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Coast Guard Cutter Procurement: Background and Issues for Congress

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Summary

The Coast Guard's program of record (POR), which dates to 2004, calls for procuring 8 National Security Cutters (NSCs), 25 Offshore Patrol Cutters (OPCs), and 58 Fast Response Cutters (FRCs) as replacements for 90 aging Coast Guard high-endurance cutters, medium-endurance cutters, and patrol craft. The Coast Guard's proposed FY2022 budget requests a total of $695.0 million in procurement funding for the NSC, OPC, and FRC programs, including $597 million for the OPC program.

NSCs are the Coast Guard's largest and most capable general-purpose cutters; they are replacing the Coast Guard's 12 Hamilton-class high-endurance cutters. NSCs have an estimated average procurement cost of about $670 million per ship. Although the Coast Guard's POR calls for procuring 8 NSCs to replace the 12 Hamilton-class cutters, Congress through FY2021 has fully funded 11 NSCs, including the 10th and 11th in FY2018. In FY2020, Congress provided $100.5 million for procurement of long lead time materials (LLTM) for a 12th NSC, so as to preserve the option of procuring a 12th NSC while the Coast Guard evaluates its future needs. The Coast Guard's proposed FY2022 budget requests $78.0 million in procurement funding for activities within the NSC program; this request does not include further funding for a 12th NSC. The Coast Guard's proposed FY2022 budget also proposes rescinding $65.0 million of the $100.5 million in FY2020 funding for LLTM for a 12th NSC, "allowing the Coast Guard to focus investments on building, homeporting, and crewing Polar Security Cutters and Offshore Patrol Cutters." The remaining $35.5 million appropriated in FY2020 for LLTM would be used to pay NSC program costs other than procuring LLTM for a 12th NSC. Nine NSCs have entered service; the ninth was commissioned into service on March 19, 2021.

OPCs are to be less expensive and in some respects less capable than NSCs; they are intended to replace the Coast Guard's 29 aged medium-endurance cutters. Coast Guard officials describe the OPC and PSC programs as the service's highest acquisition priorities. OPCs have an estimated average procurement cost of about $411 million per ship. The first OPC was funded in FY2018. The Coast Guard's proposed FY2022 budget requests $597.0 million in procurement funding for the fourth OPC, LLTM for the fifth, and other program costs. On October 11, 2019, the Department of Homeland Security (DHS), of which the Coast Guard is a part, announced that DHS had granted extraordinary contractual relief to Eastern Shipbuilding Group (ESG) of Panama City, FL, the builder of the first four OPCs, under P.L. 85-804 as amended (50 U.S.C. 1431-1435), a law that authorizes certain federal agencies to provide certain types of extraordinary relief to contractors who are encountering difficulties in the performance of federal contracts or subcontracts relating to national defense. The Coast Guard is holding a full and open competition for a new contract to build OPCs 5 through 15. On January 29, 2021, the Coast Guard released a Request for Proposals (RFP) for this Stage 2 contract, as it is called. Responses to the RFP were due by May 28, 2021. The Coast Guard plans to award the Stage 2 contract in the second quarter of FY2022.

FRCs are considerably smaller and less expensive than OPCs; they are intended to replace the Coast Guard's 49 aging Island-class patrol boats. FRCs have an estimated average procurement cost of about $65 million per boat. A total of 64 have been funded through FY2021, including four in FY2021. Six of the 64 are to be used by the Coast Guard in the Persian Gulf and are not counted against the 58-ship POR quantity for the program, which relates to domestic operations. Forty of the 64 have been commissioned into service, and others have been accepted by the Coast Guard and are awaiting commissioning. The Coast Guard's proposed FY2022 budget requests $20.0 million in procurement funding for the FRC program; this request does not include funding for any additional FRCs.

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Introduction

This report provides background information and potential oversight issues for Congress on the Coast Guard's programs for procuring 8 National Security Cutters (NSCs), 25 Offshore Patrol Cutters (OPCs), and 58 Fast Response Cutters (FRCs). The Coast Guard's proposed FY2022 budget requests a total of $695 million in procurement funding for the NSC, OPC, and FRC 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 many years, and were previously covered in other CRS reports dating back to 1998 that are now archived.[1] CRS testified on the Coast Guard's cutter acquisition programs most recently in October and November of 2018.[2] The Coast Guard's plans for modernizing its fleet of polar icebreakers are covered in a separate CRS report.[3]

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—12 high-endurance cutters (WHECs), 29 medium-endurance cutters (WMECs), and 49 110-foot patrol craft (WPBs).[4] The Coast Guard's 12 Hamilton (WHEC-715) class high-endurance cutters entered service between 1967 and 1972.[5] The Coast Guard's 29 medium-endurance cutters included 13 Famous (WMEC-901) class ships that entered service between 1983 and 1991,[6] 14

[1] This CRS report was first published on June 13, 2012. The earlier CRS reports were Coast Guard Deepwater Acquisition Programs: Background, Oversight Issues, and Options for Congress, by Ronald O'Rourke (first version December 18, 2006, final [i.e., archived] version January 20, 2012); CRS Report RS21019, *Coast Guard Deepwater Program: Background and Issues for Congress, by Ronald O'Rourke* (first version September 25, 2001, final [i.e., archived] version December 8, 2006); and CRS Report 98-830 F, *Coast Guard Integrated Deepwater System: Background and Issues for Congress*, by Ronald O'Rourke (first version October 5, 1998, final [i.e., archived] version June 1, 2001). 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 as a way of referring to these programs.

[2] See CRS Testimony TE10030, *Icebreaker Acquisition and the Need for a National Maritime Strategy*, by Ronald O'Rourke, November 29, 2018, which includes discussions of the NSC, OPC, and FRC programs in Appendix E, and CRS Testimony TE10029, *Building the Fleets of the Future: Coast Guard and NOAA Fleet Recapitalization*, by Ronald O'Rourke, October 11, 2018.

[3] CRS Report RL34391, *Coast Guard Polar Security Cutter (Polar Icebreaker) Program: Background and Issues for Congress*, by Ronald O'Rourke.

[4] 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.

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

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

Reliance (WMEC-615) class ships that entered service between 1964 and 1969,[7] and 2 one-of-a-kind cutters that originally entered service with the Navy in 1944 and 1971 and were later transferred to the Coast Guard.[8] The Coast Guard's 49 110-foot Island (WPB-1301) class patrol boats entered service between 1986 and 1992.[9]

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.[10] The high-endurance cutters and Island-class patrol boats are being removed from service as they are replaced by NSCs and FRCs. The last of the Coast Guard's 12 Hamilton-class high-endurance cutters was decommissioned on April 24, 2021.[11]

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.[12]

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.

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

[8] These were 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 reentered service with the Coast Guard in 1999. It is 282 feet long and has a full load displacement of about 2,900 tons.

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

[10] A July 2012 Government Accountability Office (GAO) report discussed the generally poor physical condition and declining operational capacity of the Coast Guard's older high-endurance cutters, medium-endurance cutters, and 110-foot patrol craft; see Government Accountability Office, *Coast Guard[:] Legacy Vessels' Declining Conditions Reinforce Need for More Realistic Operational Targets*, GAO-12-741, July 2012, 71 pp.

[11] See, for example, Seapower Staff, "Coast Guard Decommissions Service's Final High-Endurance Cutter," *Seapower*, April 26, 2021; Associated Press, "US Coast Guard Decommissions Storied Cutter in Alaska," *Associated Press*, April 28, 2021. See also Patricia Kime, "The Coast Guard Is Retiring Its Last Hamilton-Class High Endurance Cutter," *Military.com*, April 22, 2021.

[12] 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)[13] class cutters because they are being named for legendary Coast Guard personnel[14]—are the Coast Guard's largest and most capable general-purpose cutters.[15] They are larger and technologically more advanced than Hamilton-class cutters, and are built by Huntington Ingalls Industries' Ingalls Shipbuilding of Pascagoula, MS (HII/Ingalls).

Figure 1. National Security Cutter

Source: Cropped version of U.S. Coast Guard photograph accompanying Stew Magnuson, "Coast Guard Ship Modernization Under Full Steam," *National Defense*, March 3, 2021.

The Coast Guard's acquisition 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 8 NSCs as replacements for the service's 12 Hamilton-class high-endurance cutters. The Coast

[13] In the designation WMSL, W means Coast Guard ship and MSL stands for maritime security cutter, large.

[14] For a Coast Guard news release that mentions the naming rule for the class, see U.S. Coast Guard, "Acquisition Update: Keel Authenticated for the Fifth National Security Cutter," May 17, 2013.

[15] 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 now-retired Oliver Hazard Perry (FFG-7) class frigates, which were 453 feet long and had a full load displacement of about 4,200 tons. 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. The Coast Guard states that

> The largest and most technologically advanced of the Coast Guard's newest classes of cutters, the NSCs replace the aging 378-foot high endurance cutters, which have been in service since the 1960s. Compared to legacy cutters, the NSCs' design provides better sea-keeping and higher sustained transit speeds, greater endurance and range, and the ability to launch and recover small boats from astern, as well as aviation support facilities and a flight deck for helicopters and unmanned aerial vehicles.
>
> ("National Security Cutter," accessed April 19, 2018, at https://www.dcms.uscg.mil/Our-Organization/Assistant-Commandant-for-Acquisitions-CG-9/Programs/Surface-Programs/National-Security-Cutter/.)

Guard's FY2020 budget submission estimated the total acquisition cost of a nine-ship NSC program at $6.030 billion, or an average of about $670 million per ship.[16]

Although the Coast Guard's POR calls for procuring 8 NSCs to replace the 12 Hamilton-class cutters, Congress through FY2020 has fully funded 11 NSCs, including the 10th and 11th in FY2018. In FY2020, Congress provided $100.5 million for procurement of long lead time materials (LLTM) for a 12th NSC, so as to preserve the option of procuring a 12th NSC while the Coast Guard evaluates its future needs. The funding can be used for procuring LLTM for a 12th NSC if the Coast Guard determines it is needed.

The Coast Guard's proposed FY2022 budget requests $78.0 million in procurement funding for activities within the NSC program; this request does not include further funding for a 12th NSC. The Coast Guard's proposed FY2022 budget also proposes rescinding $65.0 million of the $100.5 million in FY2020 funding for LLTM for a 12th NSC, "allowing the Coast Guard to focus investments on building, homeporting, and crewing Polar Security Cutters and Offshore Patrol Cutters."[17] The remaining $35.5 million appropriated in FY2020 for LLTM for a 12th NSC would be used to pay NSC program costs other than procuring LLTM for a 12th NSC.

Nine NSCs have entered service; the ninth was commissioned into service on March 19, 2021. The 10th and 11th are under construction.

OPC Program

Overview

Coast Guard officials describe the Offshore Patrol Cutter (PSC) program[18] and the Polar Security Cutter (PSC) program as the service's two highest acquisition priorities. The Coast Guard's POR calls for procuring 25 OPCs as replacements for the service's 29 medium-endurance cutters. The first four OPCs are being built by Eastern Shipbuilding Group (ESG) of Panama City, FL.

OPCs (**Figure 2**, **Figure 3**, **Figure 4**, **Figure 5**, and **Figure 6**)—also known as Heritage (WMSM-915)[19] class cutters because they are being named for past cutters that played a significant role in the history of the Coast Guard and the Coast Guard's predecessor organizations[20]—are to be less expensive and in some respects less capable than NSCs.[21] OPCs

[16] Source: Coast Guard Five-Year (FY2020-FY2024) Capital Investment Plan (CIP) funding table for the Procurement, Construction and Improvements (PC&I) account.

[17] Department of Homeland Security, U.S. Coast Guard, *Budget Overview, Fiscal Year 2022, Congressional Justification*, p. PC&I- 27 (PDF page 283 of 438).

[18] For more on the PSC program, see CRS Report RL34391, *Coast Guard Polar Security Cutter (Polar Icebreaker) Program: Background and Issues for Congress*, by Ronald O'Rourke.

[19] In the designation WMSM, W means Coast Guard ship and MSM stands for maritime security cutter, medium.

[20] For the naming rule for the class and a list of the names of the first 11 OPCs, see U.S. Coast Guard, "The Offshore Patrol Cutter (OPC) Is The Coast Guard's Highest Investment Priority and Will Play A Critical Role in the Service's Future," undated, accessed August 15, 2017, at http://www.dcms.uscg.mil/Our-Organization/Assistant-Commandant-for-Acquisitions-CG-9/Newsroom/OPC_Day/. See also Sam LaGrone, "Coast Guard Celebrates Birthday by Naming 11 Planned Offshore Patrol Cutters," *USNI News*, August 4, 2017 (updated August 5, 2017).

[21] The service states that OPCs:

> The OPCs will provide the majority of offshore presence for the Coast Guard's cutter fleet, bridging the capabilities of the 418-foot national security cutters, which patrol the open ocean, and the 154-foot fast response cutters, which serve closer to shore. The OPCs will conduct missions including law enforcement, drug and migrant interdiction, search and rescue, and other homeland security and defense operations. Each OPC will be capable of deploying independently or as part of

are to have a length of 360 feet, which will make them about 86% as long as NSCs, which have a length of 418 feet. OPCs were earlier estimated to have a full load displacement of 3,500 tons to 3,730 tons, which would have made them about 80% as large in terms of full load displacement as NSCs, which have a full load displacement of about 4,500 tons[22] As the OPC design matured, however, its estimated displacement grew to about 4,500 tons, making it essentially as large as the NSC in terms of full load displacement.[23]

Figure 2. Offshore Patrol Cutter

Artist's rendering

Source: Photograph accompanying Kirk Moore, "Coast Guard's Birthday Present: Naming the Next Cutters," *WorkBoat*, August 4, 2017. A caption to the rendering credits the rendering to Eastern Shipbuilding Group.

task groups and serving as a mobile command and control platform for surge operations such as hurricane response, mass migration incidents and other events. The cutters will also support Arctic objectives by helping regulate and protect emerging commerce and energy exploration in Alaska.

("Offshore Patrol Cutter," accessed April 20, 2018, https://www.dcms.uscg.mil/Our-Organization/Assistant-Commandant-for-Acquisitions-CG-9/Programs/Surface-Programs/Offshore-Patrol-Cutter/Offshore-Patrol-Cutter-Program-Profile/.)

[22] As of May 26, 2017, the OPC's light ship displacement (i.e., its "empty" displacement, without fuel, water, ballast, stores, and crew) was preliminarily estimated at about 2,640 to 2,800 tons, and its full load displacement was preliminarily estimated at about 3,500 to 3,730 tons. (Source: Figures provided to CRS by Cost Guard liaison office, May 26, 2017.) In terms of full load displacement, this would have made OPCs roughly 80% as large as NSCs.

[23] Source: Email from Coast Guard liaison office to CRS, November 25, 2019. See also **Figure 6**.

Figure 3. Offshore Patrol Cutter

Artist's rendering

Source: "Offshore Patrol Cutter Notional Design Characteristics and Performance," accessed September 16, 2016, at https://www.dcms.uscg.mil/Portals/10/CG-9/Surface/OPC/OPC%20Placemat%2036x24.pdf?ver=2018-10-02-134225-297.

Figure 4. Offshore Patrol Cutter

Artist's rendering

Source: Eastern Shipbuilding Group (http://www.easternshipbuilding.com/), accessed September 9, 2019.

The Coast Guard's FY2020 budget submission estimated the total acquisition cost of the 25 ships at $10.270 billion, or an average of about $411 million per ship.[24] The first OPC was funded in FY2018. The Coast Guard's proposed FY2022 budget requests $597.0 million in procurement funding for the fourth OPC, LLTM for the fifth, and other program costs.

[24] Source: Coast Guard Five-Year (FY2020-FY2024) Capital Investment Plan (CIP) funding table for the Procurement, Construction and Improvements (PC&I) account.

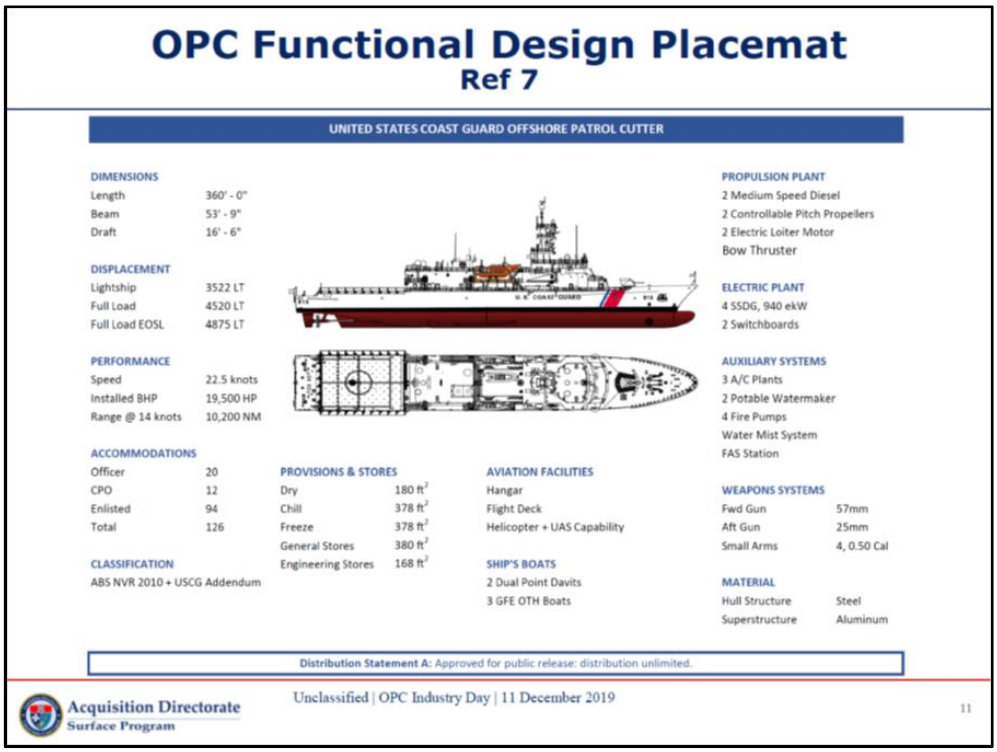
Figure 5. Offshore Patrol Cutter

Artist's rendering

Source: Image received from Coast Guard liaison office, May 25, 2017.

Figure 6. OPC Functional Design

"Placemat" summary from Coast Guard



OPC Functional Design Placemat
Ref 7

UNITED STATES COAST GUARD OFFSHORE PATROL CUTTER

DIMENSIONS
Length 360' - 0"
Beam 53' - 9"
Draft 16' - 6"

DISPLACEMENT
Lightship 3522 LT
Full Load 4520 LT
Full Load EOSL 4875 LT

PERFORMANCE
Speed 22.5 knots
Installed BHP 19,500 HP
Range @ 14 knots 10,200 NM

ACCOMMODATIONS
Officer 20
CPO 12
Enlisted 94
Total 126

CLASSIFICATION
ABS NVR 2010 + USCG Addendum

PROVISIONS & STORES
Dry 180 ft²
Chill 378 ft²
Freeze 378 ft²
General Stores 380 ft²
Engineering Stores 168 ft²

AVIATION FACILITIES
Hangar
Flight Deck
Helicopter + UAS Capability

SHIP'S BOATS
2 Dual Point Davits
3 GFE OTH Boats

PROPULSION PLANT
2 Medium Speed Diesel
2 Controllable Pitch Propellers
2 Electric Loiter Motor
Bow Thruster

ELECTRIC PLANT
4 SSDG, 940 ekW
2 Switchboards

AUXILIARY SYSTEMS
3 A/C Plants
2 Potable Watermaker
4 Fire Pumps
Water Mist System
FAS Station

WEAPONS SYSTEMS
Fwd Gun 57mm
Aft Gun 25mm
Small Arms 4, 0.50 Cal

MATERIAL
Hull Structure Steel
Superstructure Aluminum

Distribution Statement A: Approved for public release: distribution unlimited.

Acquisition Directorate
Surface Program

Unclassified | OPC Industry Day | 11 December 2019

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Source: Slide 11 from Coast Guard presentation at OPC Industry Day, December 11, 2019, updated December 13, 2019, accessed December 17, 2019, at https://beta.sam.gov/opp/bf0b9b0a1fe2428e9a7304325964 1c13/view.

The Coast Guard's initial Request for Proposals (RFP) for the OPC program, released on September 25, 2012, established an affordability requirement for the program of an average unit price of $310 million per ship, or less, in then-year dollars (i.e., dollars that are not adjusted for inflation) for ships 4 through 9 in the program.[25] This figure represents the shipbuilder's portion of the total cost of the ship; it does not include the cost of government-furnished equipment (GFE) on the ship,[26] or other program costs—such as those for program management, system integration, and logistics—that contribute to the above-cited figure of $411 million per ship.[27]

Original Competition and September 2016 Contract Award

In response to the September 25, 2012, RFP, at least eight shipyards expressed interest in the OPC program.[28] On February 11, 2014, the Coast Guard announced that it had awarded Preliminary and Contract Design (P&CD) contracts to three of those eight firms—Bollinger Shipyards of Lockport, LA; Eastern Shipbuilding Group (ESG) of Panama City, FL; and General Dynamics' Bath Iron Works (GD/BIW) of Bath, ME.[29] On September 15, 2016, the Coast Guard announced that it had awarded the detail design and construction (DD&C) contract to ESG. The contract covered detail design and production of up to 9 OPCs and had a potential value of $2.38 billion if all options were exercised.[30]

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[25] Source: Section C.5 of the RFP, accessed October 31, 2012, at http://www.uscg.mil/ACQUISITION/newsroom/updates/opc092512.asp.

[26] GFE is equipment that the government procures and then delivers to the shipyard for installation on the ship.

[27] Source: Coast Guard emails to CRS dated June 25, 2013.

[28] The firms were the following: Bollinger Shipyards of Lockport, LA; Eastern Shipbuilding Group of Panama City, FL; General Dynamics Bath Iron Works (GD/BIW) of Bath, ME; Huntington Ingalls Industries (HII) of Pascagoula, MS; Marinette Marine Corporation of Marinette, WS; General Dynamics National Steel and Shipbuilding Company (GD/NASSCO) of San Diego, CA; Vigor Shipyards of Seattle, WA; and VT Halter Marine of Pascagoula, MS. (Source: U. S. Coast Guard Offshore Patrol Cutter (OPC) List of Interested Contractors Updated July 2012, accessed October 23, 2012, at http://www.uscg.mil/ACQUISITION/opc/pdf/companiesinterested.pdf; and Kevin Brancato and Anne Laurent, *Coast Guard's $12 Billion Cutter Competition Spurs Eight Shipyards to Dive In*, Bloomberg Government Study, November 8, 2012, 6 pp. The Coast Guard document states that these firms "expressed interest in the Offshore Patrol Cutter acquisition and have agreed to their names provided on the Coast Guard website." See also Stew Magnuson, "New Coast Guard Cutter Sparks Fierce Competition Among Shipbuilders," *National Defense* (*www.nationaldefensemagazine.org*), April 2013, accessed March 26, 2013, at http://www.nationaldefensemagazine.org/articles/2013/4/1/2013april-new-coast-guard-cutter-sparks-fierce-competition-among-shipbuilders.)

[29] "Acquisition Update: U.S. Coast Guard Awards Three Contracts for Offshore Patrol Cutter Preliminary and Contract Design," February 11, 2014, accessed February 14, 2014, at https://www.dcms.uscg.mil/Portals/10/CG-9/Newsroom/In%20The%20News%20Archives/2014/opc021114.pdf?ver=2017-05-23-145011-727. HII and VT Halter Marine reportedly filed protests of the Coast Guard's award decision on February 24 and 25, respectively. The Coast Guard issued stop work orders to Bollinger, Eastern, and GD/BIW pending GAO's rulings on the protests. (Calvin Biesecker, "Coast Guard Issues Stop Work Orders On OPC Following Protests," *Defense Daily*, February 28, 2014: 2-3. See also Christopher P. Cavas, "Ingalls Protesting US Coast Guard Cutter Contract," *DefenseNews.com*, February 26, 2014.) On June 5, 2014, it was reported that GAO had rejected the protests, and that the Coast Guard had directed Bollinger, Eastern, and GD/BIW to resume their work. (Calvin Biesecker, "Coast Guard Directs Design Work Continue On OPC After GAO Denies Protests," *Defense Daily*, June 5, 2014: 1; Christopher P. Cavas, "US Coast Guard Cutter Award Upheld," *Defense News* (http://www.defensenews.com), June 5, 2014. For the text of the decision, see Government Accountability Office, Decision in the Matter of Huntington Ingalls Industries, Inc.; VT Halter Marine, Inc., June 2, 2014.)

[30] "Acquisition Update: Coast Guard Selects Offshore Patrol Cutter Design," September 15, 2016; "Acquisition Update: Coast Guard Moves Forward To Next Phase Of OPC Acquisition," October 5, 2016. See also "Coast Guard Exercises Long Lead Time Materials Option For First Offshore Patrol Cutter," September 7, 2017.

October 2019 Contractual Relief and Program Restructuring

On October 11, 2019, the Department of Homeland Security (DHS), of which the Coast Guard is a part, announced that DHS had granted extraordinary contractual relief to ESG under P.L. 85-804 as amended (50 U.S.C. 1431-1435), a law originally enacted in 1958 that authorizes certain federal agencies to provide certain types of extraordinary relief to contractors who are encountering difficulties in the performance of federal contracts or subcontracts relating to national defense.[31] ESG reportedly submitted a request for extraordinary relief on June 30, 2019, after ESG's shipbuilding facilities were damaged by Hurricane Michael, which passed through the Florida panhandle on October 10, 2018.

The Coast Guard announced that the contractual relief would be limited to the first four hulls in the OPC program, and that the OPC program would be restructured to include a competition for a new contract to build subsequent OPCs,[32] identified later as OPCs 5 through 15. Under P.L. 85-804 as amended, Congress had 60 days of continuous session to review the announced contractual relief, with the 60-day period in this case starting October 11, 2019.[33] The Coast Guard refers to the follow-on competition as the Stage 2 competition.

A November 25, 2019, letter to the Acting Secretary of DHS from the Chair and Ranking Member of the House Transportation and Infrastructure Committee and the Chair and Ranking

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[31] 50 U.S.C. 1431 states in part

> The President may authorize any department or agency of the Government which exercises functions in connection with the national defense, acting in accordance with regulations prescribed by the President for the protection of the Government, to enter into contracts or into amendments or modifications of contracts heretofore or hereafter made and to make advance payments thereon, without regard to other provisions of law relating to the making, performance, amendment, or modification of contracts, whenever he deems that such action would facilitate the national defense. The authority conferred by this section shall not be utilized to obligate the United States in an amount in excess of $50,000 without approval by an official at or above the level of an Assistant Secretary or his Deputy, or an assistant head or his deputy, of such department or agency, or by a Contract Adjustment Board established therein.

For more on P.L. 85-804 as amended, see CRS Report 76-261, *Extraordinary Contractual Relief Under Public Law 85-804*, April 28, 1976, by Andrew C. Mayer. The report was prepared at the request of the House Armed Services Committee and converted by the committee into a committee print (70-905 O), dated May 10, 1976, that can be viewed at https://ufdc.ufl.edu/AA00022546/00001/1j. See also David H. Peirez, "Public Law 85-804: Contractual Relief for the Government Contractor," *Administrative Law Review*, Vol. 16 (Summer 1964): 248-264, accessed October 11, 2019, at https://www.jstor.org/stable/40708469; and "Presidential Power: Public Law 85-804 (50 U.S.C. §§ 1431-35)," Brennan Center for Justice, undated, accessed October 11, 2019, at https://www.brennancenter.org/sites/default/files/analysis/50%20USC%201431-1435.pdf. (Although it is undated, it appears to have been written no earlier than 2014, as it includes three references to the year 2014, including one that states, "As of 2014….") The text of P.L. 85-804 as originally enacted is posted at https://www.govinfo.gov/content/pkg/STATUTE-72/pdf/STATUTE-72-Pg972.pdf.

[32] Department of Homeland Security, "DHS Extends Contract Relief for Offshore Patrol Cutter," October 11, 2019; U.S. Coast Guard, "Department of Homeland Security Approves Limited Extraordinary Relief for Offshore Patrol Cutter Contract," October 11, 2019; "DHS, Coast Guard Extend Limited Contract Relief for Offshore Patrol Cutter," *Coast Guard News (coastguardnews.com)*, October 11, 2019.

[33] 50 U.S.C. 1431 states in part

> The authority conferred by this section may not be utilized to obligate the United States in any amount in excess of $25,000,000 unless the Committees on Armed Services of the Senate and the House of Representatives have been notified in writing of such proposed obligation and 60 days of continuous session of Congress have expired following the date on which such notice was transmitted to such Committees. For purposes of this section, the continuity of a session of Congress is broken only by an adjournment of the Congress sine die at the end of a Congress, and the days on which either House is not in session because of an adjournment of more than 3 days to a day certain, or because of an adjournment sine die other than at the end of a Congress, are excluded in the computation of such 60-day period.

Member of that committee's Coast Guard and Maritime Transportation subcommittee regarding the OPC program posed a number of questions regarding the Coast Guard's October 2019 contractual relief and restructuring of the OPC program. The text of this letter, including these questions, is presented in **Appendix E**.

In the FY2021 National Defense Authorization Act (H.R. 6395/P.L. 116-283 of January 1, 2021), Division G is the Elijah E. Cummings Coast Guard Authorization Act of 2020. Section 8221 of Division G of H.R. 6395/P.L. 116-283 states

> SEC. 8221. MODIFICATION OF ACQUISITION PROCESS AND PROCEDURES.
>
> (a) EXTRAORDINARY RELIEF.—
>
> (1) IN GENERAL.—Subchapter III of chapter 11 of title 14, United States Code, is amended by adding at the end the following:
>
> ''§ 1157. Extraordinary relief
>
> ''(a) IN GENERAL.—With respect to any prime contracting entity receiving extraordinary relief pursuant to the Act entitled 'An Act to authorize the making, amendment, and modification of contracts to facilitate the national defense', approved August 28, 1958 (Public Law 85–804; 50 U.S.C. 1432 et seq.) for a major acquisition, the Secretary shall not consider any further request by the prime contracting entity for extraordinary relief under such Act for such major acquisition.
>
> ''(b) INAPPLICABILITY TO SUBCONTRACTORS.—The limitation under subsection (a) shall not apply to subcontractors of a prime contracting entity.
>
> ''(c) QUARTERLY REPORT.—Not less frequently than quarterly during each fiscal year in which extraordinary relief is approved or provided to an entity under the Act referred to in subsection (a) for the acquisition of Offshore Patrol Cutters, the Commandant shall provide to the Committee on Commerce, Science, and Transportation of the Senate and the Committee on Transportation and Infrastructure of the House of Representatives a report that describes in detail such relief and the compliance of the entity with the oversight measures required as a condition of receiving such relief.''.
>
> (3) ANALYSIS FOR CHAPTER 11.—The analysis for chapter 11 of title 14, United States Code, is amended by inserting after the item relating to section 1156 the following:
>
> ''1157. Extraordinary relief.''.
>
> (b) NOTICE TO CONGRESS WITH RESPECT TO BREACH OF CONTRACT.—Section 1135 of title 14, United States Code, is amended by adding at the end the following:
>
> ''(d) NOTICE TO CONGRESS WITH RESPECT TO BREACH OF CONTRACT.—Not later than 48 hours after the Commandant becomes aware that a major acquisition contract cannot be carried out under the terms specified in the contract, the Commandant shall provide a written notification to the Committee on Commerce, Science, and Transportation of the Senate and the Committee on Transportation and Infrastructure of the House of Representatives that includes—
>
> ''(1) a description of the terms of the contract that cannot be met; and
>
> ''(2) an assessment of whether the applicable contract officer has issued a cease and desist order to the contractor based on the breach of such terms of the contract.''.

Stage 2 Competition

March 2020 Contract Awards for Industry Studies

On January 10, 2020, the Coast Guard released an RFP for industry studies in connection with the Stage 2 competition, with responses due by January 31, 2020. On March 20, 2020, the Coast Guard announced that it had awarded nine Stage 2 industry study contracts to the following firms:

- Austal USA of Mobile, AL;
- General Dynamics/Bath Iron Works (GD/BIW) of Bath, ME;
- Bollinger Shipyards Lockport of Lockport, LA;
- Eastern Shipbuilding Group (ESG) of Panama City, FL;
- Fincantieri Marinette Marine (F/MM) of Marinette, WS;
- General Dynamics/National Steel and Shipbuilding Company (GD/NASSCO) of San Diego, CA;
- Huntington Ingalls Industries/Ingalls Shipbuilding (HII/Ingalls) of Pascagoula, MS:
- Philly Shipyard of Philadelphia, PA; and
- VT Halter Marine Inc. of Pascagoula, MS.[34]

October 2020 Draft Request for Proposals (RFP)

On October 9, 2020, the Coast Guard released a draft RFP for the Stage 2 competition. Responses to the draft RFP, which helped inform the Coast Guard's drafting of the final version of the RFP, were due by November 23, 2020. The notional schedule that accompanied the draft RFP calls for long leadtime materials (LLTM) for OPC 5 to be procured at the end of FY2022/start of FY2023, for construction of OPC 5 to begin at the end of FY2023, and for construction to be complete at the end of FY2026. OPCs 6 through 15 follow in annual quantities of 1-1-2-2-2-2, with LLTM for OPCs 14 and 15 to be procured at the start of the fourth quarter of FY2029, and for construction of those two ships to be complete by the start of the fourth quarter of FY2032.

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[34] Most of the contracts had a base award value of $2.0 million and a total potential value of $3.0 million. The exceptions were the contract awarded to ESG, which had a base award value of $1.1 million and a total potential value of $1.2 million (a difference that appeared to reflect ESG's status as the builder of the first four OPCs), and the contract awarded to VT Halter, which has a total potential value of $2.9 million. The Coast Guard stated in its contract-award announcement that

> Under their respective contracts, the awardees will assess OPC design and technical data, provided by the Coast Guard, and the program's construction approach. Based on their analyses, the awardees will recommend to the Coast Guard potential strategies and approaches for the follow-on detail design and construction (DD&C). The awardees will also discuss how they would prepare the OPC functional design for production. The awardees may also identify possible design or systems revisions that would be advantageous to the program if implemented, with strategies to ensure those revisions are properly managed.
>
> The Coast Guard will use the industry studies results to further inform its follow-on acquisition strategy and promote a robust competitive environment for the DD&C award. Participation in industry studies is not a pre-requisite for submitting a DD&C proposal.
>
> (U.S. Coast Guard, "Coast Guard Awards Nine Contracts for Offshore Patrol Cutter Industry Studies," March 20, 2020.)

January 2021 RFP and Planned Contract Award Date

On January 29, 2021, the Coast Guard released the RFP for the Stage 2 competition, with responses due by May 28, 2021. The Coast Guard plans to award the Stage 2 contract in the second quarter of FY2022. The contract is to be a Fixed Price Incentive Firm (FPIF) contract for detail design and construction of up to 11 OPCs, including Long Lead Time Materials (LLTM), as well as logistics, training, and life-cycle engineering. One observer stated on March 29, 2021, that

> In the current 11-ship [Stage 2] proposal, the Coast Guard is giving interested shipyards an enormous amount of leeway to redesign the cutter's innards, a tactic that, according to stakeholders, facilitates increased competition. Newly proposed ships must look generally the same [as ESG's OPC design] from the outside, but almost everything "under the hood"—outside of a few major components—can be changed, shifted or modified.[35]

In June 2021, it was reported that firms that had publicly disclosed that they are bidders for the Stage 2 competition include ESG, Huntington Ingalls Industries (HII), and Bollinger Shipyards.[36] (It is possible that other firms chose to not publicly disclose that they are bidders.)

Notional Construction Schedule and Resulting Ages of Ships Being Replaced

The posting for the RFP for the Stage 2 industry studies included an attached notional timeline for building the 25 OPCs. Under the timeline, OPCs 1 through 7 (i.e., OPCs 1-4, to be built by ESG, plus OPCs 5-7, which are the first three OPCs to be built by the winner of the Stage 2 competition) are to be built at a rate of one per year, with OPC-1 completing construction in FY2022 and OPC-7 completing construction in FY2028. The remaining 18 OPCs (i.e., OPCs 8 through 25) are to be built at a rate of two per year, with OPC-8 completing construction in FY2029 and OPC-25 completing construction in FY2038.

Using these dates—which are generally 10 months to about two years later than they would have been under the Coast Guard's previous (i.e., pre-October 11, 2019) timeline for the OPC program[37]—the Coast Guard's 14 Reliance-class 210-foot medium-endurance cutters would be replaced when they would be (if still in service) about 54 to 67 years old, and the Coast Guard's

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[35] Craig Hooper, "U.S. Coast Guard Seeks Builders For Big New Cutters," *Forbes*, March 29, 2021.

[36] Cal Biesecker, "Eastern Shipbuilding, Huntington Ingalls Also Bid On Coast Guard OPC Program," *Defense Daily*, June 14, 2021.

[37] Source for ships 1-4: An October 15, 2019, press report states

> Under the new plan, the Coast Guard intends for Eastern Shipbuilding Group (ESG) to build up to four OPCs rather than the minimum of nine contracted for a year ago, with the first ship now delayed 10 to 12 months and the three subsequent ships about nine to 10 months each from that point, Shultz said at an event hosted by the Center for Strategic and International Studies. Delivery of the first OPC, which began construction in January, has been pushed back to 2022.
>
> (Cal Biesecker, "Decision To Reopen OPC Competition Will Stretch Out Acquisition," *Defense Daily*, October 15, 2019. See also Gina Harkins, "Despite Hurricane Damage, Coast Guard Pressing On with Next-Gen Cutter Construction," *Military.com*, October 15, 2019; Ben Werner, "Coast Guard Seeks To Bring Bidders Onto Modified Offshore Patrol Cutter Contract," *USNI News*, October 15, 2019.)

Source for ships 5 through 25: CRS comparison of notional timeline's completion dates with those shown in Figure 4 on page 17 of Government Accountability Office, *Coast Guard Recapitalization[:] Matching Needs and Resources Continue to Strain Acquisition Efforts*, GAO-17-654T, June 7, 2017. (Testimony Before the Subcommittee on Coast Guard and Maritime Transportation, Committee on Transportation and Infrastructure, House of Representatives, Statement of Marie A. Mak, Director, Acquisition and Sourcing Management.)

13 Famous-class 270-foot medium-endurance cutters would be replaced when they would be (if still in service) about 42 to 52 years old.[38]

Appendices with Additional Information

For additional background information on the impact of Hurricane Michael on the OPC program at ESG, see **Appendix D**. As mentioned earlier, for the text of a November 25, 2019, letter to the Acting Secretary of DHS from the Chair and Ranking Member of the House Transportation and Infrastructure Committee and the Chair and Ranking Member of that committee's Coast Guard and Maritime Transportation subcommittee regarding the October 2019 contractual relief and restructuring of the OPC program under P.L. 85-804, see **Appendix E**.

FRC Program

Fast Response Cutters (**Figure 7**) are considerably smaller and less expensive than OPCs, but are larger than the Coast Guard's older patrol boats.[39] FRCs, which are built by Bollinger Shipyards of Lockport, LA, are also called Sentinel (WPC-1101)[40] class patrol boats because they are being named for enlisted leaders, trailblazers, and heroes of the Coast Guard and its predecessor services of the U.S. Revenue Cutter Service, U.S. Lifesaving Service, and U.S. Lighthouse Service.[41]

The Coast Guard's POR calls for procuring 58 FRCs as replacements for the service's 49 Island-class patrol boats.[42] The Coast Guard's FY2020 budget submission estimated the total acquisition cost of the 58 cutters at $3.748.1 billion, or an average of about $65 million per cutter.[43] The POR figure of 58 FRCs is for domestic operations. The Coast Guard operates six Island-class patrol boats in the Persian Gulf area as elements of a Bahrain-based Coast Guard unit, called Patrol Forces Southwest Asia (PATFORSWA), which is the Coast Guard's largest unit outside the

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[38] Source: CRS estimate based on replacement sequence shown in Government Accountability Office, *Coast Guard Recapitalization[:] Matching Needs and Resources Continue to Strain Acquisition Efforts*, GAO-17-654 T, June 7, 2017. (Testimony Before the Subcommittee on Coast Guard and Maritime Transportation, Committee on Transportation and Infrastructure, House of Representatives, Statement of Marie A. Mak, Director, Acquisition and Sourcing Management.)

[39] FRCs are 154 feet long and have a full load displacement of 353 tons.

[40] In the designation WPC, W means Coast Guard ship and PC stands for patrol craft.

[41] Source for class naming rule: U.S. Coast Guard bulletin, "ALCOAST 349/17 - Nov 2017 New Fast Response Cutters Named for Coast Guard heroes," November 22, 2017, accessed November 20, 2017, at https://content.govdelivery.com/accounts/USDHSCG/bulletins/1c6c844.

[42] 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 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.
>
> (*Department of Homeland Security, United States Coast Guard, Fiscal Year 2013 Congressional Justification*, p. CG-AC&I-28 (pdf page 182 of 400).)

[43] Source: Coast Guard Five-Year (FY2020-FY2024) Capital Investment Plan (CIP) funding table for the Procurement, Construction and Improvements (PC&I) account.

United States.[44] Providing FRCs as one-for-one replacements for all six of the Island-class patrol boats in PATFORSWA resulted in a combined POR+PATFORSWA procurement figure of 64 FRCs.

A total of 64 FRCs have been funded through FY2021, including four in FY2021. Forty of the 64 have been commissioned into service, and others have been accepted by the Coast Guard and are awaiting commissioning.

The Coast Guard's proposed FY2022 budget requests $20.0 million in procurement funding for the FRC program; this request does not include funding for any additional FRCs.

Figure 7. 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/.

Requested Funding in FY2013-FY2022 Budget Submissions

Table 1 shows annual requested and programmed acquisition funding for the NSC, OPC, and FRC programs in the Coast Guard's FY2013-FY2022 budget submissions. Enacted figures differ from these requested and programmed amounts.

[44] For additional information on PATFORSWA, see U.S. Coast Guard, "Patrol Forces Southwest Asia, PATFORSWA," accessed April 24, 2019, at https://www.atlanticarea.uscg.mil/Our-Organization/Area-Units/PATFORSWA/, U.S. Coast Guard, "CG Patrol Forces SWA Org Chart," accessed April 24, 2019, at https://www.atlanticarea.uscg.mil/Our-Organization/Area-Units/PATFORSWA/Departments/; Edward H. Lundquist, "PATFORSWA Serves Forward in the Arabian Gulf," *Defense Media Network*, March 19, 2018; Eric D. Nielsen (posted by Connie Terrell), "PATFORSWA: Guardians of the Arabian Gulf," *Coast Guard Compass*, August 22, 2016.

Table 1. Requested Funding in FY2013-FY2022 Budget Submissions

Figures in millions of then-year dollars

Budget	FY13	FY14	FY15	FY16	FY17	FY18	FY19	FY20	FY21	FY22	FY23	FY24	FY25
NSC program													
FY13	683	0	0	0	0								
FY14		16	710	38	0	45							
FY15			638	75	130	30	47						
FY16				91.4	132	95	30	15					
FY17					127	95	65	65	21				
FY18						54	65	65	21	6.6			
FY19							65	57.7	21	6.6	0		
FY20								60	21	6.6	5	5	
FY21									31	n/a	n/a	n/a	n/a
FY22										78	n/a	n/a	n/a
OPC program													
FY13	30	50	40	200	530								
FY14		25	65	200	530	430							
FY15			20	90	100	530	430						
FY16				18.5	100	530	430	430					
FY17					100	530	430	530	770				
FY18						500	400	457	716	700			
FY19							400	457	716	700	689		
FY20								457	716	700	689	715	
FY21									546	n/a	n/a	n/a	n/a
FY22										597	n/a	n/a	n/a
FRC program													
FY13	139	360	360	360	360								
FY14		75	110	110	110	110							
FY15			110	340	220	220	315						
FY16				340	325	240	240	325					
FY17					240	240	325	325	18				
FY18						240	335	335	26	18			
FY19							240	340	20	20	20		
FY20								140	20	20	20	20	
FY21									20	n/a	n/a	n/a	n/a
FY22										20	n/a	n/a	n/a
Total													
FY13	852	410	400	560	890								
FY14		716	885	348	640	585							
FY15			768	505	450	780	792						
FY16				449.9	557	865	700	370					
FY17					467	865	820	920	809				
FY18						794	800	857	763	724.6			
FY19							705	854.7	757	726.6	709		
FY20								657	757	726.6	714	740	
FY21									597	n/a	n/a	n/a	n/a
FY22										695	n/a	n/a	n/a

Source: Table prepared by CRS based on FY2013-FY2022 budget submissions. n/a means not available. This table shows requested and programmed funding levels; enacted funding levels differ from the requested figures shown in this table.

Issues for Congress

Planned Procurement Quantities Under 2004 Program of Record

One issue for Congress is whether the planned procurement quantities for NSCs, OPCs, and FRCs under the Coast Guard's 2004 program of record (POR) are too high, too low, or about right. 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, a Coast Guard fleet mix analysis conducted in 2011 (the most recent such analysis that the Coast Guard has released) concluded that the planned total of 91 NSCs, OPCs, and FRCs would provide 61% of the cutters that would be needed to fully perform the service's statutory missions in coming years, in part because Coast Guard mission demands were projected to be greater in coming years than they were in the past.

In the FY2021 National Defense Authorization Act (H.R. 6395/P.L. 116-283 of January 1, 2021), Division G is the Elijah E. Cummings Coast Guard Authorization Act of 2020. Section 8261 of Division G of H.R. 6395/P.L. 116-283 states

> SEC. 8261. REPORT ON FAST RESPONSE CUTTERS, OFFSHORE PATROL CUTTERS, AND NATIONAL SECURITY CUTTERS.
>
> (a) IN GENERAL.—Not later than 90 days after the date of the enactment of this Act, the Commandant shall submit to the Committee on Commerce, Science, and Transportation of the Senate and the Committee on Transportation and Infrastructure of the House of Representatives a report on the combination of Fast Response Cutters, Offshore Patrol Cutters, and National Security Cutters necessary to carry out Coast Guard missions.
>
> (b) ELEMENTS.—The report required by subsection (a) shall include—
>
> (1) an updated cost estimate for each type of cutter described in such subsection; and
>
> (2) a cost estimate for a Sensitive Compartmented Information Facility outfitted to manage data in a manner equivalent to the National Security Cutter Sensitive Compartmented Information Facilities.

For further discussion of this issue, about which CRS has testified and reported on since 2005,[45] see **Appendix A**.

Whether 2004 Program of Record Should Be Updated

A related issue for Congress is whether the Coast Guard's 2004 POR, including its planned procurement quantities for NSCs, OPCS, and FRCs, should be updated. As discussed in the CRS overview report on Navy force structure and shipbuilding plans, the Navy since 2004 has updated its ship force-level goals eight times since 2004, and a ninth update may be released in 2021 or 2022.[46]

[45] 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.

[46] See CRS Report RL32665, *Navy Force Structure and Shipbuilding Plans: Background and Issues for Congress*, by Ronald O'Rourke, particularly the Background section and Table A-1.

The Navy's force-level goals may require more frequent updating than the Coast Guard's POR, because the Navy's force-level goals are sensitive to ongoing developments affecting the maritime military capabilities of foreign countries, particularly China,[47] whereas the Coast Guard's program of record is arguably rooted more in geographic considerations (such as the sizes of sea areas to be patrolled) that are subject to less change over time. Even so, some of the Coast Guard's planning factors might change over time; potential examples include factors relating to

- how cutters are based, crewed, and operated, which can affect the number of days per year that a cutter spends at sea;
- emergent mission needs resulting from the actions of others; and
- changes in the role of the Coast Guard in implementing overall U.S. national strategy.

Regarding the second and third items above, some observers see a potential for increased illegal fishing in certain U.S. fisheries, such as those in the central Pacific,[48] and the Coast Guard has recently been highlighting its deployments of cutters to the Western Pacific to operate in conjunction with U.S. Navy ships as part of a U.S. effort to counter China's increasing capabilities and operations in those waters.[49]

A February 24, 2021, letter to the Commandant of the Coast Guard from the Chair and Ranking Member of the House Transportation and Infrastructure Committee and the Chair and Ranking Member of the committee's Coast Guard and Maritime Transportation subcommittee states

> We are concerned that past Fleet Mix Analyses conducted by the United States Coast Guard (Service, USCG, or Coast Guard) are outdated. As such, those analyses no longer reflect the current global threat environment, the growing mission requirements facing the Coast Guard (particularly those related to the current global threat environment), or the Coast Guard's hard-won operating experience with Fast Response Cutters (FRCs) and National Security Cutters (NSCs).
>
> As the Coast Guard fulfills its requirements under Section 8261, Report on Fast Response Cutters, Offshore Patrol Cutters, and National Security Cutters, of the Elijah E. Cummings Coast Guard Authorization Act of 2020 (Division G of P.L. 116-283), we urge you to

[47] For additional discussion, see CRS Report RL33153, *China Naval Modernization: Implications for U.S. Navy Capabilities—Background and Issues for Congress*, by Ronald O'Rourke.

[48] A February 2020 press report, for example, states, "For the first time in eight years, the U.S. Coast Guard has intercepted illegal fishing vessels within American EEZ [Exclusive Economic Zone] areas in the Central and Western Pacific. Fishing boat interdiction is a common task for the Coast Guard off the coast of Texas, where Mexican 'lancha' fishing boats are routinely intercepted in U.S. waters, but IUU [illegal, unreported, and unregulated] fishing by foreign vessels is almost unheard of in America's far-flung Pacific Ocean EEZ regions." (Maritime Executive, "USCG Intercepts Illegal Fishing Vessels Off Guam and Hawaii," *Maritime Executive*, February 24, 2021.) See also Ralph Espach, "A New Great Game Finds the South Atlantic," *War on the Rocks*, March 22, 2021.

[49] See, for example, Richard R. Burgess, "Coast Guard Increasing Engagement with Pacific Allies, Partners, U.S. Navy," *Seapower*, June 28, 2021; Cal Biesecker, "Biden Says U.S. Coast Guard Will Take On More Global Missions; Highlights Indo-Pacific Region," *Defense Daily*, May 19, 2021; William Cole (Honolulu Star-Advertiser), "Cutter Deployments Point to Bigger US Military Role in Western Pacific," *Military.com*, April 5, 2021; Peter Suciu, "The Military's New Weapon Against China And Russia: The Coast Guard?" *19FortyFive*, March 17, 2021 (a similar article was published as "The Military's New Weapon Against China and Russia: the Coast Guard?" *National Interest*, March 22, 2021, with a byline of Caleb Larson but an author's background note suggesting that the author is actually Peter Suciu); Lucy Craymer and Ben Kesling, "U.S. Deploys Coast Guard Far From Home to Counter China, The Service Has Gotten Increasingly Active in the Western Pacific as Chinese Fishing Fleets Expand into New Waters," *Wall Street Journal*, March 15, 2021; Gidget Fuentes, "Schultz: Coast Guard Units Remain in High Demand as Forces Stretches to Meet Needs," *USNI News*, March 15, 2021; Paul McLeary, "Coast Guard Deploying More Ships To Pacific, Arctic," *Breaking Defense*, March 11 2021.

consider the following operational developments which have created additional demands for USCG cutter assets worldwide:

- U.S. Indo-Pacific Command rotational deployments of multiple NSCs to U.S. Naval Surface Group Western Pacific over the past two years;

- Expanding requirements that justified homeporting three FRCs to Guam;

- Russian Navy exercises that disrupted the U.S. fishing fleet legitimately operating within the U.S. Exclusive Economic Zone in the Bering Sea;

- Increased deployments to U.S. Southern Command's area of responsibility for drug interdiction in support of surge operations announced in April 2020;

- NSC Illegal, Unreported and Unregulated (IUU) fishing enforcement patrol with the Ecuadorian Navy targeting the massive Chinese distant water fishing fleet operating in or near the Galapagos Islands Exclusive Economic Zone;

- Expanding requirements that justified replacing the six 110' Island Class patrol boats with FRCs in Bahrain;

- Anticipated NSC deployments in support of U.S. 5th Fleet and U.S. 6th Fleet; and

- A recent NSC deployment to South America for IUU fishing enforcement with Brazil & Argentina.

All the operational developments noted above are important for our national defense and security, and all occurred after the release of the last Fleet Mix Analysis which was conducted in 2011. Such new missions have placed additional demands on the Coast Guard, its people, its platforms, and its budgets, none of which are reflected in the 2011 Fleet Mix Analysis.

While there were updates to the Fleet Mix Analyses in 2011 and 2019, the Congressional Research Service (CRS) concluded that even the 91 cutters in the USCG's 2004 Program of Record were not enough to meet Coast Guard mission needs back then. In fact, that cutter fleet, when fully built out, was only expected to meet 61 percent of envisioned Coast Guard missions. As the Coast Guard reports its resultant Fleet Mix requirement numbers, we would like to understand what percentage of missions will be met and, importantly, what it would take to meet 100 percent of the Service's anticipated offshore missions.

Additionally, we would like the Coast Guard to provide answers to the following questions in the Section 8261 report:

1. Which USCG assets are best equipped to deal with peer competition at sea, including organic self-defense capability and interoperability with the U.S. Navy?

2. What additional resources will the USCG need for day-to-day engagement in support of Combatant Commanders?

3. What effect has the increased commitment to provide USCG assets in support of DoD combatant commands across the globe had on domestic mission needs, considering these support operations are only partially funded by DoD? Specifically, provide a summary of assets that have been deployed internationally in support of Combatant Commanders, including an analysis of the types of activities they have been engaged in, and a breakdown of the time those assets spent executing domestic and/or international missions over the past eight years.

4. What are the IUU fishing hot spots (i.e., areas of emphasis) around the world and what additional USCG maritime domain awareness and response resources are needed to address U.S. concerns in these areas?

5. Given the increased presence of Russian and Chinese vessels in the Arctic, is the USCG exploring a mix of assets, including ice-hardened cutters, to execute USCG missions within

> the U.S. EEZ off the coast of Alaska (i.e., Gulf of Alaska, Bering Sea, Arctic Ocean)? What additional assets are needed to have a robust presence in the Arctic to meet current and future USCG missions?
>
> 6. What is the status of the offshore patrol cutter (OPC) program and what assurances can you provide that the first OPC will be delivered in 2022? What is the current shipbuilder cost (i.e., total contract awards to date) and expected final cost of the first OPC, including nonrecurring costs? What is the current shipbuilder cost and expected final cost of the second OPC? How many cutters' years have been lost due to the Department of Homeland Security decision to reset the program in October 2019?
>
> As we continue our oversight of the U.S. Coast Guard and provide for the future fleet, we thank you in advance for your consideration and response to this additional direction as part of the report required by Section 8261 of the Elijah E. Cummings Coast Guard Authorization Act of 2020 (Division G of P.L. 116-283), which is due to Congress no later than 90 days after the date of enactment. If you have questions please contact [deleted] Subcommittee on Coast Guard and Maritime Transportation [deleted].[50]

Procurement of a 12th NSC

Another issue for Congress—one related to the two previous issues—is whether to procure a 12th NSC. Supporters of procuring a 12th NSC could argue that

- a total of 12 NSCs would provide one-for-one replacements for the 12 retiring Hamilton-class cutters;
- Coast Guard analyses showing a need for no more than 9 NSCs assumed that NSCs would be operated with 4:3 rotational crewing (i.e., four crews for every three ships)[51]—a plan that the Coast Guard in February 2018 told the Government Accountability Office (GAO) that it had abandoned;[52]
- the Coast Guard's POR record includes only about 61% as many new cutters as the Coast Guard has calculated would be required to fully perform the Coast Guard's anticipated missions in coming years (see **Appendix A**);

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[50] Letter dated February 24, 2021, Admiral Karl Schultz, Commandant, United States Coast Guard, from Representative Peter A. DeFazio, Representative Sam Graves, Representative Salud Carbajal, and Representative Bob Gibbs accessed March 15, 2021, at https://transportation.house.gov/imo/media/doc/2021-02-24%20Big%204%20LTR%20to%20USCG%20Commandant%20ADM%20Schultz_%20Fleet%20Mix%20Analysis.pdf. See also Cal Biesecker, "House Panel Wants Updated Coast Guard Fleet Analysis To Factor In New Demands," *Defense Daily*, March 2, 2021.

[51] GAO testified in 2017 that "to achieve 230 days away from homeport [per year for each NSC], the Coast Guard plans to use a 'crew rotational concept' in which four crews staff and operate three [NSC] cutters on a rotating basis." (Government Accountability Office, *Coast Guard Recapitalization[:] Matching Needs and Resources Continue to Strain Acquisition Efforts*, GAO-17-654T, Testimony Before the Subcommittee on Coast Guard and Maritime Transportation, Committee on Transportation and Infrastructure, House of Representatives, Statement of Marie A. Mak, Director, Acquisition and Sourcing Management, June 7, 2017, p. 6 [note a to Table 1].)

[52] A 2018 GAO report stated

> In February 2018, USCG officials told GAO they abandoned the crew rotational concept because the concept did not provide the USCG with the expected return on investment. Instead, USCG officials said a new plan has been implemented that does not rotate crew and is anticipated to increase the days away from home port from the current capability of 185 days to 200 days.
>
> (Government Accountability Office, *Homeland Security Acquisitions[:] Leveraging Programs' Results Could Further DHS's Progress to Improve Portfolio Management*, GAO-18-339SP, May 2018, p. 92.)

- the Coast Guard has recently been highlighting its deployments of cutters to the Western Pacific to operate in conjunction with U.S. Navy ships as part of a U.S. effort to counter China's increasing capabilities and operations in those waters—deployments that could increase demands for NSCs beyond what the Coast Guard anticipated when it established its program of record in 2004;[53] and
- the increase in the estimated displacement of the OPC to 4,500 tons—a figure about equal to the displacement of NSCs—makes procuring additional NSCs more suitable as a near-term measure for responding to potential delays in the restructured OPC program.

Skeptics or opponents of procuring a 12th NSC could argue that

- the Coast Guard's POR includes only 8 NSCs;
- the Coast Guard's fleet mix analyses (see **Appendix A**) have not shown a potential need for more than 9 NSCs;
- the Coast Guard intends to move expeditiously to proceed with its restructured effort to procure OPCs; and
- in a situation of finite Coast Guard budgets, procuring a 12th NSC might reduce funding available for other Coast Guard programs, including the OPC and PSC programs.

Potential Impact of COVID-19 Pandemic

Another issue for Congress concerns the potential impact of the COVID-19 pandemic on the execution of U.S. military shipbuilding programs, including the NSC, OPC, and FRC programs. For additional discussion of this issue, see CRS Report RL32665, *Navy Force Structure and Shipbuilding Plans: Background and Issues for Congress*, by Ronald O'Rourke.

Cost and Schedule Risk in OPC Program

Another potential oversight issue for Congress concerns cost and schedule risk in the OPC program following the Coast Guard's restructuring of the program.

November 2020 GAO Report

A November 2020 GAO report on the OPC program states

> The Coast Guard's determination to deliver the OPCs in a timely manner has driven the program through key acquisition decisions despite significant design, testing, schedule, and cost risks, which remained or were exacerbated after the hurricane ….
>
> **Unstable Design.** The Coast Guard authorized the start of construction for the first two OPCs despite not having a stable design, which is inconsistent with shipbuilding best practices. Proceeding towards OPC 3 construction before stabilizing the design—including maturing the design drawings of major ship systems—increases the risk of construction rework if changes are needed. This could further delay schedules and increase costs.
>
> **Deficient and Optimistic Schedule.** Prior to the construction award for OPC 1, the OPC program's schedule has contained significant deficiencies that are contrary to what is called for in best practices for developing schedules that GAO identified. Further, the revised

[53] See, for example, Dan Goure, "New U.S. Maritime Strategy Makes Case for More Coast Guard Cutters," *National Interest*, January 6, 2021.

> post-hurricane delivery dates for the first four OPCs are optimistic and do not fully incorporate schedule risks, increasing the likelihood that the OPCs will not be delivered when promised.
>
> **Incomplete Cost Estimate.** The cost estimate used to inform the program's new cost goals did not include key analyses called for in best practices for developing cost estimates GAO identified. These key analyses include varying assumptions to determine how sensitive the estimates are to various factors and quantifying the effects of potential risks. Omitting these analyses undermines the credibility of the estimated program costs, increasing the risk that decision makers do not have a complete picture of the full range of costs the program could incur.[54]

Procurement Cost Growth on OPCs 1 Through 4

The Coast Guard stated that as of mid-April 2020, the combined estimated procurement cost of OPCs 1 through 4 had increased by a total of between $300 million and $400 million since the Coast Guard's 2017 Life Cycle Cost Estimate (LCCE) for the program, with the increase on the cost OPC-1 being larger than the increases on the costs of OPCs 2 through 4, and that almost all of the increase is attributable to relief provided under P.L. 85-804.[55] A combined increase of $300 million to $400 million for OPCS 1 through 4 would represent an increase of 18% to 24% above the $411 million average procurement cost for each of 25 OPCs as estimated under the Coast Guard's FY2020 budget submission. The November 2020 GAO report on the OPC program states

> As of May 2020, the Coast Guard used the granted relief to increase ESG's contract ceiling price for detail design and construction of the first two OPCs by 38 percent, from $779 million to $1.07 billion. In July 2020, Coast Guard officials told us that they plan to modify the contract prices for OPCs 3 and 4 by no later than June 2021 and June 2022, respectively.[56]

Potential oversight questions for Congress include the following:

- Of the increase of $300 million to $400 million in the combined estimated procurement cost of OPCs 1 through 4, how much was due to the effects of Hurricane Michael?
- How cost-effective would it be to build each of these first four OPCs at their new estimated procurement costs, relative to potential alternatives such as procuring up to four additional NSCs, or up to four more of the OPCs that are to be built under the follow-on OPC construction contract that the Coast Guard intends to compete and award?
- What potential, if any, is there for further cost growth on OPCs 1 through 4?
- At what procurement cost would one or more of these first four OPCs no longer be cost effective to procure, relative to the potential alternatives mentioned above?
- What implications, if any, does the cost growth on OPCs 1 through 4 have for the potential for cost growth on subsequent OPCs?

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[54] Government Accountability Office, *Coast Guard Acquisitions[:] Opportunities Exist to Reduce Risk for the Offshore Patrol Cutter Program*, GAO-21-9, October 2020, summary page.

[55] Source: Coast Guard email to CRS, April 15, 2020.

[56] Government Accountability Office, *Coast Guard Acquisitions[:] Opportunities Exist to Reduce Risk for the Offshore Patrol Cutter Program*, GAO-21-9, October 2020, p. 12.

Risk of Procurement Cost Growth on OPCs 5-25

Another issue for Congress is the risk of procurement cost growth on OPCs 5 through 25, particularly given the increase in the OPC's estimated full load displacement from 3,500 to 3,730 tons as of May 2017 to 4,500 tons as of November 2019—an increase of more than 20%—and how this risk might affect the probability that OPCs can be built within the Coast Guard's affordability requirement for the OPC program of an average unit price of $310 million per ship, or less, in then-year dollars for ships 4 through 9 in the program for the shipbuilder's portion of the ship's total cost. Since, as a general matter, the cost of a ship of a given type is roughly proportional to its displacement, the increase of more than 20% in the OPC's estimated full load displacement raises a possibility that the cost to build OPCs may have increased, perhaps substantially, from earlier estimates. The draft statement of work (SOW) for the Coast Guard's intended follow-on competition for the OPC program that the Coast Guard posted on November 22, 2019, required contractors responding to the RFI to provide, among other things, "a risk assessment of achieving the OPC Program's previously established affordability target for production OPCs."

Stage 2 Competition for OPC Program

Another potential oversight issue for Congress concerns the Coast Guard's Stage 2 competition for OPCs 5 through 15. As mentioned earlier, the Coast Guard reportedly wants Stage 2 bidders to retain ESG's basic outer hull design for the OPC while permitting bidders the option of altering the design's interior details. Potential oversight issues for Congress include but are not necessarily limited to the following:

- How much of a production learning curve advantage will ESG have in the Stage 2 competition as a result of having some amount of experience in building its OPC design?
- To what degree would such an advantage be reduced by permitting Stage 2 bidders to alter the interior details (but not the basic outer hull design) of ESG's OPC design?
- How would a new OPC design that employs a different outer hull form compare with an OPC design that retains ESG's basic outer hull design while perhaps altering interior details in terms of
  - capability;
  - costs, including design cost, procurement cost, and life-cycle operation and support (O&S) cost; and
  - force-management considerations, including crew training and assignment and logistic support?

One observer stated on March 29, 2021, that

> A good bit of the current competition rests upon just how much confidence the Coast Guard has in the cutter design Eastern created before the 2016 award.…
>
> The only problem is that the "new" Cutters acquired from the current solicitation will still be derived from Eastern's detailed design—a design that is still incomplete and still pretty much proprietary to Eastern. Quite a few in the shipbuilding community believe that Eastern could only have won the original Offshore Patrol Cutter contract by underbidding a poorly-proofed basic design. Today, some potential bidders are reluctant to even think about advancing and modifying a basic design they don't have detailed information about and still don't fully trust. This uncertainty—combined with the slow pace of third-party

> certification of Eastern's detailed design work—leaves some industry observers wondering if the eleven-ship proposal is actually a thinly-disguised opportunity for Eastern Shipbuilding Group to fix their existing design and re-baseline their original aggressive 2016 Offshore Patrol Cutter pricing.
>
> While the Coast Guard admits that the current Heritage class cutter [i.e., OPC] opportunity is poorly-timed due to the Hurricane-driven delays, Coast Guard stakeholders insist that the contract opportunity maximizes competition. Rather than fret about introducing extensive changes in the Heritage class design, Coast Guard sources point to the 210-foot Reliance class, a 60's-era mid-sized cutter. While all the ships of the Reliance class appear to be similar, the Coast Guard changed the ship's entire propulsion system in the middle of a 16-ship production run, eliminating design weaknesses that plagued the first six ships and threatened the future of the entire Reliance cutter class. The redesign worked, and the Reliance class cutters are still going strong, some 50-60 years later.[57]

Annual OPC Procurement Rate

Another oversight issue for Congress concerns the planned OPC procurement rate in relation to the ages of the medium-endurance cutters that the OPCs are to replace. The current procurement profile for the OPC, which reaches a maximum projected annual rate of two ships per year, would deliver OPCs many years after the end of the originally planned service lives of the medium-endurance cutters. As mentioned earlier, under the Coast Guard's new notional timeline, the Coast Guard's 14 Reliance-class 210-foot medium-endurance cutters would be replaced when they would be (if still in service) about 54 to 67 years old, and the Coast Guard's 13 Famous-class 270-foot medium-endurance cutters would be replaced when they would be (if still in service) about 42 to 52 years old. These ages, particularly for the Reliance-class cutters, would be very high, raising questions as to whether the ships could be made to last that long, and whether they would be able to cost effectively perform their missions at such ages.

Coast Guard officials have testified that the service plans to extend the service lives of the medium-endurance cutters until they are replaced by OPCs. There will be maintenance and repair expenses associated with operating aged medium-endurance cutters, particularly during their final years of intended service, and if the Coast Guard does not also make investments to increase the capabilities of these ships, the ships may have less capability in certain regards than OPCs.[58]

One possible option for addressing this situation would be to increase the maximum annual OPC procurement rate from the currently planned two ships per year to three or four ships per year. Doing this could result in the 25th OPC being delivered a few to several years sooner than under the currently planned maximum rate. Increasing the OPC procurement rate to three or four ships per year could require a substantial increase to the Coast Guard's Procurement, Construction, and Improvements (PC&I) account,[59] an issue discussed in **Appendix B**, and/or providing additional funding for the procurement of OPCs through the Navy's budget.

Increasing the maximum procurement rate for the OPC program could, depending on the exact approach taken, reduce OPC unit acquisition costs due to improved production economies of scale. It might also expand opportunities for using competition in the program. Notional alternative approaches for increasing the OPC procurement rate to three or four ships per year include but are not necessarily limited to the following:

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[57] Craig Hooper, "U.S. Coast Guard Seeks Builders For Big New Cutters," *Forbes*, March 29, 2021.

[58] For further discussion, see Government Accountability Office, *Coast Guard Acquisitions[:] Actions Needed to Address Longstanding Portfolio Management Challenges*, GAO 18-454, July 2018, pp. 32-36.

[59] Prior to FY2019, the PC&I account was called the Acquisition, Construction, and Improvements (AC&I) account.

- increasing the production rate to three or four ships per year at a single shipyard—an option that would depend on that shipyard's production capacity;
- using two shipyards for building OPCs to a single OPC design;
- using two shipyards for building OPCs to two designs, with each shipyard building OPCs to its own design—an option that would result in two OPC classes (similar to how the Coast Guard currently operates two primary classes of medium-endurance cutters); or
- building additional NSCs in the place of some of the planned OPCs—an option that might include de-scoping equipment on those NSCs where possible to reduce their acquisition cost and make their capabilities more like that of the OPC.

The fourth alternative above—which could be viewed as broadly similar to how the Navy is using a de-scoped version of the San Antonio (LPD-17) class amphibious ship as the basis for its LPD-17 Flight II (LPD-30) class amphibious ships[60]—could be pursued in combination with one of the first three alternatives.

Annual or Multiyear (Block Buy) Contracting for OPCs

Another issue for Congress is whether to acquire OPCs 5 through 25 using annual contracting or multiyear contracting. The Coast Guard typically uses contracts with options for its shipbuilding programs. Although a contract with options may look like a form of multiyear contracting, it operates more like a series of annual contracts. Contracts with options do not achieve the kinds of reductions in acquisition costs that are possible with multiyear contracting. Using multiyear contracting involves accepting certain trade-offs.[61]

One form of multiyear contracting, called block buy contracting, can be used at the start of a shipbuilding program, beginning with the first ship. (Indeed, this was a principal reason why block buy contracting was in effect invented in FY1998, as the contracting method for procuring the Navy's first four Virginia-class attack submarines.[62]) Section 311 of the Frank LoBiondo Coast Guard Authorization Act of 2018 (S. 140/P.L. 115-282 of December 4, 2018) provides permanent authority for the Coast Guard to use block buy contracting with economic order

[60] For additional discussion, see CRS Report R43543, *Navy LPD-17 Flight II and LHA Amphibious Ship Programs: Background and Issues for Congress*, by Ronald O'Rourke.

[61] These trade-offs include the following:

- reduced congressional control over year-to-year spending, and tying the hands of future Congresses;

- reduced flexibility for making changes in Coast Guard acquisition programs in response to unforeseen changes in strategic or budgetary circumstances (which can cause any needed funding reductions to fall more heavily on acquisition programs not covered by multiyear contracts);

- a potential need to shift funding from later fiscal years to earlier fiscal years to fund economic order quantity (EOQ) purchases (i.e., up-front batch purchases) of components;

- the risk of having to make penalty payments to shipbuilders if multiyear contracts need to be terminated due to unavailability of funds needed for the continuation of the contracts; and

- the risk that materials and components purchased for ships to be procured in future years might go to waste if those ships are not eventually procured.

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

quantity (EOQ) purchases (i.e., up-front batch purchases) of components in its major acquisition programs. The authority is codified at 14 U.S.C. 1137.

CRS estimates that if the Coast Guard were to use block buy contracting with EOQ purchases of components for acquiring the first several OPCs beginning with OPC 5, and either block buy contracting with EOQ purchases or another form of multiyear contracting known as multiyear procurement (MYP)[63] with EOQ purchases for acquiring the remaining ships in the program, the savings on the total acquisition cost of the 25 OPCs (compared to costs under contracts with options) could amount to hundreds of millions of dollars.

Legislative Activity for FY2022

Summary of Appropriations Action on FY2022 Procurement Funding Request

Table 2 summarizes appropriations action on the Coast Guard's request for FY2022 procurement funding for the NSC, OPC, and FRC programs.

Table 2. Summary of Appropriations Action on FY2022 Procurement Funding Request

Figures in millions of dollars, rounded to nearest tenth

Request	Request	HAC	SAC	Final
NSC program	78.0	99.0		
OPC program	597.0	597.0		
FRC program	20.0	20.0		
TOTAL	**695.0**	**716.0**		

Source: Table prepared by CRS based on Coast Guard's FY2022 budget submission, HAC committee report, and SAC chairman's mark and explanatory statement on FY2022 DHS Appropriations Act. **HAC** is House Appropriations Committee; **SAC** is Senate Appropriations Committee.

FY2022 DHS Appropriations Act (H.R. 4431)

House

The House Appropriations Committee, in its report (H.Rept. 117-87 of July 15, 2021) on H.R. 4431, recommends the funding levels shown in the HAC column of **Table 2**. H.Rept. 117-87 states

> *Offshore Patrol Cutter (OPC).*—The recommendation provides the requested $597,000,000 to continue the program of record for these critical assets. The Committee directs the Coast Guard to continue briefings, as described in Public Law 116–93, on the metrics used to evaluate adherence to production timelines and costs, as well as progress towards or challenges experienced in meeting these metrics.
>
> *National Security Cutter (NSC).*—The Committee provides $99,000,000, which is $21,000,000 above the request, for the NSC program. This funding will support Post Delivery Activities to missionize and operationalize NSCs 10 and 11. The shortfall for

[63] 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.

> these activities is currently over $200,000,000. The $21,000,000 is funded in the bill as a rescission and re-appropriation of prior-year funds to extend their availability. (Page 57)

Unwavering Support for Our Coast Guard Act (S. 1845)

Senate

S. 1845 was introduced on May 26, 2021. Section 5 of S. 1845 states

> SEC. 5. FLEET MIX ANALYSIS.
>
> (a) IN GENERAL.—The Commandant of the Coast Guard (referred to in this Act as the ''Commandant'') shall conduct an updated fleet mix analysis that provides for a fleet mix sufficient, as determined by the Commandant—
>
> (1) to carry out—
>
> (A) the missions of the Coast Guard; and
>
> (B) emerging mission requirements; and
>
> (2) to address—
>
> (A) national security threats; and
>
> (B) the global deployment of the Coast Guard to counter great power competitors.
>
> (b) REPORT.—Not later than 1 year after the date of the enactment of this Act, the Commandant shall submit to Congress a report on the results of the updated fleet mix analysis required by subsection (a).[64]

[64] Source: Text of bill accessed June 8, 2021, at https://www.commerce.senate.gov/services/files/EE424A5F-2029-4330-A471-F08DAF26EEAB.

Appendix A. Planned Procurement Quantities Under 2004 Program of Record

This appendix provides further discussion on the issue of the planned procurement quantities for NSCs, OPCs, and FRCs under the Coast Guard's 2004 POR.

Overview

The Coast Guard's POR for NSCs, OPCs, and FRCs includes only about 61% as many cutters as the Coast Guard calculated in 2011 would be needed to fully perform its projected future missions. (The Coast Guard's 2011 analysis is the most recent such analysis that the Coast Guard has released.) The Coast Guard's planned force levels for NSCs, OPCs, and FRCs have remained unchanged since 2004. In contrast, the Navy since 2004 has adjusted its ship force-level goals eight times since 2004, and a ninth update may be released in 2021 or 2022.[65]

Although the Coast Guard's strategic situation and resulting mission demands may not have changed as much as the Navy's have since 2004, the Coast Guard's budgetary circumstances may have changed since 2004. The 2004 program of record was heavily conditioned by Coast Guard expectations in 2004 about future funding levels in the PC&I account. Those expectations may now be different, as suggested by the willingness of Coast Guard officials in 2017 to begin regularly mentioning the need for a PC&I funding level of $2 billion per year (see **Appendix B**).

It can also be noted that continuing to, in effect, use the Coast Guard's 2004 expectations of future funding levels for the PC&I account as an implicit constraint on planned force levels for NSCs, OPCs, and FRCs can encourage an artificially narrow view of Congress's options regarding future Coast Guard force levels and associated funding levels, depriving Congress of agency in the exercise of its constitutional power to provide for the common defense and general welfare of the United States, and to set funding levels and determine the composition of federal spending.

2009 Coast Guard Fleet Mix Analysis

The Coast Guard estimated in 2009 that with the POR's planned force of 91 NSCs, OPCs, and FRCs, the service would have capability or capacity gaps[66] in 6 of its 11 statutory missions—search and rescue (SAR); defense readiness; counterdrug 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 nevertheless 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

[65] See CRS Report RL32665, *Navy Force Structure and Shipbuilding Plans: Background and Issues for Congress*, by Ronald O'Rourke, particularly the Background section and Table A-1.

[66] 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.

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 A-1** compares planned numbers of NSCs, OPCs, and FRCs in the POR to those in the objective fleet mix.

Table A-1. 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 A-1**, 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 2009 FMA Phase I 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 A-2** compares the POR to FMAs 1 through 4.

Table A-2. 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 A-3** shows the POR and FMAs 1 through 4 in terms of their mission performance gaps.

Table A-3. 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).

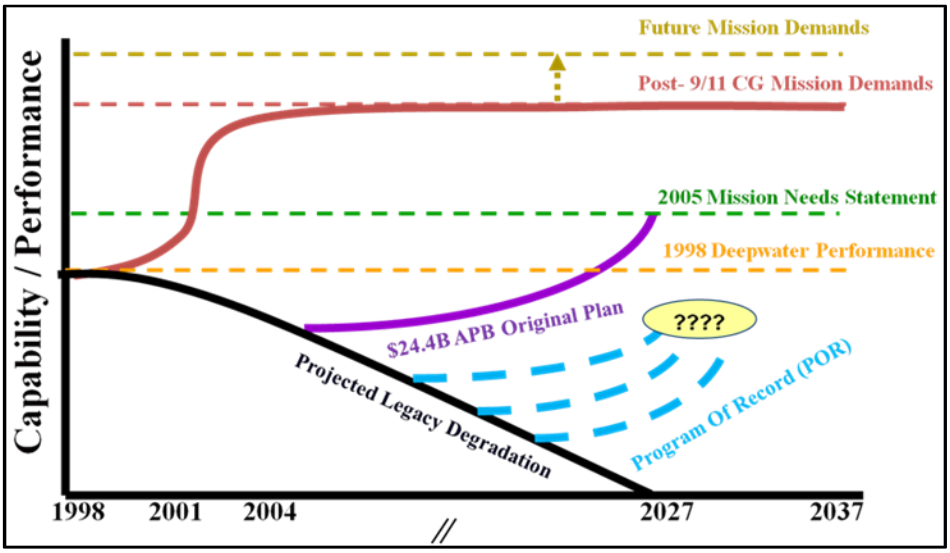
d. This gap occurs in the Southeast and Western operating areas.

e. This gap occurs in the Northeast operating area.

Figure A-1, 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 A-1. 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 A-2** 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 A-2** were generally not included in public discussions of the Coast Guard's future force structure needs until April 2011, when GAO presented them in testimony.[67] GAO again presented them in a July 2011 report.[68]

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 A-4** compares the POR to the objective fleet mix from FMA Phase 1 and the refined objective mix from FMA Phase 2.

As can be seen in **Table A-4**, 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.

[67] 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.

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

Table A-4. 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.

Compared to the POR, the larger force mixes shown in **Table A-2** and **Table A-4** 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.[69]

The larger force mixes in the FMA Phase 1 and 2 studies, moreover, include 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 in the POR mix. Stated the other way around, the POR includes about 52% as many aircraft as the objective fleet mix. A decision to procure larger numbers of cutters like those shown in **Table A-2** and **Table A-4** 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.[70]

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 A-3**? What impact would these performance gaps have on public safety, national security, and protection of living marine resources?

[69] 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.

[70] 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.

- 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 A-3**, should planned numbers of Coast Guard cutters and aircraft be increased, or should the Coast Guard's statutory missions be reduced, or both?
- How much larger would the performance gaps in **Table A-3** 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 A-3**?
- What projected mission demands or other factors may have changed since the Coast Guard's 2011 Fleet Mix Analysis, and how might these changes affect future required numbers of Coast Guard cutters and other Coast Guard assets?[71]

[71] For a blog post discussing this issue, see Chuck Hill, "Is Our Fleet Recapitalization on Course? Do We Need to Change the Destination?" *Chuck Hill's CG Blog*, September 8, 2019.

Appendix B. Requested Funding Levels in PC&I Account

This appendix provides background information on requested funding levels in the Coast Guard's Procurement, Construction, and Improvements (PC&I) account.[72] Enacted funding levels differ from the requested figures shown in this appendix.

Overview

Table B-1 shows funding requested and programmed in the PC&I account under the Coast Guard's FY2013-FY2022 budget submissions. Enacted funding levels differ from the requested figures shown in this table.

[72] Prior to FY2019, the PC&I account was called the Acquisition, Construction, and Improvements (AC&I) account.

Table B-1. Requested Funding in PC&I Account in FY2013-FY2022 Budgets

Figures in millions of dollars, rounded to nearest tenth

Budget	FY13	FY14	FY15	FY16	FY17	FY18	FY19	FY20	FY21	FY22	FY23	FY24	FY25	Avg.
FY13	1,217.3	1,429.5	1,619.9	1,643.8	1,722.0									1,526.5
FY14		951.1	1,195.7	901.0	1,024.8	1,030.3								1,020.6
FY15			1,084.2	1,103.0	1,128.9	1,180.4	1,228.7							1,145.0
FY16				1,017.3	1,125.3	1,255.7	1,201.0	1,294.6						1,178.8
FY17					1,136.8	1,259.6	1,339.9	1,560.5	1,840.8					1,427.5
FY18						1,203.7	1,360.9	1,602.7	1,810.6	1,687.5				1,533.1
FY19							1,886.8	1,473.0	1,679.8	1,555.5	1,698.5			1,658.7
FY20								1,234.7	1,679.8	1,555.5	1,698.5	1,737.0		1,581.1
FY21									1,637.1	n/a	n/a	n/a	n/a	n/a
FY22										1,639.1	n/a	n/a	n/a	n/a

Source: Table prepared by CRS based on Coast Guard FY2013-FY2022 budget submissions. n/a means not available. This table shows requested and programmed funding levels; enacted funding levels differ from the requested figures shown in this table.

The Coast Guard has testified that funding the PC&I account at a level of about $1 billion to $1.2 billion per year (the average levels under the FY2014-FY2016 budget submissions) would make it difficult to fund various Coast Guard acquisition projects, including the PSC program and improvements to Coast Guard shore installations. Coast Guard plans call for procuring OPCs at an eventual rate of two per year. If each OPC costs roughly $400 million, procuring two OPCs per year in a PC&I account of about $1 billion to $1.2 billion per year, as programmed under the FY2014-FY2016 budget submissions, would leave about $200 million to $400 million per year for all other PC&I-funded programs.

Since 2017, Coast Guard officials have been stating more regularly what they stated only infrequently in earlier years—that executing the Coast Guard's various acquisition programs fully and on a timely basis would require the PC&I account to be funded at a level of about $2 billion per year. Statements from Coast Guard officials on this issue in past years have sometimes put this figure as high as about $2.5 billion per year.

Using Past PC&I Funding Levels as a Guide for Future PC&I Funding Levels

In assessing future funding levels for executive branch agencies, a common practice is to assume or predict that the figure in coming years will likely be close to where it has been in previous years. While this method can be of analytical and planning value, for an agency like the Coast Guard, which goes through periods with less acquisition of major platforms and periods with more acquisition of major platforms, this approach might not always be the best approach, at least for the PC&I account.

More important, in relation to maintaining Congress's status as a co-equal branch of government, including the preservation and use of congressional powers and prerogatives, an analysis that assumes or predicts that future funding levels will resemble past funding levels can encourage an artificially narrow view of congressional options regarding future funding levels, depriving Congress of agency in the exercise of its constitutional power to set funding levels and determine the composition of federal spending.

Past Coast Guard Statements About Required PC&I Funding Level

At an October 4, 2011, hearing on the Coast Guard's major acquisition programs before the Coast Guard and Maritime Transportation subcommittee of the House Transportation and Infrastructure Committee, the following exchange occurred:

> REPRESENATIVE FRANK LOBIONDO:
>
> Can you give us your take on what percentage of value must be invested each year to maintain current levels of effort and to allow the Coast Guard to fully carry out its missions?
>
> ADMIRAL ROBERT J. PAPP, COMMANDANT OF THE COAST GUARD:
>
> I think I can, Mr. Chairman. Actually, in discussions and looking at our budget—and I'll give you rough numbers here, what we do now is we have to live within the constraints that we've been averaging about $1.4 billion in acquisition money each year.
>
> If you look at our complete portfolio, the things that we'd like to do, when you look at the shore infrastructure that needs to be taken care of, when you look at renovating our smaller icebreakers and other ships and aircraft that we have, we've done some rough estimates that it would really take close to about $2.5 billion a year, if we were to do all the things that we would like to do to sustain our capital plant.

> So I'm just like any other head of any other agency here, as that the end of the day, we're given a top line and we have to make choices and tradeoffs and basically, my tradeoffs boil down to sustaining frontline operations balancing that, we're trying to recapitalize the Coast Guard and there's where the break is and where we have to define our spending.[73]

An April 18, 2012, blog entry stated the following:

> If the Coast Guard capital expenditure budget remains unchanged at less than $1.5 billion annually in the coming years, it will result in a service in possession of only 70 percent of the assets it possesses today, said Coast Guard Rear Adm. Mark Butt.
>
> Butt, who spoke April 17 [2012] at [a] panel [discussion] during the Navy League Sea Air Space conference in National Harbor, Md., echoed Coast Guard Commandant Robert Papp in stating that the service really needs around $2.5 billion annually for procurement.[74]

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."[75]

At a May 14, 2013, hearing on the Coast Guard's proposed FY2014 budget before the Homeland Security Subcommittee of the Senate Appropriations Committee, Admiral Papp stated the following regarding the difference between having about $1.0 billion per year rather than about $1.5 billion per year in the PC&I account:

> Well, Madam Chairman, $500 million—a half a billion dollars—is real money for the Coast Guard. So, clearly, we had $1.5 billion in the [FY]13 budget. It doesn't get everything I would like, but it—it gave us a good start, and it sustained a number of projects that are very important to us.
>
> When we go down to the $1 billion level this year, it gets my highest priorities in there, but we have to either terminate or reduce to minimum order quantities for all the other projects that we have going.
>
> If we're going to stay with our program of record, things that have been documented that we need for our service, we're going to have to just stretch everything out to the right. And when we do that, you cannot order in economic order quantities. It defers the purchase. Ship builders, aircraft companies—they have to figure in their costs, and it inevitably raises the cost when you're ordering them in smaller quantities and pushing it off to the right.

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[73] Source: Transcript of hearing.

[74] David Perera, "The Coast Guard Is Shrinking," *FierceHomelandSecurity.com*, April 18, 2012, accessed July 20, 2012, at http://www.fiercehomelandsecurity.com/story/coast-guard-shrinking/2012-04-18.

[75] 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/x1138492141/Coast-Guard-cutbacks-will-cost-1-000-jobs. 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.) See also "Interview, Adm. Robert Papp, US Coast Guard Commandant," *Defense News*, November 11, 2013: 30.

> Plus, it almost creates a death spiral for the Coast Guard because we are forced to sustain older assets—older ships and older aircraft—which ultimately cost us more money, so it eats into our operating funds, as well, as we try to sustain these older things.
>
> So, we'll do the best we can within the budget. And the president and the secretary have addressed my highest priorities, and we'll just continue to go on the—on an annual basis seeing what we can wedge into the budget to keep the other projects going.[76]

At a March 12, 2014, hearing on the Coast Guard's proposed FY2015 budget before the Homeland Security subcommittee of the House Appropriations Committee, Admiral Papp stated the following:

> Well, that's what we've been struggling with, as we deal with the five-year plan, the capital investment plan, is showing how we are able to do that. And it will be a challenge, particularly if it sticks at around $1 billion [per year]. As I've said publicly, and actually, I said we could probably—I've stated publicly before that we could probably construct comfortably at about 1.5 billion [dollars] a year. But if we were to take care of all the Coast Guard's projects that are out there, including shore infrastructure that that fleet that takes care of the Yemen [sic: inland] waters is approaching 50 years of age, as well, but I have no replacement plan in sight for them because we simply can't afford it. Plus, we need at some point to build a polar icebreaker. Darn tough to do all that stuff when you're pushing down closer to 1 billion [dollars per year], instead of 2 billion [dollars per year].
>
> As I said, we could fit most of that in at about the 1.5 billion [dollars per year] level, but the projections don't call for that. So we are scrubbing the numbers as best we can.[77]

At a March 24, 2015, hearing on the Coast Guard's proposed FY2016 budget before the Homeland Security subcommittee of the House Appropriations Committee, Admiral Paul Zukunft, Admiral Papp's successor as Commandant of the Coast Guard, stated the following:

> I look back to better years in our acquisition budget when we had a—an acquisition budget of—of $1.5 billion. That allows me to move these programs along at a much more rapid pace and, the quicker I can build these at full-rate production, the less cost it is in the long run as well. But there's an urgent need for me to be able to deliver these platforms in a timely and also in an affordable manner. But to at least have a reliable and a predictable acquisition budget would make our work in the Coast Guard much easier. But when we see variances of—of 30, 40% over a period of three or four years, and not knowing what the Budget Control Act may have in store for us going on, yes, we are treading water now but any further reductions, and now I am—I am beyond asking for help. We are taking on water.[78]

An April 13, 2017, press report states the following (emphasis added):

> Coast Guard Commandant Adm. Paul Zukunft on Wednesday [April 12] said that for the Coast Guard to sustain its recapitalization plans and operations the service needs a $2 billion annual acquisition budget that grows modestly overtime to keep pace with inflation.
>
> The Coast Guard needs a "predictable, reliable" acquisition budget "and within that we need 5 percent annual growth to our operations and maintenance (O&M) accounts," Zukunft told reporters at a Defense Writers Group breakfast. Inflation will clip 2 to 3

[76] Transcript of hearing. The remarks were made in response to a question from Sen. Mary Landrieu.

[77] Transcript of hearing.

[78] Transcript of hearing. The remarks were made in response to a question from Rep. John Culberson.

> percent from that, but "at 5 percent or so it puts you on a moderate but positive glide slope so you can execute, so you can build the force," he said.[79]

In an interview published on June 1, 2017, Zukunft said) the following (emphasis added):

> We cannot be more relevant than we are now. But what we need is predictable funding. We have been in over 16 continuing resolutions since 2010. I need stable and repeatable funding. **An acquisition budget with a floor of $2 billion.** Our operating expenses as I said, they've been funded below the Budget Control Act floor for the past five years. I need 5 percent annualized growth over the next five years and beyond to start growing some of this capability back.
>
> But more importantly, we [need] more predictable, more reliable funding so we can execute what we need to do to carry out the business of the world's best Coast Guard.[80]

[79] Calvin Biesecker, "Zukunft Wants $2 Billion Baseline Acquisition Budget; Sustained Growth In O&M Funding," *Defense Daily*, April 13, 2017: 1.

[80] Jill Aitoro, "Interview: Adm. Paul Zukunft Demands Coast Guard Respect," *Defense News*, June 1, 2017.

Appendix C. Some Considerations Relating to Warranties in Shipbuilding

This appendix presents some considerations relating to warranties in shipbuilding and other defense acquisition.[81]

In discussions of Navy and Coast Guard shipbuilding, one question that sometimes arises is whether including a warranty in a shipbuilding contract is preferable to not including one.

Including a warranty in a shipbuilding contract (or a contract for building some other kind of military end item), while potentially valuable, might not always be preferable to not including one—it depends on the circumstances of the acquisition, and it is not necessarily a valid criticism of an acquisition program to state that it is using a contract that does not include a warranty (or a weaker form of a warranty rather than a stronger one).

Including a warranty generally shifts to the contractor the risk of having to pay for fixing problems with earlier work. Although that in itself could be deemed desirable from the government's standpoint, a contractor negotiating a contract that will have a warranty will incorporate that risk into its price, and depending on how much the contractor might charge for doing that, it is possible that the government could wind up paying more in total for acquiring the item (including fixing problems with earlier work on that item) than it would have under a contract without a warranty.

When a warranty is not included in the contract and the government pays later on to fix problems with earlier work, those payments can be very visible, which can invite critical comments from observers. But that does not mean that including a warranty in the contract somehow frees the government from paying to fix problems with earlier work. In a contract that includes a warranty, the government will indeed pay something to fix problems with earlier work—but it will make the payment in the less-visible (but still very real) form of the up-front charge for including the warranty, and that charge might be more than what it would have cost the government, under a contract without a warranty, to pay later on for fixing those problems.

From a cost standpoint, including a warranty in the contract might or might not be preferable, depending on the risk that there will be problems with earlier work that need fixing, the potential cost of fixing such problems, and the cost of including the warranty in the contract. The point is that the goal of avoiding highly visible payments for fixing problems with earlier work and the goal of minimizing the cost to the government of fixing problems with earlier work are separate and different goals, and that pursuing the first goal can sometimes work against achieving the second goal.[82]

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[81] This appendix is adapted from Appendix C of CRS Testimony TE10019, *Options and Considerations for Achieving a 355-Ship Navy*, by Ronald O'Rourke.

[82] It can also be noted that the country's two largest builders of Navy ships—General Dynamics (GD) and Huntington Ingalls Industries (HII)—derive about 60% and 96%, respectively, of their revenues from U.S. government work. (See General Dynamics, *2016 Annual Report*, page 9 of Form 10-K [PDF page 15 of 88]) and Huntington Ingalls Industries, *2016 Annual Report*, page 5 of Form 10-K [PDF page 19 of 134]). These two shipbuilders operate the only U.S. shipyards currently capable of building several major types of Navy ships, including submarines, aircraft carriers, large surface combatants, and amphibious ships. Thus, even if a warranty in a shipbuilding contract with one of these firms were to somehow mean that the government did not have pay under the terms of that contract—either up front or later on—for fixing problems with earlier work done under that contract, there would still be a question as to whether the government would nevertheless wind up eventually paying much of that cost as part of the price of one or more future contracts the government may have that firm.

The Department of Defense's guide on the use of warranties states the following:

> Federal Acquisition Regulation (FAR) 46.7 states that "the use of warranties is not mandatory." However, if the benefits to be derived from the warranty are commensurate with the cost of the warranty, the CO [contracting officer] should consider placing it in the contract. In determining whether a warranty is appropriate for a specific acquisition, FAR Subpart 46.703 requires the CO to consider the nature and use of the supplies and services, the cost, the administration and enforcement, trade practices, and reduced requirements. The rationale for using a warranty should be documented in the contract file....
>
> In determining the value of a warranty, a CBA [cost-benefit analysis] is used to measure the life cycle costs of the system with and without the warranty. A CBA is required to determine if the warranty will be cost beneficial. CBA is an economic analysis, which basically compares the Life Cycle Costs (LCC) of the system with and without the warranty to determine if warranty coverage will improve the LCCs. In general, five key factors will drive the results of the CBA: cost of the warranty + cost of warranty administration + compatibility with total program efforts + cost of overlap with Contractor support + intangible savings. Effective warranties integrate reliability, maintainability, supportability, availability, and life-cycle costs. Decision factors that must be evaluated include the state of the weapon system technology, the size of the warranted population, the likelihood that field performance requirements can be achieved, and the warranty period of performance.[83]

[83] Department of Defense, *Department of Defense Warranty Guide*, Version 1.0, September 2009, accessed July 13, 2017, at https://www.acq.osd.mil/dpap/pdi/uid/docs/departmentofdefensewarrantyguide[1].doc.

Appendix D. Impact of Hurricane Michael on OPC Program at Eastern Shipbuilding

This appendix provides additional background information of the impact of Hurricane Michael on the OPC program at Eastern Shipbuilding Group (ESG).

An August 22, 2019, press released from Eastern Shipbuilding states

> On August 16th, 2019 Eastern Shipbuilding Group, a Panama City, Florida shipyard building both government and commercial vessels, successfully delivered the tug Capt. Jim McAllister. This is the fifth vessel to be delivered by the shipyard since Hurricane Michael, a category 5 storm—which devastated the region. This delivery marks another milestone in Eastern's accelerated return to normal operations, as well as its commitment to long term sustained recovery and economic stability for the industrial base of the Florida Panhandle. Other shipbuilding projects include three Staten Island Ferries, the Coast Guard Offshore Patrol Cutters, a large commercial fishing trawler, two harbor tugs, and two river pushboats. Eastern is actively bidding other projects and is poised to maintain its position as the go to shipyard on the US Gulf. All of these projects support skilled manufacturing jobs for Northwest Florida and over twenty five other states where Eastern buys material, equipment, and specialized services.
>
> Since the hurricane, Eastern has repaired or replaced all of its impacted equipment, buildings, and shipbuilding infrastructure as part of a major company-funded recapitalization effort. Additionally, Eastern has invested in new technology aimed at increasing shipbuilding efficiency. Eastern has also partnered with State and local Governmental agencies to plan additional investments of over $45 Million towards enhancing shipbuilding efficiency and capacity in both Bay and Gulf Counties in order to ensure long term stability and growth of the shipbuilding industry in Northwest Florida.
>
> As part of its recovery and growth from a once-in-a-generation storm, Eastern is actively recruiting and hiring additional personnel to join its team and support its long term commitment to building the best vessels for its government and commercial customers. Eastern remains grateful for the unwavering Federal, State, and local support during this recovery—empowering a devastated area by providing manufacturing and industrial employment opportunities.[84]

A July 31, 2019, press report states

> A bill needed to continue a long-awaited multi-billion-dollar Coast Guard shipbuilding project in Panama City sailed through a U.S. Senate committee on Wednesday [July 31].
>
> The bill, which received bipartisan support in the Senate Committee on Commerce, Science and Transportation, would let the Coast Guard renegotiate its $10.5 billion contract with Eastern Shipbuilding Group to account for higher labor costs and shortages caused by Hurricane Michael. The bill should help the project get back on track after the hurricane to create hundreds of new jobs that are needed more than ever as the area still recovers from the Category 5 storm, some officials say.
>
> According to a Wednesday news release, the committee approved U.S. Sen. Marco Rubio's Restore Coast Guard Capabilities Act [S. 2319] as part of the Coast Guard Reauthorization Act of 2019. Rubio's bill would give the Coast Guard the authority to renegotiate the contract with Eastern Shipbuilding to construct the first series of up to 25 offshore patrol

[84] Eastern Shipbuilding, "Eastern Shipbuilding Group, Inc. Successfully Delivers Fifth Vessel Since Hurricane Michael," August 22, 2019.

> cutters. Without a way to renegotiate the contract, the project could be delayed by years, Rubio's office warned.
>
> The Coast Guard requested the authority to renegotiate, while not exceeding the original affordability requirement set forth by the government in the existing contract, because of skyrocketing labor costs caused by the hurricane.
>
> The historic storm, which hit the Panhandle on Oct. 10, significantly damaged Tyndall Air Force Base. The press release states that the labor needed to rebuild the base is competing directly with the labor required to fulfill Eastern Shipbuilding's contract.[85]

A May 22, 2019, press report states

> A Category 5 hurricane that battered Florida's panhandle region last fall, including shipbuilder Eastern Shipbuilding Group, will impact the new medium-endurance cutter ship the company is building for the Coast Guard but at the moment it's unclear what the

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[85] Patrick McCreless, "Bill Passes Committee to Renogotiate Panama City Coast Guard Shipbuilding Contract," *Panama City News Herald*, July 31, 2019. The press release mentioned in the article, dated July 31, 2019, states

> Today, U.S. Senator Marco Rubio (R-FL) applauded the Senate Committee on Commerce, Science, and Transportation's approval of his Restore Coast Guard Capabilities Act (S.2319) as part of the Coast Guard Reauthorization Act of 2019 (S. 2297). Rubio's bill would give the U.S. Coast Guard the authority to take into account the impacts of Hurricane Michael to modify its Offshore Patrol Cutter (OPC) contract with Panama City-based Eastern Shipbuilding.
>
> On October 10, 2018, Hurricane Michael wreaked havoc in Northwest Florida, and made history as one of only four category 5 hurricanes to make landfall on the U.S. mainland. The Coast Guard has requested this authority that would provide much needed flexibility to modify the OPC contract, while not exceeding the original affordability requirement set forth by the government in the existing contract, as a result of skyrocketing labor costs due to Hurricane Michael. The Coast Guard maintains that acquisition of the OPC is its highest investment priority.
>
> "Continuing authorizations for the Coast Guard to protect Florida's waterways and our nation's homeland security is imperative," Rubio said. "I applaud the Senate Commerce Committee on approving this larger reauthorization, which includes several of my joint priorities that are critical to the Coast Guard's mission readiness. As a result of my partnership with Senator Scott, the bill now includes our Restore Coast Guard Capabilities Act, which will ensure the Coast Guard has the tools necessary to safeguard the Offshore Patrol Cutter even after the devastation caused by Hurricane Michael."
>
> Today, the Senate Committee on Commerce, Science and Transportation approved the Coast Guard Reauthorization Act of 2019 (S. 2297), which included several Rubio priorities:
>
> - The Restore Coast Guard Capabilities Act (S. 2319), adopted as an amendment offered by Senator Scott
> - Section 426: Coast Guard Shore Infrastructure Improvement Act
> - Section 221: Continuation of Coast Guard pay during lapse in appropriations. Senator Rubio is a cosponsor of the Pay Our Coast Guard Act (S. 21)
>
> Background:
>
> Eastern Shipbuilding is under contract with the Coast Guard to deliver up to 25 OPCs, the Coast Guard's highest priority investment program. However, Hurricane Michael significantly damaged Tyndall Air Force Base and the labor needed to rebuild the base is competing directly with the labor to fulfill the OPC contract. As a result, the Coast Guard has requested authorization from Congress to potentially revisit the contract to take into account the increased labor costs associated with the category 5 hurricane.
>
> ("Rubio Applauds Commerce Committee Passage of the Restore Coast Guard Capabilities Act to Build Offshore Patrol Cutters," July 31, 2019, accessed September 10, 2019, at https://www.rubio.senate.gov/public/index.cfm/press-releases?ID=52E5D8E4-2559-4F67-AFBD-D70EE38FC7A5.)

> effects will be on cost and schedule, Coast Guard Commandant Adm. Karl Schultz said on Tuesday [May 21].
>
> Eastern Shipbuilding's analysis of Hurricane Michael's impact on the Offshore Patrol Cutter (OPC) is due to the Coast Guard by May 31, and from there the service expects to have an understanding on the way forward with the program before the end of June, Schultz said in response to questions from Rep. Garret Graves (R-La.), during a hearing hosted by the House Transportation and Infrastructure Coast Guard and Maritime Transportation Subcommittee. He said Eastern Shipbuilding will provide "perspectives" on the cost and schedule and any other impacts.
>
> "It's safe to say that we understand the impacts of a Category 5 hurricane on Eastern Shipbuilding Group will have an impact on the OPC program," Shultz said. He expects there to be some "puts and takes" after Eastern Shipbuilding submits its analysis.
>
> Rep. Peter DeFazio (D-Ore.), citing a press report earlier in the hearing, said that Sen. Marco Rubio (R-Fla.) has inserted language in a draft disaster assistance bill allowing the Coast Guard and Eastern Shipbuilding to renegotiate the firm fixed-price contract the shipbuilder is working under for the OPC to account for damage to shore side facilities from Hurricane Michael and increased labor costs.
>
> DeFazio said he is skeptical of the company's claim, noting, "I'm pretty sure they had insurance," and adding that "I question whether or not this has something to do with their original bid, which some thought was low." He also said he has concerns that a former Coast Guard Commandant that works for Eastern Shipbuilding has said he'll have authority to negotiate with his former service.
>
> Retired Adm. Robert Papp, the 24th commandant of the Coast Guard, runs Eastern Shipbuilding's Washington, D.C., operations.
>
> Eastern Shipbuilding did not respond to a query from Defense Daily about impacts to the OPC program from Hurricane Michael and any relief it may need from the current contract.
>
> Schultz said that the OPC contract can't be renegotiated without legislative authorities from Congress. He said the Coast Guard, in response to an "ask" from Congress, provided language to help with drafting the proposed legislation related to the OPC in the disaster bill.
>
> Schultz also said that the Coast Guard is not involved in Eastern Shipbuilding's lobbying efforts with Congress.[86]

A May 17, 2019, press report stated

> As the Senate continues to negotiate the particulars of the supplemental disaster relief bill that seems poised to go to a vote next week, a new provision to save something many likely didn't know was at risk has been added.
>
> A new line in the draft bill will let Eastern Shipbuilding Group renegotiate its contract with the U.S. Coast Guard to build up to 25 new off-shore patrol cutters.
>
> "Under the old contract we were prohibited from negotiating for additional money for increased costs," said Admiral Bob Papp, President of Washington Operations for Eastern.
>
> That meant that after Hurricane Michael, they would be unable to negotiate with the Coast Guard to help cover a slew of new costs associated with both the project and the hurricane, such as the damage from the Category 5 storm that needed repairs, the prolonged schedule

[86] Calvin Biesecker, "Coast Guard Expects Impact To OPC Program From Hurricane Michael, Commandant Says," *Defense Daily*, May 22, 2019.

> and the "skyrocketing" costs of labor, Papp said. The contract—the largest in the Coast Guard's history at more than $10 billion—didn't account for a natural disaster.
>
> It was going to be hard, Papp said, for Eastern to complete the project and to "stay healthy" without some negotiations. At stake in the community are 900 planned jobs and up to 5,000 indirect jobs officials believe will help jump-start the region's manufacturing economy.
>
> But an official in Sen. Marco Rubio's office said the latest version of the supplemental disaster relief bill now includes a provision that will allow negotiations.
>
> Rubio, according to the official, spoke with the President Donald Trump on Air Force One following the president's rally in Panama City Beach last week, helping to secure the language that made it into the bill.
>
> "We've waited far too long (for disaster relief), and we're also involved in some Florida-specific issues," Rubio said in a recent video. "For example, the Hurricane had an impact on a very important Coast Guard project that's in Northwest Florida and we want to make sure that project stays on target and continues to feed jobs because Northwest Florida desperately needs those jobs to recover. We're very hopeful. Cautiously optimistic, that next week can be a very good week."
>
> Papp thanked the area's congressional delegation for stepping up to advocate for this project, saying the company is "honored and delighted" to receive help.[87]

A January 28, 2019, press release from Eastern Shipbuilding stated

> Panama City, FL, Eastern Shipbuilding Group [ESG] reports that steel cutting for the first offshore patrol cutter (OPC), Coast Guard Cutter ARGUS (WMSM-915), commenced on January 7, 2019 at Eastern's facilities. ESG successfully achieved this milestone even with sustaining damage and work interruption due to Hurricane Michael. The cutting of steel will start the fabrication and assembly of the cutter's hull, and ESG is to complete keel laying of ARGUS later this year. Additionally, ESG completed the placement of orders for all long lead time materials for OPC #2, Coast Guard Cutter CHASE (WMSM-916).
>
> Eastern's President Mr. Joey D'Isernia noted the following: "Today represents a monumental day and reflects the dedication of our workforce - the ability to overcome and perform even under the most strenuous circumstances and impacts of Hurricane Michael. ESG families have been dramatically impacted by the storm, and we continue to recover and help rebuild our shipyard and community. I cannot overstate enough how appreciative we are of all of our subcontractors and vendors contributions to our families during the recovery as well as the support we have received from our community partners. Hurricane Michael may have left its marks but it only strengthened our resolve to build the most sophisticated, highly capable national assets for the Coast Guard. Today's success is just the beginning of the construction of the OPCs at ESG by our dedicated team of shipbuilders and subcontractors for our customer and partner, the United States Coast Guard. We are excited for what will be a great 2019 for Eastern Shipbuilding Group and Bay County, Florida."[88]

A November 1, 2018, statement from Eastern Shipbuilding states that the firm

> resumed operations at both of its two main shipbuilding facilities just two weeks after Hurricane Michael devastated Panama City Florida and the surrounding communities….
>
> … the majority of ESG's [Eastern Shipbuilding Group's] workforce has returned to work very quickly despite the damage caused by the storm. "Our employees are a resourceful

[87] Katie Landeck, "Provision Added to Disaster Relief Bill to Help Eastern Shipbuilding," *Panama City News Herald*, May 17, 2019.

[88] Eastern Shipbuilding press release entitled "Eastern Shipbuilding Group Announces Commencement of Steel Cutting for USCGC ARGUS (WMSM-915)," January 28, 2019, p. 1.

> and resilient group of individuals with the drive to succeed in the face of adversity. This has certainly been proven by their ability to bounce back over the two weeks following the storm. Our employees have returned to work much faster than anticipated and brought with them an unbreakable spirit, that I believe sets this shipyard and our community apart" said [Eastern Shipbuilding] President Joey D'Isernia. "Today, our staffing levels exceed 80% of our pre-Hurricane Michael levels and is rising daily."
>
> Immediately following the storm, ESG set out on an aggressive initiative to locate all of its employees and help get them back on the job as soon as practical after they took necessary time to secure the safety and security of their family and home. Together with its network of friends, partners, and customers in the maritime community, ESG organized daily distribution of meals and goods to employees in need. Additionally, ESG created an interest free deferred payback loan program for those employees in need and has organized Go Fund Me account to help those employees hardest hit by the storm. ESG also knew temporary housing was going to be a necessity in the short term and immediately built a small community located on greenfield space near its facilities for those employees with temporary housing needs.
>
> ESG has worked closely with its federal, state and commercial partners over the past two weeks to provide updates on the shipyard as well as on projects currently under construction. Power was restored to ESG's Nelson Facility on 10-21-18 and at ESG's Allanton Facility on 10-24-18 and production of vessels under contract is ramping back up. Additionally, all of the ESG personnel currently working on the US Coast Guard's Offshore Patrol Cutter contract have returned to work….
>
> "We are grateful to our partners and the maritime business community as a whole for their support and confidence during the aftermath of this historic storm. Seeing our incredible employees get back to building ships last week was an inspiration," said D'Isernia. "While there is no doubt that the effects of Hurricane Michael will linger with our community for years to come, I can say without reservation that we are open for business and excited about delivering quality vessels to our loyal customers."[89]

An October 22, 2018, press report states the following:

> U.S. Coast Guard officials and Eastern Shipbuilding Group are still assessing the damage caused by deadly category 4 Hurricane Michael to the Panama City, Fla.-based yard contracted to build the new class of Offshore Patrol Cutters.
>
> On September 28, the Coast Guard awarded Eastern Shipbuilding a contract to build the future USCGC *Argus* (WMSM-915), the first offshore patrol cutter (OPC). The yard was also set to build a second OPC, the future USCGC *Chase* (WMSM-916). Eastern Shipbuilding's contract is for nine OPCs, with options for two additional cutters. Ultimately, the Coast Guard plans to buy 25 OPCs.
>
> However, just as the yard was preparing to build *Argus*, Hurricane Michael struck the Florida Panhandle near Panama City on October 10. Workers from the shipyard and Coast Guard project managers evacuated and are just now returning to assess damage to the yard facilities, Brian Olexy, communications manager for the Coast Guard's Acquisitions Directorate, told USNI News.
>
> "Right now we haven't made any decisions yet on shifts in schedule," Olexy said….
>
> Since the yard was just the beginning stages of building *Argus*, Olexy said the hull wasn't damaged. "No steel had been cut," he said.

[89] Eastern Shipbuilding news release, November 1, 2018, entitled "Eastern Shipbuilding Group, Inc. Resumes Operations."

Eastern Shipbuilding is still in the process of assessing damage to the yard and trying to reach its workforce. Many employees evacuated the area and have not returned, or are in the area but lost their homes, Eastern Shipbuilding spokesman Justin Smith told USNI News.

At first, about 200 workers returned to work, but by week's end about 500 were at the yard, Smith said. The company is providing meals, water, and ice for its workforce.

"Although we were significantly impacted by this catastrophic weather event, we are making great strides each day thanks to the strength and resiliency of our employees," Joey D'Isernia, president of Eastern Shipbuilding, said in a statement.[90]

[90] Ben Werner, "Coast Guard, Shipbuilder Assessing Hurricane Damage to Yard Building Offshore Patrol Cutter," *USNI News*, October 22, 2018. See also Paul McLeary, "Hurricane Michael Hits Coast Guard's Largest Program, Leaving Devastation," *Breaking Defense*, October 18, 2018; Marex, "Despite Hurricane Michael, Eastern Shipbuilding Keeps Working," *Maritime Executive*, October 16, 2018; Samuel Hill, "Eastern Shipbuilding Hit Hard by Hurricane Michael," *Workboat*, October 16, 2018; Kris Osborn, "How One Shipyard Survived a Hurricane and Built a New Coast Guard Cutter," *National Interest*, January 7, 2021.

Appendix E. November 25, 2019, House Committee Letter Regarding OPC Program

This appendix presents text from a November 25, 2019, letter to the Acting Secretary of DHS from the Chair and Ranking Member of the House Transportation and Infrastructure Committee and the Chair and Ranking Member of that committee's Coast Guard and Maritime Transportation subcommittee regarding the OPC program. The letter states in part

> The Committee on Transportation and Infrastructure has reviewed your proposal to provide extraordinary relief under Public Law 85-804 as requested by Eastern Shipbuilding Group (ESG) for the construction of the Offshore Patrol Cutter (OPC). We are skeptical that such truly extraordinary relief is justified given that this "crisis" was foreseeable and mostly avoidable. Further, we are concerned that this relief sets a damaging precedent that any current or future contract with the United States Coast Guard (Coast Guard or Service) could be renegotiated outside the Federal Acquisition Regulations.
>
> As you know, the Coast Guard is in the middle of a multi-decade, multi-billion-dollar recapitalization of its cutter fleets. Last fall, the Service entered into a fixed price contract with ESG for the largest single acquisition in its history for the OPC. Shortly after entering into that contract, on October 10, 2018, Hurricane Michael hit the ESG shipyard and devastated the surrounding Panama City, Florida area where much of the shipyard workforce lived. The shipyard claims the impacts of the disaster rendered its facilities and workforce incapable of meeting the terms of the contract. The Department of Homeland Security (DHS) and the Service now propose to expand the timeframes for the delivery of each of the first four OPCs, spend up to an additional $659 million to complete those cutters, and then re-compete the contract earlier than previously planned. The decision to proceed with the current contractor raises a number of concerns for the Committee. Foremost among those concerns being the delay in delivering the cutters as well as the use of the Public Law No. 85-804 authority, which ultimately eliminates the Coast Guard's claim of getting the best value through a firm, fixed-price contract. If that were a priority for the Service, it would make more sense to pivot to a contractor who had competed for the original contract and is positioned to execute on it rather than create continued uncertainty around the OPC.
>
> For more than a decade, the Committee has tracked the widening capability gap between the existing legacy fleet of Medium Endurance Cutters (MECs)—several built during the Vietnam War—and the commissioning of new OPCs. During that time, the Committee has repeatedly urged the Coast Guard to undertake a ship life extension program (SLEP) for the MECs and advocated for the Service to look at alternative methods to acquire new mission capabilities. Due to limited funding provided for the Coast Guard's Procurement, Construction and Improvements account, the Service made the decision to defer initiating an MEC SLEP to partially offset the loss of MEC capability as those cutters aged out. Rather than heeding the Committee's caution, the Service decided to prioritize construction of the OPCs at the earliest possible time to allow the Coast Guard to continue to effectively carry out its law enforcement, drug and migrant interdiction, and search and rescue missions.
>
> The Service then compounded the risks of this "all-or-nothing" strategy by entering into a contract with ESG; a company that has never built a ship for the Federal government and whose bid came in at a per-vessel price far below that of other qualified bidders. This action led many observers to question whether the Coast Guard was taking too great a risk, but the Service believed, nonetheless, that the risk was acceptable.
>
> Regrettably, ESG began lobbying lawmakers for "relief" from the contract barely six months after agreeing to its terms. Within nine months, ESG formally notified the Coast

Guard that they could no longer meet the contractual schedule or deliver the OPC at the contract price.

In all, it appears the Coast Guard's initial failure to adequately examine the risks of using a shipyard with no government shipbuilding experience could be perpetuated by DHS granting this extraordinary relief under Public Law No, 85-804. The Committee is concerned that the Coast Guard, along with DHS, embarked on exploring options to resuscitate ESG and prevent it from defaulting on the OPC contract without first completing a transparent and objective alternatives analysis. Additionally, the veil of secrecy regarding its analysis and the absence of any meaningful consultation by the Coast Guard and DHS with the Committee, provides us scant confidence that any revised OPC contract will not encounter a similar fate as the original contract.

Accordingly, the Committee would like to know:

- Why did the Coast Guard fail to stop construction on hull #1 as soon as they learned the contractor was informing lawmakers that it would be unable to meet the terms of the contract?
- What interim measures are available to mitigate the lost mission capabilities while the OPC contract is being delayed and recompeted?
- Is the Coast Guard considering the use of leased barges to support helicopter operations, the acquisition of additional National Security Cutters or Fast Response Cutters, or other available options?
- What national security missions will be carried out by each of the four OPCs for which relief is sought?
- What is the status of the ship life extension program for the 270B MECs?

Regarding a revised OPC contract, the Committee would like to know?

- Has the Department requested authority from Congress to expedite the re-compete of the OPC contract?
- How will the Coast Guard ensure that no additional extraordinary relief will be needed beyond the potential upward limit of $659 million and the proposed schedule extensions?
- Are the federal/non-federal share lines for each of the first four OPCs set in the DHS decision granting limited Public Law No. 85-804 extraordinary relief, and if not, what are these share lines and what is their justification request?
- In which fiscal years will it be necessary to request funds above the amounts projected for the OPCs in the Coast Guard's latest Capital Improvement Plan? In what amounts?
- On what ship design will the re-compete be based?
- Can you confirm that the Coast Guard owns the OPC design?
- How many additional construction hours above the amount on which the initial bid was based are now anticipated for each of hulls #1-4?
- What controls will be instituted to ensure that there is no excessive overage in production hours?
- What conditions do the Coast Guard intend to include in a revised contract to ensure transparency in all financial transactions; accountability with all performance metrics and timetables for deliverables; certification and notification standards and protocols before the Coast Guard or DHS exercises an option on hulls #2-4?

- Given the fact that the contractor is unable to perform under the terms of the original contract, will any effort be made to receive the performance bond associated with the contract?

The Committee will continue to investigate these issues and closely monitor this situation. We are concerned about the impacts any further delays of this contract will have on the Service's ability to carry out its critical mission responsibilities and the overall impact the escalated cost of producing these assets will have on the Coast Guard's Procurement, Construction and Improvements account for the foreseeable future. As we begin negotiations with the Senate on the Coast Guard Authorization Act of 2019, we will examine if further legislation is necessary to protect U.S. taxpayers from profligate, unwise spending, notwithstanding the urgent need to provide the Coast Guard with the modern assets it needs to remain the world's preeminent Coast Guard.[91]

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[91] The letter was accessed November 27, 2019, at https://transportation.house.gov/imo/media/doc/2019-11-25%20DHS%2085-804%20Big%204%20Letter.pdf.