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COAST GUARD

Action Needed as Approved
Deepwater Program
Remains Unachievable

Statement of John P. Hutton, Director,
Acquisition and Sourcing Management

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Chairman LoBiondo, Ranking Member Larsen, and Members of the Subcommittee:

I am pleased to be here today to discuss our recent work on the Coast Guard's Deepwater acquisition, which represents the majority of the Coast Guard's efforts to recapitalize its fleet of vessels and aircraft.¹ My statement today is based on our July 28, 2011, report, *Coast Guard: Action Needed as Approved Deepwater Program Remains Unachievable*.² This report discusses areas in which the Coast Guard has strengthened its acquisition management capabilities but also emphasizes actions the Coast Guard needs to take to address the cost growth, schedule delays, and capability shortfalls that have made the approved Deepwater Program unachievable. Today's climate of rapidly building fiscal pressures underscores the importance of assessing priorities—from a Coast Guard-wide perspective—so that more realistic budgets can be submitted to Congress. Such a step would help alleviate what has become a pattern of churn in revising program baselines when unrealistic planned funding does not materialize, which contributes to schedule delays and can lead to other issues such as unhealthy competition for funding. We also recognize several steps that the Coast Guard has taken to improve the management of the Deepwater Program. For example, the Coast Guard has updated its *Major Systems Acquisition Manual* to better reflect best practices and has significantly reduced its relationship with the prior lead systems integrator, Integrated Coast Guard Systems, by awarding fixed-price contracts outside of the prior construct. To continue this improvement, our July 2011 report made several recommendations with which the Department of Homeland Security (DHS) concurred.

¹The Department of Homeland Security fiscal year 2012 budget request to Congress included a proposal to eliminate the term "Integrated Deepwater System" from its annual appropriation. At the time of this statement, Congress had not passed the department's fiscal year 2012 appropriations act; therefore, this statement continues to use the term Deepwater. The Coast Guard acquisition portfolio includes 17 major programs and projects, 13 of which constitute the Deepwater Program. In addition to vessels and aircraft, the Deepwater Program includes Command, Control, Communications, Computers, Intelligence, Surveillance, and Reconnaissance (C4ISR) referred to in this statement as information technology.

²GAO, *Coast Guard: Action Needed as Approved Deepwater Program Remains Unachievable*, [GAO-11-743](#) (Washington, D.C.: July 28, 2011).

We have reviewed the Coast Guard's recapitalization efforts since 2001 and have built an extensive body of work over the last 10 years that has focused on the need for the Coast Guard to improve its acquisition workforce, contractor management, and oversight capability. For the July 2011 report, we assessed (1) the extent to which the Deepwater Program's planned cost and schedule baselines have been exceeded and the credibility of cost estimates and schedules for selected assets; (2) the progression of the execution, design, and testing of the assets within the Deepwater Program; and (3) whether the Coast Guard has undertaken a fleet mix study that addresses trade-offs in a cost-constrained environment. To conduct our work, we reviewed the Coast Guard's *Major Systems Acquisition Manual*, budget documents, and key asset documents including operational requirements documents, acquisition strategies and plans, acquisition program baselines, life-cycle cost estimates, test reports, and contracts. We interviewed Coast Guard and DHS officials responsible for the Coast Guard's acquisitions, budgeting and resources for Deepwater, testing assets, and developing operational requirements. Our work for the July 28, 2011, report was conducted from September 2010 through July 2011 in accordance with generally accepted government auditing standards. Those standards require that we plan and perform the audit to obtain sufficient and 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.

True Cost and Schedule for the Deepwater Program Are Not Known, Cost Increases and Delays Are Looming, and Budget Planning Exacerbates Program Uncertainties

The Deepwater Program continues to exceed the cost and schedule baselines approved by DHS in 2007, but we found that several factors preclude a solid understanding of the true cost and schedule of the program. Based upon approved baselines, as of May 2011, the total Deepwater Program could cost as much as \$29.3 billion, an increase of more than 20 percent in 4 years. This \$29.3 billion includes the latest revised baseline for assets that have updated cost and schedule estimates since the 2007 baseline. As we reported last year, these revised baselines reflect the Coast Guard's and DHS's efforts to understand acquisition costs of Deepwater vessels and aircraft and to gain insight into the drivers of the cost growth.³ However, additional cost growth is looming because the Coast Guard has yet to develop revised baselines for all assets, including the Offshore Patrol Cutter—the largest cost driver in the program, comprising approximately \$8 billion of the \$24.2 billion 2007 baseline. In addition, Coast Guard officials stated that some of the more recently approved acquisition program baselines fall short of true funding needs. This not only exacerbates the uncertainty surrounding the total cost of the Deepwater acquisition, but also contributes to the approved Deepwater Program no longer being achievable. For example, the National Security Cutter baseline, as revised in December 2008, reflects a total acquisition cost of \$4.7 billion.⁴ However, our review of more recent Coast Guard documentation demonstrates that an estimated \$5.6 billion is required to complete the planned acquisition of eight National Security Cutters—an approximately 19 percent growth over the approved 2008 revised estimate.

In addition to cost growth, forthcoming delays identified in the Coast Guard's fiscal years 2012-2016 capital investment plan indicate that the final asset delivery dates approved in the 2007 Deepwater baseline and some of the revised baselines are no longer achievable for most assets.⁵ Figure 1 shows delays in final asset delivery dates according to (1) the

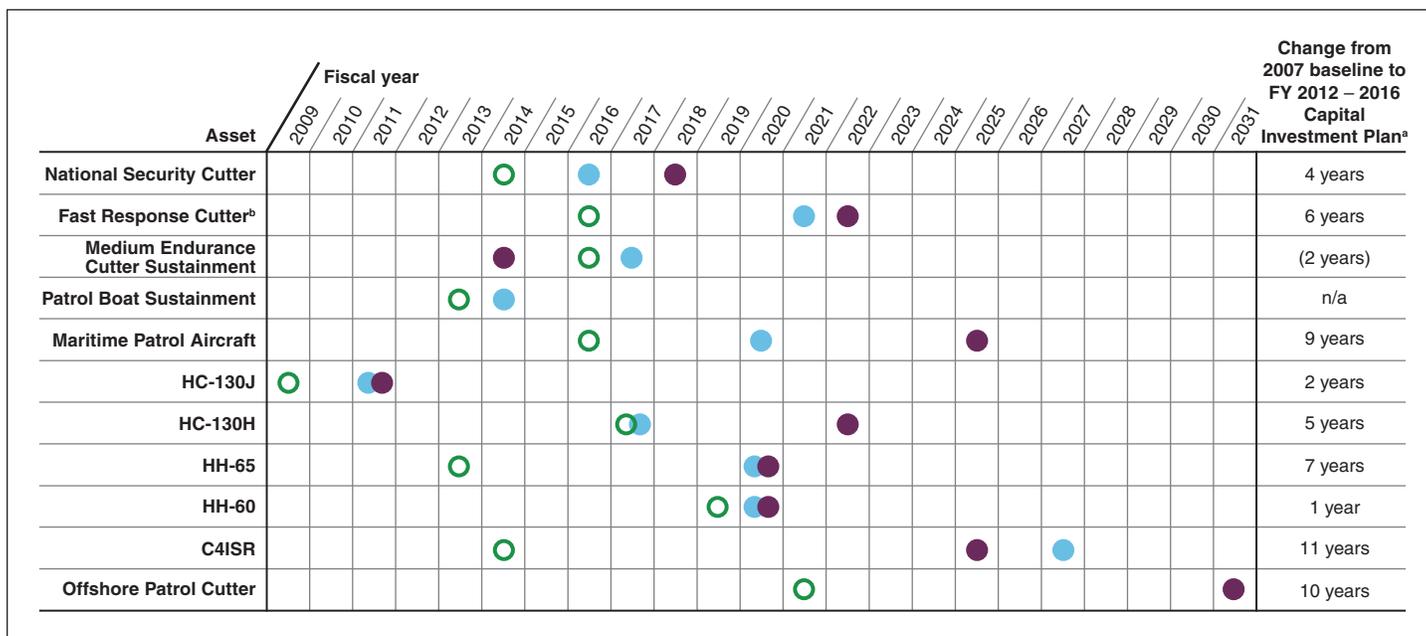
³GAO, *Coast Guard: Deepwater Requirements, Quantities, and Cost Require Revalidation to Reflect Knowledge Gained*, [GAO-10-790](#) (Washington, D.C.: July 27, 2010).

⁴The total acquisition cost of \$4.7 billion is in then-year dollars.

⁵The Coast Guard's capital investment plan is a 5-year plan presented to Congress that includes Acquisition, Construction, and Improvement. The Coast Guard updates the capital investment plan annually, and it represents the Coast Guard's submission for the President's Budget in any given year.

2007 baseline, (2) the asset’s revised baseline, and (3) the fiscal years 2012-2016 capital investment plan submitted to Congress.

Figure 1: Final Asset Delivery Dates for Selected Deepwater Assets Identified in the 2007 Deepwater Baseline, Revised Baselines, and Fiscal Years 2012-2016 Capital Investment Plan



- 2007 Deepwater baseline
- Revised baseline
- FY 2012 – 2016 Capital Investment Plan

Source: GAO analysis of Coast Guard data.

^aTo calculate the change from the final asset delivery date reported in the 2007 Deepwater baseline to the final asset delivery date reported in fiscal years 2012-2016 capital investment plan, we used the first month of each fiscal year. If the approved baselines provide both threshold and objective dates, threshold dates (which are the latest allowable dates) are used.

^bIn the 2007 baseline, costs for two variants of the Fast Response Cutter were presented. For the 2007 baseline we used the last date reported for final asset delivery.

Delays in fielding new Deepwater assets increase the stress on the Coast Guard’s aging fleet. For example, to keep the legacy cutters in service longer than expected requires costly maintenance and the understanding that these aging cutters will not be able to fully perform all types of missions. As a result, according to Coast Guard headquarters officials,

careful planning must occur to avoid placing a cutter in an operational emergency where it is incapable of adequately responding.⁶ We recently began a review of the status of the Coast Guard's legacy vessel fleet.

Without cost and schedule estimates that are based on current and reliable information, the Coast Guard has difficulty formulating realistic budgets. The Coast Guard is currently managing an acquisition portfolio that is expected to cost more than what its annual budget will likely support. For example, Coast Guard acquisition officials stated that up to \$1.9 billion per year is needed to support the approved Deepwater baselines, but these officials expect Deepwater funding levels to be closer to \$1.2 billion annually over the next several years. Furthermore, the 2012-2016 capital investment plan demonstrates that the Coast Guard needs over \$2 billion in funding for Deepwater in fiscal year 2015—a greater than 65 percent increase over the expected funding amount of \$1.2 billion per year—to support the program as currently designed. When a program's funding levels are lower than what the program was previously projected to receive, the program can no longer remain on the planned schedule. As a result, program baselines need to be revised. For example, in September-October 2010, three of the projects within the Deepwater Program, the C4ISR, HC-130H, and HH-60 projects, reported potential baseline breaches due, in part, to reduced funding in the fiscal years 2011-2015 capital investment plan.

Coast Guard-wide support is required to fully plan, present, and fund an achievable program. In October 2010, the Assistant Coast Guard Commandant for Acquisition identified the need to develop and implement effective decision making to maximize results and manage risks within resource constraints. Action items to accomplish this are laid out in the Acquisition Directorate's *Blueprint for Continuous Improvement (Blueprint)*, which was signed by the Commandant. Acquisition officials responsible for implementing the *Blueprint* action items acknowledged that successful implementation requires buy-in from leadership. However, senior Coast Guard budget officials responsible for capital investment planning told us that they are not held responsible for accomplishing the objectives outlined in the *Blueprint*. And while DHS and the Coast Guard concurred with our recommendation that the Coast Guard should adopt

⁶For additional detail see: GAO, *Coast Guard: Progress Being Made on Addressing Deepwater Legacy Asset Condition Issues and Program Management, but Acquisition Challenges Remain*, [GAO-05-757](#) (Washington, D.C.: July 22, 2005).

the *Blueprint* action items, DHS stated that the Coast Guard's resource governance process balances the agency's resource priorities across acquisition and front-line operations and makes trade-offs. We recognize that part of the standard budget development process includes trade-off decisions. However, under this standard process, DHS and the Coast Guard have continued to face the problem of approved acquisition programs not being feasible.

Coast Guard Has Not Completed a Comprehensive Trade-off Analysis for Deepwater Assets

In July 2010, we recommended that the Coast Guard complete, and present to Congress, a comprehensive review of the Deepwater Program. Specifically, we recommended that the review clarify the overall cost, schedule, quantities, and mix of assets required to meet mission needs, including trade-offs in light of fiscal constraints, given that the currently approved Deepwater baseline was no longer feasible.⁷ The Coast Guard's efforts, as of July 2011, have not addressed this recommendation. To support its role as systems integrator, the Coast Guard planned to complete a fleet mix analysis in July 2009 to eliminate uncertainty surrounding future mission performance and to produce a baseline for the Deepwater acquisition. However, the first phase of the Coast Guard's analysis, completed in December 2009 and termed fleet mix analysis phase 1, was not cost-constrained and is, according to Coast Guard officials, not feasible. For example, the Coast Guard estimated the total acquisition costs associated with the objective fleet mix could be as much as \$65 billion—about \$40 billion more than the \$24.2 billion baseline approved in 2007.

While the Coast Guard has since undertaken a second, cost-constrained, phase of the fleet mix analysis, officials responsible for the analysis stated that the study primarily assesses the rate at which the Coast Guard could acquire the current Deepwater program of record. As of September 2011, according to Coast Guard officials, phase 2 of the fleet mix analysis has been finalized and is under review within the Coast Guard. In addition to the Coast Guard's analysis, DHS's Program Analysis & Evaluation office began a study to gain insight into the Deepwater surface program of record. A DHS official involved in the study stated that the analysis will examine performance trade-offs between the National Security Cutter, Offshore Patrol Cutter, a modernized 270' cutter, and the Navy's Littoral

⁷[GAO-10-790](#).

Combat Ship.⁸ According to DHS officials, the cutter study was provided to the Office of Management and Budget in July 2011. From a broader perspective, it is unclear how, or whether, DHS and the Coast Guard will reconcile and use these studies to make trade-off decisions regarding the Deepwater Program that balance effectiveness with affordability.

Key Decisions Remain to Ensure That Promised Capabilities Are Achieved

At the individual project level, knowledge-based decisions are needed as Deepwater enters its fourth year with the Coast Guard as systems integrator. Uncertainties about the information technology systems, which were intended to make Deepwater a system of systems, continue and are compounded as assets are designed and delivered without a clear vision for the overall program. For example, it is unclear whether or not full data sharing between assets remains a goal for the Coast Guard. According to the Coast Guard's recent cost estimating baseline document, only 127 air and surface assets—fewer than half of the approximately 300 assets within the approved Deepwater Program—will have information technology systems that enable full communication as envisioned. Key decisions also remain in acquiring the Offshore Patrol Cutter, even though DHS approved the requirements document for this asset in October 2010. For example, as of July 2011, the Coast Guard had yet to determine which information technology system will be used for the cutter, whether it will have a facility for processing classified information, and whether it will have air search capabilities.

Summary of Actions We Recommended to DHS and Coast Guard

In July 2011, we made a number of recommendations to DHS and the Coast Guard, with which DHS concurred on behalf of the department and the Coast Guard. For example, we recommended that directorates across the Coast Guard should adopt action items consistent with those in the *Blueprint* related to managing projects within resource constraints. We also recommended that DHS develop a working group with Coast Guard participation to review the results of the three studies to identify cost, capability, and quantity trade-offs that would produce a program that fits within expected budget parameters. Lastly, we made recommendations to help ensure that assets meet mission needs. For example, we made recommendations aimed at improving the affordability and feasibility of

⁸According to a DHS official involved in this analysis, the characteristics of the Offshore Patrol Cutter are based on the operational requirements document, and the characteristics of the modernized 270' are theoretical because this cutter does not exist.

the Offshore Patrol Cutter's requirements document and increasing the confidence that the information technology system, Maritime Patrol Aircraft, and cutter small boats will meet mission needs. We will be following up on these recommendations with the Coast Guard and DHS.

Chairman LoBiondo, Ranking Member Larsen, this concludes my prepared statement. I would be pleased to respond to any questions you or other Members of the Subcommittee may have.

GAO Contacts and Staff Acknowledgements

For further information about this report, please contact John P. Hutton, Director, Acquisition and Sourcing Management, at (202) 512-4841 or huttonj@gao.gov. Other individuals making key contributions to this report include Michele Mackin, Assistant Director; Molly Traci; Jose Cardenas; Mya Dinh; Laurier Fish; Carlos Gomez; Kristine Hassinger; and Rebecca Wilson.

Related Products

Coast Guard: Action Needed as Approved Deepwater Program Remains Unachievable. [GAO-11-743](#). Washington, D.C.: July 28, 2011.

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