

GAO

Testimony

Before the Subcommittee on Homeland Security, Committee on Appropriations, House of Representatives

For Release on Delivery
Expected at 10:00 a.m. EST
Wednesday, March 5, 2008

COAST GUARD

**Deepwater Program
Management Initiatives and
Key Homeland Security
Missions**

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

and

Stephen L. Caldwell, Director
Homeland Security and Justice





Highlights of [GAO-08-531T](#), a testimony before the Subcommittee on Homeland Security, Committee on Appropriations, House of Representatives

Why GAO Did This Study

The Deepwater Program is intended to replace or modernize 15 major classes of Coast Guard assets—including vessels, aircraft, and communications systems. At the program's start, the Coast Guard chose to use a system integrator, Integrated Coast Guard Systems, to design, build, deploy, and support Deepwater in a system-of-systems approach. In a series of reports, we have noted the risks inherent in this approach.

With the Deepwater program under way, the Coast Guard's priorities and focus shifted after September 11 toward homeland security missions, such as protecting the nation's ports and waterways. The 2002 Maritime Transportation Security Act and the 2006 SAFE Port Act required a wide range of security improvements.

GAO is monitoring the acquisition of Deepwater and the Coast Guard's ability to carry out its numerous missions. This testimony addresses: (1) changes the Coast Guard is making as it assumes a larger role in managing the Deepwater Program and (2) challenges the Coast Guard is facing in carrying out its various missions. To conduct this work, GAO reviewed key documents, such as Deepwater acquisition program baselines, human capital plans, and Coast Guard budget and performance documents. For information on which GAO has not previously reported, GAO obtained Coast Guard views. The Coast Guard generally concurred with the information.

To view the full product, including the scope and methodology, click on [GAO-08-531T](#). For more information, contact John Hutton, (202) 512-4841 huttonj@gao.gov or Stephen Caldwell, (202) 512-9610 caldwells@gao.gov.

COAST GUARD

Deepwater Program Management Initiatives and Key Homeland Security Missions

What GAO Found

With a recognition that too much control had been ceded to the system integrator under the Deepwater Program, the Coast Guard began this past year to shift the way it is managing the acquisition. Significant changes pertain to

- increasing government management of the program as part of the Coast Guard's reorganized Acquisition Directorate,
- acquiring Deepwater assets individually as opposed to through a system-of-systems approach,
- improving information to analyze and evaluate progress, and
- developing an acquisition workforce with the requisite contracting and program management skills.

Many of these initiatives are just getting under way and, while they are positive steps, the extent of their impact remains to be seen.

The Coast Guard will likely continue to face challenges balancing its various missions within its resources for both the short and long term. For several years, we have noted that the Coast Guard has had difficulties fully funding and executing both homeland security missions and its non-homeland security missions. GAO's recent and ongoing work has shown that the Coast Guard's requirements continue to increase in such homeland security areas as providing vessel escorts, conducting security patrols of critical infrastructure, and completing inspections of maritime facilities here and abroad. In several cases, the Coast Guard has not been able to keep up with these security demands, in that it is not meeting its own requirements for vessel escorts and other security activities at some ports. In addition, there are indications that the Coast Guard's requirements are also increasing for selected non-homeland security missions.

Since 2001, we have reviewed the Deepwater Program and have informed Congress, the Department of Homeland Security, and the Coast Guard of the risks and uncertainties inherent with such a large acquisition. In March 2004, we made a series of recommendations to the Coast Guard. The Coast Guard has taken actions on many of them. Three recommendations remain open, as the actions have not yet been sufficient to allow us to close them. In past work on Coast Guard missions, GAO made recommendations related to strategic plans, human capital, performance measures, and program operations.

Mr. Chairman and Members of the Subcommittee:

We are pleased to be here today to discuss the Coast Guard's management and oversight of its Deepwater Program and its ability to carry out its numerous homeland security missions. The Deepwater Program, ongoing since the late 1990s, is intended to replace or modernize 15 major classes of Coast Guard assets—5 each of vessels and aircraft, and 5 other projects, including communications systems. The Coast Guard plans to use its Deepwater assets to help meet non-homeland security missions, such as environmental protection, as well as new homeland security missions in the wake of September 11. After September 11, the Coast Guard's priorities and focus had to shift suddenly toward protecting the nation's vast network of ports and waterways. Coast Guard cutters, aircraft, boats, and personnel normally used for non-homeland security missions were shifted to homeland security missions, which previously consumed only a small portion of the agency's operating budget. We will be issuing reports later this month related to the Coast Guard's homeland security missions, including its inspection of domestic maritime facilities, foreign ports, and foreign vessels, and we plan to provide a more complete analysis of the Deepwater issues raised in this statement in a report later this year.

Specifically, our focus today will be on

- Coast Guard initiatives to improve its acquisition process, oversight structure, program management information, and acquisition workforce as it assumes a larger role in managing the Deepwater Program; and
- Coast Guard challenges in carrying out the various homeland security missions for which it is now responsible in the post-September 11 environment, such as conducting security patrols of critical infrastructure and providing vessel escorts.

Our statement is based in part on ongoing work for this committee on the Deepwater Program and recent work on the Coast Guard's homeland security missions. To conduct our work on the Deepwater issues, we reviewed key Coast Guard documentation such as the *Major Systems Acquisition Manual*, acquisition program baselines, and human capital plans. We also interviewed Coast Guard acquisition officials, contracting officers, and other key staff. This work was conducted between October 2007 and March 2008. We also relied on our past work regarding the Deepwater Program. Appendix II lists selected reports related to Deepwater. Our work on the Coast Guard's homeland security missions is based on a series of reviews we have conducted in the aftermath of

September 11. This work involved discussions with Coast Guard and other federal officials at both headquarters and field units in domestic and international locations, reviews of related program documents, analysis of program data bases (including reliability assessments), and discussions with other domestic and international stakeholders in the maritime industry. All work for this statement was conducted 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. For issues where our observations are based on work that has not been previously reported, we obtained Coast Guard views on our findings and incorporated technical comments where appropriate. Although we are not making recommendations as a part of this statement, we have reviewed past GAO work and the actions the Department of Homeland Security and Coast Guard have taken to address any open recommendations.

Summary

The Coast Guard is currently undergoing a fundamental shift in the way it approaches its largest acquisition program, Deepwater. Key changes to increase Coast Guard management of the program include a reorganized acquisition directorate, a shift to acquiring Deepwater assets individually as opposed to through a system-of-systems approach, and efforts to improve information to analyze and evaluate progress. In addition, the Coast Guard has acknowledged the need for a workforce that can effectively manage its major acquisitions, including Deepwater, and is taking steps to develop a workforce with the requisite acquisition and program management skills. These initiatives are positive, but many are just getting under way as the agency begins to assert control over selected Deepwater assets, and the extent of their impact remains to be seen.

The Coast Guard continues to face challenges balancing its homeland and non-homeland security missions within its finite resources. For several years, we have noted that the Coast Guard has had difficulties fully funding and executing both homeland security missions and its non-homeland security missions. Our work has shown that the Coast Guard's requirements continue to increase in such homeland security areas as providing vessel escorts, conducting security patrols of critical infrastructure, and completing inspections of maritime facilities here and abroad. In several cases, the Coast Guard has not been able to keep up with these security demands, in that it is not meeting its own requirements

for providing vessel escorts and conducting other security activities at some ports. In addition, there are indications that the Coast Guard's requirements are also increasing for selected non-homeland security missions.

In March 2004, we made 11 recommendations to the Coast Guard on management of the Deepwater Program to address three broad areas of concern: improving program management, strengthening contractor accountability, and promoting cost control through greater competition among potential subcontractors. Over time, the Coast Guard has addressed many of these recommendations.¹ Three, pertaining to integrated product teams, maintenance and logistics responsibilities for Deepwater assets, and cost control under the Integrated Coast Guard Systems contract, remain open because the Coast Guard's actions have yet not been sufficient to allow us to close them. In our past work on Coast Guard missions, we have made recommendations to the Department of Homeland Security to develop strategic plans, better plan the use of its human capital, establish performance measures, and improve program operations. The Coast Guard generally concurred with these recommendations and is making progress in addressing them.

Background

The Coast Guard is a multi-mission, maritime military service within the Department of Homeland Security (DHS). The Coast Guard's responsibilities fall into two general categories—those related to homeland security missions, such as port security, vessel escorts, security inspections, and defense readiness; and those related to non-homeland security missions, such as search and rescue, environmental protection (including oil spill response), marine safety, and polar ice operations.

To carry out these responsibilities, the Coast Guard operates a number of vessels and aircraft and, through its Deepwater Program, is currently modernizing or replacing those assets. At the start of Deepwater, the Coast Guard chose to use a system-of-systems acquisition strategy that would replace its assets with a single, integrated package of aircraft, vessels, and communications systems² through Integrated Coast Guard Systems

¹ The Coast Guard did not intend to implement one of the recommendations, that the Coast Guard establish a baseline for determining whether the system of systems acquisition approach was costing the government more than a traditional asset replacement approach.

² Appendix I lists the assets currently being planned and procured for Deepwater as well as their status as of February 2008.

(ICGS), a system integrator that was responsible for designing, constructing, deploying, supporting and integrating the assets to meet Coast Guard requirements. The decision to use a system integrator was driven in part because of the Coast Guard's lack of expertise in managing and executing an acquisition of this magnitude. In a series of reports since 2001, we have noted the risks inherent in the systems integrator approach and have made a number of recommendations intended to improve the Coast Guard's management and oversight. In particular, we raised concerns about the agency's ability to keep costs under control in future program years by ensuring adequate competition for Deepwater assets and pointed to the need for better oversight and management of the system integrator. We, as well as the DHS Inspector General and others, have also noted problems in specific acquisition efforts, notably the National Security Cutter and the 110-Foot Patrol Boat Modernization, which the Coast Guard Commandant permanently halted in November 2006 because of operational and safety concerns.

Coast Guard Is Taking Steps To Increase Management Of The Deepwater Program

Over the past year, the Coast Guard's Deepwater Program has been in the midst of a major shift, from heavy reliance on a system integrator to greater government control and a greater government role in decision-making. Coast Guard officials acknowledged that the initial approach gave too much control to the contractor. The Coast Guard has made a number of significant program decisions and taken actions, including:

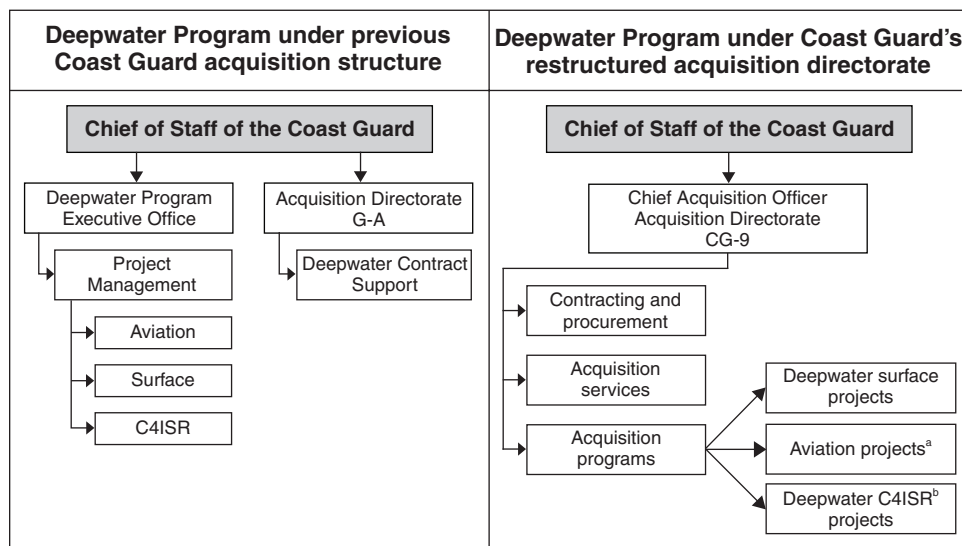
- an increase in the Coast Guard's management role through a reorganization of its acquisition directorate;
- a restructured approach to the review and approval of individual Deepwater asset acquisitions;
- planned improvements to the use and quality of information on program performance, and
- initiatives to develop a workforce with the requisite acquisition and program management skills.

Although many of the changes the Coast Guard has undertaken are positive and may assist the program in meeting its goals, these initiatives are in their preliminary stages, with many processes and procedures yet to be implemented. Maintaining momentum will be important in improving the Deepwater Program; we will continue to evaluate the Coast Guard's progress in all of these areas as part of our ongoing work.

Coast Guard Has Increased Its Program Management Role of Deepwater under a Reorganized Acquisition Directorate

As of July 2007, the Coast Guard began consolidating acquisition responsibilities into a single Acquisition Directorate, known as CG-9, and is making efforts to standardize operations within this directorate. Previously, Deepwater acquisitions were managed separately from other Coast Guard acquisitions by the Deepwater Program Executive Office. The Coast Guard's goal for the reorganization is that it will provide greater consistency in the Coast Guard's oversight and acquisition approach by concentrating acquisition activities under a single official and allowing greater leveraging of knowledge and resources across programs. Figure 1 depicts the changes.

Figure 1: Reorganization of Deepwater Within the Coast Guard Acquisition Function



Source: Coast Guard data with GAO presentation.

Note: Other organizations—such as the Engineering and Logistics Directorate (CG-4) and the C4ISR Directorate (CG-6) or their predecessor organizations—provided technical expertise under both structures.

^aThis office includes aviation assets for Deepwater.

^bC4ISR is command, control, communications, computers, and intelligence, surveillance and reconnaissance.

As part of asserting a larger management role in Deepwater, the Coast Guard has taken additional steps, such as the following.

- Integrated product teams—a key program management tool—are in the process of being restructured and re-chartered. In the past, the teams were led and managed by the contractor, while government team

members acted as “customer” representatives. Now, the teams are led by Coast Guard personnel. The teams are responsible for discussing options for problem solving relating to cost, schedule, and performance objectives. For example, one team oversees management of the National Security Cutter project.

- The Coast Guard has formally established a technical authority for engineering to oversee issues related to Deepwater; Coast Guard officials told us a similar authority for C4ISR is pending. The role of the technical authority in program acquisition is to review, approve, and monitor technical standards and ensure that assets meet these standards, among other duties. Previously the contractor had some decision making power and the Coast Guard held an advisory role. In some cases this led to bad outcomes. For example, Coast Guard officials told us their engineering experts had raised concerns during the National Security Cutter’s design phase about its ability to meet service life requirements and recommended design changes, but they were ignored. If the recommendations had been heeded, changes to the ship’s design could have been made earlier and some additional costs may have been avoided.³
- Coast Guard project managers, who manage individual Deepwater assets, now have increased responsibility and accountability for acquisition outcomes. Previously, the project managers’ role was less significant. For example, the contractor, not the project manager, provided Coast Guard management with quarterly updates on the status of assets. Now, project manager charters for individual assets outline project managers’ responsibilities and authorities, including ensuring projects are on time and within budget.

Coast Guard has Restructured Review Process for Deepwater Assets

The Coast Guard is moving away from the ICGS contract and the systems-of-systems model to a more traditional acquisition strategy, where the Coast Guard will manage the acquisition of each asset separately. Agency officials told us that they are in the process of re-evaluating their long term

³ The issue pertained to the ship’s expected 30-year service life as it related to fatigue. Fatigue is physical weakening because of age, stress, or vibration. A U.S. Navy analysis done for the Coast Guard determined that the ship’s design was unlikely to meet fatigue life expectations. The Coast Guard ultimately decided to correct the structural deficiencies for the first two National Security Cutters at scheduled points after construction is completed to avoid stopping the production lines, and to incorporate structural enhancements into the design and production for future ships.

relationship with ICGS, including an assessment of the value of continuing this contractual relationship. The government is under no further obligation to acquire services under this contract, as the minimum specified quantity of services was met during the 5-year base term. However, Coast Guard officials told us they may continue to issue task orders under the contract for specific efforts, such as logistics, or for assets that are already well under way. The Coast Guard recently demonstrated this new approach by holding its own competition for the Fast Response Cutter-B (FRC-B),⁴ in lieu of obtaining the asset through the ICGS contract. The Coast Guard issued a request for proposals in June 2007 for the design, construction, and delivery of a modified commercially available patrol boat. Coast Guard officials told us they are currently evaluating proposals and expect to award the contract by the third quarter of fiscal year 2008, with the lead cutter expected for delivery in 2010. The Coast Guard plans to hold other competitions outside of the ICGS contract for additional assets in the future, including the Offshore Patrol Cutter.

The Coast Guard's transition to an asset-by-asset acquisition strategy is enabling increased government visibility and control over its acquisitions. Cost and schedule information are now captured at the individual asset level rather than at the overall, system-of-systems program level. For example, while cost and schedule breaches in the past were to be reported at the Deepwater system-of-systems level only, the Coast Guard is now reporting breaches by asset, as occurred recently with the cost increase on the C-130J long range surveillance aircraft and the first National Security Cutter.⁵

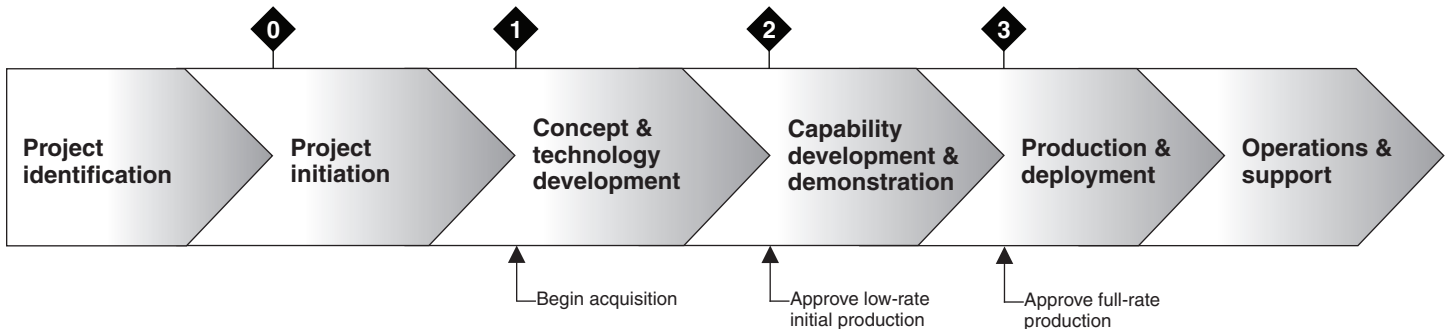
In implementing this new acquisition approach, the Coast Guard also plans to start following the processes set forth in its *Major Systems Acquisition*

⁴ The Fast Response Cutter (FRC) was conceived as a patrol boat with high readiness, speed, adaptability, and endurance. ICGS proposed constructing the FRC (later termed the FRC-A) with composite materials, but the Coast Guard suspended the contractor's design effort in February 2006 in order to assess and mitigate technical risks. The Coast Guard subsequently decided to hold its own competition for commercially available FRCs (termed the FRC-B).

⁵ We reported in 2007 that the Coast Guard was required to provide information to DHS on total program cost breaches of 8 percent or more. However, this threshold had not been breached because it was measured against system-of-system Deepwater Program costs and not on an asset basis. Coast Guard officials acknowledged to us that only a catastrophic event would ever trigger a threshold breach under this approach. GAO, *Coast Guard: Status of Efforts to Improve Deepwater Program Management and Address Operational Challenges*, [GAO-07-575T](#) (Washington, D.C.: Mar. 8, 2007).

Manual (MSAM), which include acquisition milestones, documentation requirements, and cost estimates for individual assets. Previously, the Coast Guard was authorized to deviate from the MSAM requirements for the Deepwater Program. Reviews were required on a schedule-driven basis—planned quarterly or annually—as opposed to the more disciplined, event-driven process outlined in the MSAM. In addition, the Coast Guard scheduled key decision points only occasionally and focused primarily at the Deepwater Program as a whole, as opposed to at an individual asset level. Coast Guard officials told us that little, if any, documentation of key decisions was maintained. The MSAM process requires reports on specific elements of program knowledge at milestones in the acquisition process, supplemented by annual briefings. For example, reports on the maturity of technology and estimates of an asset’s life cycle cost are required at Milestone 2, before an asset enters the capability development and demonstration phase. Figure 2 depicts the key phases and milestones of the MSAM process.

Figure 2: Key Phases and Milestones of the Coast Guard’s MSAM process



Source: Coast Guard’s *Major Systems Acquisition Manual*.

Note: Black diamonds denote milestones.

Although the Coast Guard’s decision to follow a more formalized and asset-driven acquisition process is a positive step, the Coast Guard faces challenges in implementing the process. The transition to the MSAM process is estimated to take at least 2 years to complete, as the Coast Guard is determining where Deepwater assets are in the process and is having to create basic documentation that was not required under the prior process—such as statements of requirements and technology assessments—to bring assets into compliance. For example, the National Security Cutter is in the production phase, but the Coast Guard is reviewing what documentation should be completed for milestones that already passed. Coast Guard officials also acknowledged the hurdles they

face in bringing C4ISR efforts under the MSAM process, as this asset may require a broader Deepwater-level approach to tie individual assets together.

GAO's work on best practices for major acquisitions has demonstrated that a knowledge-based approach to decision making, where specific knowledge is gathered and measured against standards at key points in the acquisition process to inform decisions about the path forward, can significantly improve program outcomes. While the MSAM process contains some characteristics of a knowledge-based approach, there are key differences that could affect acquisition outcomes. For example, the Milestone 2 decision to approve low-rate initial production precedes the majority of the design activities in the capability development and demonstration phase. We will continue to evaluate the Coast Guard's process as compared to established commercial best practices in our ongoing work.

The MSAM requires, as part of the acquisition approval process, the Coast Guard to report to DHS on all major program decisions beginning with the start of an acquisition program. Coast Guard and DHS officials told us that the processes and procedures for coordinating acquisitions with DHS's Investment Review Board, which is tasked with reviewing major acquisition programs, are currently undergoing revision. According to the Coast Guard, DHS approval of acquisition decisions is not technically necessary because the department delegated oversight responsibility for the Deepwater Program to the Coast Guard in 2003. Recently, however, the Coast Guard has increased communication and coordination through good will and informal procedures such as personal working relationships. We are currently conducting work on DHS's investment review process for this committee and will release our findings later this year.

Coast Guard is Working to Improve the Use and Quality of Program Information

The proper functioning of an acquisition organization and the viability of the decisions made through its acquisition process are only as good as the information it receives. In the past, much of the Deepwater Program information was collected on an ad-hoc basis and focused more at the Deepwater Program level, as opposed to the individual asset level. The Coast Guard is now putting processes in place to improve the use and quality of its information on program performance through a number of different efforts.

- The Coast Guard recently developed Quarterly Project Reports, a compilation of cost and schedule information that summarizes the

status of each acquisition for reporting through the Coast Guard chain of command as well as to DHS and the Congress.

- The Coast Guard also plans to analyze program information using the “probability of project success” tool. Coast Guard acquisition officials told us they will use this tool to grade each asset on 19 different elements, including acquisition process compliance and progress and earned value management data,⁶ to assess the risk of assets failing to meet their goals. This information is intended to enable senior Coast Guard management officials to review project risks and status at a glance. At this time, the Coast Guard has completed reports on ten Deepwater assets.
- The Coast Guard is working to improve the quality and reporting of earned value management data. For example, officials have developed standard operating procedures for earned value reporting and analysis to create consistency among Deepwater assets. As part of these procedures, Coast Guard analysts have begun to review the earned value management data provided by contractors and provide the results to project managers. The Coast Guard is also exploring how it can use the Defense Contract Management Agency to validate contractor earned value systems. Certification would provide the Coast Guard greater assurance that contractor data are accurate.

Actions Underway to Hire and Develop an Acquisition Workforce for Deepwater and Other Major Coast Guard Programs

The Coast Guard has acknowledged the need for a workforce that can effectively manage its major acquisitions—including Deepwater—a challenge common within the federal government. With the July 2007 creation of the Acquisition Directorate, the Coast Guard has taken steps to develop a workforce with the requisite acquisition and program management skills, while trying to reduce reliance on support contractors.

The Coast Guard’s 2008 acquisition human capital strategic plan sets forth a number of acquisition workforce challenges, including

- a shortage of civilian acquisition staff,
- lack of an acquisition career path for Coast Guard military personnel,
- difficulty in tracking acquisition certifications, and

⁶ Earned value management data include cost and schedule data reported by the contractor and are used to evaluate contractor management systems and progress toward program goals.

- absence of policy guidance on the use of support contractors in the acquisition process.

To address these challenges, the Coast Guard has begun initiatives that leverage expertise and best practices from other organizations, including use of GAO’s *Framework for Assessing the Acquisition Function at Federal Agencies*.⁷ These initiatives include

- establishing an Office of Acquisition Workforce Management to oversee workforce issues;
- contracting for development of a strategic tool to forecast acquisition workforce needs in terms of numbers and skill sets;
- utilizing hiring flexibilities such as reemployed annuitants, relocation bonuses, and direct hire authority; and
- developing certification requirements for the entire Acquisition Directorate (not just for project managers) to help develop what it calls “bench strength” in the acquisition workforce.

Some of these initiatives have begun to see concrete results; for example, key Acquisition Directorate leadership positions have been filled and, through use of hiring flexibilities, over 100 vacant civilian acquisition positions have been filled, 40 of them using direct hire authority. However, as Table 1 shows, the Acquisition Directorate still has not fully staffed its billets, including a range of positions—such as contract specialists, financial analysts, systems engineers, and program management staff—that the directorate has designated as “hard-to-fill.”

Table 1: Overall vacancy rates in the CG-9 Acquisition Directorate as of January 2008

	Billets	Vacancies	Vacancy Rate
Military	431	56	13.0%
Civilian	488	115	23.6%

Source: Coast Guard data.

The Acquisition Directorate has also identified a need for about 189 contractor billets for fiscal year 2008. These support contractors fill a range of positions, such as contracting support and logisticians. Despite

⁷ GAO, *Framework for Assessing the Acquisition Function at Federal Agencies*, [GAO-05-218G](#) (Washington, D.C.: Sept. 2005).

the Coast Guard's stated goal of reducing its reliance on support contractors, acquisition management officials told us that use of contractors will likely continue for the foreseeable future and is contingent upon the Coast Guard's ability to build its core staff.

Other initiatives are still in the early stages, and it is too soon to evaluate their outcomes. For example, the Coast Guard is developing a workforce forecasting tool, which it plans to use to answer key questions about its strategic acquisition workforce needs. This tool requires significant up-front data collection and management training efforts to be used effectively. The Coast Guard is also evaluating a similar tool developed by the Air Force and will determine which tool best suits their needs in the future.

Coast Guard Continues to Face Challenges in Balancing Its Homeland Security and Non-Homeland Security Missions

The new and modernized assets the Coast Guard expects to acquire under the Deepwater Program are intended to be used to help meet a wide range of missions. After the September 11, 2001, terrorist attacks, the Coast Guard's priorities and focus had to shift suddenly and dramatically toward protecting the nation's vast and sprawling network of ports and waterways. Coast Guard cutters, aircraft, boats, and personnel normally used for non-homeland security missions were shifted to homeland security missions, which previously consumed only a small portion of the agency's operating resources. Although we have previously reported that the Coast Guard is restoring activity levels for many of its non-homeland security missions, the Coast Guard continues to face challenges in balancing its resources between the homeland and non-homeland security missions. In addition to the growing demands for homeland security missions, there are indications that the Coast Guard's requirements are also increasing for selected non-homeland security missions.

Homeland Security Mission Requirements Continue to Increase

The Coast Guard's heightened responsibilities to protect America's ports, waterways, and waterside facilities from terrorist attacks owe much of their origin to the Maritime Transportation Security Act of 2002 (MTSA).⁸ This legislation, enacted in November 2002, established a port security framework that was designed, in part, to protect the nation's ports and waterways from terrorist attacks by requiring a wide range of security improvements. The SAFE Port Act, which was enacted in October 2006,

⁸ Pub. L. No. 107-295, 116 Stat. 2064 (2002).

made a number of adjustments to programs within the MTSA-established framework, creating additional programs or lines of efforts and altering others.⁹ The additional requirements found in the SAFE Port Act have added to the resource challenges already faced by the Coast Guard, some of which are described below:

- **Inspecting domestic maritime facilities:** Pursuant to Coast Guard guidance, the Coast Guard has conducted annual inspections of domestic maritime facilities to ensure that they are in compliance with their security plans. The SAFE Port Act added additional requirements that inspections be conducted at least twice per year and that one of these inspections be conducted unannounced. More recently, the Coast Guard has recently issued guidance requiring that unannounced inspections be more rigorous than before. Fulfilling the requirement of additional inspections and potentially more rigorous inspections, may require additional resources in terms of Coast Guard inspectors.¹⁰
- **Inspecting foreign ports:** In response to a MTSA requirement, the Coast Guard established the International Port Security Program to assess and, if appropriate, make recommendations to improve security in foreign ports. Congressional directives have called for the Coast Guard to increase the pace of its assessments of foreign ports. However, to increase its pace, the Coast Guard may have to hire and train new staff, in part because a number of experienced personnel are rotating to other positions as part of the Coast Guard's standard personnel rotation policy. Coast Guard officials also said that they have limited ability to help countries build on or enhance their own capacity to implement security requirements because the program does not currently have the resources or authority to directly assist countries with more in-depth training or technical assistance.¹¹
- **Fulfilling port security operational requirements:** The Coast Guard conducts a number of operations at U.S. ports to deter and prevent terrorist attacks. Operation Neptune Shield, first released in 2003, is the Coast Guard's operations order that sets specific security

⁹ Pub. L. No. 109-347, 120 Stat. 1884 (2006).

¹⁰ We will be issuing a report on the Coast Guard's inspections of domestic maritime facilities later this month.

¹¹ See GAO, *Maritime Security: The SAFE Port Act: Status and Implementation One Year Later*, [GAO-08-126T](#) (Washington, D.C.: Oct. 30, 2007). In addition, we will be issuing a report on the Coast Guard's program to inspect foreign ports later this month.

activities (such as harbor patrols and vessel escorts) for each port and specifies the level of security activities to be conducted at each port. As individual port security concerns change, the level of security activities also change, which affects the resources required to complete the activities. Many ports are having difficulty meeting their port security requirements, with resource constraints being a major factor.¹²

- **Meeting security requirements for additional Liquefied Natural Gas (LNG) terminals:** The Coast Guard is also faced with providing security for vessels arriving at four domestic onshore LNG import facilities. However, the number of LNG tankers bringing shipments to these facilities will increase considerably because of expansions that are planned or under way. As a result of these changes, Coast Guard field units will likely be required to significantly expand their security workloads to conduct new LNG security missions.¹³
- **Boarding and inspecting foreign vessels:** Security compliance examinations and boardings, which include identifying vessels that pose either a high risk for noncompliance with international and domestic regulations or a high relative security risk to the port, are a key component in the Coast Guard's layered security strategy. An increasing number of vessel arrivals in U.S. ports may impact the pace of operations for conducting security compliance examinations and boardings in the future. For example, in the 3-year period from 2004 through 2006, vessel arrivals rose by nearly 13 percent and, according to the Coast Guard, this increase is likely to continue. Moreover, officials anticipate that the increase in arrivals will also likely include larger vessels, such as tankers, that require more time and resources to examine. At present, it is unclear to what extent increased demands on resources may impact the ability of Coast Guard field units to complete these activities on vessels selected for boarding.¹⁴

¹² See [GAO-08-126T](#).

¹³ For additional information on the challenges the Coast Guard faces with regard to energy commodity shipments, see GAO, *Maritime Security: Federal Efforts Needed to Address Challenges in Responding to Terrorist Attacks on Energy Commodity Tankers*, [GAO-08-141](#) (Washington, D.C.: Dec. 10, 2007) and GAO, *Maritime Security: Public Consequences of a Terrorist Attack on a Tanker Carrying Liquefied Natural Gas Need Clarification*, [GAO-07-316](#) (Washington, D.C.: Feb. 22, 2007).

¹⁴ See [GAO-08-126T](#). In addition, we will be issuing a report on the Coast Guard's program to inspect foreign vessels later this month.

-
- **Establishing interagency operational centers:** The SAFE Port Act called for establishment of interagency operational centers, directing the Secretary of DHS to establish such centers at all high-priority ports no later than 3 years after the Act's enactment. The Coast Guard estimates the total acquisition cost of upgrading 24 sectors that encompass the nation's high priority ports into interagency operations centers will be approximately \$260 million. Congress funded a total of \$60 million for the construction of interagency operational centers for fiscal year 2008. The Coast Guard has not requested any additional funding for the construction of these centers as part of its fiscal year 2009 budget request. However, as part of its fiscal year 2009 budget request, the Coast Guard is requesting \$1 million to support its Command 21 acquisition project (which includes the continued development of its information management and sharing technology in command centers).¹⁵ So, while the Coast Guard's estimates indicate that it will need additional financial resources to establish the interagency operational centers required by law, its current budget and longer term plans do not include all of the necessary funding.
 - **Updating area maritime security plans:** MTSA, as amended, required that the Coast Guard develop, in conjunction with local public and private port stakeholders, Area Maritime Security Plans. The plans describe how port stakeholders will deter a terrorist attack or other transportation security incident or secure the port in the event such an attack occurs. These plans were initially developed and approved by the Coast Guard by June 2004. MTSA also requires that the plans be updated at least every 5 years. The SAFE Port Act added a requirement to the plans that specified that they identify salvage equipment able to restore operational trade capacity. The Coast Guard, working with local public and private port stakeholders, is required to revise its plans and have them completed and approved by June 2009. This planning process may require a significant investment of Coast Guard resources, in the form of time and human capital at the local port level for existing plan revision and salvage recovery development as well as at the national level for the review and approval of all the plans by Coast Guard headquarters.¹⁶

¹⁵ The Coast Guard's fiscal year 2009-2013 Five Year Capital Investment Plan does not include funds for the construction of these interagency operational centers, but the plan does include a total of \$40 million in future requests to support the Command 21 acquisition project. According to the Coast Guard, it is using the Command 21 effort as the vehicle to deliver interagency operational capacity to its existing command centers.

¹⁶ [GAO-08-141](#).

Non-Homeland Security Mission Requirements also Continue to Increase

While the Coast Guard continues to be in the center of the nation's response to maritime-related homeland security concerns, it is still responsible for rescuing those in distress, protecting the nation's fisheries, keeping vital marine highways operating efficiently, and responding effectively to marine accidents and natural disasters. Some of the Coast Guard's non-homeland security missions are facing the same challenges faced by its homeland security missions with regard to increased mission requirements. Examples of these additional requirements include (1) revising Area Maritime Security Plans so they also cover natural disasters, (2) revising oil spill regulations to better protect the Oil Spill Liability Trust Fund from risks related to certain vessels with disproportionately low limits of liability, (3) patrolling and enforcing a Presidential declaration regarding new protected areas such as the Northwestern Hawaiian Islands Coral Reef Ecosystem Reserve, and (4) increasing polar activities commensurate with increased resource exploitation and vessel traffic in the artic.

Concluding Observations

In closing, we would like to emphasize several key points as we continue to oversee the various Coast Guard initiatives discussed today. First, now that the Coast Guard has made the decision to assume a greater management and oversight role of the Deepwater Program, sustained effort on a number of fronts will be needed for some time to come. Whether the Coast Guard will achieve its goals is largely contingent on continued strong leadership and a commitment to adhering to a knowledge-based acquisition approach that was lacking in the past. In addition, the Coast Guard originally turned to the private sector to manage Deepwater, in part, because the government lacked requisite expertise. Thus, the Coast Guard's ability to build an adequate acquisition workforce is critical, and over time the right balance must be struck between numbers of government and contractor personnel.

Similarly, the right balance must be struck between homeland and non-homeland security missions. In the aftermath of the September 11, 2001 terrorist attacks, the Coast Guard understandably shifted its focus to homeland security missions at the expense of non-homeland security missions. Congress passed and the President signed legislation that supported and reinforced this shift that further increased Coast Guard missions related to security. Our recent work on the Coast Guard's homeland security programs has indicated that these missions continue to increase demands on resources. To further complicate the Coast Guard's resource and mission balancing act, unexpected events such as terrorist attacks or natural disasters could result in major shifts in resources and

operations. Thus, the Coast Guard will continue to face the challenge inherent in being a multi-mission force.

Mr. Chairman, this concludes our testimony. We would be happy to respond to any questions Members of the Committee may have.

GAO Contacts and Acknowledgments

For further information about this testimony, please contact John P. Hutton, Director, Acquisition and Sourcing Management, at (202) 512-4841, huttonj@gao.gov or Stephen L. Caldwell, Director, Homeland Security and Justice, (202) 512-9610, caldwells@gao.gov.








Other individuals making key contributions to this testimony include Michele Mackin, Assistant Director; Greg Campbell, Wayne Ekblad, Jessica Gerrard-Gough, Maura K. Hardy, Dawn Hoff, J. Kristopher Keener, Angie Nichols-Friedman, Scott Purdy, Ralph Roffo, Sylvia Schatz, April Thompson, and Tatiana Winger.

Appendix I: Deepwater

In 2005, the Coast Guard revised its Deepwater acquisition program baseline to reflect updated cost, schedule, and performance measures. The revised baseline accounted for, among other things, new requirements imposed by the events of September 11. The initially envisioned designs for some assets, such as the Offshore Patrol Cutter and Vertical Unmanned Aerial Vehicle, are being rethought. Other assets, such as the National Security Cutter and Maritime Patrol Aircraft, are in production.

Table 2 shows the 2005 baseline and current status of selected Deepwater assets.

Table 2: Progress of Selected Deepwater Assets

Deepwater asset	2005 baseline	Current status
<p>Fast Response Cutter</p> 	<ul style="list-style-type: none"> • 58 ships • new design with composite hull • cost \$3.2 billion or \$55.6 million per ship • first asset delivers in 2007 	<ul style="list-style-type: none"> • original procurement halted because of design concerns • new competition for up to 34 ships based on a commercially available design • Coast Guard intends to acquire 12 ships by 2012 for a cost of \$593.0 million, or \$49.4 million per ship • first asset delivers in 2010
<p>National Security Cutter</p> 	<ul style="list-style-type: none"> • 8 ships • cost of \$2.9 billion or \$359.4 million per ship • first asset delivers in 2007 	<ul style="list-style-type: none"> • 8 ships • problems in design and construction will delay first asset delivery to 2008 • cost has increased to \$3.5 billion or \$431.3 million per ship
<p>Offshore Patrol Cutter</p> 	<ul style="list-style-type: none"> • 25 ships • cost of \$7.1 billion or \$282.2 million per ship • first asset delivers in 2010 	<ul style="list-style-type: none"> • re-competing asset with new design will delay first asset delivery until fiscal year 2015 • 25 ships • cost is uncertain because of new design; however, 2007 expenditure plan shows cost increase to \$8.1 billion or \$323.9 million per ship
<p>HH-65 Multi-Mission Cutter Helicopter</p> 	<ul style="list-style-type: none"> • upgrade of 95 helicopters • cost of \$575.0 million or \$6.1 million per helicopter • first asset delivers in 2012 	<ul style="list-style-type: none"> • upgrade of 102 helicopters in three phases • total cost of \$741.0 million or \$7.3 million per helicopter • first asset of third and final phase delivers in 2008
<p>Maritime Patrol Aircraft</p> 	<ul style="list-style-type: none"> • 36 aircraft • cost of \$1.6 billion or \$44.2 million per aircraft • first asset delivers in 2008 	<ul style="list-style-type: none"> • 36 aircraft • cost of \$1.7 billion or \$47.4 million per aircraft • first asset delivers in 2008
<p>Vertical Unmanned Aerial Vehicle</p> 	<ul style="list-style-type: none"> • 45 aircraft • cost of \$503.3 million or \$11.2 million per aircraft • first asset delivers in 2007 	<ul style="list-style-type: none"> • Coast Guard has deferred acquisition of this asset because of challenges in technology maturation • the fiscal year 2009 budget requests funding for continued analysis but the acquisition plan has not yet been determined
<p>C4ISR</p> 	<ul style="list-style-type: none"> • cost \$1.9 billion • includes upgrades to cutters and shore installations, as well as development of a common operating picture 	<ul style="list-style-type: none"> • cost \$1.4 billion • capability will be introduced in four increments beginning in 2007 and completing in fiscal year 2014

Source: GAO analysis of Coast Guard documents.

Appendix II: GAO Products Related to the Deepwater Program

Coast Guard: Status of Efforts to Improve Deepwater Program Management and Address Operational Challenges. [GAO-07-575T](#) (Washington, D.C.: Mar. 8, 2007).

Coast Guard: Preliminary Observations on Deepwater Program Assets and Management Challenges. [GAO-07-446T](#) (Washington, D.C.: February 15, 2007).

Coast Guard: Status of Deepwater Fast Response Cutter Design Efforts. [GAO-06-764](#) (Washington, D.C.: June 23, 2006).

Coast Guard: Changes to Deepwater Plan Appear Sound, and Program Management Has Improved, but Continued Monitoring is Warranted. [GAO-06-546](#) (Washington, D.C.: Apr. 28, 2006).

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.: Jul. 22, 2005).

Coast Guard: Preliminary Observations on the Condition of Deepwater Legacy Assets and Acquisition Management Challenges. [GAO-05-651T](#) (Washington, D.C.: Jun. 21, 2005).

Coast Guard: Deepwater Program Acquisition Schedule Update Needed. [GAO-04-695](#) (Washington, D.C.: Jun. 14, 2004).

Contract Management: Coast Guard's Deepwater Program Needs Increased Attention to Management and Contractor Oversight. [GAO-04-380](#) (Washington, D.C.: Mar. 9, 2004).

Coast Guard: Actions Needed to Mitigate Deepwater Project Risks. [GAO-01-659T](#) (Washington, D.C.: May 3, 2001).

This is a work of the U.S. government and is not subject to copyright protection in the United States. It may be reproduced and distributed in its entirety without further permission from GAO. However, because this work may contain copyrighted images or other material, permission from the copyright holder may be necessary if you wish to reproduce this material separately.

GAO's Mission

The Government Accountability Office, the audit, evaluation, and investigative arm of Congress, exists to support Congress in meeting its constitutional responsibilities and to help improve the performance and accountability of the federal government for the American people. GAO examines the use of public funds; evaluates federal programs and policies; and provides analyses, recommendations, and other assistance to help Congress make informed oversight, policy, and funding decisions. GAO's commitment to good government is reflected in its core values of accountability, integrity, and reliability.

Obtaining Copies of GAO Reports and Testimony

The fastest and easiest way to obtain copies of GAO documents at no cost is through GAO's Web site (www.gao.gov). Each weekday, GAO posts newly released reports, testimony, and correspondence on its Web site. To have GAO e-mail you a list of newly posted products every afternoon, go to www.gao.gov and select "E-mail Updates."

Order by Mail or Phone

The first copy of each printed report is free. Additional copies are \$2 each. A check or money order should be made out to the Superintendent of Documents. GAO also accepts VISA and Mastercard. Orders for 100 or more copies mailed to a single address are discounted 25 percent. Orders should be sent to:

U.S. Government Accountability Office
441 G Street NW, Room LM
Washington, DC 20548

To order by Phone: Voice: (202) 512-6000
TDD: (202) 512-2537
Fax: (202) 512-6061

To Report Fraud, Waste, and Abuse in Federal Programs

Contact:

Web site: www.gao.gov/fraudnet/fraudnet.htm

E-mail: fraudnet@gao.gov

Automated answering system: (800) 424-5454 or (202) 512-7470

Congressional Relations

Ralph Dawn, Managing Director, dawnr@gao.gov, (202) 512-4400
U.S. Government Accountability Office, 441 G Street NW, Room 7125
Washington, DC 20548

Public Affairs

Chuck Young, Managing Director, youngc1@gao.gov, (202) 512-4800
U.S. Government Accountability Office, 441 G Street NW, Room 7149
Washington, DC 20548