



## Testimony

Before the Subcommittee on Coast Guard  
and Maritime Transportation, Committee  
on Transportation and Infrastructure,  
House of Representatives

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# COAST GUARD ACQUISITIONS

## Better Information on Performance and Funding Needed to Address Shortfalls

Statement of Michele Mackin, Director  
Acquisition and Sourcing Management

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Chairman Hunter, Ranking Member Garamendi, and Members of the Subcommittee:

I am pleased to be here today to discuss the Coast Guard's plan to buy the assets it needs to meet current and future mission demands. We have been reviewing the Coast Guard's efforts to purchase a new fleet since 2001 and have repeatedly found that the Department of Homeland Security (DHS) and the Coast Guard recognize, but have yet to address, the continued unaffordability of the Coast Guard's portfolio given the funds needed to complete the fleet and the funds available each year. While the Coast Guard has made progress in more closely following acquisition best practices, such as taking steps to increase competition, it does not have a long term plan that balances its estimated needs and resources as it continues its 30-year recapitalization effort. Instead, the Coast Guard continues to pursue a set of acquisitions that is not affordable, leading it to repeatedly delay and reduce capability on an annual basis to address budget constraints. Simply put, it is unlikely that these short-term budget decisions will amount to a good long-term investment strategy.

In our report to this subcommittee that we are releasing today, we found, among other things, that DHS and Coast Guard guidance is unclear regarding when minimum performance standards should be achieved, that the Coast Guard did not plan to operationally test its Command, Control, Communications, Computers, Intelligence, Surveillance, and Reconnaissance (C4ISR) system, and that the Coast Guard does not have a long-term fleet modernization plan.<sup>1</sup> We made a number of recommendations to address these issues.

Today, I will (1) describe how selected assets are performing in the field as well as results from recent operational test events; (2) provide summary cost information on the Coast Guard's portfolio of acquisitions; and (3) discuss the extent to which the Coast Guard is experiencing capability gaps given known affordability issues. My testimony will summarize the findings and recommendations from our report.

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<sup>1</sup>GAO, *Coast Guard Acquisitions: Better Information on Performance and Funding Needed to Address Shortfalls*, [GAO-14-450](#) (Washington, D.C.: June 5, 2014).

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To assess the operational performance of the Coast Guard assets, we selected all four major acquisition programs that were fielded between fiscal year 2007 and 2014 and that the Coast Guard planned to test—the Maritime Patrol Aircraft (HC-144), Fast Response Cutter, National Security Cutter, and the C4ISR system. For each asset, we reviewed post-deployment reports and test reports and interviewed officials responsible for the testing and operation of these assets. To assess the cost of the Coast Guard’s portfolio and steps taken to address affordability concerns, we reviewed each asset’s acquisition program baseline as well as the Coast Guard’s budget and discussed the acquisition portfolio with Coast Guard, DHS, and Office of Management and Budget (OMB) officials and followed up on previous efforts to address affordability. We also reviewed the Coast Guard’s Capital Investment Plan and compared it to relevant law that specifies the plan’s contents. To assess what, if any, capability gaps exist given the Coast Guard’s affordability issues, we reviewed funding needs, mission needs, future plans, and performance data and reviewed the Coast Guard’s fiscal year 2014 and 2015 budgets. We also reviewed the Coast Guard’s estimates of its overall fleet performance and current or potential performance gaps.

Our work was conducted in accordance with generally accepted government auditing standards. Our report provides further details on our scope and methodology.

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## Operators Extol New Assets’ Performance Compared to Aging Counterparts, but These Assets Have Yet to Meet Key Requirements

Coast Guard operators and commanding officers told us that the National Security Cutter, Fast Response Cutter, and HC-144 are performing well during missions and are an improvement over the vessels and aircraft they are replacing. Operators primarily attribute the performance improvements to better endurance and communications capabilities, which help to position and keep these assets in high-threat areas. Specifically, these new assets have greater fuel capacity and efficiency, engine room and boat launch automation, handling/seakeeping, and food capacity, all of which increase endurance and effectiveness.<sup>2</sup> To date, the improved capabilities of the four newly fielded assets have led to mission-related successes, according to Coast Guard asset commanders.

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<sup>2</sup>Seakeeping refers to a vessel’s ability to withstand harsh sea states to conduct operations or survive. Sea states refer to the height, period, and character of waves on the surface of a large body of water.

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In addition to performance in the field, each major acquisition is required to undergo operational testing by an independent test agency—in this case, the Navy’s Commander of Operational Test and Evaluation Force. Operational testing is important, as it characterizes the performance of the asset in realistic conditions. During operational testing, the test agency determines whether the asset is operationally effective (whether or not an asset can meet its missions) and operationally suitable (whether or not the agency can support the asset to an acceptable standard). The Fast Response Cutter and the HC-144 completed initial operational testing in September 2013 and October 2012, respectively. Based on the results, neither asset met all key requirements during this testing. The Fast Response Cutter partially met one of six key requirements, while the HC-144 met or partially met four of seven key requirements. The Fast Response Cutter was found to be operationally effective (with the exception of its cutter boat) though not operationally suitable, and the HC-144 was found to be operationally effective and suitable.

It is important to recognize that this was the initial operational testing and that the Coast Guard has plans in place to address most of the major issues identified. For example, in order to address issues with the seaworthiness of the Fast Response Cutter’s small boat, the Coast Guard will supply the Fast Response Cutter with a small boat developed for the National Security Cutter. However, DHS officials approved both assets to move into full rate production, and we found that guidance is not clear regarding when the minimum performance standards should be met—or what triggers the need for a program manager to submit a performance breach memorandum indicating that certain performance parameters were not demonstrated. The Coast Guard did not report that a breach had occurred for the HC-144 or the Fast Response Cutter, even though neither of these programs met certain key performance parameters during operational testing. Without clear acquisition guidance, it is difficult to determine when or by what measure an asset has breached its key performance parameters and, therefore, when DHS and certain congressional committees are to be notified. We recommended that DHS and the Coast Guard revise their acquisition guidance to specify when minimum performance standards should be met and clarify the performance data that should be used to determine whether a performance breach has occurred. DHS concurred with these recommendations and stated that it plans to make changes to its acquisition guidance by June 30, 2015.

By not fully validating the capabilities of the National Security Cutter until late in production, the Coast Guard may have to spend more to ensure

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the ship meets requirements and is logistically supportable. The Coast Guard recently evaluated the National Security Cutter through operational testing, even though 7 of 8 National Security Cutters are under contract, but results are not expected until early fiscal year 2015.<sup>3</sup> Coast Guard program officials stated that, prior to the operational test, the National Security Cutter had demonstrated most of its key performance parameters through non-operational tests and assessments, but we found that a few performance requirements, such as those relating to the endurance of the vessel and its self-defense systems, have yet to be assessed. Further, several issues occurred prior to the start of operational testing that required retrofits or design changes to meet mission needs. The total cost to conduct some of these retrofits and design changes has not yet been determined, but the cost of major changes for all eight hulls identified to date has totaled approximately \$140 million, which is about one-third of the production cost of a single National Security Cutter. The Coast Guard continues to carry significant risk by not fully validating the capabilities of the National Security Cutter until late in production, which could result in the Coast Guard having to spend even more money in the future, beyond the changes that have already been identified.

The Coast Guard has not yet evaluated the C4ISR system through operational testing even though the system has been fielded on nearly all new assets. Instead of evaluating that system's key performance parameters, Coast Guard officials decided to test the system in conjunction with other assets—such as the HC-144 and the Fast Response Cutter—to save money and avoid duplication. However, the C4ISR system was not specifically evaluated during the HC-144 and Fast Response Cutter tests because those assets' test plans did not fully incorporate testing the effectiveness and suitability of the C4ISR system. The Coast Guard now plans to test the key performance parameters for the next generation C4ISR system when follow on testing is conducted on the National Security Cutter; this testing has yet to be scheduled. By not testing the system, the Coast Guard has no assurance that it is purchasing a system that meets its operational needs. To address this issue, we recommended that the Coast Guard assess the C4ISR system by fully integrating this assessment into other assets' operational test plans or by testing the C4ISR program on its own. In response, the Coast Guard stated that it now plans to test the C4ISR system's key

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<sup>3</sup> We plan to assess the results of the testing at the request of this subcommittee.

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performance parameters during follow on testing for the National Security Cutter.

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## Program Cost Increases across the Portfolio Are Consuming Funding, While Affordability Issues Have Not Been Addressed or Accurately Represented

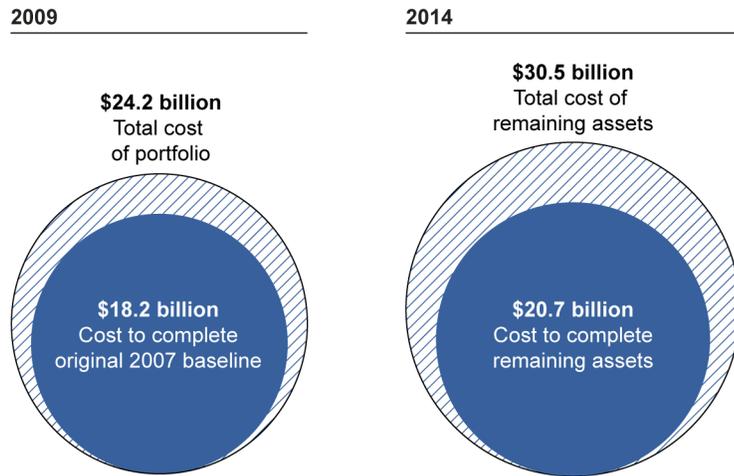
As the Coast Guard continues to refine cost estimates for its major acquisitions, the expected cost of its acquisition portfolio has grown.<sup>4</sup> There has been \$11.3 billion in cost increases since 2007 across the eight programs that have consistently been part of the portfolio—the National Security Cutter, the Offshore Patrol Cutter, the Fast Response Cutter, the HC-144, the HC-130H/J, HH-65, C4ISR, and Unmanned Aircraft System.<sup>5</sup> These cost increases are consuming a large portion of funding. Consequently, the Coast Guard is farther from fielding its planned fleet today than it was in 2009, in terms of money needed to finish these programs. Senior Coast Guard acquisition officials told us that many of the cost increases are due to changes from preliminary estimates and that they expect to meet their current cost estimates. However, the Coast Guard has yet to construct the largest asset in the portfolio—the Offshore Patrol Cutter—and if the planned costs for this program increase, difficulties in executing the portfolio as planned will be further exacerbated. Figure 1 shows the total cost of the portfolio and cost to complete the major programs included in the Coast Guard’s 2007 baseline in 2009 and 2014.

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<sup>4</sup> The Coast Guard has 11 major acquisition programs in its current portfolio, based on the Fiscal Years 2014-2018 Capital Investment Plan. Of these 11 major acquisition programs, 8 were also a part of the 2007 recapitalization portfolio (formerly known as the Deepwater program). Over time, the composition of the portfolio has changed. For example, since our last review in 2012, the Coast Guard has added 3 programs to its acquisition portfolio and another 7 programs are ending and, therefore, will no longer need additional acquisition funding.

<sup>5</sup> The HC-130H and HC-130J are four engine turbo-prop aircraft that the Coast Guard has combined into one project called Long Range Surveillance (LRS) that will increase its capabilities.

**Figure 1: The Total Cost of the Portfolio and Cost to Complete Programs in the Coast Guard's Original 2007 Baseline in 2009 and 2014**



Source: GAO analysis of Coast Guard data. | GAO-14-650T

Note: In Current/Then-Year Dollars. This means that numbers have not been normalized for inflation.

Coast Guard, DHS, and OMB officials have acknowledged that the Coast Guard cannot afford to recapitalize and modernize its assets in accordance with the current plan at current funding levels. According to budget documents, Coast Guard acquisition funding levels have been about \$1.5 billion for each of the past 5 years, and the President's budget requests \$1.1 billion for fiscal year 2015. To date, efforts to address this affordability imbalance have yet to result in the significant trade-off decisions that would be needed to do so. We have previously recommended that DHS and the Coast Guard establish a process to make the trade-off decisions needed to balance the Coast Guard's resources and needs. While they agreed with the recommendation, they have yet to implement it.<sup>6</sup>

In the meantime, the extent of expected costs—and how the Coast Guard plans to address them through budget trade-off decisions—is not being

<sup>6</sup> GAO, *Coast Guard: Action Needed As Approved Deepwater Program Remains Unachievable*, [GAO-11-743](#) (Washington, D.C.: July 28, 2011); and *Coast Guard: Portfolio Management Approach Needed to Improve Major Acquisition Outcomes*, [GAO-12-918](#) (Washington, D.C.: Sept. 20, 2012).

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clearly communicated to Congress. The mechanism in place for reporting to certain congressional committees, the Capital Investment Plan, does not reflect the full effects of these trade-off decisions on the total cost and schedule of its acquisition programs. This information is not currently required by statute, but without it, decision makers do not have the information to understand the full extent of funding that will be required to complete the Coast Guard's planned acquisition programs. For example, in the Fiscal Years 2014 through 2018 Capital Investment Plan, cost and schedule totals did not match the funding levels presented for many programs. The plan proposed lowering the Fast Response Cutter procurement to two per year but still showed the total cost and schedule estimates for purchasing three or six per year—suggesting that this reduced quantity would have no effect on the program's total cost and schedule. Given that decreasing the quantity purchased per year would increase the unit and total acquisition cost, the Coast Guard estimated that the decision to order fewer ships will likely add \$600 to 800 million in cost and 5 years to the cutter's final delivery date, but this was absent from the plan. Reporting total cost and delivery dates that do not reflect funding levels could lead to improper conclusions about the effect of these decisions on the program's total cost and schedule and the overall affordability of the Coast Guard's acquisition portfolio. In our report, we suggest that Congress consider amending the law that governs the 5-year Capital Investment Plan to require the Coast Guard to submit cost and schedule information that reflects the impact of the President's annual budget request on each acquisition across the portfolio.

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## Long Term Plan Needed to Address Gaps That Are Materializing as Coast Guard Shapes Its Capability through the Budget Process

To address budget constraints, the Coast Guard is repeatedly delaying and reducing its capability through its annual budget process. However, the Coast Guard does not know the extent to which its mission needs can be tailored through the annual budget process and still achieve desired results. In addition, this approach puts pressure on future budgets and delays fielding capability, which is reducing performance. Thus, the Coast Guard's ability to meet future needs is uncertain and gaps are materializing in its current fleet. In fact, the Coast Guard has already experienced a gap in heavy icebreaking capability and is falling short of meeting operational hour goals for its major cutter fleet—comprised of the National Security Cutter and the in-service high and medium endurance cutters. These capability gaps may persist, as funding replacement assets will remain difficult at current funding levels.

Without a long-term plan that considers service levels in relation to expected acquisition funding, the Coast Guard does not have a

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mechanism to aid in matching its requirements and resources. For example, the Coast Guard does not know if it can meet its other acquisition needs while the Offshore Patrol Cutter is being built. According to the current program of record, acquisition of the Offshore Patrol Cutter will conclude in about 20 years and will account for about two-thirds of the Coast Guard's overall acquisition budget during this time frame. In addition, as we have previously found, the Coast Guard is deferring costs—such as purchasing unmanned systems or replacing its Buoy Tender fleet—that could lead to an impending spike in the requirement for additional funds. The Coast Guard has no method in place to capture the effects of deferring such costs on the future of the acquisition portfolio.

The Coast Guard is not currently required to develop a long-term fleet modernization plan that considers its current service levels for the next 20 years in relation to its expected acquisition funding. However, the Coast Guard's acquisition guidance supports using a long range capital planning framework. According to OMB capital planning guidance referenced by the Coast Guard's Major Systems Acquisition Manual, each agency is encouraged to have a plan that defines its long-term capital asset decisions. This plan should include, among other things, (1) an analysis of the portfolio of assets already owned by the agency and in procurement, (2) the performance gap and capability necessary to bridge the old and new assets, and (3) justification for new acquisitions proposed for funding. OMB officials stated that they support DHS and the Coast Guard conducting a long term review of the Coast Guard's acquisitions to assess the capabilities it can afford.

A long-term plan can enable trade-offs to be seen and addressed in advance, leading to better informed choices and making debate possible before irreversible commitments are made to individual programs. Without this type of plan, decision makers do not have the information they need to better understand the Coast Guard's long-term outlook. When we discussed such an approach with the Coast Guard, the response was mixed. Some Coast Guard budget officials stated that such a plan is not worthwhile because the Coast Guard cannot predict the level of funding it will receive in the future. However, other Coast Guard officials support the development of such a plan, noting that it would help to better understand the effects of funding decisions. Without such a plan, we believe it will remain difficult for the Coast Guard to fully understand the extent to which future needs match the current level of resources and its expected performance levels—and capability gaps—if funding levels remain constant. Consequently, we recommended that the Coast Guard

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develop a 20-year fleet modernization plan that identifies all acquisitions needed to maintain the current level of service and the fiscal resources necessary to build the identified assets. While DHS concurred with our recommendation, the response does not fully address our concerns or set forth an estimated date for completion, as the response did for the other recommendations. We continue to believe that a properly constructed 20-year fleet modernization plan is necessary to illuminate what is feasible in the long term and will also provide a basis for informed decisions that align the Coast Guard's needs and resources.

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Chairman Hunter, Ranking Member Garamendi, and Members of the Subcommittee, this concludes my prepared statement. I would be pleased to respond to any questions that you may have at this time.

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## GAO Contact and Staff Acknowledgments

If you or your staff have any questions about this statement, please contact Michele Mackin at (202) 512-4841 or [mackinm@gao.gov](mailto:mackinm@gao.gov). In addition, contact points for our Offices of Congressional Relations and Public Affairs may be found on the last page of this statement. Individuals who made key contributions to this testimony are Katherine Trimble, Assistant Director; Laurier R. Fish; Peter W. Anderson; William Carrigg; John Crawford; Sylvia Schatz; and Lindsay Taylor.

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