

GAO Highlights

Highlights of [GAO-17-218](#), a report to the Chairman, Subcommittee on Coast Guard and Maritime Transportation, Committee on Transportation and Infrastructure, House of Representatives

Why GAO Did This Study

The Coast Guard is procuring the FRC and NSC to replace its aging cutters. Both cutters have had operational problems—such as propulsion system issues—that are being addressed through maintenance. Prior GAO work identified issues related to performance and maintenance of these vessels, particularly related to the main diesel engines on both cutters.

The House Subcommittee on Coast Guard and Maritime Transportation, Committee on Transportation and Infrastructure asked that GAO examine maintenance of the FRC and NSC. This report addresses the extent to which (1) maintenance issues are affecting FRC's and NSC's operational status, (2) design changes affect the maintenance of the cutters, and (3) the Coast Guard's cost estimates reflect actual expenditures for maintenance for the FRC and NSC.

To conduct this work, GAO analyzed data on cutter maintenance and operations; analyzed the costs and timing of design changes; reviewed Coast Guard budgets and compared GAO best practices in cost estimating to the Coast Guard's process for estimating depot maintenance costs; and interviewed Coast Guard officials.

What GAO Recommends

To ensure that it effectively uses its resources, the Coast Guard should document cost analyses on the cost and timing of engineering design changes and periodically evaluate and update its depot maintenance cost estimates. The Department of Homeland Security agreed with both recommendations and provided timeframes for actions to address them.

View [GAO-17-218](#). For more information, contact Michele Mackin at (202) 512-4841 or mackinm@gao.gov.

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COAST GUARD CUTTERS

Depot Maintenance Is Affecting Operational Availability and Cost Estimates Should Reflect Actual Expenditures

What GAO Found

Maintenance work for the Fast Response Cutter (FRC) and National Security Cutter (NSC) has lowered the operational availability of each fleet. Although both cutters on average have met their minimum mission capable targets over the long term, increased depot maintenance has more recently reduced each cutter's rates below targets. The FRC's rate is lower, in part, because of a series of unanticipated drydock periods to correct issues covered by its 12-month warranty. The NSC's lower rate is primarily because of anticipated 2-year maintenance and system upgrade periods performed on each newly delivered NSC. Both cutters have experienced problems with the diesel engines, which caused lost operational days and hindered operations while underway.

The Coast Guard's 154-foot Fast Response Cutter and 418-foot National Security Cutter



Source: U.S. Coast Guard. | GAO-17-218

The Coast Guard has initiated design changes on the FRC and NSC, but some of the NSC's changes to address maintenance problems will not be installed until after each cutter is delivered. While the Coast Guard plans at least \$17 million on FRC design changes, officials estimate the warranty has helped avoid \$77 million for repaired systems. This includes about \$52 million to replace 20 diesel engines that have degraded FRC operations since first discovered in July 2013. Design changes on the NSCs are expected to cost the Coast Guard at least \$260 million. In order to maintain production schedules, several changes will be completed after delivery of each NSC, including the ninth NSC, which has not yet begun construction. Thus, systems with known deficiencies are being installed, only to be replaced later. Officials stated this approach is more cost effective; however, the Coast Guard did not document its cost analyses, in accordance with GAO cost estimating best practices. Without such documentation, the Coast Guard cannot demonstrate that it is making cost-effective decisions.

Since 2010, depot maintenance expenditures for the FRC and NSC have been \$106.6 million less than the Coast Guard estimated. This amount remains in a centrally managed account and is made available for other surface assets, such as aging, legacy vessels. Coast Guard officials stated that depot maintenance estimates are not adjusted or updated over the service life of an asset class. Periodically updating depot maintenance cost estimates—in accordance with GAO cost estimating best practices—for each asset class could provide decision makers with much needed information with which to determine future budgets.