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November 2025

# OFFSHORE PATROL CUTTER

## Coast Guard Should Gain Key Knowledge Before Buying More Ships

A report to the Committee on Transportation and Infrastructure, House of Representatives.

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## What GAO Found

The Coast Guard urgently needs Offshore Patrol Cutters (OPC) to replace aging cutters that conduct law enforcement and search and rescue operations. The Coast Guard plans to acquire 25 OPCs in stages: stage 1 initially included OPCs 1-4, stage 2 includes OPCs 5-15, and stage 3 will include OPCs 16-25. Construction for stages 1 and 2 is underway by two different shipbuilders. But each shipbuilder's design remains incomplete, and both have yet to deliver any ships.

The stage 1 shipbuilder made limited progress since GAO last reported on OPC. In 2023, GAO found that construction of OPCs 1-4 began without a stable design, contrary to shipbuilding leading practices. This led to rework, which delayed ship deliveries. The Coast Guard took steps in 2024 to prioritize delivery of OPC 1, such as adding payments at certain milestones, but these steps were largely unsuccessful. As of July 2025, the Coast Guard terminated construction of OPCs 3 and 4 as part of an ongoing review of the current stage 1 contract, and delivery of OPC 1 was expected more than 5 years late.

### Offshore Patrol Cutters 1 (left) and 2 (right) Construction Status in December 2024



Source: U.S. Coast Guard. | GAO-26-107583

The stage 2 shipbuilder and Coast Guard incorporated some leading practices while developing the stage 2 design, such as conducting collaborative design reviews that supported timely decisions. But construction of OPC 5 began in August 2024 without a stable design. Starting construction of more stage 2 OPCs before stabilizing the design, as the Coast Guard plans to do, increases the risk that stage 2 will also encounter costly rework and schedule delays.

The OPC program is at risk of not meeting its cost goals, in part, because the program used outdated cost information to establish them. The program is updating this information to account for recent stage 1 cost increases. GAO also found that the program reported an aggregated cost goal for all 25 OPCs instead of by stage. Reporting cost goals by stage would enable decision-makers to hold the program and OPC shipbuilders accountable for their performance.

The program plans to acquire stage 3 ships after testing whether the existing designs meet OPC's performance goals, which is consistent with Department of Homeland Security (DHS) policy. However, the program is unlikely to have the test results before starting stage 3 procurement activities, such as developing the request for proposals. Incorporating the knowledge gained from testing—as well as other shipbuilding leading practices—into the procurement process for stage 3 could help the Coast Guard make better investment decisions. It could also improve the timeliness of future OPC deliveries.

## Why GAO Did This Study

The Coast Guard—a component of DHS—plans to spend over \$17 billion to acquire a fleet of 25 OPCs. Since 2020, GAO has found that the Coast Guard is using a high-risk approach to acquire OPCs that involves significant overlap in design and construction.

GAO was asked to review the status of the OPC acquisition program. This report examines the extent to which (1) progress has been made on OPC design and construction; and (2) the OPC program is meeting its cost and performance goals.

GAO analyzed OPC documents and data; compared the status of OPC stage 1 design and construction to what GAO reported in June 2023 (GAO-23-105805); and compared stage 2 design and construction to leading practices for commercial shipbuilding. GAO also conducted site visits to both OPC shipbuilders to observe stage 1 and stage 2 construction progress; and interviewed Coast Guard officials and shipbuilder representatives.

## What GAO Recommends

GAO is making four recommendations to the Coast Guard and DHS, including that the program stabilizes design before starting construction of additional stage 2 OPCs; reports cost goals for each OPC stage; and documents a plan for acquiring stage 3 ships that identifies how it will use test results to inform procurement activities and further incorporate shipbuilding leading practices. DHS concurred with two of the four recommendations, and did not concur with the other two. GAO maintains that all four recommendations are warranted.

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## Abbreviations

ADE	acquisition decision event
DCMA	Defense Contract Management Agency
DFARS	Defense Federal Acquisition Regulation Supplement
DHS	Department of Homeland Security
ESG	Eastern Shipbuilding Group, Inc.
EVM	earned value management
HVAC	heating, ventilation, and air conditioning
KPP	key performance parameter
MEC	Medium Endurance Cutter
NAVSEA	Naval Sea Systems Command
OPC	Offshore Patrol Cutter
SUPSHIP	Supervisor of Shipbuilding, Conversion and Repair
T-ATS	towing, salvage, and rescue ships
TRL	technology readiness level
VFI	vendor-furnished information

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U.S. GOVERNMENT ACCOUNTABILITY OFFICE

441 G St. N.W.  
Washington, DC 20548

November 25, 2025

The Honorable Sam Graves  
Chairman  
The Honorable Rick Larsen  
Ranking Member  
Committee on Transportation and Infrastructure  
House of Representatives

The Coast Guard—a component within the Department of Homeland Security (DHS)—plans to spend more than \$17 billion to acquire a fleet of 25 Offshore Patrol Cutters (OPC). OPC is one of the Coast Guard's largest acquisition programs and highest investment priorities. The OPCs will replace the aging fleet of Medium Endurance Cutters (MEC), which have exceeded their 30-year design service lives and are increasingly difficult and costly to maintain. The OPCs will enable the Coast Guard to continue conducting patrols for homeland security, law enforcement, and search and rescue operations. Growing demand for the Coast Guard to support migrant and drug interdiction increases the need for more capable cutters. Accordingly, in July 2025, the Coast Guard received an additional \$4.3 billion for procurement of OPCs.<sup>1</sup>

In February 2014, the Coast Guard awarded contracts to three vendors for preliminary and contract design work for the OPC. Among these vendors, the Coast Guard selected Eastern Shipbuilding Group, Inc. (ESG) as OPC's shipbuilder. To do so, the Coast Guard exercised ESG's contract option for detail design in September 2016 and an option for construction of the first OPC in September 2018. Following significant damage and disruption to the shipbuilder caused by Hurricane Michael in 2018, DHS granted contractual relief to ESG for the design and construction of up to four OPCs, an effort the Coast Guard refers to as stage 1.<sup>2</sup> DHS also directed the Coast Guard to recompete the

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<sup>1</sup>An Act to provide for reconciliation pursuant to title II of H. Con. Res. 14, Pub. L. No. 119-21, § 40001(a), 139 Stat. 72 (2025). This funding is in addition to funding appropriated through the annual budget process. According to the Coast Guard, it had already received over \$4.5 billion through fiscal year 2025 for OPC procurement.

<sup>2</sup>GAO, *Coast Guard Acquisitions: Offshore Patrol Cutter Program Needs to Mature Technology and Design*, [GAO-23-105805](#) (Washington, D.C.: June 20, 2023).

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requirement for the remaining 21 cutters.<sup>3</sup> In June 2022, the Coast Guard awarded a contract to Austal USA, LLC—hereafter referred to as Austal—for OPC detail design, with options for the construction of up to 11 of the remaining 21 OPCs, an effort known as stage 2. This contract has a potential value of \$3.2 billion if all options are exercised. The Coast Guard plans to acquire the remaining OPCs to reach a total of 25 in a future effort referred to as stage 3.

Since October 2020, we have reported that the Coast Guard has employed a high-risk approach of acquiring OPCs that involves significant overlap in technology development, design, and construction activities.<sup>4</sup> For example, we reported that the Coast Guard began construction of all four stage 1 ships without achieving a stable design. This concurrent approach is contrary to shipbuilding leading practices and increases the risk of negative outcomes, such as cost growth and schedule delays, which the Coast Guard has already realized. For example, in June 2023, we found that the program's total cost to acquire OPCs increased by 41 percent between 2012 and 2022 and that delivery of the first ship slipped by over 1.5 years.<sup>5</sup>

You asked us to review the status of the OPC acquisition program. This report examines the extent to which (1) progress has been made on OPC design and construction; and (2) the OPC program is meeting its schedule, cost, and performance goals.

To assess the progress made on OPC design and construction, we reviewed documentation related to OPC design and construction efforts, such as contracts, design completion rates, and program briefings. We compared the status of OPC stage 1 design and construction with what we reported in June 2023.<sup>6</sup> We compared the status of OPC stage 2

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<sup>3</sup>For the purposes of this report, we use the agency's terminology of "recompete" to refer to the competitive award of new contracts for OPCs 5 through 25. ESG's contract originally included options for up to nine OPCs; OPCs 10 through 25 were to be acquired through a full and open competition.

<sup>4</sup>[GAO-23-105805](#) and *Coast Guard Acquisitions: Opportunities Exist to Reduce Risk for the Offshore Patrol Cutter Program*, [GAO-21-9](#) (Washington, D.C.: Oct. 28, 2020). In addition to these in-depth reports, we also cover OPC in our annual assessment of DHS's major acquisition programs. For the most recent annual assessment, see GAO, *DHS Annual Assessment: Improved Guidance on Revised Acquisition Goals Would Enhance Transparency*, [GAO-25-107317](#) (Washington, D.C.: Feb. 25, 2025).

<sup>5</sup>[GAO-23-105805](#).

<sup>6</sup>[GAO-23-105805](#).

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design and construction with leading practices that we previously identified in commercial shipbuilding.<sup>7</sup> To assess whether the program is meeting its schedule, cost, and performance goals, we reviewed relevant documentation, such as integrated master schedules, life-cycle cost estimates, earned value management (EVM) data, the test and evaluation master plan, and risk register. We compared the information in these documents with the latest acquisition program baseline approved by DHS leadership in August 2024.

Additionally, we conducted a site visit to the OPC stage 1 and stage 2 shipyards to tour the facilities, observe OPC construction progress, and interview representatives from ESG and Austal. We interviewed officials from the OPC program office; OPC project resident office that provides on-site oversight at ESG and Austal; the Coast Guard's OPC ship design team and sponsor; the American Bureau of Shipping (a classification society); the Defense Contract Management Agency (DCMA); the Navy's Supervisor of Shipbuilding, Conversion and Repair (SUPSHIP); and DHS's Test and Evaluation Division. Appendix I presents a detailed description of the objectives, scope, and methodology for our review. Appendix II presents the status of prior recommendations we made to DHS or the Coast Guard regarding the OPC program.

We conducted this performance audit from May 2024 to November 2025 in accordance with generally accepted government auditing standards. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objectives. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objectives.

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## Background

### OPC Mission, Planned Capabilities Compared with MECs, and Equipment

In January 2008, the Coast Guard established the OPC program's mission needs. Designed for long-distance transit, extended on-scene presence, and operations with deployable aircraft and small boats, the Coast Guard intends for OPCs to provide the majority of offshore

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<sup>7</sup>GAO, *Navy Shipbuilding: Increased Use of Leading Design Practices Could Improve Timeliness of Deliveries*, GAO-24-105503 (Washington, D.C.: May 2, 2024) and *Best Practices: High Levels of Knowledge at Key Points Differentiate Commercial Shipbuilding from Navy Shipbuilding*, GAO-09-322 (Washington, D.C.: May 13, 2009).

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presence for its cutter fleet.<sup>8</sup> Figure 1 is a photograph of the first OPC under construction at the shipbuilder's yard.

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**Figure 1: Photograph of the First Offshore Patrol Cutter**



Source: U.S. Coast Guard. | GAO-26-107583

The OPC will perform many of the same missions as the MECs, including search and rescue; interdicting drugs and migrants; and securing ports, waterways, and coastal areas. The Coast Guard's fleet of MECs includes 12 210-foot and 13 270-foot MECs, all of which have exceeded their design service life of 30 years.<sup>9</sup> Despite multiple recapitalization efforts, both classes of MECs face mission readiness challenges due to age and parts obsolescence. For example, in June 2025, we found that all MECs had declining operational availability during fiscal years 2020 through

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<sup>8</sup>The Coast Guard refers to the boats that operate from cutters as “cutter boats.” For the purposes of this review, we use the term “small boats” to distinguish them from the Coast Guard’s fleet of cutters. The OPCs are intended to bridge the operational capability gap between the National Security Cutters, which patrol the open ocean, and the Fast Response Cutters, which serve closer to shore.

<sup>9</sup>The 210-foot MECs were commissioned in 1964–1969 and the 270-foot MECs were commissioned in 1983–1991. The Coast Guard’s MEC fleet also includes a 282-foot MEC, which was originally commissioned as a U.S. Navy vessel in 1971 and then reinstated as a Coast Guard cutter in 1999.

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2024 due to maintenance issues, such as delays in receiving repair materials.<sup>10</sup>

To address a potential operational capability gap caused by the risk of MECs failing before they are replaced by the OPCs, the Coast Guard started an acquisition program in 2018 to extend the service life of six 270-foot MECs by up to 10 years. This program is expected to cost more than \$250 million. The Coast Guard built flexibility into the contracts for this program to extend the service life for additional MECs, if necessary. However, in June 2023, we found that—even with this program—the Coast Guard faced an operational gap because of delays in the OPC delivery schedule.<sup>11</sup>

Once delivered, the Coast Guard expects OPCs to be more capable than the MECs. The Coast Guard established key performance parameters (KPP) that the OPC must meet to achieve full operational capability. Some examples of KPPs are the ability to handle at least 45 days at sea while housing a crew of 104, and the capability of launching small boats and helicopters for operations such as drug and migrant interdiction, search and rescue, and law enforcement activities. Table 1 details examples of key capabilities for the OPC compared with the MECs.

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**Table 1: Examples of Key Capabilities of the Offshore Patrol Cutter (OPC) and Medium Endurance Cutters (MEC)**

Capabilities	OPC	210-foot MEC	270-foot MEC
Operating range	8,500 NM	6,100 NM	8,500 NM
Crew size	104	77	100
Sea keeping for small boat, helicopter operations, and rescue assistance <sup>a</sup>	Sea state 5	Sea state 4	Sea state 4
Patrol endurance	45 days underway	21 days underway	21 days underway

NM = nautical miles

Source: GAO presentation of U.S. Coast Guard information. | GAO-26-107583

<sup>a</sup>Sea keeping is the ability of the vessel to withstand varying conditions at sea. Sea state refers to the height, period, and character of waves on the surface of a large body of water. The Coast Guard ranks sea state on a scale from 0 (calm) to 8 (very high). Sea state 4 is moderate at 4-to-8-foot waves and sea state 5 is rough at 8-to-13-foot waves.

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<sup>10</sup>GAO, *Coast Guard: Actions Needed to Address Cutter Maintenance and Workforce Challenges*, GAO-25-107222 (Washington, D.C.: June 25, 2025).

<sup>11</sup>GAO-23-105805.

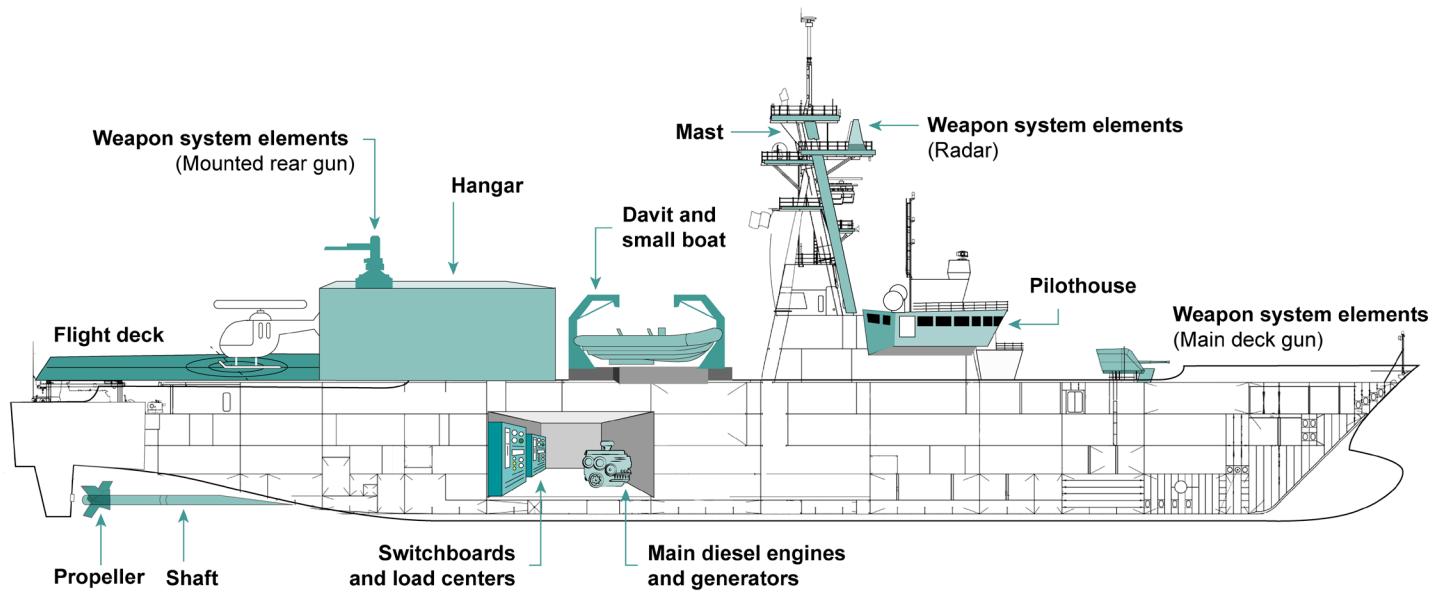
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The OPC has key equipment and systems that enable the cutter to perform its various missions. For example:

- **Main diesel engines.** Main diesel engines provide power for propulsion of the cutter. The OPC will feature two main propulsion diesel engines.
- **Power and electrical systems.** Power onboard the OPC is provided via ship diesel generators. Switchboards connect the ship's power generators to the ship's electrical system, which includes load centers, power panels, and transformers.
- **Weapon systems.** Weapon systems provide defensive capabilities used in some operations. The OPC will feature Navy weapon and radar systems.
- **Flight deck and hangar.** The OPC flight deck and hangar are designed to operate one H-60 or H-65 helicopter at a given time.
- **Pilothouse.** The pilothouse on the OPC holds major navigational equipment, as well as throttle and electrical propulsion controls. The pilothouse also holds major communication equipment and aircraft control systems.
- **Propulsion system.** The propulsion systems on the OPC include propellers and shafts, among other things. The propeller is the mechanism used to generate thrust to move a ship or boat through the water. The shaft directs the power generated by the engine to the propellers, which then provide thrust for the vessel.
- **Davit and small boats.** The davit is a crane responsible for deploying and retrieving the cutter's small boats from their carrying position on the deck of the cutter. The Coast Guard identified the davit as a critical technology for the OPC. The OPC davit technology is novel in that the dual-point electric motor system is integrated with constant tensioning. Other cutters in the Coast Guard fleet—including the MECs—use davits with a hydraulic motor system. According to the OPC program's KPPs, the davit must be capable of launching and recovering small boats in sea state 5, which refers to rough conditions with 8- to 13-foot waves. Each OPC will have two davits—one located on each side of the deck—and carry three small boats.

Figure 2 depicts selected equipment and systems at their approximate locations on the OPC, which is to have a steel hull with an aluminum superstructure.

Figure 2: Notional Graphic of Selected Equipment and Systems on the Offshore Patrol Cutter



Source: GAO presentation and analysis of U.S. Coast Guard information. | GAO-26-107583

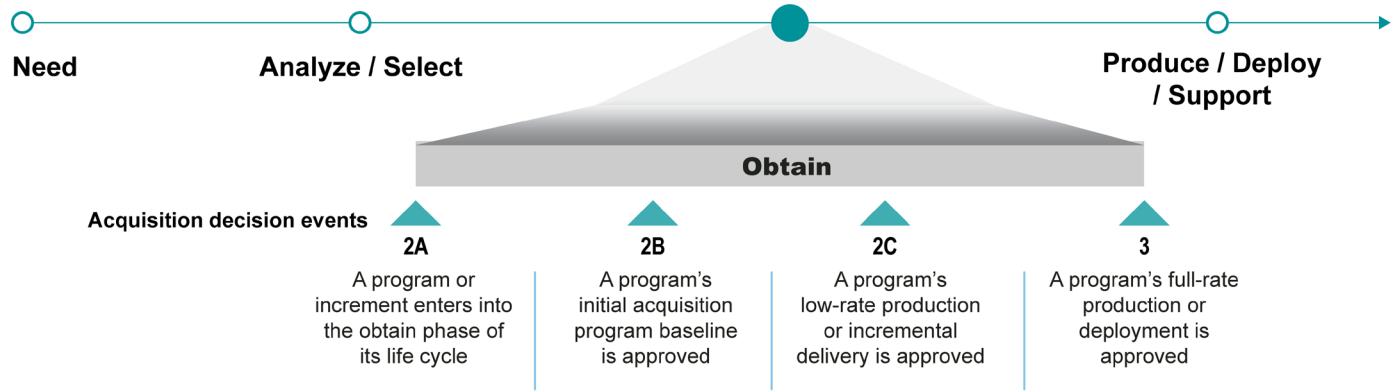
## OPC Program's Acquisition Life-Cycle Framework

The Coast Guard manages and oversees the OPC program using DHS's acquisition life-cycle framework.<sup>12</sup> DHS's acquisition policy establishes that a major acquisition program's decision authority shall review the program at a series of predetermined acquisition decision events (ADE) to assess whether the program is ready to proceed through the acquisition life-cycle phases. The DHS Under Secretary for Management serves as the OPC's acquisition decision authority, while the Vice Commandant of the Coast Guard serves as the component acquisition executive, or the senior acquisition official within the Coast Guard. Figure 3 depicts DHS's acquisition life-cycle framework.

<sup>12</sup>As a component within DHS, the Coast Guard is required to follow DHS's acquisition policies. Some DHS guidance is broad and allows programs to tailor requirements as needed.

Figure 3: Overview of the DHS Acquisition Life-Cycle Framework for Major Acquisition Programs

## Acquisition phases



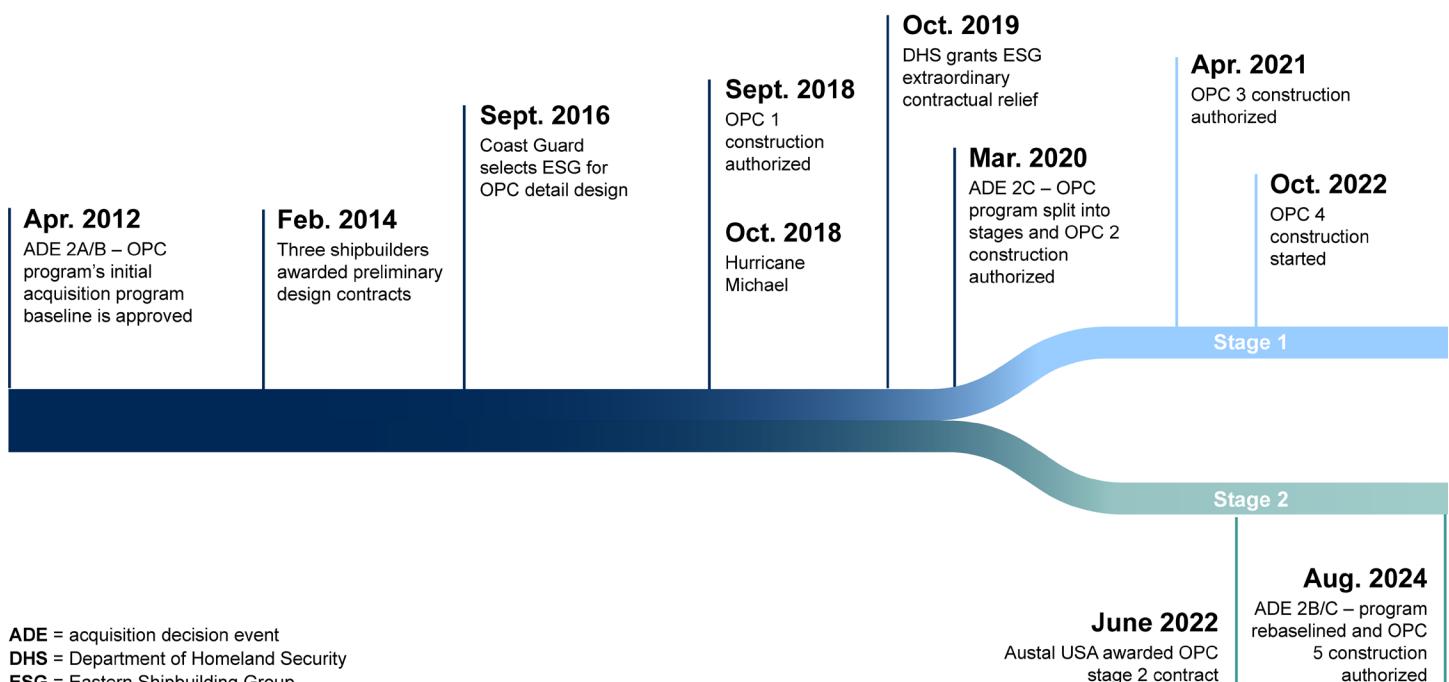
Source: GAO analysis of Department of Homeland Security (DHS) information. | GAO-26-107583

DHS acquisition policy also establishes that the acquisition program baseline is the fundamental agreement between program, component, and department-level officials establishing what should be delivered, how it should perform, when it should be delivered, and what it should cost. Specifically, the program baseline establishes a program's schedule, costs, and KPPs, and covers the entire scope of the program's life cycle. The acquisition program baseline establishes objective (target) and threshold (maximum acceptable for cost, latest acceptable for schedule, and minimum or maximum acceptable for performance) parameters. We refer to the threshold parameters as a goal.

According to DHS policy, if a program fails to meet any schedule, cost, or performance threshold in the acquisition program baseline approved at or after ADE 2B, it is considered to be in breach. Programs in breach status are required to notify their acquisition decision authority and (1) develop a remediation plan that outlines a time frame for the program to return to its acquisition program baseline parameters, (2) rebaseline—that is, establish new schedule, cost, or performance goals—or (3) have a DHS-led program review that results in recommendations for a revised baseline.

Figure 4 provides an overview of selected ADE and other key events for the OPC program from April 2012 through August 2024.

**Figure 4: Selected Major Offshore Patrol Cutter (OPC) Acquisition Milestones and Key Events, April 2012 Through August 2024**



ADE = acquisition decision event

DHS = Department of Homeland Security

ESG = Eastern Shipbuilding Group

Source: GAO analysis of U.S. Coast Guard information. | GAO-26-107583

Within the Coast Guard, the OPC program office is responsible for planning and executing the program according to its acquisition program baseline. The office is led by a program manager and includes a project residence office, which comprises personnel located at each OPC shipyard to provide on-site oversight of design and construction activities. Various other stakeholders, including offices from across DHS and the Department of Defense, also provide support to the OPC program in the following key areas:

- **Design.** The Coast Guard's ship design team, within the Office of Naval Engineering, is responsible for reviewing and approving design drawings and other artifacts, assessing design maturity, and providing other technical assistance to the OPC program office. The American Bureau of Shipping—a third-party classification society—is responsible for reviewing and approving selected design artifacts and conducting inspections to verify that ships comply with the naval vessel rules outlined in the OPC contracts.

- **Cost estimating.** The Navy's Naval Sea Systems Command Cost Engineering and Industrial Analysis Group, known as NAVSEA 05C, assists with developing and updating the OPC cost estimate. DHS's Cost Analysis Division conducts independent cost assessments of the OPC cost estimate to determine whether the estimate is credible.
- **EVM compliance and oversight.** DCMA—a defense agency that provides contract administration services to the Department of Defense and other federal agencies—conducts compliance reviews of shipbuilder EVM systems and assists with monitoring EVM data. The Navy's SUPSHIP conducts routine oversight of selected shipbuilder EVM systems.
- **Test and evaluation.** The Navy Operational Test and Evaluation Force serves as the program's independent test agent. In this role, it is responsible for planning, conducting, and reporting on test and evaluation events to determine if systems meet performance requirements. DHS's Test and Evaluation Division approves major test plans and independently assesses test results prior to ADE 2C and 3.

OPC Shipbuilders and Contract Type	The Coast Guard relies on private shipyards to build the OPC fleet, as described in table 2.
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**Table 2: Coast Guard Offshore Patrol Cutter (OPC) Shipbuilders by Stage**

	Stage 1	Stage 2	Stage 3
Shipbuilder	Eastern Shipbuilding Group, Inc.	Austal USA	To be determined
Number of planned OPCs	4 (OPCs 1-4)	11 (OPCs 5-15)	10 (OPCs 16-25)
Estimated time frame for detail design and construction	2016–2028	2022–2033	To be determined

Source: GAO analysis of U.S. Coast Guard information. | GAO-26-107583

ESG—the stage 1 shipbuilder—is an American-based shipbuilder located in Panama City, Florida. Founded in 1976, ESG began building commercial fishing vessels before expanding production to offshore supply vessels, tugs and towboats, ferries, and other types of vessels. OPC was the company's first shipbuilding contract with the government. In October 2018, as ESG was about to begin construction on OPC 1, Hurricane Michael—a category 5 storm—made landfall in the Panama City, Florida area. The hurricane caused widespread damage to the shipbuilder's facilities, significant disruption to its workforce, and depletion of its financial working capital. Determining it was no longer able to

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perform to the terms of the contract, ESG requested both schedule relief and cost relief from the Coast Guard. In October 2019, the Acting Secretary of Homeland Security determined that the OPC is essential to national defense and authorized a maximum amount of \$659 million in extraordinary contractual relief pursuant to Public Law 85-804 for detail design and the construction of up to four OPCs.<sup>13</sup> The Acting Secretary based the relief amount, in part, on an analysis that determined it was necessary to restore ESG's working capital to prevent ESG's financial insolvency. As of May 2025, the Coast Guard obligated approximately \$581 million (88 percent) of the \$659 million extraordinary contractual relief.

Austal—the stage 2 shipbuilder—is located in Mobile, Alabama and is a subsidiary of Austal Limited, an international shipbuilding company based in Australia. The company was founded in 1999 and has been a major shipbuilder for the Navy for several years.<sup>14</sup> Known for building aluminum ships, Austal completed a steel shipbuilding facility at its shipyard and began construction of its first steel ship—one of the Navy's Navajo class of towing, salvage, and rescue ships (T-ATS)—in 2022.<sup>15</sup> In 2024, Austal initiated construction of a new final ship assembly facility, which is expected to be completed and fully operational by summer 2026. This facility is intended to support production of two OPCs at a time.

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<sup>13</sup>See Pub. L. No. 85-804 (codified as amended at 50 U.S.C. § 1431). Executive Order 10789, as amended by Executive Order 13286, implements and authorizes the Secretary of Homeland Security to use the authority. The extraordinary contractual authority authorizes the Secretary to modify contracts without regard to other provisions of law related to making, performing, amending, or modifying contracts, whenever such action would facilitate national defense.

<sup>14</sup>Austal built the Independence variant of the Littoral Combat Ship and has several ongoing contracts with the Navy. We have a vast body of work on the Navy's efforts to acquire the Littoral Combat Ship. See, for example, GAO, *Navy Shipbuilding: Enduring Challenges Call for Systemic Change*, [GAO-25-108225](#) (Washington, D.C.: Mar. 25, 2025); *Littoral Combat Ship: Unplanned Work on Maintenance Contracts Creates Schedule Risk as Ships Begin Operations*, [GAO-21-172](#) (Washington, D.C.: Apr. 29, 2021); and *Navy Shipbuilding: Past Performance Provides Valuable Lessons for Future Investments*, [GAO-18-238SP](#) (Washington, D.C.: June 6, 2018).

<sup>15</sup>Austal's steel shipbuilding facility was partially funded by the Department of Defense as infrastructure investment under Defense Production Act Title III. See 50 U.S.C. § 4533; see also GAO, *Shipbuilding and Repair: Navy Needs a Strategic Approach for Private Sector Industrial Base Investments*, [GAO-25-106286](#) (Washington, D.C.: Feb. 27, 2025).

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The OPC stage 1 and 2 contracts are primarily fixed-price incentive (firm-target) type contracts.<sup>16</sup> This type of contract specifies several contract elements including a profit adjustment formula referred to as a share line. In accordance with the share line, the government and the shipbuilder share responsibility for cost overruns (increases) or cost underruns (decreases) compared with the agreed upon target cost. The final negotiated cost is subject to a ceiling price, which is the maximum that may be paid to the contractor, except for any adjustment under other contract clauses. Generally, the share line functions to decrease the shipbuilder's profit as actual costs exceed the target cost. Likewise, the shipbuilder's profit increases when actual costs are less than the target cost for the ship. Since the shipbuilder's profit is linked to actual performance, fixed-price incentive (firm-target) type contracts provide an incentive for the shipbuilder to control costs. The Navy also uses these types of contracts for most of its shipbuilding programs.<sup>17</sup>

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## Shipbuilding Leading Practices

Since 2009, we have applied leading practices that we identified in commercial shipbuilding to our work evaluating Coast Guard and Navy shipbuilding.<sup>18</sup> These practices emphasize ensuring high levels of knowledge at key junctures throughout the acquisition process to achieve successful results. For example, shipbuilding leading practices we identified in 2009—and updated in 2024—found that design phases should include specific tasks that ensure increasing degrees of maturity as designs progress. This approach supports timely and predictable outcomes, such as delivering ships on time and on budget. These tasks culminate in design stability, as described in figure 5.

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<sup>16</sup>The OPC contracts also include some firm-fixed-price line items, such as for long-lead time and materials, as well as cost-plus-fixed-fee line items. For firm-fixed-price line items, the government pays the set price regardless of the actual cost to the shipbuilder. For cost-plus-fixed-fee line items, the government reimburses the shipbuilder for allowable costs incurred, to the extent prescribed in the contract, plus a negotiated fee that is fixed at the inception of the contract.

<sup>17</sup>GAO, *Navy Shipbuilding: Need to Document Rationale for the Use of Fixed-Price Incentive Contracts and Study Effectiveness of Added Incentives*, GAO-17-211 (Washington, D.C.: Mar. 1, 2017).

<sup>18</sup>GAO-24-105503; GAO-23-105805; GAO-21-9; and GAO-09-322.

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**Figure 5: Ship Design Phases and Key Tasks Identified in Prior Work on Leading Commercial Shipbuilding Practices**

Design phase	Key tasks involved
<b>Basic and functional design</b>	<ul style="list-style-type: none"><li>• Fix ship steel structure and set hydrodynamics</li><li>• Design safety systems and get approvals from applicable authorities</li><li>• Route all major distributive systems, including electricity, water, and other utilities</li><li>• Provide information on position of piping, ventilation, equipment, and other outfitting in each block</li><li>• 3D model the ship structure and major systems, with reliable vendor-furnished information (VFI) incorporated to support understanding of final system design. Reliable VFI reflects a firm understanding of the characteristics for ship equipment and components, including requirements for space, weight, power, water, and other utilities. An example of reliable VFI is having finalized specifications for a piece of equipment but awaiting the results of factory acceptance testing to validate those specifications through manufacturing</li></ul>
<i>Design stability achieved upon completion of basic and functional design</i>	
<b>Detail design</b>	<ul style="list-style-type: none"><li>• Use 3D modeling information to generate work instructions for each block—basic unit of ship construction—that show detailed system information and support construction; includes guidance for subcontractors and suppliers, installation drawings, schedules, material lists, and lists of prefabricated materials and parts</li><li>• At a minimum, complete detail design for any given block of the ship prior to beginning construction of that block</li></ul>

Source: GAO analysis of commercial ship design information. | GAO-26-107583

Note: Ship buyers and builders may use different terms to denote the design phases. However, the tasks completed are the same regardless of terminology.

According to shipbuilding leading practices, lead ship construction should not start until design stability is achieved.<sup>19</sup> For Coast Guard programs, lead ship construction is generally authorized at ADE 2C.<sup>20</sup> In addition to completing basic and functional designs, any critical technologies—hardware and software technologies critical to the fulfillment of the key

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<sup>19</sup> GAO-09-322.

<sup>20</sup> The Coast Guard tailored DHS's acquisition framework in certain circumstances. For shipbuilding programs where ADE 2C—when DHS approves a program to begin low-rate production—occurs within a year of ADE 2B, ADE 2C will be held prior to commencing construction of the lead ship. See U.S. Coast Guard, *Major Systems Acquisition Management*, Coast Guard Commandant Instruction 5000.10H (August 2023).

objectives of an acquisition program—must be matured and proven before a design can be considered stable. Specifically, leading practices that we identified for shipbuilding call for programs to require critical technologies to be matured into actual prototypes and successfully demonstrated in an operational or a realistic environment, commensurate with a technology readiness level (TRL) of 7, before the award of the contract for detail design of a new ship.<sup>21</sup>

We previously determined that the Coast Guard's design terminology definitions—along with their associated outputs—generally align with our definitions.<sup>22</sup> Table 3 crosswalks these definitions and describes the design phases that typically comprise the development of shipbuilding programs.

**Table 3: Crosswalk of Shipbuilding Design Phase Terminology**

<b>Shipbuilding leading practices terminology</b>	<b>Coast Guard terminology</b>	<b>Description</b>
Basic design	Preliminary and contract design	Preliminary and contract design includes establishing the hull form, general arrangements of compartments, and outlining significant ship steel structure. Some routing of major equipment and related major distributive systems, including electricity, water, and other utilities is done. It also ensures the ship will meet the performance specifications, informs overall ship cost, facilitates shipbuilders' development of acceptable proposals, and identifies major equipment and components that must be purchased in advance.
Functional design	Functional and transitional design	Functional design includes providing a further iteration of the basic design through 2D design artifacts showing the size and positioning of structural components, information on the positioning of major piping and other distributive systems and outfitting in each block—or basic building unit for a ship. Transitional design is an iteration of functional design where the specific locations of equipment, components, and distributive systems are further refined. For programs that use computer design tools, transitional design is when 2D design drawings are turned into a 3D design model.
Detail design	Production design	Production design includes generating work instructions that show detailed system information and guidance for subcontractors and suppliers to support construction, including installation drawings, schedules, material lists, and lists of prefabricated materials and parts. As part of this, the shipyard requires final technical data for key components prior to developing the work instructions.

Source: GAO analysis of U.S. Coast Guard information. | GAO-26-107583

<sup>21</sup>GAO-09-322. TRLs are a scale of nine levels used to measure a technology's progress, starting with paper studies of a basic concept (TRL 1) and ending with a technology that has proven itself in actual usage in the product's operational environment (TRL 9). See also GAO, *Technology Readiness Assessment Guide*, GAO-20-48G, (Washington, D.C.: Jan. 7, 2020).

<sup>22</sup>GAO-21-9.

Note: The table reflects definitions of design phases based on our shipbuilding leading practices, as well as Coast Guard information. We compiled this table with input from the Coast Guard, but specific definitions may vary depending on the program.

In May 2024, we also identified leading practices for ship design.<sup>23</sup> Specifically, we found that commercial ship buyers and builders use four primary leading practices, supported by 13 key elements, when developing a ship's design. These practices enable shorter, predictable cycles for designing and delivering new ships, as outlined in figure 6.

**Figure 6: Summary of Leading Practices GAO Found in Commercial Ship Design**

Leading practice	Key elements
	<b>Establish business cases and requirements that support predictable design outcomes</b> <ul style="list-style-type: none"><li>• Prioritize timeliness of ship design and delivery</li><li>• Avoid overly prescriptive requirements</li><li>• Maintains a sound business case through continued reevaluation</li></ul>
	<b>Use iterative design to accelerate design maturity</b> <ul style="list-style-type: none"><li>• Prioritize user involvement in the ship design process</li><li>• Leverage existing ship designs and systems in digital libraries</li><li>• Prioritize timely vendor decisions and information</li><li>• Make risk-based decisions to off-ramp design features</li><li>• Minimize and isolate changes to existing designs</li><li>• Carefully manage design innovation</li></ul>
	<b>Use efficient ship design collaboration and decision-making practices</b> <ul style="list-style-type: none"><li>• Use processes that support timely design decisions</li><li>• Align decision-making with design maturity measures</li></ul>
	<b>Employ robust in-house ship design capabilities and tools</b> <ul style="list-style-type: none"><li>• Maintain strong in-house design workforce capabilities</li><li>• Use ship design tools to shorten cycle time</li></ul>

Source: GAO analysis of commercial company information; GAO (illustrations). | GAO-26-107583

<sup>23</sup>[GAO-24-105503](#).

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## OPC Design Remains Incomplete Even Though Construction Is Underway

Construction for stages 1 and 2 is underway, but the OPC design remains incomplete. For stage 1, we found that ESG made limited progress since we last conducted an in-depth review of the program in 2023 and has yet to deliver any ships. Delivery of the lead ship has been further delayed to December 2026 at the earliest. In July 2025, the Coast Guard terminated OPCs 3 and 4 for default and has yet to decide how to complete them. For stage 2, we found that Austal incorporated some key elements of our ship design leading practices but started construction on its lead ship—OPC 5—in August 2024 without a stable design.

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## Limited Stage 1 Design and Construction Progress Further Delayed Ship Deliveries

ESG made limited progress completing design and construction of stage 1 ships since we last reported on the program in 2023. This limited progress further delayed ship deliveries. The Coast Guard took steps to address ESG's limited progress on OPC 1 by modifying the contract to include additional payments if ESG meets certain milestones, such as successfully testing the davit. However, these steps were largely unsuccessful, and OPC 1 delivery slipped two more times due to persistent unresolved challenges, such as completing the stage 1 davit. In July 2025, the Coast Guard terminated for default the OPC 3 and 4 portions of the stage 1 contract and estimated that OPC 1 would not be delivered until December 2026 at the earliest.

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## Stage 1 Design and Construction Progress Has Been Limited

In June 2023, we found that important elements of the stage 1 design were incomplete despite the Coast Guard authorizing construction of all four ships.<sup>24</sup> Based on our review of design documentation, the percentage of completed 2D design drawings increased only 2 percent since our last report—from 91 percent in March 2023 to 93 percent in May 2025. The remaining 7 percent of incomplete drawings have technical or administrative comments that ESG has yet to resolve. As of May 2025, each of these drawings ranged from 50 to 90 percent complete based on the amount of work that would be required to finish them. The incomplete drawings relate to the davit and distributive systems—such as heating, ventilation, and air conditioning (HVAC); cabling; and electrical—that run throughout multiple zones of the ship.

Coast Guard officials stated that one of the reasons for the lack of functional design progress was the interrelated nature of the design drawings. Specifically, ESG's revisions to address open comments from the Coast Guard or American Bureau of Shipping often resulted in new comments or required changes in other related drawings that were

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<sup>24</sup>GAO-23-105805.

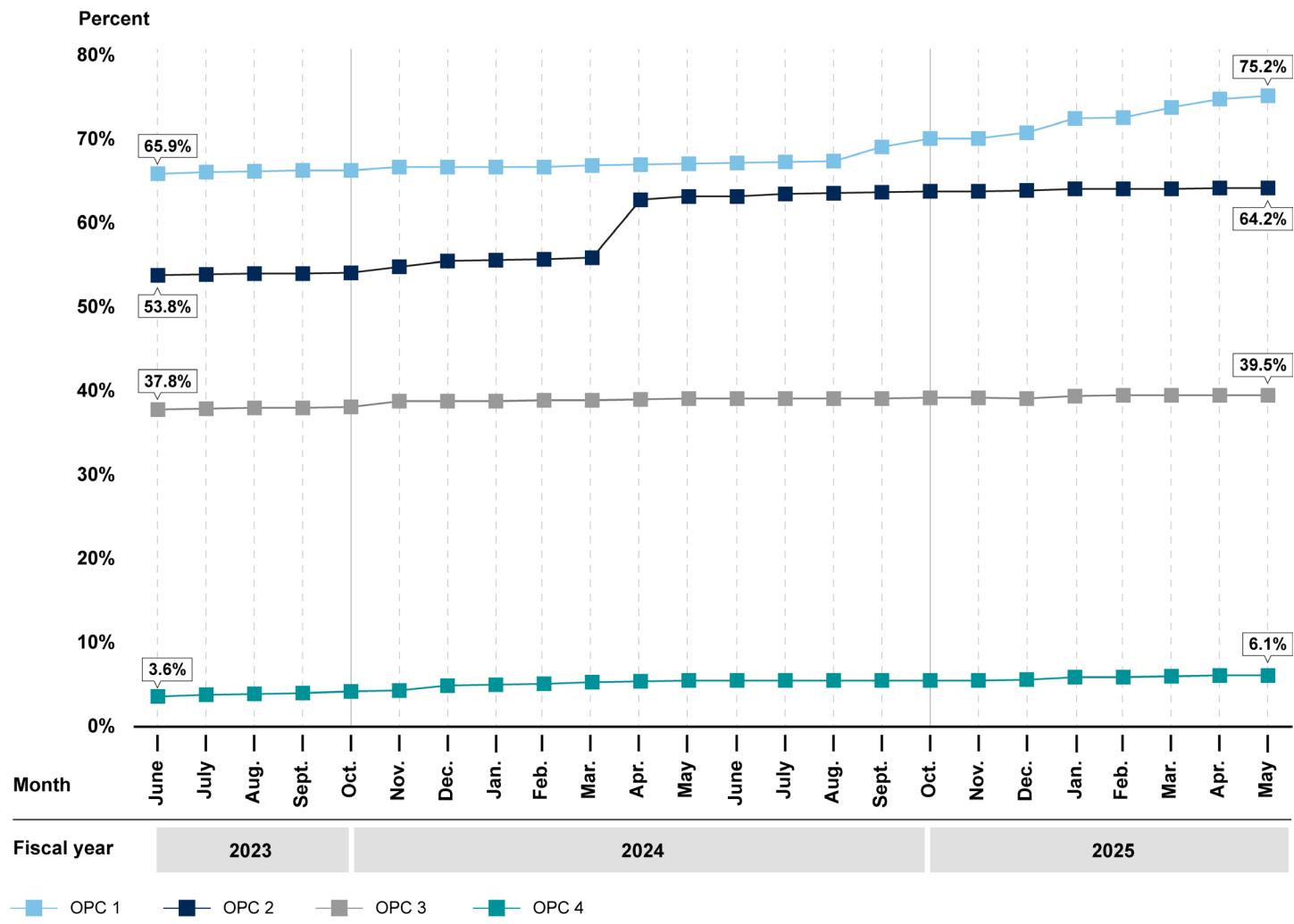
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previously approved. For example, officials stated that ESG made changes to a design containing cable data for all electrical, electronic, control and communications systems, which necessitated changes in other wiring diagrams to resolve inconsistencies between them. Officials also attributed the lack of progress to ESG not addressing open comments. They stated that ESG has not resubmitted some incomplete drawings since 2021 or 2022.

In some cases, ESG chose to continue construction with the hope that testing would demonstrate that the issues raised in the design comments would not affect performance. For example, ESG representatives told us that some of the open comments on the HVAC design are related to 90-degree angle duct turns, which they said do not meet the Coast Guard's design specifications. They stated that future testing may show that the HVAC system meets performance requirements, despite the angle of some of the duct turns.

Coast Guard officials stated that this design instability continues to lead to rework, which has made it difficult for ESG to complete construction of stage 1 ships. Figure 7 shows construction progress for all four stage 1 OPCs since we last reported on the program.

Figure 7: Offshore Patrol Cutter (OPC) Stage 1 Construction Completion Percentage by Ship, June 2023 Through May 2025



Source: GAO analysis of U.S. Coast Guard information. | GAO-26-107583

Notes: Coast Guard officials stated that the OPC 2 completion percentage increased from March 2024 to April 2024 due to a change in software that resolved data errors.

In July 2025, the Coast Guard terminated for default the OPC 3 and 4 portions of the stage 1 shipbuilder's contract.

Coast Guard officials explained that ESG had to undo and redo work because it initially completed it out-of-sequence. Officials stated this was, in part, because ESG underestimated the complexity of outfitting systems on the OPC due to its inexperience with government shipbuilding. For example, Coast Guard officials told us that some cutouts that allow for cabling and other distributive systems to transit between compartments

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on the OPC had to be redone because they were too small or in the wrong location. As a result, in some cases, ESG had to uninstall the cabling and other distributive systems and reinstall them in the proper cutouts. In other cases, cables had to be routed in other areas. For example, when we toured OPC 1 in December 2024, officials showed us a compartment in which cables had been run through spaces originally reserved for future OPC modernization, such as installation of new cables and equipment. Using this space now could make future modernization efforts more challenging.

#### **Dense Arrangement of Systems on the Offshore Patrol Cutter (OPC)**

OPC is designed to meet survivability and system redundancy requirements. Coast Guard officials stated that these requirements exceed those of commercial ships that the stage 1 shipbuilder, Eastern Shipbuilding Group, is used to building. As a result, systems on the OPC are more densely packed, which reinforces the importance of completing work in the proper sequence. See, for example, cables and pipes installed close together on OPC 1, as of December 2024.



Source: GAO analysis of U.S. Coast Guard information; U.S. Coast Guard (photo). | GAO-26-107583

We previously reported that installation work of distributive systems can be complex, resource intensive, and high risk.<sup>25</sup> Coast Guard officials told us during our site visit of instances in which ESG had to remove cables after installing them so that hot work, such as welding, could be completed without causing damage or igniting installed equipment. We previously reported that entering construction with unstable designs, including incomplete distributive systems, can disrupt the planned sequence of construction and lead to schedule delays.<sup>26</sup> As of May 2025, the Coast Guard estimated that the cable installation drawing, including cableway locations, was 70 percent complete. Completing installation of cables is a critical step to outfitting the ship.

Another factor limiting ESG's progress on OPC 1 is that it launched the ship in October 2023 with over one-third of construction remaining.<sup>27</sup> Shipbuilding leading practices indicate that shipbuilders should complete as much design and installation of distributive systems as possible prior to erecting units and again before launching the ship. This is because it is

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<sup>25</sup> GAO-09-322; and *Ford-Class Aircraft Carrier: Congress Should Consider Revising Cost Cap Legislation to Include All Construction Costs*, GAO-15-22 (Washington, D.C.: Nov. 20, 2014).

<sup>26</sup> GAO-21-9.

<sup>27</sup> A launch is when the ship is conveyed from its building site into the water.

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## Steps to Address Limited Progress Have Been Unsuccessful

generally less efficient to perform work on a ship after launch and more expensive in the later stages of construction.<sup>28</sup>

In June 2024, the Coast Guard took steps in response to ESG's limited construction progress on OPC 1 by modifying the stage 1 contract. Specifically, the Coast Guard:

- **Increased the share line for cost overruns.** The Coast Guard revised the share line for OPC 1 to significantly increase the government's share of cost overruns. According to an assessment conducted by the program, officials determined that there could have been adverse financial effects on ESG and the government's receipt of OPC 1 if the share line was not adjusted.
- **Increased the price and tied payments to completing milestones.** The Coast Guard increased the target and ceiling price for OPC 1 by \$77 million. The program funded the price increase by reducing the OPC 4 ceiling price and removing the OPC 4 target profit, together with adding a portion of the remaining Public Law 85-804 funds. The program tied payment of the \$77 million to completion of four milestones. Approximately 58 percent of the price increase was tied to three milestones that include successfully testing major equipment, such as the main engine and diesel generator. The remaining 42 percent is tied to the fourth milestone—OPC 1 delivery. The milestones did not have deadlines but, according to Coast Guard documentation, the Coast Guard's expectation was that the price increase would enable ESG to deliver OPC 1 in May 2025.
- **Revised the retentions.** The Coast Guard revised the retentions for OPC 1.<sup>29</sup> This change increased the amount of Coast Guard-reserved funding to cover the cost of completing any unfinished work or correcting any defects for which ESG is responsible that are found prior to preliminary acceptance or during the warranty period of any

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<sup>28</sup>For example, shipbuilders described a “1-3-8 rule,” where work that takes 1 hour to complete in a workshop takes 3 hours to complete once the steel panels have been welded into blocks, and 8 hours to complete after a block has been erected or after the ship has been launched. See GAO-09-322. Moreover, our prior work has shown that the magnitude of cost growth occurs in later phases of construction—after ships are 60 percent or more complete. See GAO, *Defense Acquisitions: Realistic Business Cases Needed to Execute Navy Shipbuilding Programs*, GAO-07-943T (Washington, D.C.: July 24, 2007).

<sup>29</sup>Retentions are part of the stage 1 contract's progress payments clause. Progress payments are a type of contract financing that allows the contractor to receive payment before the government accepts supplies or services. Contract financing helps contractors manage expenses during performance.

ship. Specifically, the Coast Guard increased the amount from 1.5 percent of the allocated total contract price—which officials estimated to be around \$6 million—to approximately \$29.5 million, which is 7 percent of the increased target price. According to program documentation, the Coast Guard revised the retention to mitigate risks to the government based on known noncompliance with contract specifications anticipated at delivery of OPC 1.

Program officials stated that they track potential and realized noncompliance issues throughout the construction process, which are regularly communicated to ESG as corrective action requests. As of May 2025, there were 1,200 open corrective action requests for OPC 1. Program officials categorized 243 of these (or 20 percent) as major noncompliance issues. These major noncompliance issues included installation of parts made of noncompliant materials, missing fire insulation, and failing to make compartments watertight. The Coast Guard could use the retained amounts to fix these issues if they remain when ESG delivers OPC 1.

Following the June 2024 contract modifications, ESG took steps to prioritize delivery of OPC 1 by adjusting its workforce. Specifically, it diverted labor from OPCs 2-4 to OPC 1 and started a second shift of workers since Coast Guard officials stated that there are constraints on the number of workers that can physically work inside OPC 1 at the same time. As shown in figure 7 above, construction progress on OPC 1 increased 8 percent from June 2024 to May 2025 while progress on OPCs 2-4 remained stagnant.

However, Coast Guard officials stated that ESG's efforts to increase the workforce on OPC 1 had not met the program's expectations. For example, they stated that the number of workers on OPC 1 has fluctuated over time. They further stated that this is, in part, because ESG has struggled to hire and retain qualified workers, resulting in the company needing to hire more inexperienced workers. This has affected efficiency. We previously found that these types of workforce challenges are experienced across the shipbuilding industrial base.<sup>30</sup> As a result, ESG has struggled to complete the milestones associated with finishing construction of OPC 1. By November 2024, estimated delivery of the lead ship slipped by 6 months—from May 2025 to November 2025.

#### Status of Outfitting Work on Offshore Patrol Cutters (OPC)

When we visited the OPC stage 1 shipbuilder, Eastern Shipbuilding Group (ESG) in December 2024, we observed that most OPC 2 modules were already assembled with minimal outfitting, including cabling. ESG officials stated that they intend to begin installing cables on OPC 2 once further progress on OPC 1 is achieved to reduce out-of-sequence work and rework. The photos below compare outfitting progress in the crew mess on OPC 1 (top) and OPC 2 (bottom), as of December 2024.



Source: GAO analysis of ESG information; U.S. Coast Guard (photos). | GAO-26-107583

<sup>30</sup>[GAO-25-106286](#). We have ongoing work examining the Coast Guard and Navy shipbuilding workforce.

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In addition, ESG requested more funding from the Coast Guard. In March 2025, ESG submitted a request to the OPC program for further relief under Public Law 85-804 in the form of a \$15 million cash infusion by the end of that month. ESG's request stated that it needed the funds to maintain adequate working capital to ensure that OPC stage 1 remains executable. However, according to Coast Guard records, the program has only \$11 million of Public Law 85-804 funds remaining for this purpose. Coast Guard officials told us that, as of May 2025, they were still reviewing ESG's cash infusion request to determine whether the funding was necessary.

In the meantime, the Coast Guard issued stop work orders on OPC 4 in March 2025 and OPC 3 in May 2025. Officials stated that the Coast Guard issued these orders to minimize costs the government incurred for construction of the ships and give ESG a chance to further prioritize completing construction of OPC 1. In July 2025, the Coast Guard terminated for default the OPC 3 and 4 portions of the stage 1 contract, and officials stated that delivery of OPC 1 had been delayed further.<sup>31</sup> Specifically, ESG estimated that OPC 1 will be delivered in December 2026 at the earliest. The Coast Guard has not yet decided how it will complete construction of OPCs 3 and 4 in light of their termination.

#### Stage 1 Davit Challenges Continue

ESG continues to experience challenges with the stage 1 davit. We previously reported that ESG and its davit subcontractor encountered significant challenges in maturing the davit, which Coast Guard determined was a TRL 2—the equivalent to a technology concept—in 2020.<sup>32</sup> For example, in June 2023, we found that ESG's davit subcontractor repeatedly redesigned the davit and developed new manufacturing approaches after identifying issues during developmental testing.<sup>33</sup> This led to delays in approving the davit's design and completing testing of a prototype.

Since we last reported on the OPC program, the davit subcontractor held a series of prototype testing events because it continued to encounter challenges. For example, Coast Guard officials stated that testing attempted by the subcontractor in March 2024 failed because the davit

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<sup>31</sup>A termination for default is generally the exercise of the government's right to fully or partially terminate a contract as a result of the contractor's actual or anticipated failure to perform its contractual obligations. FAR 2.101, 49.401(a).

<sup>32</sup>[GAO-21-9, GAO-23-105805](#).

<sup>33</sup>[GAO-23-105805](#).

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prototype was unable to complete any of the tests and required constant troubleshooting. The subcontractor retested the prototype in September 2024 and conducted additional factory testing on the second davit for OPC 1 in February 2025.

Based on the recent testing, the Coast Guard's ship design team reassessed the davit's maturity level to TRL 5 since basic functionality was demonstrated in a laboratory environment. However, the Coast Guard's ship design team also issued a memorandum to the OPC program in March 2025 that raised concerns about design issues, missing safety information, and insufficient testing.

- **Design issues.** Some davit components do not meet contractual requirements. This includes the constant tension motors that enable the davit to lower small boats safely. Coast Guard officials determined that the motors were not suitably rated for OPC launch and recovery efforts. Additionally, the electrical cabinet that houses some of the equipment to power the davit is planned to be installed outside. Officials determined that the cabinet would not properly protect the equipment, which requires a dry, temperature-controlled environment. Absent a controlled environment, risks include damage to equipment and operational failure.
- **Missing safety information.** The davit subcontractor had yet to provide fail safe and reliability data to the Coast Guard for certain single-point failure components—meaning failure of those components would result in failure of the entire davit—which increases the risk of free fall and personnel injury during davit operations.
- **Insufficient testing.** The davit subcontractor did not have a plan to perform electromagnetic interference testing and vibration testing, both of which are contractually required. Additionally, the subcontractor had yet to fully test the davit system or components for enough time or distance to verify performance. The ship design team recommended that the program require further testing to determine whether operational restrictions should be placed on the davit.

In April 2025, Coast Guard officials stated that further testing would be conducted on the stage 1 davits once they were installed on OPC 1. For example, they stated that the subcontractor developed a plan to conduct vibration testing and electromagnetic interference testing in June and July 2025, respectively. If further testing demonstrates that the davit technology is not mature enough to support OPC 1 delivery, officials stated that they would proceed with installing a legacy davit system used

#### Use of Davit in Sea State 5

In 2010, the Coast Guard conducted a study and determined that sea state 5 small boat operations were a critical and essential characteristic for its medium-range security cutters. The study, which formed the basis of the Offshore Patrol Cutter's (OPC) key performance parameters, found that nine of the Coast Guard's 14 operating areas had an average sea state of 5 or greater for at least 50 percent of the year. According to the Coast Guard, there is currently no davit on the market that can launch and recover small boats in sea state 5. Both the 210-foot and 270-foot Medium Endurance Cutters can conduct small boat operations in conditions up to sea state 4, meaning operations are unsafe in a significant percent of key operating areas. A davit that meets the contract specification for small boat operations in sea state 5 will enable the OPCs to conduct these operations more routinely and frequently in assigned operational areas.

Source: GAO analysis of U.S. Coast Guard information. | GAO-26-107583

on other Coast Guard cutters during post-delivery. This would enable OPC 1 to perform the basic function of launching and recovering a small boat, though not in sea state 5, as identified in the stage 1 contract. In this scenario, ESG would still be responsible for delivering the contractually compliant davit for its stage 1 ships but would have more time to develop it. Additionally, the Coast Guard would have to replace the legacy davit with one that meets the program's sea state 5 requirement once it becomes available. However, given the continued technical challenges ESG's subcontractor has encountered developing the stage 1 davit, it is unknown when ESG will be able to deliver a contractually compliant davit.

As summarized in appendix II, we previously made several recommendations regarding the stage 1 davit, which the Coast Guard has yet to fully address. For example, in June 2023, we made two recommendations related to maturing the stage 1 davit, including that the Coast Guard (1) should develop a davit technology maturation plan prior to builder's trials that includes a date by which the program will make a go/no-go decision to pursue a technology alternative, and (2) test an integrated prototype of the davit in a realistic environment prior to builder's trials.<sup>34</sup> DHS concurred with these recommendations, but the Coast Guard has yet to take the actions needed to implement them.

## Stage 2 Incorporated Some Leading Ship Design Practices, but Construction Began Without a Stable Design

### Leading Ship Design Practices Incorporated into Stage 2

The Coast Guard and Austal incorporated some leading practices for ship design into OPC stage 2 but began construction of the lead ship—OPC 5—without achieving a stable design. This approach is contrary to shipbuilding leading practices, which emphasize the importance of achieving a stable design before starting construction to reduce cost and schedule risk.

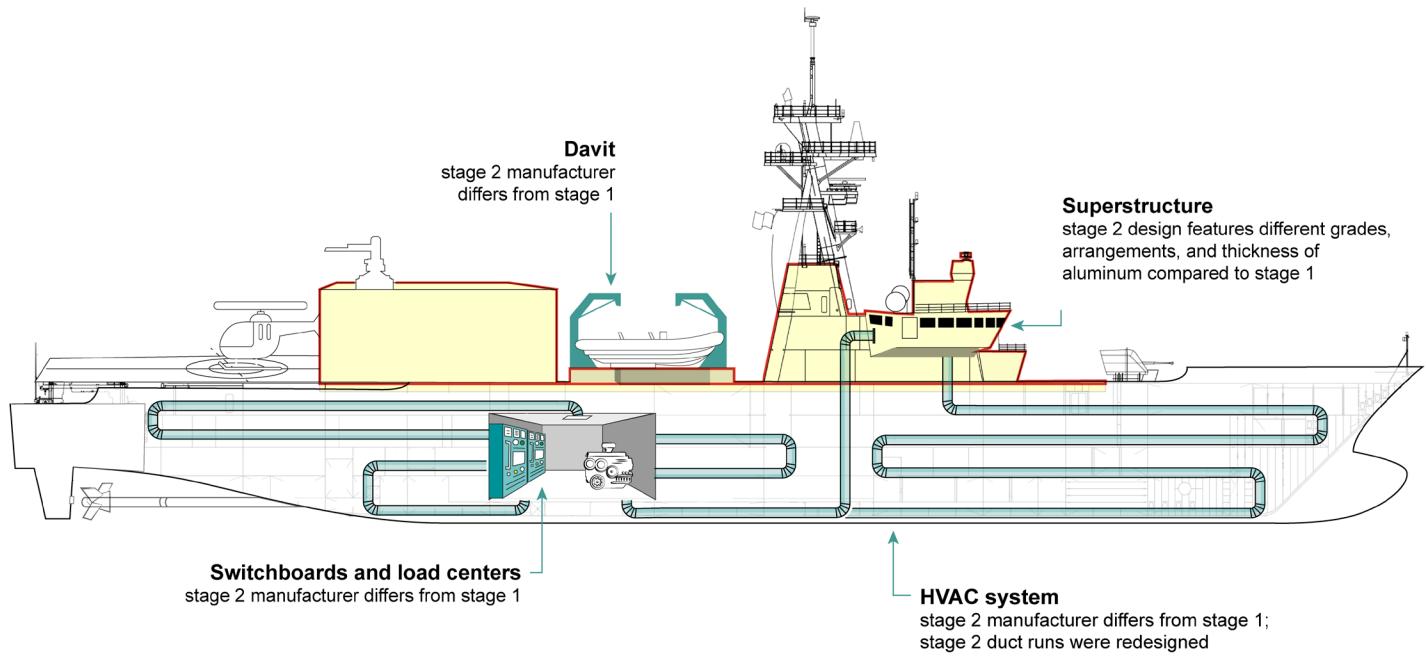
The Coast Guard and Austal incorporated some key elements of our leading practices for ship design into OPC stage 2, such as leveraging existing designs, minimizing changes to existing designs, maintaining strong in-house design workforce capabilities, and using processes that support timely design decisions. This approach contributed to developing a substantial amount of the design in less than 2 years after contract award. Specifically, the Coast Guard and Austal took the following actions:

<sup>34</sup>[GAO-23-105805](#). The contractor conducts builder's trials to test and evaluate a ship's performance before the government conducts testing to determine a ship's suitability for delivery.

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- **Leveraged existing ship designs and systems.** Leading commercial shipbuilding companies draw heavily from their existing designs to speed design maturity and reduce risk. Use of proven ship designs and vendors for major equipment and systems also minimizes design, cost, and schedule uncertainties. In the OPC stage 2 contract, the Coast Guard required certain elements of the design and major equipment to be the same as stage 1. These included the hull form, propulsion system, main diesel engines and generators, and machinery control system. The Coast Guard also provided other information on the stage 1 design. According to Austal representatives, they assessed this information to determine what other elements of the stage 1 design they could leverage. For example, Austal chose to work with the same subcontractor for integrating the ship's communications systems.
- **Minimized changes to existing designs.** Commercial shipbuilders minimize changes made to existing ship designs to preserve design maturity and reduce the total work required for new ship designs. For OPC stage 2, Austal focused design changes on where the stage 1 design was incomplete, or where the company anticipated that it could achieve major efficiencies. For example, Austal representatives stated that redesigning the piping systems eliminated 20 percent of needed pipe and 1,000 valves. They also redesigned the ship structure, which reduced the estimated weight by 163 long tons. In addition, Austal selected different manufacturers for certain equipment, including the davit. Coast Guard officials noted that the stage 2 design is functionally the same as stage 1. But there are some differences, as described in figure 8.

Figure 8: Examples of Differences Between the Offshore Patrol Cutter Designs for Stages 1 and 2



Source: GAO presentation of information from the American Bureau of Shipping, Austal USA, and U.S. Coast Guard. | GAO-26-107583

- **Maintained strong in-house design workforce capabilities.** Commercial shipbuilders use their own personnel to perform most of the design work for the ships they build. This allows builders to make decisions that align the ship's design with the shipyard's characteristics to create an efficient build strategy. Coast Guard officials said that Austal has strong, in-house design workforce capabilities and, therefore, used fewer subcontractors than ESG. These officials also said that Austal tailored the design to better align

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## Construction of the Stage 2 Lead Ship Started Without a Stable Design

it with the shipyard's manufacturing process and "center-up" build strategy to increase efficiencies.<sup>35</sup>

- **Used processes that support timely design decisions.** Commercial ship buyers and builders use consistent, effective collaboration to support timely decision-making practices, which hastens design maturity. Consistent with shipbuilding leading practices, Austal developed a 3D model of its OPC design and used this model to conduct regular, collaborative reviews with the Coast Guard throughout the design process. The Coast Guard cited these reviews as a tool to catch design problems early and speed up review times. For example, during one review, the Coast Guard identified a pipe connection issue in the 3D model that would have been difficult to catch in a 2D drawing and likely would have gone unnoticed until the valve was installed. The Coast Guard estimated that identifying the issue in the 3D model avoided at least 64 labor hours to correct the issue later.

Even though the Coast Guard and Austal incorporated some elements of ship design leading practices, the Coast Guard authorized Austal to begin construction of OPC 5 in August 2024 without achieving a stable design or maturing the davit. As of May 2025, construction of OPC 5 progressed to 9 percent. Delivery was expected in August 2027 but, as of May 2025, Austal reported that delivery of OPC 5 could be delayed by almost 4 months. Coast Guard officials said that Austal attributed the potential delay to a lack of available pipe material and qualified pipe designers. However, Coast Guard officials stated that they do not agree with the delay and are working with Austal on the delivery schedule.

In June 2023, we recommended that the Coast Guard ensure that stage 2 achieves a sufficiently stable design prior to the start of OPC 5 construction by completing 100 percent of basic and functional design, including routing of major distributive systems that affect multiple zones of

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<sup>35</sup>Austal's steel shipbuilding facility uses an assembly line manufacturing process where completion of ship modules increases as they move from station to station. For example, steel panels are joined to create a module, then the module is outfitted with systems and equipment as it moves down the assembly line. Austal also uses what officials described as a "center-up" build strategy. This involves starting construction of the bottom center modules and building up toward the mast, which allows for earlier installation of the communications systems in the pilothouse.

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the ship.<sup>36</sup> This is consistent with our shipbuilding leading practices. As previously discussed, we updated these leading practices in May 2024 to emphasize the importance of completing basic and functional design in a 3D model and that 3D modeling should be supported by reliable vendor-furnished information on the characteristics of ship equipment and components.<sup>37</sup> Additionally, in June 2023, we recommended that the Coast Guard ensure the program or shipbuilder demonstrate an integrated prototype of any critical technologies—which would include the stage 2 davit—in a realistic environment no later than preliminary design review.

DHS did not concur with these recommendations and stated that design would be sufficiently stable when construction of OPC 5 began, in accordance with the Coast Guard's policy. The Coast Guard has a standard operating procedure that establishes the design maturity parameters shipbuilding programs should achieve before moving into production. We previously identified that the standard operating procedure requires a lower level of design maturity than shipbuilding leading practices and recommended that the Coast Guard make changes to align with these practices.<sup>38</sup> The Coast Guard made some updates, such as requiring shipbuilding programs to complete major portions of distributive systems as part of functional design and to ensure any critical technologies are TRL 7 or higher prior to the start of construction. However, the standard operating procedure still falls short of shipbuilding leading practices. For example, the standard operating procedure requires that shipbuilding programs complete at least 95 percent of

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<sup>36</sup>GAO-23-105805. We designated this recommendation as a priority for agency attention. Priority recommendations are highlighted because, upon implementation, they may significantly improve government operations, for example, by realizing large dollar savings; eliminating mismanagement, fraud, and abuse; or making progress toward addressing a high-risk or duplication issue.

<sup>37</sup>GAO-24-105503.

<sup>38</sup>GAO-23-105805 (recommendation 4) and GAO-21-9 (recommendation 4). See appendix II for the status of these recommendations.

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functional design and 70 percent of transitional design before construction begins.<sup>39</sup>

The Coast Guard met the design completion metrics in its standard operating procedure at the start of OPC 5 construction. However, we identified areas where the stage 2 design did not align with the standard operating procedure or our shipbuilding leading practices, which increases the risk of rework and schedule delays. Additionally, Austal has continued to mature the stage 2 design after starting construction, but it is not yet stable according to leading practices. Specifically, when construction began in August 2024:

- **2D design drawings of safety and distributive systems were incomplete.** At the start of OPC 5 construction, the Coast Guard reported that 2D design was 95 percent complete. The remaining 5 percent were incomplete drawings that had not been submitted by Austal or had technical or administrative comments that had yet to be resolved with the Coast Guard. These included designs of safety systems, such as diagrams for the fire main, flooding detection, and other alarms, as well as major distributive systems, such as HVAC, sewage, and electrical. For example, Coast Guard officials estimated that the design containing cable data for all electrical, electronic, control and communications systems was only 50 percent complete. Additionally, the Coast Guard reported that the American Bureau of Shipping—a third party that verifies the ship complies with the naval vessel rules required in the contract—approved 36 percent of the design drawings at the start of OPC 5 construction. American Bureau of Shipping officials stated that their approvals focused on the design elements needed to support initial construction efforts, such as the primary structure.

As of May 2025, the Coast Guard reported that the percentage of completed 2D drawings increased to 98 percent and American Bureau of Shipping approvals increased to 70 percent. However, designs related to distributive systems, such as HVAC, water, and electrical, remained incomplete more than 9 months after construction began.

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<sup>39</sup>For the OPC stage 2 detail design, the Coast Guard defines functional design as 2D design artifacts that designate system design and includes functional performance and interface characteristics. It defines transitional design as 3D modeling of the functional design and space arrangements populated with equipment, components, and systems, which are used to generate the production design. These definitions generally align with our definition of functional design as identified in Table 3.

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- **3D modeling of distributive systems was incomplete and did not include vendor-furnished information.** At the start of OPC 5 construction, the Coast Guard reported that the 3D model was 81 percent complete. However, distributive systems including HVAC, electrical, and piping were fully modeled for only 5 of the 20 modules. The 3D model also did not include reliable vendor-furnished information for all major systems as called for by our leading practices. For example, vendor information for the communications systems was incomplete because Austal delayed the critical design review for these systems until after the start of construction. Coast Guard officials explained that the communications integration subcontractor switched one of its vendors leading up to the review and officials needed more time to vet the new vendor's information. Since the start of OPC 5 construction, Austal has made progress on the 3D model and the Coast Guard reported that it was 97 percent complete as of May 2025. This included full modeling for 16 of the 20 modules. The remaining four modules were 99 percent complete and waiting on full modeling of distributive systems, including piping and electrical. Additionally, information from the communications integration subcontractor was needed for the electrical system in eight modules. As of May 2025, the critical design review for the communications systems was now planned for August 2025.<sup>40</sup> Continued challenges with the communications systems could lead to construction delays, especially given Austal's "center-up" build strategy.
- **Davit for stage 2 was immature.** At the start of OPC 5 construction, the Coast Guard and the American Bureau of Shipping had yet to fully approve the stage 2 davit design. Additionally, the Coast Guard assessed the davit at a TRL 5 (approaching maturity) instead of TRL 7 (mature). Testing of the stage 2 davit was expected in fall 2024 but has been delayed several times and is now planned for October 2025. American Bureau of Shipping officials stated that they had multiple technical comments on the davit design that should be resolved before testing occurs. As of June 2025, these officials estimated that the davit design was 45 percent complete. Coast Guard officials stated that, despite the delays, the testing will occur before the davit needs to be installed for builder's trials. These trials were originally scheduled for March 2027 but have been delayed to July 2027. Additional delays to—or challenges resulting from—the stage 2 davit

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<sup>40</sup>In September 2025, Coast Guard officials confirmed the critical design review for the communications systems occurred in August 2025 but that they had yet to receive the ship design team's assessment of the results.

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testing could delay its installation and other subsequent events, such as trials and delivery.

According to Coast Guard officials, detail design continues throughout the construction phase so that changes can be made, if necessary, while ships are on the production line. While we acknowledge that detail design is an iterative process, this design phase should not involve completing or making major changes to the basic or functional design because doing so contributes to design instability. Our previous work on shipbuilding leading practices found that production outcomes cannot be guaranteed until a stable design is demonstrated. Stabilizing the design of distributive systems that run throughout the ship is particularly important because any changes to these designs may have a reverberating effect across the ship. Fully modeling distributive and other major systems in a 3D model with reliable vendor-furnished information prior to construction minimizes the risk of design changes, which can become more costly and difficult to implement as construction progresses.

Given the importance of OPC and the program's stated desire to stay on schedule, Coast Guard officials told us in December 2024 that they plan to exercise the option for construction of OPC 6 by August 2025 and OPC 7 by August 2026. However, the functional design may not be complete, and the davit may not reach a sufficient level of technology maturity before these dates. For example, the Coast Guard subsequently exercised the option to construct OPC 6 in August 2025 before the critical design review for the communications systems and testing of the stage 2 davit were complete. Authorizing Austal to begin construction of additional ships before it achieves a sufficiently stable design and successfully demonstrates the davit in a realistic environment increases the risk that stage 2 will encounter costly rework and schedule delays.

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## OPC Program Faces Challenges Meeting Its Revised Acquisition Goals

The OPC program faces challenges meeting the schedule, cost, and performance goals included in its most recent baseline that DHS leadership approved in August 2024. The thrice revised baseline established a ship delivery goal for OPC 1 but, in July 2025, the program breached this goal. Additionally, program costs have continued to increase, which puts the program's cost goals at risk and undermines the stage 1 business case. Further, the Coast Guard risks buying more ships in stage 3 before operational testing demonstrates whether the existing OPC designs meet the program's performance goals.

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## Program's Schedule Goals Are No Longer Achievable and Will Need to Be Revised Again

### Key Management Tool: Earned Value Management (EVM)

As described in our *Cost Estimating and Assessment Guide* ([GAO-20-195G](#)), EVM is a project management tool. EVM integrates the technical scope of work with schedule and cost elements, and compares the value of work accomplished in a given period with the value of the work expected in that period. When used properly, EVM can provide objective assessments of project progress, produce early warning signs of impending schedule delays and cost overruns, and provide unbiased estimates of anticipated costs at completion.

Source: GAO. | GAO-26-107583

In its August 2024 baseline, the program established ship delivery goals for OPCs 1, 4, 5, and 25 in response to our prior recommendations.<sup>41</sup> However, the Coast Guard did not have quality schedule information from the shipbuilders at the time it set these goals, and the program breached the delivery goal for OPC 1 less than a year later. Ongoing challenges with the shipbuilders' schedules will hinder the Coast Guard's ability to set realistic ship delivery goals in its next baseline.

Schedules are an important program management tool. They are also a critical component of EVM, which is used to assess a contractor's performance against its planned schedule and budget. Both the stage 1 and stage 2 OPC contracts require the shipbuilders to have an acceptable EVM system.<sup>42</sup>

## Stage 1's Schedule Remains Deficient

The program revised its schedule goals for stage 1 despite known deficiencies with ESG's schedule. Subsequently, the program breached its delivery goal for OPC 1—which was December 2025—and will need to develop a plan to remediate the breach, rebaseline, or have a DHS-led program review that results in recommendations for a revised baseline.

In October 2020, we found that ESG's schedule contained several deficiencies, was overly optimistic, and did not fully incorporate schedule

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<sup>41</sup>[GAO-21-9](#) (recommendations 1 and 2). As summarized in appendix II, the program added delivery goals for the first and last ship of each stage. At the time we made our recommendations, stage 2 consisted of OPCs 5-25.

<sup>42</sup>The OPC contracts contain versions of Defense Federal Acquisition Regulation Supplement (DFARS) clauses related to EVM systems. Specifically, the clauses at DFARS § 252.234-7002, EVM System (May 2011), and § 252.242-7005, Contractor Business Systems (Feb 2012). The EVM System clause outlines conditions under which a contractor is required to have a cognizant federal agency determine its EVM system to be acceptable, the criteria used to determine the EVM system is acceptable, and steps contracting officers will take regarding determinations of significant deficiencies in the system. Such steps can include withholding a percentage of progress payments and performance-based payments under the Contractor Business Systems clause. In January 2025, the DFARS was revised to replace the term significant deficiency with material weakness, a separately defined term. We use significant deficiency in our report to reflect the term used in the OPC contracts.

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risks.<sup>43</sup> For example, ESG did not complete a schedule risk analysis to determine the probability of delivering the first ship by the contract delivery date until after the program had already revised the delivery dates following Hurricane Michael. We recommended that the Coast Guard update its shipbuilder and government schedules for OPCs 1-4 to fully address deficiencies identified in the shipbuilder's schedule and fully incorporate schedule risk analysis in accordance with schedule best practices. DHS concurred with this recommendation, but the Coast Guard has yet to address it because ESG is reviewing its schedules for all stage 1 ships—an effort that has been ongoing for more than 18 months.

In July 2023, ESG began reviewing its schedules and costs for OPCs 1-4 after notifying the Coast Guard that it could not meet its revised contract delivery dates. The Coast Guard acknowledged several reasons for the review including large design changes, ESG not leveraging lessons learned, and management practices. ESG paused reporting of some EVM data while it conducted these reviews since the data no longer reflected performance. By the time the OPC program revised its baseline in 2024, ESG had only completed its review for OPC 1 and projected delivery for that ship in May 2025. ESG also completed a schedule risk analysis of its revised OPC 1 schedule. We reviewed this analysis and found it was optimistic and did not include all elements of a comprehensive schedule risk analysis. For example, the analysis did not capture several known risks, such as incomplete design and workforce challenges. As previously mentioned, estimated delivery of OPC 1 has since been delayed twice due to these challenges—from May 2025 to November 2025, and now to December 2026 at the earliest.

In April 2025, Coast Guard officials stated that ESG had revised its schedule for OPC 2 but the reviews of OPCs 3-4 were ongoing.<sup>44</sup> However, these officials stated that they would not approve ESG's revised schedule for OPC 2 until more progress is achieved on OPC 1. Specifically, the program plans to wait at least until OPC 1 begins builder's trials. Officials stated that, by waiting, the program would have greater confidence in ESG's ability to achieve its revised schedule. However, as discussed, ESG has struggled to complete construction of OPC 1 and the Coast Guard terminated for default the portions of the

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<sup>43</sup>[GAO-21-9](#).

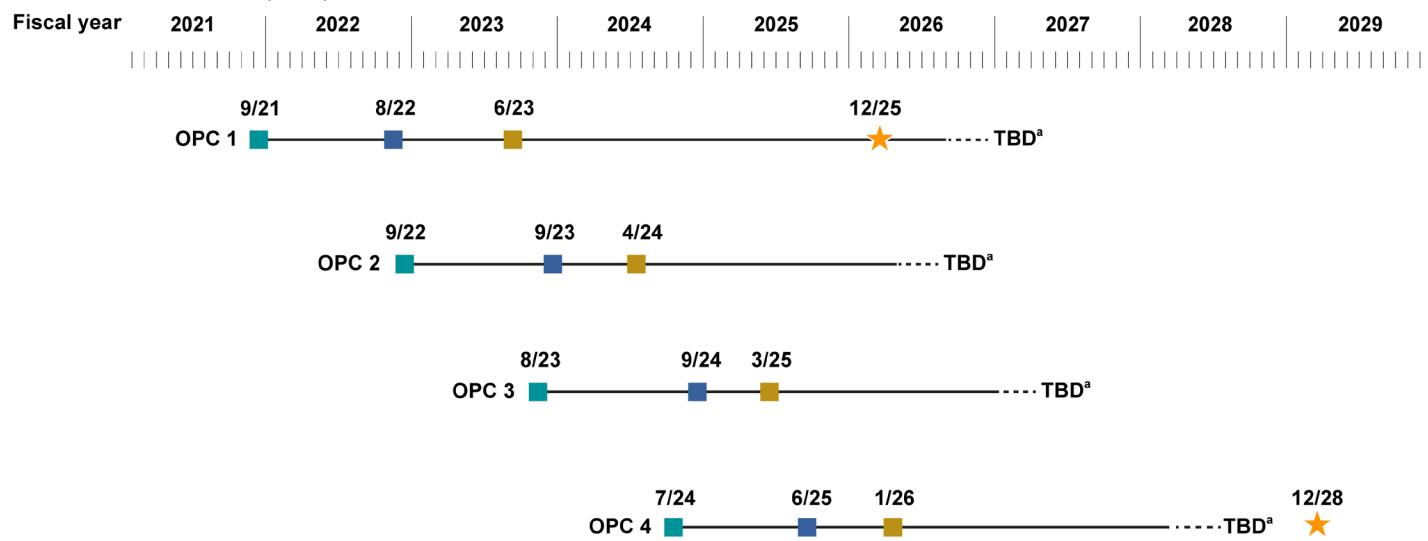
<sup>44</sup>At the time, Coast Guard officials also stated that ESG had resumed reporting all EVM data for OPC 1 but would not resume reporting paused EVM data for OPCs 2-4 until the revised schedules for these ships were approved.

stage 1 contract for construction of OPCs 3 and 4 but has yet to decide how it will complete them.

We previously reported that the planned delivery for OPCs 1-4 have been delayed multiple times, as shown in figure 9.<sup>45</sup>

**Figure 9: Planned Delivery Schedules for OPCs 1 through 4 since 2017, as of July 2025**

**Offshore Patrol Cutter (OPC)**



■ 2017 delivery schedule

■ 2020 delivery schedule (revised due to Hurricane Michael impacts)

■ 2022 delivery schedule (revised due to weapons system installation shift and other impacts)

★ August 2024 baseline delivery goal<sup>b</sup>

Source: GAO analysis of U.S. Coast Guard information. | GAO-26-107583

<sup>a</sup>Delivery of OPCs 1-4 are to be determined (TBD) because, in July 2025, the Coast Guard terminated for default the OPC 3 and 4 portions of its existing contract and stated that delivery of OPC 1 had slipped to December 2026 at the earliest. The Coast Guard has yet to determine how this delay will affect delivery of OPC 2.

<sup>b</sup>Because the estimated delivery of OPC 1 exceeds the program's baseline delivery goal, the program is considered to be in breach. Per the Department of Homeland Security's acquisition policy, programs in breach must develop a plan to remediate the breach, rebaseline, or have a department-led program review that results in recommendations for a revised baseline. As of July 2025, the Coast Guard's efforts to address the breach were ongoing.

For example, the program delayed the delivery dates in 2020 to reflect relief granted to ESG following Hurricane Michael. The program also

<sup>45</sup>[GAO-23-105805](#), [GAO-21-9](#).

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delayed the delivery dates in 2022 to account for its decision to install Navy equipment—including weapons and radar systems—on OPC 1 and OPC 2 during production instead of during the post-delivery period, as initially planned. In June 2023, we found that the program further delayed the delivery dates due to manufacturing issues with propeller shafting segments—the part of the propulsion system that transmits power from the engine to the propellers to generate thrust—which have subsequently been resolved.<sup>46</sup> The additional delays caused by continued design and construction challenges mean that ESG will deliver OPC 1 more than 5 years late if it is able to deliver by December 2026.

Until the Coast Guard implements our recommendation from October 2020 to fully address the deficiencies identified with ESG's schedule, the program will not have reasonable assurance regarding when ESG can deliver OPC 1 and 2 to inform revising its baseline goals.

## Stage 2 Schedule and EVM System Have Deficiencies

The program does not have reasonable assurance that its schedule goals for stage 2—including delivery of OPC 5 by March 2028—are realistic or achievable because the Coast Guard and DCMA identified deficiencies with Austal's schedule and EVM system. Specifically:

- In February 2024, the Coast Guard sent Austal a letter of concern regarding the timeliness and quality of its schedule and other EVM deliverables required under the stage 2 contract. For example, the letter highlighted that Austal's schedule did not reflect all work elements or contain contract milestones and discrete tasks from start to completion. In December 2024, Coast Guard officials told us that Austal had yet to provide a schedule that contained this information.
- In August 2024, DCMA completed an evaluation of Austal's EVM system, which included a review of its schedule data.<sup>47</sup> DCMA found nine significant deficiencies with Austal's schedule, such as missing milestones, lack of vertical integration with subcontractor schedules, and discrepancies between the schedule and risk register.<sup>48</sup> For

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<sup>46</sup>[GAO-23-105805](#).

<sup>47</sup>DCMA evaluated Austal's EVM system against 32 EVM guidelines in the Electronic Industries Alliance Standard. In addition to data from the OPC contract, DCMA's evaluation included data from Austal's contracts with the Navy for four other government shipbuilding programs.

<sup>48</sup>DCMA referred to its findings as material deficiencies, which, as used by DCMA, had a similar meaning as the term significant deficiency in the clauses at DFARS § 252.234-7002, EVM System (May 2011), and § 252.242-7005, Contractor Business Systems (Feb 2012).

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example, the risk of completing the communications systems design was open in the OPC program's risk register but closed in Austal's schedule. Other risks we identified that could affect the stage 2 schedule include incomplete design and davit immaturity; Austal's management of potential competing priorities between OPC and its other contracts; Austal's ability to hire and retain the production workforce needed to support all its contracts; and timely completion of the new final assembly facility to support future OPC production rates.

DCMA also found 21 significant deficiencies with other aspects of the EVM system, some of which could affect Austal's estimates at completion by making them artificially low.<sup>49</sup> DCMA determined the significant deficiencies that it found materially affect the ability of government officials to rely upon the information produced by Austal's EVM system.

Coast Guard officials stated that Austal's scheduling and EVM challenges were primarily due to not dedicating enough resources to these efforts, such as experienced staff. DCMA officials also stated that Austal uses its schedule and EVM system more for cost-tracking rather than program management tools, which is their intended purpose. For example, EVM data can allow programs to monitor cost and schedule progress, understand the estimated resources needed to complete the program, and course correct as needed to reduce the risk of cost overruns and schedule delays.<sup>50</sup>

Improper use of EVM—either due to system deficiencies or inaccurate data—can mask performance issues that have cascading effects. For example, Austal pleaded guilty in August 2024 to resolve an investigation by the Department of Justice into a fraud scheme in which, according to court documents, Austal artificially suppressed the EVM system's estimates at completion for the Navy's Littoral Combat Ship from around

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<sup>49</sup>Estimate at completion is an assessment of the cost to complete authorized work based on a contractor's historical EVM performance. DCMA also identified 17 other deficiencies with Austal's EVM system that it did not consider significant.

<sup>50</sup>GAO, *Cost Estimating and Assessment Guide: Best Practices for Developing and Managing Program Costs*, GAO-20-195G (Washington, D.C.: Mar. 12, 2020).

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2013 to 2016 to increase the price of its parent company's stock.<sup>51</sup> The Department of Justice reported that this falsely overstated Austal's profitability on the program and its parent company's earnings in public financial statement filings by over \$100 million.

Coast Guard officials stated that they are working with Navy's SUPSHIP to address the deficiencies DCMA found with Austal's EVM system. SUPSHIP is responsible for oversight of Austal's EVM data for Navy contracts and has a process for engaging with contractors on EVM system deficiencies. SUPSHIP initiated its process with Austal in December 2024 by taking the following steps:

- **Issuing an initial determination.** SUPSHIP issued an initial determination on Austal's EVM system in December 2024. This determination requested that Austal respond if it disagreed with DCMA's findings, including its rationale for disagreement. In its response, Austal disagreed with half of DCMA's findings either because it did not believe a significant deficiency existed or it disagreed with DCMA's determination that a deficiency was significant.
- **Issuing a final determination.** Based on Austal's response to its initial determination, SUPSHIP issued a final determination on Austal's EVM system in February 2025. This determination concurred with some of Austal's disagreements but determined that 18 significant EVM deficiencies remained. As a result, SUPSHIP disapproved Austal's EVM system and began withholding 5 percent of eligible payments under one of the Navy's contracts.<sup>52</sup> SUPSHIP officials told us that it considered withholding payments under other Navy contracts but determined that doing so was unnecessary.

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<sup>51</sup>Austal also agreed to settle charges brought separately by the Securities and Exchange Commission. Under the plea agreement with the Department of Justice, which was accepted by the court in December 2024, Austal will pay a criminal fine of \$24 million—to be credited against amounts Austal will pay to resolve the Securities and Exchange Commission investigation—and retain an independent compliance monitor for 3 years, among other things. See Department of Justice, "U.S. Navy Shipbuilder Pleads Guilty to Financial Accounting Fraud Scheme and Obstructing a Defense Department Audit" (Washington, D.C.: Aug. 27, 2024), <https://www.justice.gov/archives/opa/pr/us-navy-shipbuilder-pleads-guilty-financial-accounting-fraud-scheme-and-obstructing-defense>; and U.S. Securities and Exchange Commission, "SEC Charges U.S. Navy Shipbuilder Austal USA with Accounting Fraud" (Washington, D.C.: Aug. 27, 2024), <https://www.sec.gov/newsroom/press-releases/2024-108>.

<sup>52</sup>SUPSHIP's correspondence to Austal indicated the withholdings were pursuant to the clauses at DFARS § 252.234-7002, EVM System, and § 252.242-7005, Contractor Business Systems, included in Austal's contracts with the Navy.

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Specifically, they determined that withholding payments under one contract would incentivize Austal to correct the deficiencies in a timely manner. They also stated that withholding payments under additional contracts may adversely affect Austal's financial position and jeopardize its ability to deliver under its contracts. SUPSHIP's final determination also included requests for Austal to develop corrective action plans to address the deficiencies with its EVM system.

- **Assessing corrective action plans.** Austal delivered its corrective action plans for addressing the 18 significant deficiencies to SUPSHIP in March 2025, which SUPSHIP approved in April 2025. SUPSHIP officials told us that Austal has demonstrated a commitment to resolving the deficiencies, but—given the volume and significance of some of the deficiencies—it may take 1-2 years to do so.

As described above, the stage 2 OPC contract includes clauses that allow the Coast Guard to disapprove Austal's EVM system and withhold a percentage of eligible payments. However, Coast Guard officials stated that they did not plan to take any action under these clauses because they are coordinating with SUPSHIP and SUPSHIP's process is working. Specifically, SUPSHIP's determinations have incentivized Austal to develop corrective action plans to address the EVM system deficiencies. According to officials, successful implementation of the corrective action plans will result in system improvements that benefit all government contracts with Austal that have EVM requirements—including the OPC contract.

SUPSHIP and Coast Guard officials told us that they believe their existing coordination on Austal's efforts to address EVM deficiencies is sufficient and presents a united front to Austal. SUPSHIP officials stated that they plan to invite the Coast Guard to regular meetings with Austal to discuss their corrective action plans and copy the Coast Guard on correspondence with Austal related to the EVM system. However, SUPSHIP officials did not specify what level of input the Coast Guard will have in the meetings or correspondence, and actions taken early on in SUPSHIP's process did not account for the OPC program. For example, SUPSHIP and Coast Guard officials told us that the Coast Guard participated in the briefing in which SUPSHIP discussed options for withholding contract payments. However, these officials did not consider the OPC contract when SUPSHIP was analyzing options for withholding a portion of contract payments.

The Coast Guard and SUPSHIP do not have an agreement in place that outlines how the two organizations will coordinate as Austal works to

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improve its EVM system, which has implications for Coast Guard and Navy shipbuilding programs. SUPSHIP officials stated that they have developed agreements at other shipyards in the past and would support developing one with the Coast Guard for Austal. For example, such an agreement could include:

- What roles and responsibilities each organization will have in evaluating Austal's progress implementing its corrective action plans,
- What steps they will follow for decision-making, such as determining when corrective actions are complete, conditions for increasing or decreasing any amounts withheld on Austal's OPC or Navy contracts, as well as when to stop withholding any amounts on contract payments, and
- How they will coordinate once Austal addresses all the deficiencies to ensure Austal's EVM system continues to generate reliable data.

Our prior work on enhancing interagency collaboration found that agencies that articulate their agreements in formal documents can strengthen their commitment to working collaboratively, which can help overcome significant differences when they arise.<sup>53</sup> Such documentation can provide consistency in the long term, especially when leadership changes. By establishing an agreement to guide its coordination, the Coast Guard and SUPSHIP will be better positioned to achieve their common goal of ensuring that Austal improves its EVM system and produces reliable data that the government can use to monitor schedule and cost performance throughout the duration of its contracts.

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#### Continued Cost Increases Put Program's Cost Goals at Risk and Undermines Stage 1 Business Case

The OPC program's estimated acquisition costs continued to rise from 2022 to 2023. The Coast Guard used outdated information from the 2023 estimate when it rebaselined its cost goals in 2024. Further, the structure of the cost goals limits decision-makers' opportunities for oversight. Finally, the underlying business case for stage 1 is no longer sound given continued cost growth. The Coast Guard has initiated a review of stage 1, which is ongoing.

#### OPC Acquisition Cost Estimate Increased

The OPC's total acquisition cost—which includes program funded and non-program funded costs—continued to increase in the 2023 cost estimate developed by NAVSEA 05C, the Navy's directorate that assists

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<sup>53</sup>GAO, *Government Performance Management: Leading Practices to Enhance Interagency Collaboration and Address Crosscutting Challenges*, GAO-23-105520 (Washington, D.C.: May 24, 2023).

the OPC program with developing cost estimates.<sup>54</sup> Specifically, the total acquisition cost increased to over \$19 billion, which is an 11 percent increase from the program's 2022 cost estimate and a 57 percent increase from the program's initial cost estimate from 2012. Table 4 outlines the changes to the OPC acquisition cost estimates over time.

**Table 4: Estimated Acquisition Costs for 25 Offshore Patrol Cutters (OPC) Over Time (in then-year billions of dollars)**

	2012 cost estimate	2022 cost estimate	2023 cost estimate	Percent change (2012 to 2023)	Percent change (2022 to 2023)
OPC costs funded by the program <sup>a</sup>	\$10.5	\$12.5	\$15.0	43%	20%
OPC costs not funded by the program <sup>b</sup>	\$2.0	\$5.2	\$4.6	130%	-12%
OPC total acquisition costs	\$12.5	\$17.6	\$19.6	57%	11%

Source: GAO analysis of U.S. Coast Guard information. | GAO-26-107583

<sup>a</sup>OPC costs funded by the program include costs to design, construct, and test ships. We also track these costs in our annual assessment of the Department of Homeland Security's major acquisition programs. However, the amounts in this table differ from those in our February 2025 annual assessment ([GAO-25-107317](#)) because we converted costs into fiscal year 2023 dollars for that report, which do not include the effects of inflation.

<sup>b</sup>OPC non-program funded costs include certain government-furnished equipment, post-delivery work, homeport and shore facilities, and OPC program personnel.

We previously found that OPC costs funded by the program increased between 2012 and 2022 primarily because of the extraordinary contractual relief granted to ESG following Hurricane Michael and recompete of the stage 2 contract.<sup>55</sup> From 2022 to 2023, OPC costs funded by the program further increased by 20 percent. This increase was primarily a result of the following:

- **Stage 1 delays and fewer than expected efficiencies.** NAVSEA 05C found that schedule delays, which exacerbate the effects of inflation, contributed to cost increases. Additionally, ESG experienced fewer efficiencies from learning than projected in previous cost estimates, which were based on ESG's historical performance on other contracts. As a result, the estimated ship production costs for stage 1, which include costs for materials, construction (including

<sup>54</sup>OPC costs funded by the program include costs to design, construct, and test ships. OPC non-program funded costs include certain government-furnished equipment, post-delivery work, homeport and shore facilities, and OPC program personnel. The OPC's baseline excludes non-program funded costs, meaning that the program's cost goals only include those funded by the program. When we refer to costs that are "program funded" or "non-program funded," we are using Coast Guard characterizations of dollar amounts contained in the OPC cost estimate.

<sup>55</sup>[GAO-23-105805](#).

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labor), outfitting, and government-furnished equipment funded by the program, increased by \$360 million—from \$1.90 billion in the 2022 cost estimate to \$2.26 billion in the 2023 cost estimate.

- **Stage 2 and 3 updated with Austal-specific information.** The 2023 cost estimate was the first to be developed following the recompete of the stage 2 contract. As a result, NAVSEA 05C updated the estimates for stage 2 ship production costs with data from Austal's historical performance and stage 2 proposal. It also used these data to update the estimated stage 3 ship production costs. These stage 2 and 3 costs increased \$2.2 billion—from \$8.7 billion in the 2022 cost estimate to \$10.9 billion in the 2023 cost estimate. However, NAVSEA 05C did not use Austal's data for all elements of the 2023 cost estimate because it found that Austal's values were optimistic when compared with performance on other contracts. Instead, NAVSEA 05C used labor and material data from select Austal government contracts and other recent Coast Guard shipbuilding contracts to develop the estimates for stages 2 and 3. Because NAVSEA 05C viewed Austal's values as optimistic, NAVSEA 05C determined that Austal could experience substantial financial losses if it is unable to achieve significant performance improvements.

The OPC costs not funded by the program decreased 12 percent from 2022 to 2023 primarily because the expected costs to install secure spaces were refined or became program-funded costs. Additionally, the 2023 cost estimate included a reduction in the estimated facilities acquisition costs, which include homeports and shore facilities.<sup>56</sup> However, these costs are still over 200 percent higher than the program's 2012 estimate of \$431 million. We previously reported that these costs increased because the Coast Guard found that it would need to make more significant upgrades to MEC homeports than expected and would not be able to use existing Navy facilities, which the 2012 cost estimate assumed.<sup>57</sup>

#### Cost Goals Are Based on Outdated Information

The Coast Guard used outdated cost information to revise its cost goals for the OPC program in its August 2024 baseline. As a result, the cost goals underestimate program costs, which raises affordability concerns. Specifically, NAVSEA 05C developed the 2023 cost estimate in 2022, which made the data more than 18 months old by the time the program submitted its revised baseline for review to DHS in July 2024. This delay

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<sup>56</sup>Facilities acquisition costs are funded by the Coast Guard's Major Acquisition Systems Infrastructure Program and the Office of Civil Engineering.

<sup>57</sup>GAO-23-105805.

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occurred when the OPC program manager took 6 months to further analyze aspects of the estimate with NAVSEA 05C, and the Coast Guard took over a year to complete internal reviews of the cost estimate. After NAVSEA 05C completed the estimate, the program experienced changes that were not reflected in the OPC acquisition costs. For example, stage 1 realized construction inefficiencies and further schedule delays, which drove cost increases.

DHS's Cost Analysis Division conducted an independent cost assessment of NAVSEA 05C's 2023 cost estimate and determined that the estimate was comprehensive and credible but raised concerns about affordability of the program. Specifically, the assessment noted that outdated information can cause funding misalignment and put the program's affordability at risk. As a part of its assessment, the Cost Analysis Division reviewed more current information and determined it was highly unlikely the Coast Guard would be able to afford four OPCs with available stage 1 funding. The assessment further noted the Coast Guard would need to make significant program changes to stay within funding constraints.

Despite its concerns, the Cost Analysis Division recommended that DHS leadership approve the 2023 cost estimate in support of the program's rebaselining. It also made several recommendations to improve future iterations of cost estimates. These included that the Coast Guard submit future cost estimates for review within 3 months of completion. DHS leadership ultimately approved the 2023 cost estimate in July 2024 and the program's revised baseline in August 2024 even though the cost goals were based on outdated information.

In August 2024, DHS leadership also directed the Coast Guard to update the OPC cost estimate by the end of July 2025 to reflect program changes. The updated cost estimate is to include the latest schedule information for stages 1 and 2, as well as information on Austal's progress on the Navy's T-ATS program as a crosscheck for OPC since the two shipbuilding programs share a production line, among other things. Coast Guard officials told us that NAVSEA 05C delivered a draft of the updated cost estimate as of June 2025. However, in September 2025, these officials stated that they were working with NAVSEA 05C to make further updates to account for the recent stage 1 contract changes before the estimate would be approved. We will continue to monitor the status of this effort.

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**Structure of Cost Goals Limits Oversight Opportunities**

We found that the Coast Guard did not structure OPC's cost goals by stage in its August 2024 revised baseline, which limits opportunities to perform oversight. Instead, the program reported the cost goals at the program level, which Coast Guard officials said allows the program more flexibility to manage its funds across OPC stages. However, this limits the ability for decision-makers to track progress or identify issues, such as a potential cost breach, since cost increases within a stage might not be apparent until a cost overrun for the entire program reaches the threshold for a breach.<sup>58</sup>

DHS's acquisition policy states that baselines are to include subsections laying out cost parameters for each project or discrete usable segment—which for the OPC program is by stage—based on the program's cost estimate, among other things. Further, DHS acquisition policy requires program managers to report if they forecast a cost breach within 30 days of identifying that costs will exceed the threshold—or goal—in the latest approved baseline. In addition to DHS's policy, the Coast Guard's major acquisition programs have an additional requirement to report cost breaches that meet a certain threshold to appropriate congressional committees in accordance with Title 14 of the U.S. Code.<sup>59</sup>

Coast Guard officials stated that they did not break down the August 2024 cost goals because they view the three OPC stages as a single program. However, the program previously reported cost goals by stage in its prior baseline that DHS leadership approved in March 2020. Additionally, the information needed to report cost goals by stage is readily available in the OPC program's cost estimate prepared by NAVSEA 05C. Reporting cost goals in the OPC baseline by stage would provide additional oversight

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<sup>58</sup>We have previously reported similar challenges with the Navy's cost reporting for the *Ford*-Class program. In 2017, we found the Navy reported aggregated costs for all three ships in the *Ford* class in annual reports to Congress. This practice limits transparency into individual ship costs and thus congressional oversight. We made a recommendation to the Navy to prepare cost information for each ship as part of the annual report, but the Navy has yet to address this recommendation. GAO, *Ford-Class Aircraft Carrier: Follow-On Ships Need More Frequent and Accurate Cost Estimates to Avoid Pitfalls of Lead Ship*, GAO-17-575 (Washington, D.C.: June 13, 2017).

<sup>59</sup>The Coast Guard is required to report to the House Committee on Transportation and Infrastructure and the Senate Committee on Commerce, Science, and Transportation as soon as possible, but not later than 30 days, after the Coast Guard becomes aware of an acquisition program baseline breach that involves a likely cost overrun of greater than 15 percent for any Level 1 or 2 program. 14 U.S.C. § 1135. This statute also requires the Coast Guard to notify the committees of a breach of contract for a major acquisition. Coast Guard officials stated that they notified the committees of the partial termination of the Stage 1 contract in July 2025 as required.

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opportunities into the performance of each shipbuilder because breaching a cost goal triggers specific reporting requirements to decision-makers. If implemented, DHS leadership, Coast Guard leadership, and congressional oversight committees would be better positioned to hold the program and shipbuilders accountable for delivering ships to the fleet.

**Business Case for Stage 1 Is No Longer Sound**

The underlying business case for stage 1, which includes the costs to design and construct four OPCs, is no longer sound. A business case, in its simplest form, demonstrates that (1) the end user's needs are valid and can best be met by the chosen concept and (2) the chosen concept can be developed and produced within existing resources—that is, proven technologies, design knowledge, adequate funding, and adequate time to deliver the product when it is needed.<sup>60</sup> We previously found that leading companies, including commercial ship buyers and builders, continually evaluate their business case for a product to ensure it reflects customer needs and resources available to support its development and production.<sup>61</sup> These companies also act decisively to terminate a product development if they determine that the underlying business case has deteriorated and is no longer sound.

DHS previously reevaluated the stage 1 business case following Hurricane Michael in 2018 and made changes, such as decreasing the total number of OPCs to be purchased in stage 1 from nine to four and recompeting the requirement for additional ships as a separate stage. Since then, key elements of the stage 1 business case, including the cost and time needed to design and construct OPCs, have continued to grow. For example, the program's 2023 cost estimate does not include the contract modification made in June 2024, which increased the OPC 1 target and ceiling price by \$77 million. Furthermore, the Coast Guard did not provide an analysis to show how it determined that \$77 million would be sufficient to complete OPC 1. As a result, the amount needed to complete OPC 1 may further increase.

Coast Guard officials stated that they do not have any interest in making financial investments in stage 1 beyond the current contract value and \$659 million in Public Law 85-804 funding. However, during our review,

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<sup>60</sup>We have previously reported on challenges with the business cases for Navy shipbuilding programs. See, for example, [GAO-25-108225](#) and [GAO-24-105503](#).

<sup>61</sup>[GAO-24-105503](#); GAO, *Leading Practices: Agency Acquisition Policies Could Better Implement Key Product Development Principles*, [GAO-22-104513](#) (Washington, D.C.: Mar. 10, 2022).

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we found that the Coast Guard had not reevaluated the business case for stage 1 to determine whether it was feasible to stay within this funding limit. When we shared this observation with the Coast Guard in May 2025, officials agreed that they needed to reevaluate the stage 1 business case and stated that they were in the process of reviewing the stage 1 contract.

Officials added that this review includes a full financial audit of ESG, as well as potential alternatives for completing construction of stage 1 ships. For example, in May 2025, DHS issued a request for information to identify industry sources capable of towing and completing construction of OPCs. Responses to the request for information were due in June 2025 and will inform Coast Guard and DHS decisions about the path forward for stage 1. As previously mentioned, the Coast Guard terminated for default the OPC 3 and 4 portions of the stage 1 contract in July 2025 but has yet to decide how it will complete these ships. In addition, as noted earlier, the Coast Guard is in the process of assessing the additional funding and time needed to deliver OPCs 1 and 2. Given the Coast Guard and DHS's ongoing efforts to reevaluate the business case for stage 1, we are not making a recommendation at this time and will continue to monitor their efforts to do so.

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### Knowledge From Operational Testing May Not Be Available to Inform Stage 3 Procurement

The Coast Guard does not plan to complete operational testing to demonstrate whether the two existing OPC designs meet the program's performance goals for several years.<sup>62</sup> The program indicated that it plans to use results from stage 1 and stage 2 testing to inform stage 3. However, the program has yet to document how it will acquire additional OPCs in stage 3. Additionally, based on the program's schedule, it is unlikely to obtain the results from stage 1 and 2 operational testing in time to inform important stage 3 procurement activities, such as developing the request for proposals and evaluating proposal responses.

The program plans to conduct operational testing prior to its next acquisition milestone—ADE 3, which authorizes full-rate production—by June 2030. This is consistent with Coast Guard and DHS policies, which note that initial operational testing results should inform a full-rate production decision. Conducting operational testing helps to ensure that further design or manufacturing changes are not needed before more

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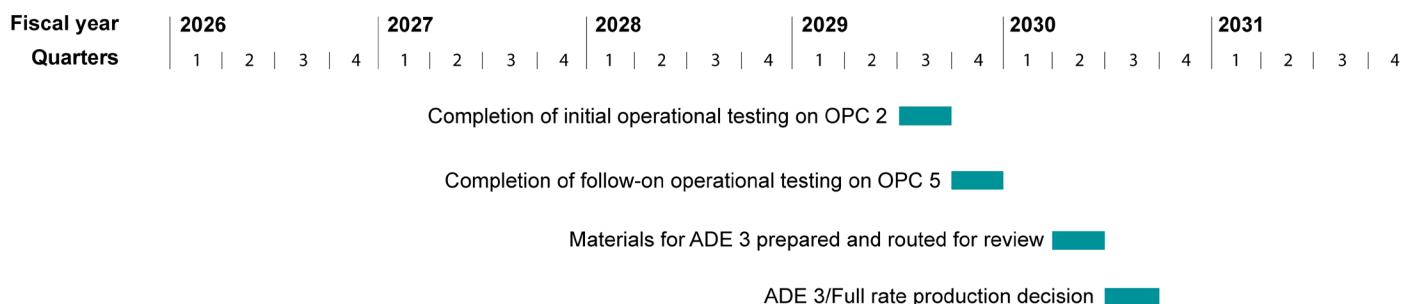
<sup>62</sup>The Coast Guard did not change the OPC performance goals in the revised August 2024 baseline.

systems are produced. Specifically, the Coast Guard plans to conduct the following operational testing for stage 1 and stage 2:

- **Initial operational testing on OPC 2.** In June 2024, the program decided to complete initial operational testing on OPC 2 instead of OPC 1. This is because the Coast Guard approved OPC 1 to be delivered with several variances, such as without the Coast Guard standard machinery control system, with noncompliant shafting, and with different communications gear. The program plans to conduct some testing on OPC 1. But formal initial operational testing will be completed on OPC 2, which the program expects to be more representative of the fleet, by June 2029.
- **Follow-on operational testing on OPC 5.** The program plans to conduct additional operational testing on OPC 5—the lead ship for stage 2—by September 2029. Officials from the Coast Guard and DHS's Test and Evaluation Division stated that this testing will be limited to areas of the design that are different from stage 1 and any deficiencies identified through initial operational testing on OPC 2.

Coast Guard officials clarified that a full-rate production decision or ADE 3 for OPC means authorization to initiate stage 3 design and construction. To achieve this, the Coast Guard would have to complete the procurement activities needed to select the stage 3 shipbuilder prior to preparing the materials for ADE 3. These materials include an updated baseline to reflect schedule, cost, and performance goals for stage 3. Based on the program's schedule, OPC operational testing is expected to be completed within 6 months of when the program would need to prepare materials for ADE 3, as shown in figure 10.

**Figure 10: Schedule of Selected Testing and Acquisition Events for the Offshore Patrol Cutter (OPC) Program, as of May 2025**



**ADE** = acquisition decision event

Source: GAO analysis of U.S. Coast Guard information. | GAO-26-107583

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Given this schedule, it is unlikely the program will be able to use the results from operational testing to inform important stage 3 procurement activities. These activities, such as developing a request for proposals and evaluating proposal submissions, can take several months or years to complete. For example, it took almost 1.5 years between when the Coast Guard released the final request for proposals for OPC stage 2 and when it awarded the contract to Austal. During that time, the program recognized the unique circumstance of recompeting a shipbuilding contract without having operational testing to verify and validate a fully constructed ship. Since there is a risk that delivery of OPC 2 and OPC 5 will be delayed, as discussed earlier in this report, testing may also be delayed. Any delays in operational testing will further limit the information that the Coast Guard and DHS have to support a June 2030 full-rate production decision, which increases the risk that the program will buy ships that cannot meet OPC's performance goals.

Testing to date has only assessed OPC's designs, since ships have yet to be delivered. Specifically, the program's independent test agent—the Navy Operational Test and Evaluation Force—conducted operational assessments on the stage 1 design in August 2017 and November 2022; and an operational assessment on the stage 2 design in February 2025.<sup>63</sup> Operational assessments can help to identify programmatic voids, risk areas, and the adequacy of requirements. However, operational assessments do not inform the extent to which a system meets performance goals or other requirements because—unlike operational testing—they do not test systems that are production representative.

The results from the stage 1 assessments identified risks associated with several of OPC's performance goals. Specifically:

- **Crew size** (threshold: 104 personnel)—assessed as moderate risk depending on operating environment. Any decrease in the number of qualified personnel or increase in threat level, operational tempo, or tasks increases the risk that the crew could safely and continually operate with 104 personnel.
- **Maneuverability** (threshold: 22 knots) and **operating range** (threshold: 8500 nm)—assessed as low risk but both are dependent on weight and OPC 1 is expected to exceed the contractual weight

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<sup>63</sup>Coast Guard officials told us the stage 2 operational assessment test report was completed in June 2025. As of September 2025, the Coast Guard had yet to provide a copy of this report.

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limit.<sup>64</sup> The risk could increase as weight increases over the service life of the vessel.

Additionally, performance goals related to conducting helicopter or small boat operations in high sea state environments were not assessed because data were unavailable. As previously mentioned, a prototype of the stage 1 davit continued to encounter challenges completing developmental tests in 2024.

Shipbuilding leading practices emphasize attaining critical knowledge before making significant investments.<sup>65</sup> Operational testing will give the Coast Guard critical knowledge about how the two existing OPC designs operate, including whether the ships meet the program's performance goals. Incorporating this knowledge into important stage 3 procurement activities, such as developing the request for proposals, could help the Coast Guard make better investment decisions. It would also provide the Coast Guard an opportunity to ensure it reflects leading practices for ship design into its procurement activities. For example:

- **Increase use of existing OPC designs and systems.** As previously discussed, leading commercial shipbuilding companies use existing ship designs and vendors for major equipment and systems to speed design maturity and reduce risks. Since operational testing will validate the stage 1 and stage 2 as-built designs, including major equipment and systems, the results from this testing could enable the Coast Guard to require that stage 3 incorporate more of OPC's existing design elements and equipment. Doing so would also increase commonality across the fleet for operations and maintenance purposes, which make up a majority of an acquisition program's total costs.
- **Off-ramp capabilities.** Leading companies remove or amend (e.g. off-ramp) capabilities that present a risk to delivering the product on schedule—or that enable the most desirable capabilities (constituting a minimum viable product) to be delivered earlier. The Coast Guard will have an opportunity to take this leading practice into account when it assesses the results of operational testing.
- **Prioritize timeliness of ship design and delivery.** Leading commercial companies in ship buying and building have strong

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<sup>64</sup>The OPC contracts include a clause under which the shipbuilder will pay damages for exceeding the agreed weight value for a fully loaded ship at delivery.

<sup>65</sup>GAO-09-322.

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business cases that prioritize cycle time for ship design and construction. For both ship buying and building companies, delays to designing and delivering a ship as contractually agreed-to pose unacceptable financial consequences. For example, commercial shipbuilders noted that the design and construction contracts that they agree to generally include significant financial penalties for late ship delivery. The Coast Guard could consider contracting approaches for stage 3 to better incentivize—and more proactively manage—delivery of OPCs on time.

Incorporating these leading practices as the Coast Guard begins planning for procuring stage 3 ships could enable delivery of essential capabilities at a faster speed—outcomes consistent with the OPC program’s goals.

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## Conclusions

The OPC is one of the Coast Guard’s largest and highest priority acquisition programs. The Coast Guard needs OPCs to continue performing its law enforcement, search and rescue, and other critical missions. Construction for stages 1 and 2 is underway with two different shipbuilders. But the OPC design remains incomplete, ships have yet to be delivered, and the risk of continued delays and cost overruns is likely.

Contrary to shipbuilding leading practices and our prior recommendations, the Coast Guard authorized construction of stage 1 ships before the design was stable and the OPC’s critical technology—the davit—was sufficiently matured. This has resulted in years of rework with limited construction progress on all ships, which we highlighted as a risk in 2020. The Coast Guard once again authorized construction to start on the stage 2 lead ship before the design was stable and the davit was mature. This increases the risk that stage 2 will encounter the same challenges, rework, and schedule delays as stage 1. The Coast Guard can avoid repeating past mistakes by ensuring the stage 2 design is stable and the davit is sufficiently mature before authorizing construction of additional stage 2 OPCs.

Further, the program is unable to set realistic schedule goals until it resolves deficiencies with each shipbuilders’ schedules. Also, significant deficiencies with Austal’s EVM system, which Navy’s SUPSHIP oversees, limit the Coast Guard’s ability to assess whether Austal can meet its delivery dates. The Coast Guard and SUPSHIP’s coordination on this effort could be strengthened by a written agreement.

Additionally, the Coast Guard does not know how much the OPC program will cost given that information in the program’s latest cost estimate is

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outdated. The program is in the process of updating the cost estimate, which provides an opportunity to revisit the cost goals in the OPC baseline. Reporting the cost goals by stage—rather than at the program level—would allow decision-makers to better monitor progress and hold the program and shipbuilders accountable for ship deliveries. This is particularly important given the significant amount of funding the Coast Guard recently received for the program and the Coast Guard’s ongoing efforts to review stage 1 in response to the shipbuilder’s lack of progress.

Lastly, operational testing will provide important knowledge about whether stage 1 and stage 2 ships meet the OPC performance requirements or whether design changes are needed. The Coast Guard’s plan to use test results to inform procurement of stage 3 OPCs is undermined if these results are not taken into account during key procurement activities, such as development of the request for proposals. By incorporating the knowledge gained from testing, as well as leading practices, into its procurement activities for stage 3, the Coast Guard has an opportunity to be proactive—rather than reactive—in making investment decisions. Making knowledge-based decisions can lead to improved acquisition outcomes, such as delivering cutters to the fleet sooner, to ensure the Coast Guard can carry out its many missions.

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## Recommendations for Executive Action

We are making a total of four recommendations, including two to the Coast Guard and two to DHS. Specifically:

The Commandant of the Coast Guard should ensure that the OPC program demonstrates that the stage 2 design is stable prior to authorizing construction of additional stage 2 OPCs by (1) completing basic and functional design, including routing of major distributive systems that affect multiple zones of the ship, in a 3D model with reliable vendor-furnished information and (2) successfully testing an integrated prototype of the davit in a realistic environment, consistent with shipbuilding leading practices. (Recommendation 1)

The Commandant of the Coast Guard, in collaboration with the Navy, should develop a memorandum of agreement to clarify and document agreement on how the evaluation of deficiencies and ongoing surveillance of Austal’s EVM system will be coordinated between the Coast Guard and SUPSHIP throughout the duration of the OPC program. (Recommendation 2)

The DHS Secretary should ensure that the DHS Under Secretary for Management directs the Coast Guard to revise the OPC acquisition

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program baseline to include cost goals for each stage. (Recommendation 3)

The DHS Secretary should ensure that the DHS Under Secretary for Management directs the Coast Guard to document a plan for acquiring stage 3 OPCs that identifies (1) how results from operational testing of OPC stages 1 and 2 will be incorporated into stage 3 procurement activities, such as developing the request for proposals, and contingency plans if this testing is delayed; and (2) how leading practices for ship design will be incorporated into stage 3. (Recommendation 4)

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## Agency Comments and Our Evaluation

We provided a draft of this report to DHS and the Department of Defense for review and comment. DHS provided written comments, which are reproduced in appendix III. DHS, the Coast Guard, and the Department of Defense also provided technical comments, which we incorporated as appropriate. In its comments, DHS concurred with recommendations 3 and 4 and identified actions they plan to take to address them. DHS did not concur with recommendations 1 and 2.

In response to the first recommendation, DHS stated that it believes the Coast Guard's current standard operating procedure on design maturity parameters for shipbuilding programs addresses all elements of our recommendation. We appreciate the Coast Guard's efforts to revise its standard operating procedure to better align with shipbuilding leading practices in response to recommendations we made in October 2020 and June 2023. However, as discussed in the report, the current procedure—which was in place when OPC stage 2 began construction—still requires a lower level of design maturity than called for by our shipbuilding leading practices. As a result, our October 2020 recommendation remains open. We maintain that a stable design requires completion of the basic and functional design in a 3D model with reliable vendor-furnished information, as well as demonstration of critical technologies in a realistic environment. We also have ongoing work assessing Coast Guard's ship design practices.

Regarding our recommendation in this report, it is focused on implementation. As we discussed in the report, the Coast Guard authorized construction of stage 2 OPCs without meeting all the parameters even in its own standard operating procedure. For example, it authorized construction of the stage 2 lead ship—OPC 5—without completing the design for major distributive systems and the stage 2 davit had yet to reach a TRL 7. In its written comments, DHS said that the stage 2 design had further matured before the Coast Guard authorized

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construction of the second stage 2 ship—OPC 6—in August 2025. Specifically, the Coast Guard stated the 2D design was 96 percent complete and the 3D model was 100 percent complete. We have not verified this information. However, as discussed in the report, the Coast Guard authorized construction of OPC 6 before the critical design review for the communications systems and testing of the stage 2 davit were complete. We continue to believe that demonstrating the stage 2 design is stable according to our shipbuilding leading practices prior to authorizing construction of additional OPCs could reduce risk and lead to better outcomes than the Coast Guard has produced in the past.

In response to the second recommendation, DHS stated that the Coast Guard's existing coordination with SUPSHIP to oversee Austal's EVM system is sufficient and that a memorandum of agreement could bound the relationship and potentially make it less collaborative. DHS's nonconcurrence contrasts with feedback we received from SUPSHIP officials who were supportive of the idea because they have developed similar agreements at other shipyards in the past. We continue to believe our recommendation is warranted. As discussed in the report, our prior work on enhancing interagency collaboration found that formally documenting agreements strengthened—not weakened—agencies' commitment to working collaboratively. Such documentation can also provide consistency in the long term. This is particularly important because the Coast Guard routinely rotates its active-duty service members to new assignments, which include acquisition program management and support. For example, the OPC program manager and OPC project resident office commanding officer are active-duty service members. Assignment lengths can vary but are typically from 1 to 4 years depending on the type of assignment. Austal is expected to deliver stage 2 OPCs until at least fiscal year 2033. By having a memorandum of agreement with SUPSHIP in place, the Coast Guard can ensure that its interests are represented as active-duty service members working on the OPC program are rotated during this time. Furthermore, the memorandum of agreement can be revised. We have previously found that these types of agreements are most effective when they are regularly updated and monitored.

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We are sending copies of this report to the appropriate congressional committees; the Secretary of Homeland Security; the Commandant of the Coast Guard; the Secretary of Defense; and other interested parties. In addition, the report is available at no charge on the GAO website at <https://www.gao.gov>.

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If you or your staff have any questions about this report, please contact me at [oakleys@gao.gov](mailto:oakleys@gao.gov). Contact points for our Offices of Congressional Relations and Public Affairs may be found on the last page of this report. GAO staff who made key contributions to this report are listed in appendix IV.

**//SIGNED//**

Shelby S. Oakley  
Director, Contracting and National Security Acquisitions

# Appendix I: Objectives, Scope, and Methodology

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This report examines the extent to which (1) progress has been made on the Offshore Patrol Cutter's (OPC) design and construction; and (2) the OPC program is meeting its schedule, cost, and performance goals.

## Review of Design and Construction Progress

To examine progress made on OPC stage 1 design and construction, we analyzed OPC design and construction progress metrics reported by the Coast Guard from June 2023—when we last reported on the OPC program—through May 2025 (the most recent data available at the time of our review).<sup>1</sup> We compared the status of OPC stage 1 design and construction with what we reported in June 2023, including the status of functional design drawings.

To examine progress made on OPC stage 2 design and construction, we analyzed OPC design and construction progress metrics reported by the Coast Guard and shipbuilder from August 2024—when construction of the stage 2 lead ship began—through May 2025 (the most recent data available at the time of our review). We compared the status of OPC stage 2 design and construction with leading practices for shipbuilding and ship design that we previously identified in commercial shipbuilding.<sup>2</sup> Specifically, we assessed the level of maturity of the stage 2 design when construction of the lead ship began against our definition of a stable design according to shipbuilding leading practices.

For both stages, we also reviewed program documents, such as the detail design and construction contracts, program memorandums and briefings, and other acquisition documents. We also reviewed program management review briefings from both shipbuilders. We conducted site visits to both OPC shipbuilders in December 2024. Specifically, we visited the stage 1 shipbuilder, Eastern Shipbuilding Group, Inc. (ESG), based in Panama City, Florida and the stage 2 shipbuilder, Austal USA LLC—hereafter referred to as Austal—based in Mobile, Alabama. During our visits, we interviewed program officials and shipyard representatives, observed OPC construction progress, and toured the production facilities and shipyards. We also interviewed officials from the Coast Guard about stage 1 and 2 design and construction progress and risks, including the OPC ship design team, program office, and project resident office that

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<sup>1</sup>GAO, *Coast Guard Acquisitions: Offshore Patrol Cutter Program Needs to Mature Technology and Design*, [GAO-23-105805](#) (Washington, D.C.: June 20, 2023).

<sup>2</sup>GAO, *Navy Shipbuilding: Increased Use of Leading Design Practices Could Improve Timeliness of Deliveries*, [GAO-24-105503](#) (Washington, D.C.: May 2, 2024) and *Best Practices: High Levels of Knowledge at Key Points Differentiate Commercial Shipbuilding from Navy Shipbuilding*, [GAO-09-322](#) (Washington, D.C.: May 13, 2009).

provides on-site oversight at ESG and Austal. We also interviewed representatives from the American Bureau of Shipping to discuss design progress and challenges for OPC stages 1 and 2.

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### Review of Schedule, Cost, and Performance Goals

To assess whether the program is meeting its schedule, cost, and performance goals, we evaluated the OPC program's progress toward meeting the goals outlined in its latest acquisition program baseline approved by Department of Homeland Security (DHS) leadership in August 2024. Specifically, to assess the extent to which the OPC program is meeting its schedule goals, we reviewed the program and shipbuilders' integrated master schedules and other information, such as program briefings and the OPC program risk register. We reviewed data from—and information on—each shipbuilder's earned value management (EVM) system, including reports and briefings from the Department of Defense's Defense Contract Management Agency (DCMA). We determined that both shipbuilders' EVM data were not reliable for the purposes of our review, as discussed in our report. We conducted interviews with officials from the OPC program, OPC shipbuilder representatives, DCMA, and the Navy's Supervisor of Shipbuilding, Conversion and Repair on the status of the shipbuilders' schedules and EVM systems.

To assess the extent to which the OPC program is meeting its cost goals, we reviewed program cost information. Specifically, we compared the program's 2023 life-cycle cost estimate against its 2012 and 2022 cost estimates and identified reasons for cost changes over time. We also reviewed the 2023 life-cycle cost estimate and related documentation, such as the technical baseline and DHS's independent cost assessment, to determine whether they addressed our October 2020 recommendation on the reliability of the OPC cost estimate.<sup>3</sup> We also reviewed cost risks identified in DCMA and OPC program documents and briefings, and interviewed program officials on the main cost drivers and risks for stages 1 and 2.

To assess the extent to which the OPC program is meeting its performance goals, we reviewed the program's test and evaluation master plan and test reports, as well as schedule to determine when operational testing and future acquisition decision events are expected to occur. We assessed the Coast Guard's plans to use test results to inform future acquisition events, such as stage 3 procurement, against leading

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<sup>3</sup>GAO, *Coast Guard Acquisitions: Opportunities Exist to Reduce Risk for the Offshore Patrol Cutter Program*, GAO-21-9 (Washington, D.C.: Oct. 28, 2020).

practices we previously identified for shipbuilding and ship design.<sup>4</sup> We also interviewed officials from the OPC program office, the Coast Guard's OPC ship design team and sponsor, and DHS Test and Evaluation Division about the program's performance requirements, test plans, and test results.

We conducted this performance audit from May 2024 to November 2025 in accordance with generally accepted government auditing standards. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objectives. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objectives.

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<sup>4</sup>[GAO-24-105503](#), [GAO-09-322](#).

# Appendix II: Status of Prior GAO Recommendations Related to the OPC Program

**Table 5: Status of GAO Recommendations Related to the Coast Guard's Offshore Patrol Cutter (OPC) Program as of May 2025**

Recommendation	Status <sup>a</sup>	Status Comments
<i>Coast Guard Acquisitions: Opportunities Exist to Reduce Risk for the Offshore Patrol Cutter Program GAO-21-9</i>		
The Department of Homeland Security (DHS) Secretary should ensure the DHS Under Secretary for Management directs the Coast Guard to revise OPC's acquisition program baseline for stage 1 to include OPC's delivery dates. (Recommendation 1)	Closed - Implemented	DHS concurred with our recommendation. In August 2024, DHS leadership approved a revised acquisition program baseline for the OPC program, which included delivery dates for the first ship (OPC 1) and last ship (OPC 4) on the stage 1 contract. This revision meets the intent of our recommendation.
The DHS Secretary should ensure the DHS Under Secretary for Management directs the Coast Guard to include in OPC's acquisition program baseline for stage 2 OPC's delivery dates when the stage 2 acquisition program baseline is established and approved at acquisition decision event (ADE) 2B. (Recommendation 2)	Open – Partially Addressed	DHS concurred with our recommendation. In August 2024, DHS leadership approved a revised acquisition program baseline for the OPC program, which split planned stage 2 ships OPCs 5-25 into two stages. The baseline now defines stage 2 as OPCs 5-15 and stage 3 as OPCs 16-25. While the revised baseline includes delivery dates for OPCs 5 and 25, this no longer meets the intent of our recommendation, which was to include goals for DHS to hold the program accountable for at least the first and last ship delivery for each stage. To address our recommendation, we would expect to see the program add delivery dates to its acquisition program baseline for OPCs 5 and 15, as well as OPC 16 and 25 once stage 3 is underway.
The Commandant of the Coast Guard should ensure the OPC program demonstrates that the OPC design for stage 1 is stable prior to approval of construction start for OPC 3 by (1) completing Eastern Shipbuilding Group, Inc.'s (ESG) basic and functional designs and (2) maturing the davit technology to a technology readiness level (TRL) of 7, consistent with shipbuilding best practices. (Recommendation 3)	Closed – Not Implemented	DHS concurred with our recommendation. However, in April 2021, the Coast Guard authorized construction on OPC 3 prior to completing the functional design and maturing the davit technology to a TRL of 7.
The Commandant of the Coast Guard should ensure the Coast Guard Component Acquisition Executive revises Coast Guard's acquisition policy to include criteria and a methodology for demonstrating design maturity for shipbuilding programs that are aligned with shipbuilding best practices, including specifying the completion of basic and functional designs and maturing critical technologies to a TRL of 7. (Recommendation 4)	Open – Partially Addressed	DHS concurred with our recommendation. In August 2022, the Coast Guard issued a standard operating procedure related to design maturity but did not specify full completion of the basic and functional designs or maturation of critical technology to a TRL 7. In May 2023, the Coast Guard revised its standard operating procedure to specify that critical technologies should be matured to a TRL of 7 prior to starting construction. However, this is not aligned with shipbuilding leading practices, which call for critical technologies to be matured to a TRL 7 before the award of the contract for lead ship design. Additionally, the Coast Guard's revised guidance did not specify that programs needed to complete basic and functional design prior to starting construction as called for by shipbuilding leading practices. As of May 2025, the Coast Guard had not updated its policy to further align with shipbuilding leading practices.

**Appendix II: Status of Prior GAO  
Recommendations Related to the OPC  
Program**

<b>Recommendation</b>	<b>Status<sup>a</sup></b>	<b>Status Comments</b>
The DHS Secretary should ensure the DHS Under Secretary for Management directs the Coast Guard, prior to approval of construction start for OPC 3, to identify the associated cost, schedule, and operational risks of the program's testing strategy for stage 1; and document these analyses in an updated test and evaluation master plan. (Recommendation 5)	Closed - Implemented	DHS concurred with our recommendation. In April 2021, the Coast Guard revised the OPC test and evaluation master plan to align with changes in the program's acquisition strategy and schedule and identified the associated cost, schedule, and operational risks with the program's test activities for stage 1.
The Commandant of the Coast Guard should ensure the OPC program updates its shipbuilder and government schedules for OPCs 1 through 4 to (1) fully address deficiencies identified in the shipbuilder's schedule, and (2) fully incorporate schedule risk analysis in accordance with schedule best practices. (Recommendation 6)	Open	DHS concurred with our recommendation. The shipbuilder updated its schedules for OPCs 1-3 in January 2022 and completed the schedule for OPC 4 in October 2022. However, the Coast Guard and the Defense Contract Management Agency identified that these schedules continued to contain deficiencies and risks that are inconsistent with schedule best practices. In July 2023, the shipbuilder began reviewing its schedules for OPCs 1-4 after notifying the Coast Guard that it could not meet its revised contract delivery dates. In August 2024, DHS leadership approved a revised acquisition program baseline for the OPC program despite the shipbuilder only completing its review of the schedule for OPC 1. Therefore, the government's revised schedule did not reflect the current status of stage 1. As of May 2025, the Coast Guard was continuing to review ESG's updated schedules for OPCs 2-4.
The DHS Secretary should ensure the DHS Under Secretary for Management directs the Coast Guard, as it develops the next life-cycle cost estimate for the OPC program, to update its cost estimate for stage 1 in accordance with best practices for cost estimation, including: (1) conducting a sensitivity analysis, (2) conducting a risk and uncertainty analysis, (3) reflecting information from the program's most recent technical baseline, and (4) conducting an independent cost assessment of the estimate. (Recommendation 7)	Closed - Implemented	DHS concurred with our recommendation. The Navy assisted the Coast Guard with completing a full life-cycle cost estimate revision for the OPC program in 2023, which DHS leadership approved in July 2024. The 2023 cost estimate was consistent with the program's updated technical baseline and the Navy performed analyses to assess risk and uncertainty, as well as the sensitivity of the estimate to various factors, such as the cost of labor and materials. Additionally, DHS's Cost Analysis Division conducted an independent cost assessment in April 2024 and determined the estimate was comprehensive and credible.
The Commandant of the Coast Guard should ensure the OPC program improves its risk management processes to follow the format and include content as indicated in DHS acquisition policy and Coast Guard guidance, including (1) holding monthly risk management board meetings and updating its risk register regularly; (2) revising the risk register to include the risks we identified in this report—proceeding into construction with an incomplete 3D model, conducting late operational testing, challenges with ESG's scheduling practices, and challenges with ESG's accounting system; and (3) revising the risk register to comprehensively track risk management information. (Recommendation 8)	Closed - Implemented	DHS concurred with our recommendation. In October 2020, the Coast Guard improved the OPC program's risk management processes to follow the format and include content as indicated in the DHS acquisition policy and Coast Guard guidance. This included updates to the OPC program's risk and opportunities management plan and regularly holding meetings to monitor risk. Additionally, the Coast Guard updated its risk register to capture the specific risks we identified in this report and to include supporting information such as mitigation plans to ensure risks are being comprehensively tracked.

**Appendix II: Status of Prior GAO  
Recommendations Related to the OPC  
Program**

<b>Recommendation</b>	<b>Status<sup>a</sup></b>	<b>Status Comments</b>
<i>Coast Guard Acquisitions: Offshore Patrol Cutter Program Needs to Mature Technology and Design GAO-23-105805</i>		
The Commandant of the Coast Guard should ensure that OPC program officials develop a technology maturation plan for the davit prior to builder's trials. This plan should identify potential courses of action to address davit technical immaturity, including assessing technology alternatives should the current davit continue to face development challenges, and a date by which the Coast Guard will make a go/no-go decision to pursue such a technology alternative. (Recommendation 1)	Open	DHS concurred with our recommendation. In October 2023, the Coast Guard provided a plan of action developed with the shipbuilder from July 2023. However, the plan of action did not detail specific steps toward maturity to a TRL of 7, nor did the Coast Guard provide an assessment of technology alternatives and an off-ramp option. Since then, the davit manufacturer has continued to encounter challenges developing and testing its design. For example, the manufacturer was unable to test a prototype of the davit in March 2024 because, according to Coast Guard officials, the davit was not mature enough. The test was redone in September 2024 and—based on the results—the Coast Guard reassessed the davit at a TRL 5. The Coast Guard plans to conduct additional testing prior to builder's trials but, as of May 2025, it has not developed a plan for further maturing the davit or identified when it will decide about pursuing an alternative technology.
The Commandant of the Coast Guard should ensure that OPC program officials test an integrated prototype of the davit in a realistic environment prior to stage 1 builder's trials. (Recommendation 2)	Open	DHS concurred with our recommendation. A prototype of the stage 1 davit has undergone multiple rounds of testing. This included first article testing in March 2024 and September 2024 and factory acceptance testing of a second davit in February 2025. However, the davit manufacturer has only performed testing in a laboratory environment. The Coast Guard plans to conduct additional testing once the davit prototypes are installed on OPC 1, which would represent a realistic environment. If the Coast Guard conducts this testing prior to stage 1 builder's trials, this would be consistent with our recommendation.
The Commandant of the Coast Guard should ensure that the OPC stage 2 program follows shipbuilding leading practices by successfully demonstrating integrated prototypes of all critical technologies identified by the program or shipbuilder in a realistic environment no later than preliminary design review. (Recommendation 3)	Closed – No Longer Valid	DHS did not concur with our recommendation. In September 2023, the Coast Guard completed the stage 2 preliminary design review without demonstrating the davit in a realistic environment. As such, we closed this recommendation since it was not implemented.
The Commandant of the Coast Guard should ensure that the Coast Guard Component Acquisition Executive, prior to any contract awards for new shipbuilding programs, updates its acquisition policy to establish that all shipbuilding programs must complete the routing and design of major portions of all distributive systems that transit electricity, water, heating, ventilation, and air conditioning (HVAC), and other utilities, as part of functional design prior to the start of lead ship construction. (Recommendation 4)	Closed – Implemented	DHS concurred with our recommendation. In August 2023, the Coast Guard updated its standard operating procedure related to design maturity to better align with shipbuilding leading practices, including requiring shipbuilding programs to complete major portions of distributive systems as part of functional design prior to the start of construction. This revision meets the intent of our recommendation.

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**Appendix II: Status of Prior GAO  
Recommendations Related to the OPC  
Program**

<b>Recommendation</b>	<b>Status<sup>a</sup></b>	<b>Status Comments</b>
The Commandant of the Coast Guard should ensure that the OPC stage 2 program achieves a sufficiently stable design prior to the start of lead ship construction. In line with shipbuilding leading practices, sufficiently stable design includes 100 percent completion of basic and functional design, including routing of major distributive systems and transitive components that effect multiple zones of the ship. (Recommendation 5) <sup>b</sup>	Closed – No Longer Valid	DHS did not concur with our recommendation. In August 2024, the Coast Guard authorized construction of the stage 2 lead ship (OPC 5) prior to completing functional design, including routing of major distributive systems.

Source: GAO analysis of DHS and U.S. Coast Guard information. | GAO-26-107583

<sup>a</sup>Below are descriptions of GAO's categories for recommendation status:

- **Open:** actions to satisfy the intent of the recommendation have not been taken or are being planned.
- **Open – Partially Addressed:** actions that partially satisfy the intent of the recommendation have been taken.
- **Closed – Implemented:** actions that satisfy the intent of the recommendation have been taken.
- **Closed – Not Implemented or No Longer Valid:** while the intent of the recommendation has not been satisfied, time or circumstances have rendered the recommendation invalid.

<sup>b</sup>Recommendation is designated as high priority for agency attention. Priority recommendations are highlighted because, upon implementation, they may significantly improve government operations, for example, by realizing large dollar savings; eliminating mismanagement, fraud, and abuse; or making progress toward addressing a high-risk or duplication issue.

# Appendix III: Comments from the Department of Homeland Security

U.S. Department of Homeland Security  
Washington, DC 20528



BY ELECTRONIC SUBMISSION

September 18, 2025

Shelby S. Oakley  
Director, Contracting and National Security Acquisitions  
U.S. Government Accountability Office  
441 G Street, NW  
Washington, DC 20548-0001

Re: Management Response to Draft Report GAO-26-107583, "OFFSHORE PATROL CUTTER: Coast Guard Should Gain Key Knowledge Before Buying More Ships"

Dear Ms. Oakley,

Thank you for the opportunity to comment on this draft report. The U.S. Department of Homeland Security (DHS, or the Department) appreciates the U.S. Government Accountability Office's (hereafter referred to as "the auditors") work in planning and conducting its review and issuing this report.

DHS leadership is pleased to note the auditors' positive recognition that the U.S. Coast Guard and the stage 2 shipbuilder incorporated some ship design leading practices into Stage 2 of the acquisition of Offshore Patrol Cutters, such as leveraging existing designs, minimizing changes to existing designs, maintaining strong in-house design workforce capabilities, and using processes that support timely design decisions. GAO also noted that this approach contributed to a substantial amount of the design progress in less than 2 years after contract award. As the Offshore Patrol Cutter is one of the Coast Guard's top two acquisitions, DHS and the Coast Guard are committed to maturing the design, setting achievable cost and schedule objectives, and conducting operational testing at key milestones to ensure mission readiness.

The draft report contained four recommendations, two with which the Department non-concurs (Recommendations 1-2) and two with which the Department concurs (Recommendations 3-4). Enclosed find our detailed response to each recommendation. DHS previously submitted technical comments addressing several accuracy, contextual, and other issues under a separate cover for GAO's consideration, as appropriate.

Again, thank you for the opportunity to review and comment on this draft report. Please feel free to contact me if you have any questions. We look forward to working with you again in the future.

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**Appendix III: Comments from the Department  
of Homeland Security**

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Sincerely,

JEFFREY M. BOBICH  
Digitally signed by  
JEFFREY M BOBICH  
Date: 2025.09.18  
12:38:26 -04'00'

JEFFREY M. BOBICH  
Director of Financial Management

Enclosure

2

**Enclosure: Management Response to Recommendations  
Contained in GAO-25-107583**

**GAO recommended that the Commandant of the Coast Guard:**

**Recommendation 1:** Ensure that the [Offshore Patrol Cutter] program demonstrates that the stage 2 design is stable prior to authorizing construction of additional stage 2 [Offshore Patrol Cutters] by (1) completing basic and functional design, including routing of major distributive systems that affect multiple zones of the ship, in a 3D model with reliable vendor-furnished information and (2) successfully testing an integrated prototype of the davit in a realistic environment, consistent with shipbuilding best practices.

**Response:** Non-concur. In August 2023, the Coast Guard updated its standard operating procedure<sup>1</sup> related to design maturity as part of its vessel acquisition surface portfolio. This standard operating procedure better aligns with shipbuilding leading practices, including requiring shipbuilding programs to complete major portions of distributive systems as part of functional design prior to the start of construction, and addresses all elements outlined this recommendation.

Although the draft report states that the auditors believe this standard operating procedure falls short of shipbuilding leading practices, it is important for readers of this draft report to understand that the standard operating procedure nevertheless established minimum requirements for design maturity prior to construction, including benchmarks for basic and functional design, as well as a 3D model that incorporates distributive systems and systems routing, among other criteria. Additionally, the standard operating procedure mandates that designated critical technologies, such as the boat davits for the Offshore Patrol Cutter, achieve a technology readiness level of 7 or higher, which is a point at which the technology is considered an operational prototype ready for production and deployment.

Before authorizing the start of construction for the second Stage II Offshore Patrol Cutter in August 2025, the program achieved a design maturity of 94 percent, a 3D model that was 100 percent complete, and a 2D design that was 96 percent complete. Regarding the Stage II boat davit, Coast Guard acknowledges that the constant tensioning component is currently rated at technology readiness level 5, while the luffing system is rated at technology readiness level 6—both below the standard operating procedure's technology readiness level 7 benchmark. However, the Coast Guard is actively participating in construction surveys and has assessed the risk as being low for not achieving technology readiness level 7. First Article Testing is scheduled for the first quarter of fiscal year 2026, well in advance of the in-yard production need date, ensuring the davit is on track to meet operational requirements. Accordingly, the Department believes that the current

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<sup>1</sup> “Assistant Program Executive Officer, Surface Standard Operating Procedure #932-23 Design Maturity Parameters.” dated August 2023.

standard operating procedure and other practices are sufficient and no further action is required.

We request GAO consider this recommendation resolved and closed.

**Recommendation 2:** In collaboration with the U.S. Navy, develop a memorandum of agreement to clarify and document agreement on how the evaluation of deficiencies and ongoing surveillance of Austal's [earned value management] system will be coordinated between the Coast Guard and [the supervisor of shipbuilding, conversion and repair] throughout the duration of the [Offshore Patrol Cutter] program.

**Response:** Non-concur. The Offshore Patrol Cutter program maintains an open and collaborative relationship with the Navy's supervisor of shipbuilding, conversion and repair throughout the Stage 2 contract, which includes Offshore Patrol Cutter program representatives following the supervisor of shipbuilding, conversion and repair's lead as the federal government's cognizant authority<sup>2</sup> onsite. Accordingly, the supervisor of shipbuilding, conversion and repair understands the Offshore Patrol Cutter program's needs, and ensures the Offshore Patrol Cutter program is represented and included in all discussions and decisions with the contractor for Offshore Patrol Cutter detail design.

The Coast Guard appreciates that this draft report recognizes the specific steps that the Coast Guard is taking in collaboration with the supervisor of shipbuilding, conversion and repair to address deficiencies found with the contractor's earned value management system, such as issuing an initial and final determination, as well as assessing the contractor's corrective action plans. However, the Coast Guard maintains that the existing coordination with the supervisor of shipbuilding, conversion and repair is sufficient and presents a united front to the contractor. A memorandum of agreement will not offer material improvement, and instead could bound the relationship and potentially make it less collaborative.

We request GAO consider this recommendation resolved and closed.

GAO recommended the Secretary of Homeland Security ensure that the Under Secretary for Management directs the Coast Guard to:

**Recommendation 3:** Revise the [Offshore Patrol Cutter] acquisition program baseline to include cost goals for each stage.

**Response:** Concur. The Department's Management Directorate will work with the Coast Guard's Offshore Patrol Cutter program, as appropriate, to ensure that future Offshore Patrol Cutter acquisition program baselines include cost goals for each program stage. Estimated Completion Date: September 30, 2026.

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<sup>2</sup> A cognizant authority is a government entity or responsible official that oversees and manages specific programs, funds, or security protocols for another organization or entity.

**Recommendation 4:** Document a plan for acquiring stage 3 [Offshore Patrol Cutters] that identifies (1) how results from operational testing of [Offshore Patrol Cutter] stages 1 and 2 will be incorporated into stage 3 procurement activities, such as developing the request for proposals, and contingency plans if this testing gets delayed; and (2) how leading practices for ship design will be incorporated into stage 3.

**Response:** Concur. The Department is actively assessing the overall Offshore Patrol Cutter program plan in light of recent developments such as the accelerated funding for follow-on Offshore Patrol Cutters authorized in the July 4, 2025, One Big Beautiful Bill Act (P.L. 119-21), the termination for default of Offshore Patrol Cutters 3 and 4 on July 11, 2025, and ongoing negotiations regarding the completion of Offshore Patrol Cutters 1 and 2. As part of this assessment, any plans developed for Stage 3 must remain flexible to account for evolving program conditions.

Accordingly, the DHS Office of Program Accountability and Risk Management, in collaboration with the DHS Office of the Chief Procurement Officer, will work with the Coast Guard Offshore Patrol Cutter program to ensure that operational testing and engineering results from Offshore Patrol Cutter Stages 1 and 2, as well as leading practices for ship design, are appropriately incorporated into the overall program plan for Stage 3 Offshore Patrol Cutters. Estimated Completion Date: August 31, 2026.

# Appendix IV: GAO Contact and Staff Acknowledgments

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## GAO Contact

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Shelby S. Oakley, [oakleys@gao.gov](mailto:oakleys@gao.gov)

## Staff Acknowledgments

In addition to the contact named above, Claire Li (Assistant Director), Aryn Ehlow (Analyst-in-Charge), Matthew T. Crosby, Kimani Darasaw, Jennifer Echard, Lori Fields, Stephanie Gustafson, Jason Lee, River Stone, and Jacob Wu were key contributors to this report.

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