets. (See Adam Benson, "Coast Guard Cutbacks Will Cost 1,000 Jobs," *Norwich Bulletin*, February 23, 2012, accessed May 31, 2012, at http://www.norwichbulletin.com/news/x1138492141/Coast-Guard-cutbacks-will-cost-1-000-jobs#axzz1wSDAFCzX. See also "Coast Guard Leader Calls For More Ships," *MilitaryFeed.com*, February 24, 2012, accessed May 31, 2012, at http://militaryfeed.com/coast-guard-leader-calls-for-more-ships-5/; Associated Press, "Coast Guard Commandant Calls for New Ships," *TheLog.com*, March 10, 2012, accessed May 31, 2012, at http://www.thelog.com/SNW/Article/Coast-Guard-Commandant-Calls-for-New-Ships-to-Replace-Aging-Fleet; Mickey McCarter, "Congress Poised to Give Coast Guard More Money Than Requested for FY 2013," *HSToday.us*, May 10, 2012, accessed May 31, 2012, at http://www.hstoday.us/focused-topics/customs-immigration/single-article-page/congress-poised-to-give-coast-guard-more-money-than-requested-for-fy-2013.html.)

- How sensitive are these performance gaps to the way in which the Coast Guard translates its statutory missions into more precise statements of required mission performance?
- Given the performance gaps shown in **Table 6**, should planned numbers of Coast Guard cutters and aircraft be increased, or the Coast Guard's statutory missions reduced, or both?
- How much larger would the performance gaps in **Table 6** be if planned numbers of Coast Guard cutters and aircraft are reduced below the POR figures?
- Has the executive branch made sufficiently clear to Congress the difference between the number of ships and aircraft in the POR force and the number that would be needed to fully perform the Coast Guard's statutory missions in coming years? Why has public discussion of the POR focused mostly on the capability improvement it would produce over the legacy force, and rarely on the performance gaps it would have in the missions shown in **Table 6**?
- Why was the POR designed to fit within an originally estimated acquisition cost of about $24 billion? What analysis led to the selection of $24 billion as the appropriate total acquisition cost target for the POR?
- Are recent Coast Guard acquisition funding levels the sole or most appropriate guide in determining future Coast Guard acquisition funding levels? If recent Coast Guard acquisition funding levels are used as a guide in setting future Coast Guard acquisition funding levels, how would that affect Coast Guard ship and aircraft force levels, and consequently Coast Guard mission capability and capacity, over the long run?

Alternative Force Mixes Equal in Cost to Program of Record

Another potential oversight issue for Congress is whether eight NSCs, 25 OPCs, and 58 FRCs is the best mix of cutters that could be procured for the roughly the same total amount of acquisition funding. This issue was explored in a DHS Cutter Study that was completed in August 2011. GAO reviewed this study, as well as the Coast Guard's FMA Phase 1 and Phase 2 studies, and provided some observations on the three studies in a May 2012 report.[63]

GAO states in the May 2012 report that "seeking information to aid in making trade-offs, DHS, at the suggestion of OMB, commissioned a Cutter Study looking at potential trade-offs within the Coast Guard's major cutter fleet, comprised of National Security Cutters (NSCs) and Offshore Patrol Cutters (OPCs)."[64] The Cutter Study, GAO states, was "conducted to evaluate whether an alternative cutter fleet mix could improve the Coast Guard's performance while maintaining acquisition costs of the program of record at the time of the study. DHS Program Analysis and Evaluation (PA&E) led the analysis with contractor support including the Center for Naval Analysis (CNA)."[65]

[63] Government Accountability Office, *Observations on the Coast Guard's and the Department of Homeland Security's Fleet Studies*, GAO-12-751R, May 31, 2012.

[64] Government Accountability Office, *Observations on the Coast Guard's and the Department of Homeland Security's Fleet Studies*, GAO-12-751R, May 31, 2012, p. 2.

[65] Government Accountability Office, *Observations on the Coast Guard's and the Department of Homeland Security's* (continued...)

The DHS Cutter Study examined force mixes that included not only NSCs, OPCs, and FRCs, but also two other ship-acquisition options—a modernized version of the Coast Guard's 270-foot Famous (WMEC-901) class medium-endurance cutter ("Mod-270" for short), and the Navy's Littoral Combat Ship (LCS).[66] (In recent years, some observers have suggested that the Coast Guard should procure the LCS in lieu of planned cutters, while other observers have suggested that the Navy should procure a modified version of the NSC in lieu of the LCS.) **Table 8** shows the nine alternative force mixes examined by the DHS Cutter Study—called Fleets 1 through 9—along with the POR mix.

Table 8. Alternative Force Mixes Examined in DHS Cutter Study

Ship type	POR	Fleet 1	Fleet 2	Fleet 3	Fleet 4	Fleet 5	Fleet 6	Fleet 7	Fleet 8	Fleet 9
NSC	8	5	7	9	5	7	8	8	8	8
OPC	25	30	26	23	0	0	0	22	19	16
Mod-270	0	0	0	0	41	37	34	0	0	0
LCS	0	0	0	0	0	0	0	3	6	9
FRC	58	58	62	59	60	58	58	58	58	58

Source: Government Accountability Office, *Observations on the Coast Guard's and the Department of Homeland Security's Fleet Studies*, GAO-12-751R, May 31, 2012, briefing slide 15.

GAO states that "DHS PA&E and OMB [Office of Management and Budget] have so far used the Cutter Study to inform the fiscal year 2013 budget. For example, DHS PA&E officials stated that the Cutter Study provided information that DHS and OMB used, in conjunction with other information sources, to inform the decision to not include the last two NSC hulls—hulls 7 and 8—in the FY2013-2017 capital investment plan."[67] It can be noted that none of the force mixes shown in **Table 8** includes six NSCs, which is the number that would result from approving the Coast Guard's FY2013 five-year capital investment plan, and not funding any NSCs in years beyond the five-year plan.

GAO states that the Cutter Study

> determined that the LCS is not well-suited for Coast Guard missions. For example, while the planned LCS has a higher speed than the planned OPC, its limitations include
>
> - Limited range—[the LCS] requires more frequent refueling than the planned OPC (reducing its available mission time) [and]

(...continued)

Fleet Studies, GAO-12-751R, May 31, 2012, briefing slide 3.

[66] For more on the LCS program, see CRS Report RL33741, *Navy Littoral Combat Ship (LCS) Program: Background, Issues, and Options for Congress*, by Ronald O'Rourke.

[67] Government Accountability Office, *Observations on the Coast Guard's and the Department of Homeland Security's Fleet Studies*, GAO-12-751R, May 31, 2012, p. 3.

- [An] Inability to maintain effective presence—[the LCS] cannot operate boats or aircraft in as high a sea state.[68]

This conclusion appears consistent with Coast Guard views regarding the suitability of the LCS for performing Coast Guard missions.

GAO further states that

> In the Cutter Study, the Center for Naval Analysis (CNA) recommends that DHS explore additional fleet mix options, including looking at a mid-capability OPC.
>
> The mid-capability OPC would reduce the speed and range of the objective OPC but otherwise maintain its presence capabilities including an ability to operate in sea state 5.
>
> A CNA official responsible for the analysis stated that other characteristics of this midcapability OPC could include removing or reducing the following from the objective OPC without affecting presence:
>
> - Sensitive Compartmentalized Information Facility
> - Air Search and Fire Control Radars (acquire the positions of targets and provide these data to a ship's command and control and weapon systems)
> - Electronic Warfare Support Measures
> - Berthing space (114 instead of 122)
> - Weapons suite (e.g., 25mm gun instead of 57mm)
>
> The CNA official also stated that CNA has not studied whether these changes to the objective OPC would otherwise affect mission performance.[69]

Potential oversight questions for Congress include the following:

- What role, exactly, did the DHS Cutter Study play in the executive branch decision to not include funding for the seventh and eighth NSC in the Coast Guard's FY2013 five-year capital investment plan? Does the DHS Cutter Study provide a sufficient analytical basis for such a decision?
- Is the Coast Guard's currently planned mix of eight NSCs, 25 OPCs, and 58 FRCs the best mix of cutters that could be procured for the roughly the same amount of acquisition funding? What were the conclusions of the DHS Cutter Study regarding the levels of overall mission effectiveness of the nine alternative forces mixes relative to one another, and to the POR mix?
- What is the Coast Guard's assessment of the option of developing and procuring a modified version of the 270-foot Famous-class medium-endurance cutter?

[68] Government Accountability Office, *Observations on the Coast Guard's and the Department of Homeland Security's Fleet Studies*, GAO-12-751R, May 31, 2012, briefing slide 17.

[69] Government Accountability Office, *Observations on the Coast Guard's and the Department of Homeland Security's Fleet Studies*, GAO-12-751R, May 31, 2012, briefing slide 18.

- What is the Coast Guard's assessment of the option suggested by the CNA official for acquiring a "mid-capability OPC" as described in the GAO report?

Information for Supporting Congressional Oversight of Procurement Programs

Another oversight issue for Congress concerns the adequacy of information available to Congress to support review and oversight of Coast Guard procurement programs, including cutter procurement programs. The Coast Guard has entered a period where, like the Navy, it is requesting significant funding each year from Congress to execute multiple ship procurement and modernization programs. Congress, however, lacks ready access to basic information exhibits on Coast Guard shipbuilding programs that are equivalent to those that support congressional review and oversight of Navy ship procurement programs.

Basic information exhibits readily available to Congress that support congressional review and oversight of Navy ship procurement programs include but are not limited to the following:

- annual **Budget Item Justification Sheets (P-40 Exhibits)**, **Weapon System Cost Analysis sheets (P-5 Exhibits)**, and **Ship Production Schedules (P-27 Exhibits)** for each Navy shipbuilding program—exhibits that present detailed information on year-to-year program funding, unit procurement costs, and production schedules (see **Appendix A** for examples);
- annual **Selected Acquisition Reports (SARs)** that DOD prepares for major DOD acquisition programs, which present supplementary data on program cost estimates, annual funding, and contract;
- a concise statement of the Navy's **ship force structure goal**—the Navy's current force structure goal is to achieve and maintain a fleet of about 310-316 battle force ships, consisting of certain types and numbers of ships (see **Appendix B**);
- an annual **five-year Navy shipbuilding plan** that shows planned annual procurement quantities for each type of ship being procured (see **Appendix C**); and
- an annual **30-year Navy shipbuilding plan** that shows annual procurement quantities and projected Navy ship force levels over the next 30 years (see **Appendix D**).

These information exhibits assist Congress in doing the following, among other things, in reviewing and conducting oversight on Navy shipbuilding programs:

- identifying and evaluating cost growth and schedule delays in the execution of shipbuilding programs;
- understanding the relationship between annual procurement rates and unit procurement cost;
- evaluating whether programs are achieving satisfactory production learning curves over time;
- evaluating whether proposed sequences of annual procurement quantities for programs would be efficient to execute from an industrial standpoint;

- evaluating stability in Navy shipbuilding planning by tracking year-to-year changes in the five-year shipbuilding plan;
- identifying potential financial and industrial-base linkages between shipbuilding programs that are being funded in overlapping years;
- identifying and evaluating Navy assumptions concerning service lives and retirement dates for existing ships;
- evaluating whether ship procurement needs are being pushed into the future, potentially creating an expensive ship procurement "bow wave" in coming years; and
- understanding when the Navy will achieve its ship force level goals, and whether the Navy will experience ship inventory shortfalls relative to those goals that could affect the Navy's ability to perform its missions in coming years.

Although the Coast Guard and the Department of Homeland Security submit substantial budget-related information to Congress each year, Congress lacks ready access to the five sources of detailed program information listed above:

- Although the Coast Guard's annual budget submission includes a budget-justification book,[70] the entries in that book for the Coast Guard's ship procurement programs do not present information as detailed and structured as that presented in the P-40, P-5, and P-27 exhibits.
- Reports on Coast Guard programs equivalent to DOD's SAR reports are not readily available to Congress.
- The Coast Guard's POR is a statement of desired procurement quantities for certain procurement programs, but not a concise statement of the Coast Guard's overall ship force structure objective, which would take into account continued service of existing ships that are not in need of immediate replacement.
- The Coast Guard's five-year capital investment plan shows annual funding amounts for individual programs, but not annual procurement quantities, and annual procurement quantities are not always easy to discern from annual funding amounts.
- The Coast Guard's budget submission does not include an equivalent of the Navy's 30-year shipbuilding plan.

A lack of ready access to these five sources of detailed program information can make it more difficult for Congress to conduct similar evaluations of Coast Guard programs. As a consequence, programs might, for example, be more likely to be reviewed over shorter time horizons, or in isolation from one another.

A potential issue for Congress is whether to require the Coast Guard and the Department of Homeland Security to provide equivalents to some or all of the five information sources listed above. Opponents of this option might argue that the Coast Guard and DHS already provide

[70] For the FY2013 budget, this is *Department of Homeland Security, United States Coast Guard, Fiscal Year 2012 Congressional Justification*, 400 pp.

substantial budget-justification information to Congress, and that preparing Coast Guard equivalents to some or all of these five information sources would be an expensive and time-consuming proposition. Supporters of this option might argue that the cost of preparing and submitting this information would be small relative to the combined total acquisition cost the NSC, OPC, and FRC programs, and that information of this kind has proven to be of value in supporting congressional review and oversight of Navy shipbuilding programs.

Legislative Activity for FY2013

Summary of Appropriations Action on FY2013 Funding Request

Table 9 summarizes congressional appropriations action on the Coast Guard's FY2013 requests for acquisition funding for the NSC, OPC, and FRC programs.

Table 9. FY2013 Congressional Appropriations Action

Figure in millions of dollars, rounded to nearest tenth

	Request	House	Senate	Conference
NSC	683.0[a]	656.5	722.3	
OPC	30.0	25.0	30.0	
FRC	139.0[b]	224.0	335.0	

Sources: FY2013 Coast Guard budget submission; H.Rept. 112-492 of May 23, 2012; S.Rept. 112-169 of May 22, 2012.

a. Includes $658 million to complete acquisition funding for the sixth NSC, and $25 million in post-production activities for the fourth NSC.

b. The Coast Guard's FY2013 budget proposes to shift an additional $95 million in FY2012 funding to FY2013, resulting in a total of $234 million available to the FRC program in FY2013.

FY2013 Department of Homeland Security Appropriations Act (H.R. 5855/S. 3216)

House

H.R. 5855 as reported by the House Appropriations Committee (H.Rept. 112-492 of May 23, 2012) states that $66.0 million of the funding provided for the Coast Guard's Acquisition, Construction, and Improvements (AC&I) account "shall be immediately apportioned for contract for long lead-time materials, components, and designs for the seventh National Security Cutter notwithstanding the availability of funds for production costs or post-production costs...."

Section 516 of the bill as reported states:

> Sec. 516. Any funds appropriated to Coast Guard `Acquisition, Construction, and Improvements' for fiscal years 2002, 2003, 2004, 2005, and 2006 for the 110-123 foot patrol boat conversion that are recovered, collected, or otherwise received as the result of

negotiation, mediation, or litigation, shall be available until expended for the Fast Response Cutter program.

Section 550 states:

Sec. 550. Notwithstanding Office of Management and Budget Circular A-11, in a budget submission of the Coast Guard for Department of Homeland Security, Coast Guard, `Acquisition, Construction, and Improvements' for fiscal year 2014 or any fiscal year thereafter, costs related to the construction or conversion of a cutter shall be requested in accordance with the following guidelines:

(1) Costs of outfitting and post-delivery activities and spare or repair parts shall be requested not earlier than for the first fiscal year in which it is necessary to incur such costs to maintain a planned production schedule, which may be subsequent to the fiscal year for which cutter end costs are requested.

(2) Costs of long lead time items shall be requested for the fiscal year in which it is necessary to incur such costs to maintain a planned production schedule, which may be in advance of the fiscal year for which cutter end costs are requested.

(3) Costs of program management shall be requested for each fiscal year, for the portion of program management costs attributable to such fiscal year.

(4) For purposes of the preceding paragraphs—

(A) the term `long lead time items' means components, parts, material, or effort with significantly longer lead times than other elements of an end item;

(B) the term `outfitting' means procurement or installation of on board repair parts, other secondary items, equipage, and recreation items; precommissioning crew support; general use consumables furnished to the shipbuilder; the fitting out activity to fill a vessel's initial allowances; and contractor-furnished spares;

(C) the term `post delivery activities' includes design, planning, Government furnished material, and related labor for Government-responsible defects and deficiencies identified during builders trials, acceptance trials, and testing during the post-delivery period; costs of all work required to correct defects or deficiencies identified during the post-delivery period; and costs of all work required to correct trial card deficiencies on a vessel of a particular class, as well as on subsequent vessels of that class (whether or not delivered) until the corrective action for that cutter class is completed; and

(D) the term `cutter end costs' includes the cost of construction or conversion of a vessel, deferred work identified prior to vessel delivery, and, when unrelated to a specific fix, normal changes authorized prior to completion of fitting out, advanced planning, and travel.

Regarding Section 550, H.Rept. 112-492 states:

FULL FUNDING

The Committee includes a new general provision [Section 550] to address the lack of clarity in certain programs with respect to budgeting for long lead-time materials, end items, outfitting, post-delivery activities, spares, program management, and contract closeout. Acquisition programs within the AC&I appropriation have previously been required to comply with an interpretation of OMB Circular A-11 that forces the Coast Guard to request

> funding for activities that will not occur until years in the future. A current example of this issue is the Coast Guard's request for fiscal year 2013 that includes funding for post-delivery activities of the sixth National Security Cutter that will not occur until fiscal year 2019. This creates significant backlog, prevents acquisition of other capabilities, and is an ineffective use of taxpayer funds.
>
> While the Committee agrees that items should be fully funded, the requirement to fully fund an end item to include outfitting, post-delivery activities, spares, and program management in the same fiscal year as the initial procurement creates a carry-over of funds from one fiscal year to another for items that are actually severable from the initial end item. Further, the denial of the ability to budget for long lead-time material for large, complex end items such as the National Security Cutter (NSC) creates further budget pressures in a significantly constrained fiscal environment. The requirement to "fully fund" the sixth NSC consumes over fifty percent of the Coast Guards fiscal year 2013 AC&I request.
>
> It is disconcerting that DHS follows this overly conservative and costly requirement, unlike other Federal Departments. For example, the Department of Defense is allowed to budget for advance procurement of items prior to procurement, and then budgets for outfitting, post-delivery activities, and spares at the time of need or a lead-time away from need (i.e., the appropriate fiscal year) as stipulated in the DoD Financial Management Regulation (Volume 2A, Chapter 1). Further evidence of this disparity is how the Department of the Navy requests funds for the CVN 79 within the Carrier Replacement Program. The program initiated advance procurement for CVN 79 in fiscal year 2008 and continued advance procurement funding through fiscal year 2012. The Navy's request for fiscal year 2013 initiates the actual procurement with plans to spread the procurement over six years. Only after delivery will the Navy request funds for post-delivery activities and initial spares. However, the Coast Guard is not permitted to budget in this manner.
>
> The Committee includes a general provision that specifically addresses these issues by defining long lead-time material, outfitting, post-delivery activities, spares, and program management. Further, the provision explicitly states that these activities shall be funded in the fiscal year that corresponds to the time of need or a leadtime away from need.
>
> Future budget submissions for the AC&I appropriations shall include funding for end items that correspond to the need to contract for the item, to include the budgeting for long lead-time materials, as required. Further, the Committee directs that the Coast Guard comply with this new general provision of this Act with respect to budgeting for post-delivery, outfitting, spares, and program management. (Pages 86-87)

The report also states:

> NATIONAL SECURITY CUTTER
>
> The Committee recommends $656,500,000 for the National Security Cutter program, a decrease of $26,500,000 from the request and $579,500,000 above the amount provided in fiscal year 2012. The recommendation includes a decrease of $17,000,000 for contract savings associated with the long lead-time material contract for sixth NSC. The recommendation complies with the new general provision in title V of this bill with respect to full funding and, accordingly, reduces funding for post-delivery activities and program management that are requested ahead of need. The recommendation also rescinds funds in title V of this bill for post-delivery activities for the fourth and fifth NSC for the same reasons.
>
> The Committee recommends $66,000,000 for long lead-time material for the seventh NSC. Initiating procurement of the seventh NSC is a low-risk option with known, fixed costs that

provides a greater capability today instead of waiting years for a future program to evolve. The arguments proffered by the Administration to explain their failure to request this needed funding are without merit. This cavalier approach will result in higher costs and an undue delay of critical operational capabilities.

FAST RESPONSE CUTTER

The Committee recommends $224,000,000 for the acquisition of four Fast Response Cutters (FRCs), $85,000,000 above the amount requested and $134,000,000 below the amount provided in fiscal year 2012.

The fiscal year 2013 budget request included only two FRCs and proposed a restructure of the funds provided in fiscal year 2012. In the P.L. 112-74, Congress provided funding for six FRCs, the contract's maximum sustaining rate, in order to accrue $30,000,000 in savings due to economy of scale. The Coast Guard has now proposed in its fiscal year 2013 request to only contract for four cutters in fiscal year 2012 and then place the remaining two fiscal year 2012 cutters on contract in fiscal year 2013 to have a combined buy of four FRCs in fiscal year 2013, as four cutters is the minimum contract.

This proposal by the Coast Guard not only squanders the savings from fiscal year 2012 but also fiscal year 2013. This represents almost $60,000,000 in savings that will not be realized while delaying the delivery of much needed capability.

The recommendation addresses these concerns by providing $95,000,000 above the budget proposal for two additional FRCs. The recommendation also includes a reduction of $10,000,000 for carry over. The Committee will continue to work with the Coast Guard to ensure that the FRC program is properly funded in order to place all six FRC's funded by Congress in fiscal year 2012 on contract in that fiscal year.

OFFSHORE PATROL CUTTER

The Committee recommends $25,000,000 for the Offshore Patrol Cutter (OPC), $5,000,000 below the request and the same as the amount provided in fiscal year 2012. The recommendation also includes a rescission of $50,000,000 from funds previously provided in fiscal years 2011 and 2012.

In fiscal year 2011, the Coast Guard requested and was appropriated $45,000,000 to support the award and evaluation of a Preliminary and Contract Design (P&CD) contract. Again, in fiscal year 2012, the Coast Guard requested and was appropriated an additional $25,000,000 to support the award and evaluation of a P&CD contact. In the fiscal year 2013, the Coast Guard has again requested funding to support the award and evaluation of a P&CD contract. To date, none of the funds appropriated for a P&CD contract have been obligated, creating carry over in excess of $60,000,000.

The Coast Guard has stated that its plans to obligate significant funds on up to three P&CD contracts to include the contract design option in fiscal year 2013. However, the Committee is concerned that these actions are contrary to the Project Life Cycle Cost Estimate (PLCCE) that was signed on March 1, 2012 and the draft Phase I Statement of Work (SOW) released on March 14, 2012 and may result in a rush to judgment. The PLCCE explicitly states that the acquisition strategy for OPC includes awarding multiple P&CD contracts, with preliminary design efforts awarded in fiscal year 2013 and an option for contract design efforts in fiscal year 2014. The draft Phase I SOW notes that Preliminary Design and Contract Design are distinct efforts with Preliminary Design culminating with a Preliminary Design Review (PDR). The Committee concurs with this strategy to obligate funds only for the Preliminary Design option and only after review of the work that is required under that

> portion of the contract and PDR is completed, to execute an option for the Contract Design. This provides the Coast Guard the opportunity to down select after completion of Preliminary Design, if needed. This type of strategy is similar to the competitive prototyping that is statutorily required for all Department of Defense acquisitions as a part of the Weapon Systems Acquisition Reform Act of 2009 (P.L. 111-23).
>
> Accordingly, the Committee denies part of the request in fiscal year 2013 and rescinds $50,000,000 from prior years based on significant carry over and the inability of the Coast Guard to fully articulate an acquisition strategy that aligns with the PLCCE. The critical need for a replacement of the legacy Medium Endurance Cutters cannot be denied and that need grows more each year. However, a cautious acquisition strategy is also needed so that the acquisition failures, as seen in other programs, do not delay even further a new and much needed capability. (Pages 88-89)

The report also states:

> REVISED BUDGET JUSTIFICATION
>
> The Coast Guard shall include a detailed budget justification for each PPA [program, project, and activity] in [the] AC&I [account] for which funding is requested, or funding available from prior years. In the fiscal year 2013 budget request, the Coast Guard failed to provide program justification for numerous programs that have outstanding balances of funds previously appropriated but unobligated. This practice of not including sufficiently detailed justification needlessly hinders oversight by this Committee into how taxpayer funds are being executed.
>
> Further, the budget justification aircraft and vessels for fiscal year 2014 shall include detailed cost information consistent with the appropriate work breakdown structure elements for the program and standardized for similar type systems such as aircraft and vessels. The breakdown shall include the following: per unit cost and associated quantity; antecedent liability; long lead-time material; warranty; supply support; training; economic price adjustment; survey, design and engineering; project management; post-delivery activities, spares and other categories, as needed. The information shall include all fiscal years from prior years through to complete years for relevant categories.
>
> The budget justification for programs that are conversions or sustainment shall provide similar data. Additionally, the justification shall include types of modifications, quantity of kits and planned installation schedule of modification kits.
>
> The budget justification for Program Oversight and Management, System Engineering and Integration and C4ISR shall provide a breakout of funding by asset.
>
> Additionally, the budget justification shall provide procurement history and planning for the prior year, current year and budget year to include quantity and unit cost, contracting office location, contractor, contract method/type, award date, date of first delivery, and the availability of technical date package.
>
> The Coast Guard is strongly encouraged to work with the Committee prior to the submission of the fiscal year 2014 budget request to clarify the types of information required in Congressional budget justification materials. (Pages 85-86)

The report also states:

> CARRY OVER

> The Coast Guard has numerous examples within the history of the AC&I appropriation of requests for funding for assets or programs that will not obligate until future fiscal years. While there are some cases where such forward funding may be required to meet antecedent liabilities or other contractual requirements that mandate funding be available even though it will not immediately obligate, in many cases, it is the result of insufficient planning resulting in poor budgeting.
>
> As budgets continue to tighten, the Committee cannot allow funds to sit idly for multiple fiscal years. To address this issue, the recommendation includes reductions due to carry over from the National Security Cutter program, the Fast Response Cutter program, Program Management, and Systems Engineering and Integration. Further, the recommendation includes rescissions to prior year appropriations of languishing carry-over.
>
> In future budgets, the Coast Guard shall request funding programs, assets, modifications, and installs that it will execute in the budget request year. Specifically, the budgeting of acquisition items shall be on a time-phased "lead-time away" or "need to commit" basis in order to avoid accumulation of excessive carry-over. This includes the purchase of modification kits prior to the input of aircraft into a depot or the funding of an installation prior to the fiscal year of such install. (Page 87)

Senate

S. 3216 as reported by the Senate Appropriations Committee (S.Rept. 112-492 of May 23, 2012) provides funding for the Coast Guard's Acquisition, Construction, and Improvements (AC&I) account, "*Provided*, That the funds provided by this Act shall be immediately available and allotted to contract for the production of the sixth National Security Cutter notwithstanding the availability of funds for post-production costs: *Provided further*, That the funds provided by this Act shall be immediately available and allotted to contract for long lead time materials, components, and designs for the seventh National Security Cutter notwithstanding the availability of funds for production costs or post-production costs:...."

Section 516 of the bill as reported states:

> Sec. 516. Any funds appropriated to Coast Guard `Acquisition, Construction, and Improvements' for fiscal years 2002, 2003, 2004, 2005, and 2006 for the 110-123 foot patrol boat conversion that are recovered, collected, or otherwise received as the result of negotiation, mediation, or litigation, shall be available until expended for the Fast Response Cutter program.

S.Rept. 112-169 states:

> NATIONAL SECURITY CUTTER
>
> The Coast Guard operates a fleet of 378-foot High Endurance Cutters [HECs] that are over 43 years old on average, and are increasingly unreliable and expensive to maintain. By comparison, the average Navy ship is 20 years old. The Coast Guard's program of record is to acquire 8 National Security Cutters [NSCs] to replace 12 HECs (of which 3 have been decommissioned with the arrival of the first 3 NSCs). To date, approximately $3,199,000,000 has been appropriated for five NSCs and long lead time materials [LLTM] for NSC–6. Three NSCs have been delivered to the Coast Guard, the fourth is expected to be delivered in fiscal year 2014, and the fifth in fiscal year 2016.

NSC–1 [USCGC Bertholf] has already achieved several operational successes, including the seizure of 1,300 kilograms of contraband with an estimated street value of $61,000,000 during its October-December 2011 patrol. During its first patrol in 2011, NSC–2 [USCGC Waesche] seized 938 kilograms of contraband with an estimated street value of $24,800,000.

As noted in prior years, the Committee strongly supports the procurement of one National Security Cutter per year until all eight planned ships are procured. The continuation of production without a break will ensure that these ships, which are vital to the Coast Guard's mission, are procured at the lowest cost, and that they enter the Coast Guard fleet as soon as possible. The Committee is concerned that the administration's current acquisition policy requires the Coast Guard to attain total acquisition cost for a vessel, including long lead time materials, production costs, and post-production costs, before a production contract can be awarded. This has the potential to create shipbuilding inefficiencies, force delayed obligation of production funds, and require postproduction funds far in advance of when they will be used. The budget request to rescind and reappropriate $25,000,000 previously appropriated for NSC–4 post-production costs is evidence that this policy is misguided. The Department should be in a position to acquire NSCs in the most efficient manner within the guidelines of strict governance measures. Therefore, the Committee includes language in the bill specifying that funds made available by this act shall be available to contract for long lead time materials for Coast Guard vessels, notwithstanding the availability of funds for production costs or post-production costs.

For NSC–6, the Committee includes $13,300,000 for Segment 2 of LLTM, $15,700,000 below the request due to savings realized in the contract after the budget request was formulated. The Committee recommendation also includes $557,000,000, as requested, for production and $50,000,000 for post-production costs, $22,000,000 below the request due to the fact that these funds are not necessary until fiscal years 2018 and 2019 and would expire prior to obligation.

The request includes no funding in its outyear Capital Investment Plan for NSC–7 or NSC–8 despite the fact that the requirement for NSCs continues to be eight cutters. The Administration's request to zero out funding for the NSC is contrary to previous testimony by the Secretary of Homeland Security and is inconsistent with testimony from the Commandant before the Committee.

Therefore, the recommendation includes $77,000,000 to acquire LLTM necessary for the production of NSC–7. Finally, the recommendation includes $25,000,000 for post-production costs for NSC–4 with a corresponding rescission of funds that are expected to expire prior to obligation. This rescission is included in a general provision.

According to the Department, this will accelerate the production schedule for the cutter and result in direct savings of approximately $40,000,000 compared to delaying long lead acquisition to fiscal year 2014.

FAST RESPONSE CUTTER

The Committee recommends $335,000,000 for the Coast Guard's Fast Response Cutter [FRC], $196,000,000 above the request for a total of six cutters instead of two cutters. This funding will allow the Coast Guard to acquire FRC hulls (19–24). Procuring six Fast Response Cutters in fiscal year 2013 will maximize the production line and generate cost savings of $5,000,000 per hull for a total savings to the taxpayers of $30,000,000. Funding six boats instead of four will also allow the Coast Guard to advance the replacement of aging 110-foot Island Class Patrol Boats already beyond the end of their projected service life and expensive to maintain.

> The Coast Guard is currently operating with a shortfall of 25,075 hours (25 percent) below its 1998 baseline of required patrol hours. Each FRC will provide 2,500 annual operating hours and an improved sea keeping ability, resulting in better habitability and full-mission capability in higher sea states....
>
> OFFSHORE PATROL CUTTER
>
> The recommendation includes $30,000,000 for the Offshore Patrol Cutter [OPC], as requested. Funding is provided for pre-acquisition activities. The Coast Guard expects to release a preliminary contract design "request for proposal" by the end of fiscal year 2012 with a contract award expected in fiscal year 2013. A final detailed design and construction award is expected in fiscal year 2016.
>
> The OPC's initial capabilities to control and direct aircraft as well as execute interdiction missions should, to the greatest extent feasible, be equivalent to that of the NSC to facilitate maximum savings to the Federal Government, rather than being deferred to future upgrades that add to total cost of ownership. The Committee urges the Coast Guard to maximize, to the greatest extent practicable, such systems commonality between the OPC and the NSC to reduce total acquisition cost and life-cycle costs facilitated by savings in life-cycle logistics management, integration costs, and personnel training efficiencies. (Pages 85-87; material in brackets as in original)

The report also states:

> PROGRAM OF RECORD
>
> The Coast Guard's Program of Record [POR] was developed based on mission requirements established in its 2004 Deepwater Mission Need Statement [MNS]. The 2004 MNS examined the Coast Guard's maritime role post-September 11, 2001, gaps in requirements, and capabilities necessary to carry out its responsibilities. The POR includes the assets and acquisitions necessary to meet the requirements of the 2004 MNS and has guided the Coast Guard as it recapitalizes its fleet of aging ships and aircraft. For instance, the POR includes a requirement of eight National Security Cutters, 25 Offshore Patrol Cutters, 58 Fast Response Cutters, 36 Maritime Patrol Aircraft, new communications systems across the fleet, and upgrades to several legacy cutters and aircraft. In recent years, questions have been raised about the ability to achieve this mix of assets in terms of cost and schedule within budget constraints, including those in the Budget Control Act of 2011. Most recent estimates indicate the POR could cost as much as $29,300,000,000 to complete by 2031. While the Committee does not believe that Coast Guard requirements should be modified to meet an arbitrary spending topline, the Committee expects the Coast Guard to be considering various options within the POR if budget toplines make it unrealistic to achieve. Therefore, the Secretary and the Commandant shall develop a working group of experts to examine available studies on Coast Guard fleet requirements to identify various options that fit in expected and realistic budget parameters. For the options identified, the analysis should include cost, capability, quantity tradeoffs, and the overall impact to the Coast Guard's ability to carry out its many statutory mission requirements. The Department shall provide the results of this analysis to the Committee no later than 180 days after the date of enactment of this act. (Pages 84-85; material in brackets as in original)

Appendix A. P-5, P-40, and P-27 Data Exhibits for Littoral Combat Ship (LCS) Program

This appendix presents the Budget Item Justification Sheet (Exhibit P-40), Weapon System Cost Analysis sheet (Exhibit P-5), and Ship Production Schedule (Exhibit P-27) for the Navy's Littoral Combat Ship (LCS) program, as examples of the kind of information that is available each year to support congressional review and oversight of Navy shipbuilding programs.

Figure A-1. Budget Item Justification Sheet (Exhibit P-40)

For Navy Littoral Combat Ship (LCS) Program

CLASSIFICATION: UNCLASSIFIED

BUDGET ITEM JUSTIFICATION SHEET (P-40)
FY 2013 President's Budget

DATE: February 2012

APPROPRIATION/BUDGET ACTIVITY
SHIPBUILDING AND CONVERSION, NAVY/BA 2 Other Warships

P-1 LINE ITEM NOMENCLATURE
LITTORAL COMBAT SHIP (LCS)
BLI: 2127 / SUBHEAD NO.

(Dollars in Millions)	PRIOR YR	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017	TO COMP	TOTAL PROG
QUANTITY	4	2	4	4	4	4	2	2	27	53
End Cost	2,434.3	1,162.6	1,834.0	1,785.0	1,819.6	1,881.5	1,013.0	896.0	17,562.4	30,388.4
Less Advance Procurement	0.0	0.0	78.9	0.0	0.0	0.0	0.0	0.0	0.0	78.9
Full Funding TOA	2,434.3	1,162.6	1,755.1	1,785.0	1,819.6	1,881.5	1,013.0	896.0	17,562.4	30,309.5
Plus Advance Procurement	0.0	78.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	78.9
Total Obligational Authority	2,434.3	1,241.5	1,755.1	1,785.0	1,819.6	1,881.5	1,013.0	896.0	17,562.4	30,388.4
Plus Outfitting / Plus Post Delivery	2.8	4.7	49.0	60.1	76.4	132.7	133.8	210.0	663.6	1,333.1
Total	2,437.1	1,246.2	1,804.1	1,845.1	1,896.0	2,014.2	1,146.8	1,106.0	18,226.0	31,721.5
Unit Cost (Ave. End Cost)	608.6	581.3	458.5	446.3	454.9	470.4	506.5	448.0	650.5	573.4

MISSION:

Provides for the design, construction, integration and testing of the Littoral Combat Ship (LCS), including Ordnance, Government Furnished Equipment (GFE), and includes Program Office and change order costs. LCS is a fast, agile, and networked surface combatant with capabilities optimized to defeat asymmetric threats, and assure naval and joint force access into contested littoral regions. It uses open-systems-architecture design, modular weapons, and sensor systems, and a variety of manned and unmanned vehicles to expand the battle space and project offensive power into the littoral. LCS operates with focused-mission packages that deploy manned and unmanned vehicles to execute a variety of missions, including littoral anti-submarine warfare (ASW), surface warfare (SUW), and mine countermeasures (MCM). LCS also possesses inherent capabilities, regardless of mission package installed, including Intelligence Surveillance Reconnaissance (ISR), homeland defense, Maritime Interdiction/Interception Operations (MIO), anti-terrorism/force protection (AT/FP), air self-defense, joint littoral mobility, and Special Operating Forces (SOF) and logistic support for movement of personnel and supplies. This relatively small, high-speed surface combatant will complement the U.S. Navy's AEGIS fleet, by operating in environments where it is less desirable to employ larger, multi-mission ships. It can deploy independently to overseas littoral regions, remain on station for extended periods of time either with a battle group or through a forward-basing arrangement and is capable of underway replenishment. It will operate with Carrier Strike Groups, Surface Action Groups, in groups of other similar ships, or independently for diplomatic and presence missions. Additionally, it can operate cooperatively with the U.S. Coast Guard and Allies.

Characteristics	LM	GD/AUSTAL
Overall Length:	115.3m	127.6m
Max Beam:	17.5m	31.6m
Displacement	3089 mt	2842 mt

	FY11	FY11	FY12	FY12	FY12	FY12	FY13	FY13	FY13	FY13
Production Status:	LCS 7	LCS 8	LCS 9	LCS 10	LCS 11	LCS 12	LCS 13	LCS 14	LCS 15	LCS 16
Contract Award Date	3/11	3/11	3/12	3/12	3/12	3/12	3/13	3/13	3/13	3/13
Months to Completion										
a) Contract Award to Delivery	49 months	43 months	47 months	41 months	53 months	48 months	47 months	41 months	53 months	46 months
b) Construction Start to Delivery	35 months	36 months	35 months	36 months	37 months	35 months	35 months	35 months	36 months	35 months
Delivery Date	4/15	10/14	2/16	8/15	8/16	3/16	2/17	8/16	8/17	1/17
Completion of Fitting Out	8/15	2/15	6/16	12/15	12/16	7/16	6/17	12/16	12/17	5/17
Obligation Work Limiting Date	7/16	1/16	5/17	11/16	11/17	6/17	5/18	11/17	11/18	4/18

Source: *Department of the Navy Fiscal Year (FY) 2013 Justification of Estimates, Shipbuilding and Conversion, Navy*, February 2012, p. 11-1 (pdf page 156 of 246).

Figure A-2. Weapon System Cost Analysis Sheet (Exhibit P-5)

For Navy Littoral Combat Ship (LCS) Program

CLASSIFICATION: UNCLASSIFIED

APPROPRIATION: SHIPBUILDING AND CONVERSION, NAVY

P-5 EXHIBIT

FY 2013 President's Budget

February 2012

WEAPON SYSTEM COST ANALYSIS (EXHIBIT P-5)

(Dollars in Thousands)

BUDGET ACTIVITY: 2	P-1 LINE ITEM NOMENCLATURE	SUBHEAD NO. BLI: 2127
Other Warships	LITTORAL COMBAT SHIP (LCS)	

	FY 2009		FY 2010		FY 2011		FY 2012		FY 2013	
ELEMENT OF COST	QTY	COST	QTY	COST	QTY	COST	QTY	COST	QTY	COST
PLAN COSTS	2	36,603	2	24,438	2	91,386	4	83,459	4	83,989
BASIC CONST/CONVERSION		1,138,316		955,325		809,749		1,485,671		1,453,694
CHANGE ORDERS		38,610		45,950		43,100		82,100		72,684
ELECTRONICS		21,677		26,992		27,245		55,417		56,350
HM&E		4,595		5,908		6,806		13,843		14,078
OTHER COST		106,761		1,000		166,942		76,927		67,038
ORDNANCE		11,090		17,056		17,300		36,625		37,126
TOTAL SHIP ESTIMATE		1,357,652		1,076,669		1,162,528		1,834,042		1,784,959
LESS ADVANCE PROCUREMENT FY12								78,949		
LESS SCN AND MATERIALS TRANSFER FY06		340,700								
NET P-1 LINE ITEM:		1,016,952		1,076,669		1,162,528		1,755,093		1,784,959

Source: *Department of the Navy Fiscal Year (FY) 2013 Justification of Estimates, Shipbuilding and Conversion, Navy*, February 2012, p. 11-2 (pdf page 157 of 246).

Figure A-3. Ship Production Schedule (Exhibit P-27)

For Navy Littoral Combat Ship (LCS) Program

CLASSIFICATION: UNCLASSIFIED

SHIPBUILDING AND CONVERSION, NAVY

SHIP PRODUCTION SCHEDULE

EXHIBIT P-27

FY 2013 President's Budget

DATE:

February 2012

SHIP TYPE	HULL NUMBER	SHIPBUILDER	FISCAL YEAR AUTHORIZED	CONTRACT AWARD	START OF CONSTRUCTION	DELIVERY DATE
LCS	3	LOCKHEED MARTIN	09	MAR-09	APR-09	JUN-12
LCS	4	GD/AUSTAL	09	MAY-09	OCT-09	MAR-13
LCS	5	LOCKHEED MARTIN	10	DEC-10	JUL-11	AUG-14
LCS	6	AUSTAL	10	DEC-10	JUN-11	JUN-14
LCS	7	LOCKHEED MARTIN	11	MAR-11	MAY-12	APR-15
LCS	8	AUSTAL	11	MAR-11	OCT-11	OCT-14
LCS	9	LOCKHEED MARTIN	12	MAR-12	MAR-13	FEB-16
LCS	10	AUSTAL	12	MAR-12	SEP-12	AUG-15
LCS	11	LOCKHEED MARTIN	12	MAR-12	AUG-13	AUG-16
LCS	12	AUSTAL	12	MAR-12	APR-13	MAR-16
LCS	13	LOCKHEED MARTIN	13	MAR-13	MAR-14	FEB-17
LCS	14	AUSTAL	13	MAR-13	SEP-13	AUG-16
LCS	15	LOCKHEED MARTIN	13	MAR-13	AUG-14	AUG-17
LCS	16	AUSTAL	13	MAR-13	FEB-14	JAN-17
LCS	17	LOCKHEED MARTIN	14	MAR-14	MAR-15	FEB-18
LCS	18	AUSTAL	14	MAR-14	OCT-14	JUL-17
LCS	19	LOCKHEED MARTIN	14	MAR-14	AUG-15	AUG-18
LCS	20	AUSTAL	14	MAR-14	FEB-15	DEC-17
LCS	21	LOCKHEED MARTIN	15	MAR-15	MAR-16	FEB-19
LCS	22	AUSTAL	15	MAR-15	SEP-15	JUL-18
LCS	23	LOCKHEED MARTIN	15	MAR-15	AUG-16	AUG-19
LCS	24	AUSTAL	15	MAR-15	FEB-16	NOV-18
LCS	25	TBD	16	MAR-16	MAR-17	FEB-20
LCS	26	TBD	16	MAR-16	SEP-16	JUL-19
LCS	27	TBD	17	MAR-17	SEP-17	JUL-20
LCS	28	TBD	17	MAR-17	MAR-18	FEB-21

Source: *Department of the Navy Fiscal Year (FY) 2013 Justification of Estimates, Shipbuilding and Conversion, Navy*, February 2012, p. 11-2 (pdf page 159 of 246).

Appendix B. Navy Ship Force Structure Objective

Table B-1 presents the Navy's current ship force structure objective.

Table B-1. Navy Ship Force Structure Goal

Ship type	Force Structure Objective
Ballistic missile submarines (SSBNs)	12-14
Cruise missile submarines (SSGNs)	0-4
Attack submarines (SSNs)	~48
Aircraft carriers	11
Cruisers and destroyers	~90
Littoral Combat Ships (LCSs)	~55
Amphibious ships	~32
Combat logistics (resupply) ships	~29
Joint High Speed Vessels (JHSVs)	10
Other (includes support ships)	~23
Total battle force ships	**~310-316**

Sources: FY2013 Navy 30-year (FY2013-FY2042) shipbuilding plan.

Note: The "~" symbol means approximately and signals that the number in question may be refined as a result of a Naval Force Structure Assessment currently in progress.

Appendix C. Navy FY2013 Five-Year Shipbuilding Plan

Table C-1 presents the Navy's FY2013 five-year (FY2013-FY2017) shipbuilding plan.

Table C-1. Navy FY2013 Five-Year (FY2013-FY2017) Shipbuilding Plan

(Battle force ships—i.e., ships that count against 310-316 ship goal)

Ship type	FY13	FY14	FY15	FY16	FY17	Total
Ford (CVN-78) class aircraft carrier	1					1
Virginia (SSN-774) class attack submarine	2	1	2	2	2	9
Arleigh Burke (DDG-51) class destroyer	2	1	2	2	2	9
Littoral Combat Ship (LCS)	4	4	4	2	2	16
LHA(R) amphibious assault ship					1	1
Fleet tug (TATF)				2		2
Mobile Landing Platform (MLP)/Afloat Forward Staging Base (AFSB)		1				1
Joint High Speed Vessel (JHSV)	1					1
TAO(X) oiler				1		1
TOTAL	**10**	**7**	**8**	**9**	**7**	**41**

Source: FY2013 Navy budget submission.

Notes: The MLP/AFSB is a variant of the MLP with additional features permitting it to serve in the role of an AFSB.

Appendix D. Navy FY2013 30-Year Shipbuilding Plan

Table D-1 shows the Navy's proposed FY2013 30-year (FY2013-FY2042) shipbuilding plan.

Table D-1. Navy FY2013 30-Year (FY2013-FY2042) Shipbuilding Plan

FY	CVN	LSC	SSC	SSN	SSBN	AWS	CLF	Supt	Total
13	1	2	4	2				1	**10**
14		1	4	1				1	**7**
15		2	4	2					**8**
16		2	2	2			1	2	**9**
17		2	2	2		1			**7**
18	1	2	3	2		1	1	1	**11**
19		2	3	2				1	**8**
20		2	3	3		1	1	2	**12**
21		2	3	2	1		1		**9**
22		2	3	3		1	1	2	**12**
23	1	3	3	2			1	3	**13**
24		2	3	1	1	2	1	2	**12**
25		3	3	2			1	1	**10**
26		2	3	1	1	1	1		**9**
27		3		1	1		1		**6**
28	1	2		1	1	2	1	1	**9**
29		3		1	1	1	1	1	**8**
30		2	1	1	1	1	1	2	**9**
31		2		1	1	1	1	2	**8**
32		2	1	1	1	2	1	3	**11**
33	1	2		1	1		1	2	**8**
34		2	1	1	1		1	2	**8**
35		2	1	1	1				**5**
36		3	2	1		1			**7**
37		3	3	1					**7**
38	1	3	4	2					**10**
39		3	4	1					**8**
40		3	4	2		2			**11**
41		3	4	1					**8**
42		3	2	2		1			**8**

Source: FY2013 30-year (FY2013-FY2042) shipbuilding plan.

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.

Table D-2 shows the Navy's projection of force levels for FY2013-FY2042 that would result from implementing the FY2013 30-year (FY2013-FY2042) shipbuilding plan shown in **Table D-1**.

Table D-2. Projected Force Levels Resulting from FY2013 30-Year (FY2013-FY2042) Shipbuilding Plan

	CVN	LSC	SSC	SSN	SSGN	SSBN	AWS	CLF	Supt	Total
310-316 ship plan	**11**	**~90**	**~55**	**~48**	**0-4**	**12-14**	**~32**	**~29**	**~33**	**~310-316**
FY13	10	80	35	55	4	14	31	32	24	**285**
FY14	10	78	30	55	4	14	29	32	27	**279**
FY15	11	78	26	54	4	14	28	31	30	**276**
FY16	11	80	30	53	4	14	29	31	32	**284**
FY17	11	82	32	50	4	14	30	29	33	**285**
FY18	11	84	35	51	4	14	31	29	33	**292**
FY19	11	86	39	51	4	14	31	29	35	**300**
FY20	11	87	37	48	4	14	31	29	34	**295**
FY21	11	88	38	48	4	14	31	29	33	**296**
FY22	12	87	40	47	4	14	32	29	33	**298**
FY23	11	89	39	47	4	14	32	29	35	**300**
FY24	11	89	41	46	4	14	34	29	35	**303**
FY25	11	88	43	45	4	14	34	29	33	**301**
FY26	11	89	46	45	2	14	34	29	32	**302**
FY27	12	90	49	44	1	13	33	29	33	**304**
FY28	11	89	52	43	0	12	34	29	33	**303**
FY29	11	87	55	43	0	11	33	29	33	**302**
FY30	11	85	55	43	0	11	33	29	33	**300**
FY31	11	81	55	45	0	11	32	29	33	**297**
FY32	11	80	55	45	0	10	32	29	33	**295**
FY33	11	79	55	46	0	10	33	29	33	**296**
FY34	11	78	55	47	0	10	34	29	33	**297**
FY35	11	80	55	48	0	10	33	29	33	**299**
FY36	11	82	55	49	0	10	33	29	33	**302**
FY37	11	84	55	50	0	10	33	29	33	**305**
FY38	11	86	55	48	0	10	32	29	34	**305**
FY39	11	88	55	49	0	10	32	29	33	**307**
FY40	10	88	55	49	0	10	31	29	33	**305**
FY41	10	89	55	48	0	11	32	29	33	**307**
FY42	10	88	55	49	0	12	31	29	33	**307**

Source: FY2013 30-year (FY2013-FY2042) shipbuilding plan.

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.

Author Contact Information

Ronald O'Rourke
Specialist in Naval Affairs
rorourke@crs.loc.gov, 7-7610