

Why GAO Did This Study

The Coast Guard's legacy vessels are either approaching or have exceeded their designed life expectancies. The Coast Guard is replacing these vessels with a more capable fleet; however, cost and management problems have led to delays in the delivery of new vessels. GAO was asked to study the conditions of the legacy fleet. This report addresses: (1) how the physical condition of the Coast Guard's legacy vessels changed from fiscal years 2005 through 2011, and key actions the Coast Guard has taken related to the physical condition of its legacy fleet; (2) key annual maintenance expenditure trends for the legacy vessel fleet, and the extent the Coast Guard's cost-estimating process has followed established best practices; and (3) the operational capacity of the legacy vessel fleet and the extent the Coast Guard faces challenges in sustaining the legacy vessel fleet and meeting mission requirements. GAO analyzed Coast Guard data from fiscal years 2005 through 2011 on legacy vessels' condition, cost, and operational performance. GAO visited five locations where vessels were based or undergoing maintenance. The results of these visits are not generalizable, but provided insights.

What GAO Recommends

GAO recommends that the Department of Homeland Security (DHS) direct the Coast Guard to ensure its cost estimates conform to best practices and adjust legacy vessel fleet operational hour targets to levels that reflect actual capacity. DHS concurred with the first recommendation but did not concur with the second stating that reducing the operational hour targets would fail to fully utilize those assets not impacted by maintenance issues. GAO believes the recommendation remains valid as discussed in this report.

View [GAO-12-741](#).

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COAST GUARD

Legacy Vessels' Declining Conditions Reinforce Need for More Realistic Operational Targets

What GAO Found

From fiscal years 2005 through 2011, the physical condition of the Coast Guard's legacy vessels was generally poor; and the Coast Guard has taken two key actions to improve the vessels' condition: reorganizing its maintenance command structure and implementing sustainment initiatives for portions of its legacy vessel fleet. The Coast Guard's primary measure of a vessel's condition is the operational percent of time free of major casualties (a major casualty is a deficiency in mission essential equipment that causes the major degradation or loss of a primary mission). This measure shows that the 378-foot high endurance cutters (HEC), the 210-foot and 270-foot medium endurance cutters (MEC), and 110-foot patrol boats generally remained well below target levels from fiscal years 2005 through 2011. To improve the condition of the vessel fleet, in 2009, the Coast Guard reorganized its maintenance command structure to focus on standardization of practices, and reported it was on schedule to complete sustainment initiatives by fiscal year 2014, which are intended to improve vessel operating and cost performance.

Annual maintenance expenditures for the legacy vessel fleet—such as those associated with scheduled maintenance costs—declined from fiscal years 2005 to 2007 and then rose from fiscal years 2007 to 2011; and the Coast Guard's maintenance cost estimating process does not fully reflect best practices. Scheduled maintenance expenditures rose from \$46.1 million to \$85.2 million from fiscal years 2008 to 2009, an increase Coast Guard officials attributed to better identifying maintenance needs and receiving supplemental funding. GAO's *Cost Estimating and Assessment Guide* states that a high-quality and reliable cost estimate includes best practice characteristics, three of which are relevant to the Coast Guard's process: well-documented, comprehensive, and accurate. The Coast Guard's process partially meets these characteristics. For example, it is partially comprehensive because it defines the program, among other things, but does not document all cost-influencing ground rules and assumptions (e.g., inflation rate). Annual cost estimates for legacy vessel fleet maintenance that incorporate established best practices would provide better information to inform the Coast Guard's decisions in effectively allocating available resources in the constrained federal budget environment.

The operational capacity of the legacy vessel fleet generally declined from fiscal years 2005 through 2011, contributing to operational capacity targets becoming increasingly unrealistic. For example, the HECs and 210-foot MECs did not meet operational hour targets from fiscal years 2005 through 2011. Coast Guard officials reported that declining operational capacity hindered mission performance. The Coast Guard uses operational hour targets to inform planning decisions, such as setting performance targets. Legacy vessel capacity is declining and expected to continue to decline; nevertheless, the Coast Guard has not revised operational hour targets. Coast Guard officials reported that adjusting operational hour targets would lower its mission performance targets; however, these targets have gone unmet because of declining legacy vessel capacity. Legacy fleet operational hour targets that reflect actual capacity, as evidenced by historic performance, could help the Coast Guard more effectively allocate its resources and ensure it sets achievable performance targets.