COAST GUARD

Opportunities Exist to Further Improve Acquisition Management Capabilities
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Why GAO Did This Study

The Coast Guard manages a broad $27 billion major acquisition portfolio intended to modernize its ships, aircraft, command and control systems, and other capabilities. GAO has reported extensively on the Coast Guard’s significant acquisition challenges, including project challenges in its Deepwater program. GAO’s prior work on the Coast Guard acquisition programs identified problems in costs, management, and oversight, but it also recognized several steps the Coast Guard has taken to improve acquisition management.

In response to the Coast Guard Authorization Act of 2010, GAO (1) assessed Coast Guard capabilities to manage its major acquisition programs, and (2) determined the extent to which the Coast Guard leverages Department of Defense (DOD) and other agency contracts or expertise to support its major acquisition programs.

GAO reviewed Department of Homeland Security (DHS) and Coast Guard acquisition documents, GAO and DHS Inspector General reports, and selected DOD contracts; and interviewed Coast Guard, DHS, and DOD officials.

What GAO Found

The Coast Guard continues to strengthen its acquisition management capabilities by updating acquisitions management policies and reducing acquisition workforce vacancies, but significant challenges remain. In November 2010, the Coast Guard updated its acquisition policy to further incorporate best practices and respond to prior GAO recommendations, such as aligning independent testing requirements with DHS policies and formalizing the Executive Oversight Council to review programs and provide oversight. Additionally, the Coast Guard reduced acquisition workforce vacancies from 20 to 13 percent from April to November 2010, but shortfalls persist in hiring staff for certain key areas such as systems engineers, and some programs continue to be affected by unfilled positions. While the Coast Guard has increased its acquisition management capabilities, most Coast Guard major acquisition programs have ongoing cost, schedule, or program execution risks. Additionally, unrealistic budget planning for the Coast Guard’s acquisition portfolio exacerbates these challenges and will likely lead to more program cost and schedule issues. The Coast Guard has several actions under way to further improve acquisition policies and workforce shortfalls, as well as address budget planning issues, but it is too soon to tell whether the actions will be effective.

The Coast Guard leveraged DOD contracts to purchase products and services or to gain expertise in support of major acquisition programs. The Coast Guard has entered into approximately 81 memorandums of agreement and other arrangements primarily with DOD, which has experience and technical expertise in purchasing major equipment such as ships and aircraft, to support its major acquisition programs. Examples range from acquiring products and services from established DOD contracts to obtaining engineering and testing expertise from the Navy. According to the Coast Guard, leveraging DOD contracts has led to cost savings for Coast Guard acquisition programs. For instance, the Coast Guard received price discounts for C-130J aircraft by coordinating contracting efforts with the Air Force rather than contracting directly with the aircraft manufacturer. In another example, Coast Guard officials used Navy cost estimators and contracting staff in the November 2010 production contract for the National Security Cutter. At this point, Coast Guard program managers rely on informal contacts to learn about the agreements in place to support program activities, thus potentially limiting staff knowledge of DOD resources available. Coast Guard contracting officials only recently recognized the need to make DOD agreements available to program staff, but due to limited attention to this issue, only about 5 of the 81 agreements are currently accessible to program managers.

What GAO Recommends

GAO recommends that the Coast Guard take steps to ensure program staff have access to interagency agreements with DOD. DHS concurred with the recommendation.

View GAO-11-480 or key components.
For more information, contact John Hutton at (202) 512-4841 or huttonj@gao.gov.
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<td>Blueprint</td>
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<td>C4ISR</td>
<td>Command, Control, Communications, Computer, Intelligence, Surveillance, and Reconnaissance (C4ISR) Suite</td>
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<td>DHS</td>
<td>Department of Homeland Security</td>
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<td>NAVAIR</td>
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April 13, 2011

The Honorable John D. Rockefeller, IV  
Chairman  
The Honorable Kay Bailey Hutchison  
Ranking Member  
Committee on Commerce, Science, and Transportation  
United States Senate

The Honorable John L. Mica  
Chairman  
The Honorable Nick J. Rahall, II  
Ranking Member  
Committee on Transportation and Infrastructure  
House of Representatives

The U.S. Coast Guard manages a broad $27 billion major acquisition portfolio intended to acquire capabilities to conduct missions that range from marine safety to defense readiness. We have reported extensively on the Coast Guard’s significant acquisition challenges, including its Deepwater program, which currently constitutes the majority of its acquisition portfolio and was created to build and modernize ships, aircraft, and other capabilities. Our prior work on the Deepwater acquisition program identified problems in costs, management, and oversight that have led to delivery delays and other operational challenges for certain assets, but it also recognized several steps the Coast Guard has taken to improve Deepwater management. For example, beginning in 2007, the Coast Guard assumed the role of lead systems integrator for the Deepwater program. Another key step was to reorganize its acquisition function and update its business practices. Nonetheless, the Coast Guard has a well-documented history of workforce challenges, such as difficulty obtaining critical skills and defining appropriate staffing levels to achieve its missions.
Section 402(a) of the Coast Guard Authorization Act of 2010 directed GAO to report on Coast Guard acquisition management for major programs. To satisfy the mandate, we (1) assessed Coast Guard acquisition management capabilities for its major acquisition programs, and (2) determined the extent to which the Coast Guard leverages Department of Defense (DOD) and other agency contracts or expertise to support its major acquisition programs.

We assessed Coast Guard acquisition management capabilities by evaluating its acquisition policies and practices, changes in its acquisition workforce, and the status of the Coast Guard’s acquisition programs as measured through their cost, schedule, and performance. To do so, we reviewed key Coast Guard and DHS documentation such as the Major Systems Acquisition Manual, the Strategic Plan or Blueprint for Continuous Improvement, DHS Acquisition Management Directive102-01, acquisition decision memorandums for Coast Guard programs, Quarterly Progress Reports, and Quarterly Acquisition Reports to Congress and analyzed changes issued since our previous report in July 2010. We interviewed Coast Guard acquisition directorate officials, including program managers and contracting staff about the cost, schedule, and performance of Coast Guard programs as well as any instances in which DOD or other agencies provide support. We also interviewed DHS officials from the Acquisition Program Management Division concerning Coast Guard management of its acquisition portfolio. Further, we reviewed contract documents and identified the agencies Coast Guard most commonly used to support its major acquisition programs. On the basis of this analysis, we interviewed Coast Guard officials, as well as DOD, Navy, and Air Force officials about resources provided to support Coast Guard major acquisition programs. We also relied in part on our past work,

1Section 402(a) of the Coast Guard Authorization Act of 2010, Pub. L. No. 111-281, as amended, which added section 566 to title 14 of the United States Code, directs GAO to “Within 180 days after the date of enactment of the Coast Guard Authorization Act for fiscal year 2010, the Comptroller General of the United States shall transmit a report to the appropriate congressional committees that—(1) contains an assessment of current Coast Guard acquisition and management capabilities to manage Level 1 and Level 2 acquisitions; (2) includes recommendations as to how the Coast Guard can improve its acquisition management, either through internal reforms or by seeking acquisition expertise from the Department of Defense; and (3) addresses specifically the question of whether the Coast Guard can better leverage Department of Defense or other agencies’ contracts that would meet the needs of Level 1 or Level 2 acquisitions in order to obtain the best possible price.”

including our July 2010 report on the Deepwater Program, DHS Inspector General reports, and other assessments of the Coast Guard's major programs. We conducted this performance audit from January 2011 to April 2011 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. Appendix I provides additional details about our scope and methodology. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objectives.

Background

The Coast Guard, a maritime military service within DHS, has a variety of responsibilities including port security and vessel escort, search-and-rescue, and polar ice operations. To carry out these and other responsibilities, the Coast Guard operates a number of vessels, aircraft, and information technology programs. The Coast Guard intends to further meet these responsibilities through ongoing efforts to modernize or replace assets through the Deepwater program. The Coast Guard’s current acquisition portfolio, at $27 billion, includes 17 major acquisition programs and projects and is managed by the Coast Guard Acquisition Directorate, CG-9.

Major acquisitions—level I and level II—have life-cycle cost estimates equal to or greater than $1 billion (level I) or from $300 million to less than $1 billion (level II). Major acquisition programs are to receive oversight from DHS’s acquisition review board, which is responsible for reviewing acquisitions for executable business strategies, resources, management, accountability, and alignment to strategic initiatives. The board also supports the Acquisition Decision Authority in determining the appropriate direction for an acquisition at key acquisition decision events. At each Acquisition Decision Event, the Acquisition Decision Authority approves acquisitions to proceed through the acquisition life-cycle phases upon satisfaction of applicable criteria. Additionally, the Coast Guard and other DHS components have Component Acquisition Executives responsible in part for managing and overseeing their respective acquisition portfolios. DHS has a four-phase acquisition process:

1. Need phase—Define a problem and identify the need for a new acquisition;

2. Analyze/Select phase—Identify alternatives and select the best option;
(3) Obtain phase—Develop, test, and evaluate the selected option and
determine whether to approve production; and

(4) Produce/Deploy/Support phase—Produce and deploy the selected
option and support it throughout the operational life cycle.

Table 1 provides further information about the Coast Guard major
acquisition programs.

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<th>Program</th>
<th>Description</th>
<th>Acquisition level</th>
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<tr>
<td>Coast Guard Logistics Information Management System (CG-LIMS)</td>
<td>CG-LIMS will replace or integrate legacy logistics business processes and their supporting information systems.</td>
<td>Level II</td>
</tr>
<tr>
<td>Command, Control, Communications, Computer, Intelligence, Surveillance, and Reconnaissance (C4ISR) Suite</td>
<td>The Coast Guard is incrementally acquiring C4ISR capabilities, including upgrades to existing cutters and shore installations, acquisitions of new capabilities, and development of a common operating picture to provide operationally relevant information and knowledge across the full range of Coast Guard operations.</td>
<td>Level I</td>
</tr>
<tr>
<td>Fast Response Cutter (FRC)</td>
<td>The FRC, also referred to as the Sentinel class, is conceived as a patrol boat with high readiness, speed, adaptability, and endurance to perform a wide range of missions.</td>
<td>Level I</td>
</tr>
<tr>
<td>HC-130H Long-Range Surveillance Aircraft</td>
<td>The HC-130H is the legacy Coast Guard long-range surveillance aircraft that the Coast Guard intends to update in multiple segments.</td>
<td>Level I</td>
</tr>
<tr>
<td>HC-130J Long-Range Surveillance Aircraft</td>
<td>The HC-130J is a four-engine turbo-prop aircraft that the Coast Guard has deployed with improved interoperability, C4ISR, and sensors to enhance surveillance, detection, classification, identification, and prosecution.</td>
<td>Level II</td>
</tr>
<tr>
<td>HC-144A Maritime Patrol Aircraft (MPA)</td>
<td>The MPA is a transport and surveillance, fixed-wing aircraft intended to be used to perform search-and-rescue missions, enforce laws and treaties, and transport cargo and personnel.</td>
<td>Level I</td>
</tr>
<tr>
<td>HH-60 Medium Range Recovery Helicopter</td>
<td>The HH-60 is a medium-range recovery helicopter designed to perform search-and-rescue missions offshore in all weather conditions. The Coast Guard has planned upgrades to the helicopter's avionics, sensors, radars, and command and control systems in multiple segments.</td>
<td>Level I</td>
</tr>
<tr>
<td>HH-65 Multi-mission Cutter Helicopter</td>
<td>The HH-65 Dolphin is the Coast Guard’s short-range recovery helicopter. It is being upgraded to improve its engines, sensors, navigation equipment, avionics, ability to land on the National Security Cutter, and other capabilities in multiple segments.</td>
<td>Level I</td>
</tr>
<tr>
<td>Interagency Operations Center (IOC)</td>
<td>IOC is intended to improve operational capabilities, situational awareness, tactical decision making and joint, coordinated emergency response.</td>
<td>Level I</td>
</tr>
<tr>
<td>Medium Endurance Cutter (MEC) Sustainment</td>
<td>The MEC sustainment project is intended to improve the cutters’ operating and cost performance by replacing obsolete, unsupportable, or maintenance-intensive equipment.</td>
<td>Level I</td>
</tr>
<tr>
<td>National Security Cutter</td>
<td>The National Security Cutter is intended to be the flagship of the Coast Guard’s fleet, with an extended on-scene presence, long transits, and forward deployment. The cutter and its aircraft and small-boat assets are to operate worldwide.</td>
<td>Level I</td>
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Program Description

The Nationwide Automatic Identification System (NAIS) is a data collection, processing, and distribution system that provides information to enhance safety of navigation and improve maritime domain awareness.

The Offshore Patrol Cutter (OPC) is intended to conduct patrols for homeland security functions, law enforcement, and search-and-rescue operations. It will be designed for long-distance transit, extended on-scene presence, and operations with multiple aircraft and small boats.

The Patrol Boat (PB) sustainment project is intended to improve the boats' operating and cost performance by replacing obsolete, unsupportable, or maintenance-intensive equipment.

Rescue 21 is an advanced command, control, and communications system intended to improve the Coast Guard’s Search and Rescue mission by leveraging direction-finding technology to more accurately locate the source of distress calls.

The Response Boat-Medium (RB-M) is intended to replace the aging 41’ utility boats and other medium nonstandard boats.

The Coast Guard is exploring the use of Unmanned Aircraft Systems to augment the service’s cutter- and land-based aviation capabilities.

Level I

Since 2001, we have reviewed Coast Guard acquisition programs and have reported to Congress, DHS, and the Coast Guard on the risks and uncertainties inherent in its acquisitions. In our June 2010 report on selected DHS major acquisitions, we found that acquisition cost estimates increased by more than 20 percent in five of the Coast Guard’s six major programs we reviewed. For example, the National Security Cutter’s acquisition cost estimate grew from an initial figure of $3.45 billion to $4.75 billion from 2006 to 2009—a 38 percent increase. Moreover, five of six programs faced challenges due to unapproved or unstable baseline requirements, and all six programs experienced schedule delays. The Rescue 21 search-and-rescue program, for example, had both unapproved or unstable baseline requirements and schedule delays.

Several of our reports have focused on the Coast Guard’s Deepwater acquisition program. Most recently, in our July 2010 report on the program, we found that the Coast Guard had generally revised its acquisition management policies to align with DHS directives, was taking steps to address acquisition workforce needs, and was decreasing its dependence on the Integrated Deepwater Systems contractor by planning
The Coast Guard continues to improve its acquisition management capabilities, but many programs face challenges. The Coast Guard updated its overarching acquisition policy since we last reported in July 2010 to better reflect best practices and respond to our prior recommendations, and to more closely align its policy with the DHS Acquisition Management Directive Number 102-01. For example, in November 2010, the Coast Guard revised its Major Systems Acquisition Manual, which establishes policy and procedures, and provides guidance for major acquisition programs. Revisions included:

- a list of the Executive Oversight Council’s roles and responsibilities;

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4. GAO-10-790.

5. DHS Acquisition Management Directive no. 102-01, revision no. 1 is DHS’s acquisition management directive, finalized in January 2010 that provides guidance on planning and executing acquisitions by providing a number of review points for senior acquisition officials to oversee investments and by linking DHS requirements, resourcing, and acquisition processes.

6. The Major Systems Acquisition Manual is the Coast Guard’s manual by which it articulates its acquisition objectives for planning, coordinating, and executing its major programs.
aligning roles and responsibilities of independent test authorities to DHS standards, which satisfied one of our prior recommendations;\(^7\)

- a formal acquisition decision event before a program receives approval for low-rate initial production, which addresses one of our prior recommendations;\(^8\) and

- a requirement to present an acquisition strategy at a program’s first formal acquisition decision event.

The Coast Guard’s *Blueprint for Continuous Improvement* (Blueprint) was created after the Coast Guard began realigning its acquisition function in 2007 and is designed to provide strategic direction for acquisition improvements. The Blueprint uses GAO’s *Framework for Assessing the Acquisition Function at Federal Agencies* and the Office of Federal Procurement Policy’s *Guidelines for Assessing the Acquisition Function* as guidance, but also includes quantitative and qualitative measures important to the acquisitions process. Through these measures, the Coast Guard plans to gain a clearer picture of its acquisition organization’s health. The Blueprint was revised in October 2010 to formalize the acquisition directorate’s integration with the Coast Guard’s mission support structure and includes plans to annually evaluate the Blueprint’s measures.

The Coast Guard developed the Blueprint as a top-level planning document to provide acquisition process objectives and strategic direction as well as to establish action items, but DHS’s Inspector General expressed concern that the agency did not prioritize action items and consider the effects of delayed completion of action items on subsequent program outcomes. For example, the 2010 Inspector General report found that by the end of fiscal year 2009, 23 percent of assigned action item completion dates slipped without determining the effect on acquisition.

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\(^8\)See GAO, *Coast Guard: Change in Course Improves Deepwater Management and Oversight, but Outcome Still Uncertain*, GAO-08-745 (Washington, D.C.: June 24, 2008).
improvements.\textsuperscript{9} In response to the Inspector General’s report, the Coast Guard has taken steps to prioritize its action items; however, it is too soon to tell the outcome of these actions.

These policies were updated to align with DHS guidance and reflect best practices. Coast Guard officials also attribute acquisition reforms to the Coast Guard’s efforts to assume responsibilities for all major acquisition programs. We previously reported in 2009 that the Coast Guard acknowledged its need to define systems integrator functions and assign them to Coast Guard stakeholders as it assumed the systems integrator role.\textsuperscript{10} As a result, the Coast Guard established new relationships among its directorates to assume control of key systems integrator roles and responsibilities formerly carried out by the contractor. For example, according to Coast Guard officials, the Coast Guard formally designated certain directorates as technical authorities responsible for establishing, monitoring, and approving technical standards for all assets related to design, construction, maintenance, logistics, C4ISR, life-cycle staffing, and training. In addition, the Coast Guard is developing a Commandant’s Instruction to further institutionalize the roles and responsibilities for Coast Guard’s acquisition management.

Beyond updating its major acquisition policies and guidance, the Coast Guard Acquisition Directorate also increased the involvement of its Executive Oversight Council to facilitate its acquisition process. Coast Guard officials stated that the council, initially established in 2009 with an updated charter in November 2010, provides a structured way for flag-level and senior executive officials in the requirements, acquisition, and resources directorates, among others, to discuss programs and provide oversight on a regular basis. As the Coast Guard began assuming the system integrator function from the Deepwater contractor in 2007, it believed it needed a forum to make trade-offs and other program decisions especially in a constrained budget environment; according to officials, the council was established in response to that need. Coast Guard officials noted that major programs are now required to brief the formalized council annually, prior to milestones, and on an ad hoc basis when major risks are identified. According to Coast Guard documentation, from fiscal year 2010 through the first quarter of fiscal year 2011, the council met over


\textsuperscript{10}See GAO-09-682.
40 times to discuss major programs. For example, the council held more than five meetings to discuss the Offshore Patrol Cutter’s life-cycle costs and system requirements, among other issues. The discussions are captured at a general level in meeting minutes and sent to the Coast Guard Acquisition Directorate for approval.

Coast Guard Has Continued Progress in Reducing Its Acquisition Workforce Vacancies, Although Shortfalls Remain

The Coast Guard has made progress in reducing its acquisition workforce vacancies since April 2010. As of November 2010, the percentage of vacancies dropped from about 20 percent to 13 percent or from 190 to 119 unfilled billets out of 951 total billets. Acquisition workforce vacancies have decreased, but program managers have ongoing concerns about staffing program offices. For example, the HH-65 program office has funded and filled 10 positions out of an identified need for 33 positions. Although the program has requested funding for an additional 8 billets for fiscal year 2012, due to the timing of the request, the funding outcome is unknown as of April 2011. Similarly, the Interagency Operations Center program is another office affected by acquisition workforce shortages. According to the Coast Guard, as of March 2011, the program office has funded and filled 11 positions out of the 27 needed. For some of these positions, the Interagency Operations Center program uses staff from the Coast Guard’s Command, Control, and Communications Engineering Center for systems engineering support; however, workforce shortages remain. Program officials may face additional challenges in hiring staff depending on the location of the vacancies within the program’s management levels. For example, a program official stated that vacant supervisory positions must be filled first before filling remaining positions because lower-level positions would not have guidance for their activities. Figure 1 shows the status of the Coast Guard’s acquisition workforce vacancies as of November 2010.
We reported in January 2010 that the Coast Guard faces difficulty in identifying critical skills, defining staffing levels, and allocating staff to accomplish its diverse missions.  

An official Coast Guard statement from 2009 partially attributed the challenge of attracting staff for certain positions to hiring competition with other federal agencies. In February 2010, we reported on the Coast Guard’s long-standing workforce challenges and evaluated the agency’s efforts to address these challenges.  

For example, we reported that while the Coast Guard developed specific plans to address its human capital challenges, the plans fell short of identifying gaps between mission areas and personnel needed.

The Coast Guard has taken steps to outline specific areas of workforce needs, including developing a human-capital strategic plan and commissioning a human-capital staffing study published in August 2010, but program managers continue to state concerns with the Coast Guard’s ability to satisfy certain skill areas. For example, the August 2010 human-capital staffing study stated that program managers reported concerns

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11 See GAO, Coast Guard: Service Has Taken Steps to Address Historic Personnel Problems, but It Is too Soon to Assess the Impact of These Efforts, GAO-10-268R (Washington, D.C.: Jan. 29, 2010).

with staffing adequacy in program management and technical areas. To make up for shortfalls in hiring systems engineers and other acquisition workforce positions for its major programs, the Coast Guard uses support contractors. As of November 2010, support contractors constituted 25 percent of the Coast Guard’s acquisition workforce. While we have stated the risks in using support contractors, we reported in July 2010 that the Coast Guard acknowledged the risks of using support contractors and had taken steps to address these risks by training its staff to identify potential conflicts of interest and by releasing guidance regarding the role of the government and appropriate oversight of contractors and the work that they perform.\textsuperscript{13}

The Coast Guard has also made progress ensuring that program management staff received training and DHS certifications to manage major programs. For example, according to Coast Guard officials, in December 2010, the Coast Guard was 100 percent compliant with DHS personnel certification requirements for program-management positions. We have previously reported that having the right people with the right skills is critical in ensuring that the government achieves the best value for its spending.\textsuperscript{14}

Most of the Coast Guard’s Major Acquisition Programs Continue to Experience Challenges Exacerbated in Part by Unrealistic Budget Planning

Most of the Coast Guard’s major acquisition programs continue to experience challenges in program execution, schedule, and resources. For program execution, the Coast Guard reported in December 2010 that 12 of its 17 major programs face moderate to significant risk in one or more execution metrics such as technical maturity or logistics, which required management attention.\textsuperscript{15} Of these, seven programs have carried these risks for 1 year or more. For example, the HC-130J program has reported logistics-assessment risks requiring management attention for 3 years. Regarding schedule challenges, the Coast Guard reported in December 2010 that 10 of its 12 major programs with approved acquisition program

\textsuperscript{13}See GAO-10-790.

\textsuperscript{14}See GAO, Acquisition Workforce: Agencies Need to Better Define and Track the Training of Their Employees, GAO-02-737 (Washington, D.C.: July 29, 2002).

\textsuperscript{15}Program execution is a composite metric that includes the following factors: earned value management, performance assessment, logistics assessment, testing status, risk assessment, and technical maturity.
baselines\textsuperscript{16} exceeded schedule objective or threshold parameters.\textsuperscript{17} For example, the Maritime Patrol Aircraft HC-144A program exceeded its schedule because it delayed a production decision in order to complete initial operational testing and evaluation per a DHS acquisition review board decision. As this program was already 4 years behind schedule, added schedule delays may require the Coast Guard to extend a legacy aircraft’s service life, which may incur additional costs to sustain it. Major Coast Guard programs also face resource risks.\textsuperscript{18} As of December 2010, 12 of the Coast Guard’s 17 major programs face moderate to significant risk in project resource metrics such as budgeting and funding. For 9 of these programs, risks have been reported for more than 1 year. In addition, four Coast Guard programs, HC-130H aircraft, Nationwide Automatic Identification System, C4ISR, and HH-60 helicopter, have notified DHS of acquisition program baseline breaches.\textsuperscript{19}

The Coast Guard’s unrealistic acquisition budget planning also exacerbates the challenges Coast Guard acquisition programs face. We have previously reported that the Coast Guard faced risks from unrealistic funding levels and that its reliance on sustained high funding levels in an environment of budget constraints puts program outcomes at risk if projected funds are not received.\textsuperscript{20} In December 2010, the Coast Guard reported that 8 of the 17 major program offices were updating their acquisition program baselines due in part to reduced funding in the fiscal year 2011-2015 Capital Investment Plan.\textsuperscript{21} According to Coast Guard

\textsuperscript{16}The acquisition program baseline formally summarizes the program’s critical cost, schedule and performance parameters, expressed in measurable, quantitative terms that must be met in order to accomplish the program’s goals.

\textsuperscript{17}Two of the remaining 5 Coast Guard programs are in the acquisition need phase and have not reached the point at which an acquisition performance baseline is required, and three programs are operating under the 2007 Deepwater baseline.

\textsuperscript{18}Project resources is a composite metric that includes several factors such as budgeting, funding, staffing, and contractor health, that is contractor personnel and facilities.

\textsuperscript{19}An Acquisition Program Baseline breach of cost, schedule, or performance is an inability to meet the threshold value of the specific parameter.


\textsuperscript{21}The Coast Guard’s capital investment plan is a 5-year plan that includes Acquisition, Construction and Improvements. 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.
acquisition officials, when a Capital Investment Plan has funding levels that are lower than what a program planned to receive, then the program is more likely to have schedule breaches and other problems. For example, in November 2010 the HC-130H program reported a schedule breach to DHS due in part to reduced Capital Investment Plan funding projections for fiscal years 2011-2015 and had to revise its schedule parameters to reflect the lower projected funding levels. This also occurred in the Nationwide Automatic Identification System major acquisition program. The program had an estimated cost growth of approximately $32 million due to reduced out-year funding in the fiscal year 2009-2013 plan, and after further funding reductions in the fiscal year 2011-2015 plan, the program subsequently deferred efforts to update the program baseline. According to Coast Guard officials, the Coast Guard is currently reevaluating the program’s system requirements and associated project cost, schedule, and performance objectives. In 2011, DHS acquisition oversight officials informed the Coast Guard that future breaches in other programs would be almost inevitable as funding resources decrease. Figure 2 illustrates Coast Guard major acquisition programs facing execution, schedule, resource, and budget planning challenges as of December 2010.
The Coast Guard developed several action items in its October 2010 update to its *Blueprint for Continuous Improvement* to address budget planning challenges. According to Coast Guard acquisition officials, the most important step is for Coast Guard leadership to establish a priority list for the major programs based on actual acquisition budgets received in
prior years, and then to make trade-offs between programs to fit within historical budget constraints. The Coast Guard developed an action item to assess the percentage of program funding profiles that fit into the Capital Investment Plan. Specifically, the Blueprint indicates that the Coast Guard will establish and implement a process to compare and report the extent to which each individual program’s funding fits into the Capital Investment Plan funding parameters. Further, the Coast Guard plans to analyze and regularly report gaps in these funding profiles to the Coast Guard's acquisition leadership. The Coast Guard also identified the need to promote funding stability in the Capital Investment Plan and intends to evaluate that effort by establishing a mechanism and baseline to measure Capital Investment Plan stability by comparing project funding against previous, current, and future 5-year Capital Investment Plans. However, while the Coast Guard officials stated their intention to use these metrics to elevate the priority and funding issues to leadership, it is too soon to tell the outcome of these steps. In a separate ongoing review, we are further assessing the Coast Guard’s management of program costs and other budget issues.

Coast Guard Leverages DOD Contracts and Expertise to Support Programs, But Program Staff Could Benefit From Better Insight of Available Interagency Agreements

Coast Guard Major Acquisition Programs Have Benefited from Leveraging DOD Expertise and Contracts

According to the Coast Guard, it currently has 81 interagency agreements, memorandums of agreement, and other arrangements in place primarily with DOD agencies to support its major acquisition programs. Each of the 17 major Coast Guard acquisition programs leverages DOD support, primarily from the Navy. According to Coast Guard officials, they rely on DOD experience and technical expertise because they both procure
similar major equipment, including ships and aircraft. Examples range from acquiring products and services from established DOD contracts to using engineering and testing expertise from the Navy. Some major programs also receive assistance from other DHS components or other agencies on a more limited basis. For example, the Rescue 21 program partnered with the Federal Aviation Administration at two sites to use its land and towers to install search and rescue capabilities.

The Secretary of Homeland Security is authorized to enter into agreements with other executive agencies and to transfer funds as required. This authority has been delegated to the Commandant of the Coast Guard.\textsuperscript{22} Interagency agreements include a description of the general terms and conditions that govern the relationship between agencies, and specific information on the requesting agencies’ requirement to establish a need and to authorize the transfer of funds. According to Coast Guard officials, Coast Guard interagency agreements with DOD typically include a memorandum of agreement or a memorandum of understanding with a DOD agency. A memorandum of agreement is a document that defines the responsibilities of, and actions to be taken by, each of the parties so that their goals will be accomplished. A memorandum of understanding is a document that describes broad concepts of mutual understanding, goals, and plans shared by the parties. Interagency agreements also are typically funded by military interdepartmental purchasing requests in which the requiring agency must include a description of the end items purchased and the funding data for acquiring these supplies or services. Interagency agreements can be for direct, assisted, or other than assisted acquisitions. In direct acquisitions, the requesting agency places orders against another agency’s indefinite-delivery contracts, such as task and delivery order contracts, while assisted acquisitions use the acquisition services of a servicing agency. Other than assisted acquisitions utilize the internal expertise of a servicing agency.

In 2001, the Chief of Naval Operations and the Commandant of the Coast Guard agreed to build a national fleet that combines Navy and Coast Guard forces to maximize effectiveness across all naval and maritime missions. More than 50 of the Coast Guard’s agreements with DOD leverage support from the Department of the Navy. Moreover, Coast Guard

\textsuperscript{22}The Secretary of Homeland Security is specifically authorized by 14 U.S.C. § 631 to confer or impose upon the Commandant of the Coast Guard any of the rights, privileges, or duties, in respect to the administration of the Coast Guard, vested in or imposed upon the Secretary by law.
and Navy officials have noted an increase in Navy involvement to support the Coast Guard’s major acquisition programs since the Coast Guard assumed the Deepwater lead systems integrator role in 2007. Examples of updated support agreements in place with Navy entities include the following:

- A 2011 interagency agreement with the Naval Sea Systems Command (NAVSEA) to support Coast Guard acquisition programs in program management, design, technical assistance, cost estimating, and other support.

- A 2010 memorandum of agreement with the Navy’s Commander, Operational Test and Evaluation Forces, allows the Coast Guard to request the Navy to serve as the operational test authority for Coast Guard major acquisition programs.

- Two memorandums of agreement / interagency agreements in 2009 with the Naval Air Systems Command (NAVAIR), which allow Coast Guard major acquisition programs to leverage Navy services and aviation program office assistance including: planning, technical assistance, cost estimation, warfare modeling and analysis, requirements definition, risk management, and integrated logistics support.

- A 2009 memorandum of agreement with the Navy’s Space and Naval Warfare Systems Command Pacific that allows Coast Guard programs to request and obtain technical and other support services for the research and development, design, engineering, integration, acquisition, test and evaluation, installation, and life-cycle support of Coast Guard systems.

Most Coast Guard major acquisition programs leverage Navy expertise, in some way, to support a range of testing, engineering, and other program activities. For example, the Fast Response Cutter program used Naval Surface Warfare Center Dahlgren services to help with topside design and electromagnetic testing. In another instance, the Coast Guard used Naval Surface Warfare Center Carderock division to test and evaluate boats and provide technical expertise for the Response Boat-Medium program.

According to Coast Guard officials, the Coast Guard also collaborated with Navy cost estimators and contracting staff to prepare for negotiations to award the November 2010 production contract for the fourth National Security Cutter. In another instance, the Navy provided engineering and technical support for the Coast Guard’s MH-60 helicopter program. Further, the Navy’s Operational Test and Evaluation Command is currently supporting testing activities for 11 Coast Guard programs.
According to Coast Guard and DOD officials, the Coast Guard has achieved cost savings from using DOD contracts through quantity discounts and reduced unit prices when Coast Guard orders are combined with orders from other DOD departments. Additional benefits include reductions in contracting administrative costs, and expedited processing times. According to Coast Guard officials, examples include the following:

- The Coast Guard’s HC-130J program coordinated C-130J contracting efforts through the Air Force acquisition office’s contract rather than contracting directly with the aircraft manufacturer and benefited from discounts in ordering along with other DOD agencies. In addition, by using the standard configuration of the C-130J common among U.S. government users, the Coast Guard benefited from cost savings in aircraft sustainment.

- The Coast Guard obtained Navy systems, such as the SPQ-9B Radar, at a reduced cost for Coast Guard cutter programs.

- The National Security Cutter program used Navy contracts to provide and install ultra high frequency radios and electronic warfare systems.

- The Rescue 21 program placed search-and-rescue sensors on Army, Air Force, Navy, and Marine Corps facilities, which reduced recurring Coast Guard costs.

- The HH-65 program office reduced procurement costs by approximately 12 percent or $25,000 by purchasing a range of subsystems and components, such as a cockpit display unit, from an Army contract.

The Coast Guard has also identified opportunities to further leverage DOD resources. In 2009, the Navy and Coast Guard conducted a commonality study that identified, among other things, 17 commonality opportunities with near term potential for mutual benefit that required little or no up-front investment to execute. Typically they require only the modification of a policy document. Key opportunities identified included the following:

- Acquisition personnel exchanges with NAVSEA to promote collaboration and leveraging of cross-service capabilities in the acquisition community.

- Leveraging existing Navy logistics management systems during the development of the Coast Guard Logistics Information Management System to reduce developmental costs.
DOD Resources Available to Support Major Acquisition Programs May Not Be Transparent to Coast Guard Program Staff

Coast Guard program managers largely rely on informal contacts to learn about the agreements in place with DOD to support program activities. Many Coast Guard program managers we met with indicated that they became aware of DOD resources that could be leveraged for their programs through contacts with their DOD counterparts or by other means. According to Coast Guard officials, program managers also learn about another agency’s expertise or resources through word of mouth, market research, head of contracting activity discussions, conferences, or networking channels. While this interaction has led to Coast Guard programs successfully leveraging DOD resources, Navy officials told us that in the past Navy leadership was not always fully aware of support being provided to the Coast Guard, and as such was unable to ensure that the right Navy entities were conducting the work and that the results provided to the Coast Guard met Navy standards. NAVAIR and NAVSEA have each established a liaison assigned to the Coast Guard to facilitate information and knowledge sharing about Navy capabilities and contracts available to Coast Guard programs. For example, NAVAIR and NAVSEA liaisons serve as Coast Guard on-site experts, engage in dialogue with Coast Guard, and work to increase Coast Guard awareness of Navy resources. However, without current knowledge of existing interagency agreements, Coast Guard program managers may not be aware of the liaisons and their role in working with the Navy.

Relying on informal contacts may also present missed opportunities for greater cooperation and leveraging of DOD resources. For example, the Coast Guard has 50 or more agreements with the Navy, some of which are broad agreements with major Navy commands such as NAVSEA or NAVAIR, while others are specific agreements with Navy agencies such as the Naval Ordnance Safety and Security Office, Naval Surface Warfare Center Dahlgren Division, and the Naval Supply Systems Command. Interagency agreements may call for a designated point of contact for Coast Guard program managers to contact, but program managers do not have a systematic way to gain insight into the details of the agreements.

According to Coast Guard contracting officials, the Coast Guard has recently begun to develop a database of interagency agreements with DOD and other agencies that Coast Guard programs can leverage to support acquisition activities. However, due to limited attention devoted to this issue, Coast Guard officials noted that only 5 of the approximately 81 interagency agreements are in a data system accessible to program staff. These officials also noted that a database is needed to avoid duplicative efforts and to ensure program staff are aware of existing agreements,
including the latest versions of agreements specifying updated products and services available.

Conclusions

The Coast Guard has continued to make progress in strengthening its capabilities to manage its acquisition portfolio by updating acquisition policies and practices as well as reducing vacancies in the acquisition workforce. As the Coast Guard improves its acquisition management capabilities, it may find that adjustments and changes will be necessary in light of how well its major acquisition programs are progressing. The Coast Guard has leveraged DOD contracts to help support its major acquisition programs, but reliance on informal contacts may also present missed opportunities for greater cooperation and leveraging of DOD resources to help save scarce resources, manage programs risks, and support positive acquisition outcomes.

Recommendation for Executive Action

To provide Coast Guard program management staff with greater access to updated information about agreements in place with DOD to facilitate leveraging support for major acquisition programs, we recommend that the Commandant of the Coast Guard take steps to ensure all interagency agreements are captured in a database or other format and make this information readily accessible to program staff.

Agency Comments and Our Evaluation

We provided a draft of this report to the Coast Guard, DHS, and DOD. DHS provided oral comments stating that it concurred with the recommendation. The Coast Guard and DOD provided technical comments, which we incorporated into the report as appropriate.
Affairs may be found on the last page of this report. Staff acknowledgments are provided in appendix II.

John P. Hutton
Director
Acquisition and Sourcing Management
Appendix I: Scope and Methodology

The Coast Guard Authorization Act of fiscal year 2010, as amended, specified that “Within 180 days after the date of enactment of the Coast Guard Authorization Act for fiscal year 2010, the Comptroller General of the United States shall transmit a report to the appropriate congressional committees that—(1) contains an assessment of current Coast Guard acquisition and management capabilities to manage Level 1 and Level 2 acquisitions; (2) includes recommendations as to how the Coast Guard can improve its acquisition management, either through internal reforms or by seeking acquisition expertise from the Department of Defense (DOD); and (3) addresses specifically the question of whether the Coast Guard can better leverage Department of Defense or other agencies’ contracts that would meet the needs of Level 1 or Level 2 acquisitions in order to obtain the best possible price.”

To determine the Coast Guard’s current management capabilities for its major acquisition programs, we evaluated the Coast Guard’s acquisition policies and processes, status of its acquisition workforce, and execution of its major programs since we last reported on the Coast Guard’s acquisitions and acquisition management in June and July 2010.¹ We reviewed Coast Guard acquisition governance, policy, and process documents such as the Coast Guard’s Major Systems Acquisition Manual and Blueprint for Continuous Improvement that have been issued, implemented, or updated since July 2010. We also interviewed Coast Guard and other Department of Homeland Security (DHS) acquisition officials to analyze and explain the factors behind the acquisition governance changes as well as how changes have been implemented to date through review of meeting briefings, minutes, and subsequent decision memos.

To evaluate the Coast Guard’s status of its acquisition workforce, we reviewed Coast Guard information on government, contractor, and vacant positions to identify any progress made in reducing acquisition workforce vacancies and filling critical positions since July 2010 as well as any positions that continue to be challenging to fill. Additionally, we obtained and analyzed Coast Guard program staff information to determine specific programs experiencing staffing shortfalls and conducted interviews to

supplement Coast Guard information and determine the extent to which staffing shortfalls affect program execution.

To evaluate the Coast Guard’s execution of its major programs we analyzed information on the status of those programs since July 2010 through reviews of general acquisition status reports (e.g., Quarterly Acquisition Reports to Congress and Quarterly Performance Reports), program briefings, and acquisition process documents (e.g., Acquisition Program Baselines) to determine how many programs have cost, schedule, or performance issues based on criteria in the Major Systems Acquisition Manual. Further, we analyzed additional program performance, schedule, cost, and funding information from the Capital Investment Plan, breach memos, and acquisition decision memos to identify funding stability issues and the extent to which funding issues were factors leading to breaches in established program baselines. We also corroborated program information with interviews of Coast Guard program staff and interviews with external DHS stakeholders, such as acquisition oversight and cost analysis staff in the acquisition program management directorate. Moreover, we examined and identified best practices from prior GAO reporting on Coast Guard funding stability as a factor in program continuity and successful outcomes.²

To determine the extent to which the Coast Guard leverages DOD and other agency contracts or expertise to support its major acquisition programs, we examined the Coast Guard’s interagency agreements and identified the agencies the Coast Guard most commonly used to support major acquisition programs. On the basis of this analysis, we interviewed Coast Guard officials, as well as DOD, Navy, and Air Force officials about resources provided to support Coast Guard major acquisition programs. We also discussed with Coast Guard officials any current efforts to update the agreements. Using this analysis, we identified examples of cost savings and other benefits for selected Coast Guard acquisitions. Further, we reviewed relevant GAO and DHS Inspector General reports. We corroborated testimonial information from interviews with Coast Guard acquisition and program staff by reviewing contracts, agreements, and other documents that show the amount of resources expended by the Coast Guard for DOD-provided goods and services and by interviewing


We conducted this performance audit from January 2011 to April 2011 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.
Appendix II: GAO Contact and Staff Acknowledgments

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<th>GAO Contact</th>
<th>John P. Hutton, (202) 512-4841 or <a href="mailto:huttonj@gao.gov">huttonj@gao.gov</a></th>
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<td><strong>Staff</strong></td>
<td>Other individuals making key contributions to this report were John Neumann, Assistant Director; William Russell; Jessica Drucker; Sylvia Schatz; Kenneth Patton; and Morgan Delaney Ramaker.</td>
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