

GAO

Report to the Subcommittee on Oceans,  
Atmosphere, and Fisheries, Committee  
on Commerce, Science, and  
Transportation, U.S. Senate

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November 2002

# COAST GUARD

## Strategy Needed for Setting and Monitoring Levels of Effort for All Missions




**GAO**  
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**Highlights**

Highlights of [GAO-03-155](#), a report to Subcommittee on Oceans, Atmosphere, and Fisheries, Senate Committee on Commerce, Science, and Transportation

## Why GAO Did This Study

The September 11th attacks affected the scope of activities of many federal agencies, including the Coast Guard. Homeland security, a long-standing but relatively small part of the Coast Guard's duties, took center stage. Still, the Coast Guard remains responsible for many other missions, such as helping stem the flow of drugs and illegal migration, protecting important fishing grounds, and responding to marine pollution. GAO was asked to review the Coast Guard's current efforts and future plans for balancing resource levels among its many missions.

## What GAO Recommends

GAO recommends that the Coast Guard:

- Develop a longer-term strategy that outlines how the Coast Guard sees its resources being distributed across its various missions, and a time frame for achieving this desired balance.
- Develop and implement a useful reporting format that allows the Congress to understand and assess the progress in implementing this strategy.
- Reexamine recommendations from past studies of the agency's operations as a way to identify and improve operational efficiencies and help leverage resources.

The Coast Guard reviewed a draft of this report but did not take a formal position on GAO's recommendations.

[www.gao.gov/cgi-bin/getrpt?GAO-03-155](http://www.gao.gov/cgi-bin/getrpt?GAO-03-155).

To view the full report, including the scope and methodology, click on the link above. For more information, contact JayEtta Hecker at (202) 512-2834 or [heckerj@gao.gov](mailto:heckerj@gao.gov).

## COAST GUARD

# Strategy Needed for Setting and Monitoring Levels of Effort for All Missions

## What GAO Found

As the Coast Guard adjusts to its new post-September 11th environment, it will likely take several years to determine how best to balance carrying out nonsecurity missions alongside new security responsibilities. In recent months the Coast Guard has increased its level of effort in nonsecurity activities such as drug interdiction and fisheries patrols, but some of these activities remain below earlier levels. For example, patrol boats formerly used for drug interdiction are still being used for harbor security patrols. Substantial increases in nonsecurity activities are also unlikely in the near future, because the mission-related initiatives proposed in the fiscal year 2003 budget are directed primarily at security missions. Most notably, most of the proposed 1,330 new staff would replace reserve staff activated after September 11th.

The Coast Guard has not yet developed a strategy for showing, even in general terms, the levels of effort it plans for its various missions in future years. Understandably, the Coast Guard's attention has been focused on assimilating added security responsibilities. However, developing a more comprehensive strategy is now important, as a way to inform the Congress about the extent to which the Coast Guard's use of its resources—cutters, boats, aircraft, and personnel—will allow it to continue meeting its many responsibilities. Also important is designing a way to keep the Congress informed about its progress in achieving this balance. The Coast Guard has considerable data from which to develop progress reports, but this information is currently in disparate forms and documents.



Coast Guard patrol boats like this one, formerly used mainly in activities such as intercepting drugs or illegal immigrants, were still being used extensively for harbor security patrols in mid-2002.

Source: U.S. Coast Guard.

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United States General Accounting Office  
Washington, D.C. 20548

November 12, 2002

The Honorable John F. Kerry  
Chairman  
The Honorable Olympia J. Snowe  
Ranking Minority Member  
Subcommittee on Oceans, Atmosphere, and Fisheries  
Committee on Commerce, Science, and Transportation  
United States Senate

The aftermath of the September 11th terrorist attacks affected the scope of activities for many federal agencies. This is especially true of the United States Coast Guard. The attacks prompted the nation to evaluate its vulnerabilities to terrorism, and this evaluation has focused considerable attention on the nation's vast and sprawling network of ports and waterways. Ports and waterways are particularly vulnerable because they are both a potential target for a terrorist attack and an avenue for tools of destruction to make their way into the country. While homeland security has long been one of the Coast Guard's missions, the agency has spent the past decade focusing on other major national objectives, such as the nation's attempts to reduce the flow of drugs, monitor and protect important fishing grounds, and respond effectively to marine pollution.<sup>1</sup> September 11th drastically changed the nation's priorities, but it did so by adding to the Coast Guard's many responsibilities rather than by replacing responsibilities that were already in place.

The impact of these changes on the Coast Guard, and consideration of how to manage them, have been a matter of intense congressional attention. For example, proposals to move the Coast Guard from its current organizational home within the Department of Transportation (DOT) to a new Department of Homeland Security have generated questions about the Coast Guard's ability to meet its new security responsibilities while still dealing with its other more traditional roles. You asked us to examine how the Coast Guard's various missions have fared since September 11th. As agreed with your staff, we focused our work on the following four questions:

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<sup>1</sup>Throughout this report, we define "nonsecurity" missions as those that fall outside of the Coast Guard's defense readiness and homeland security responsibilities. These mission areas include law enforcement (including drug and illegal migrant interdiction), search and rescue, aids to navigation, marine environmental protection, marine safety, and ice operations.

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- What nonsecurity missions were most affected by the September 11th terrorist attacks, and what are the most recent levels of effort for these missions?
  - To what extent would proposed funding for new initiatives in the President's fiscal year 2003 budget request allow the Coast Guard to increase levels of effort for nonsecurity missions, while addressing increased security responsibilities?
  - Are there operational efficiencies that the Coast Guard can consider as a way to help accomplish all of its missions in 2003 and beyond?
  - What framework would help the Congress monitor levels of effort and results attained for all Coast Guard missions?

To answer these questions, we conducted such activities as reviewing Coast Guard documents and records and visiting Coast Guard installations to determine how activities were being affected. We conducted our work at Coast Guard headquarters and at five of the Coast Guard's nine districts. The districts we visited spanned three coasts—East, West, and Gulf. Our work, which was conducted from December 2001 through October 2002, was done in accordance with generally accepted governmental auditing standards. A detailed description of our scope and methodology appears in appendix I.

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## Results in Brief

The September 11th attacks primarily affected levels of effort in two nonsecurity missions: law enforcement (such as drug and migrant interdiction and fisheries enforcement) and marine safety (such as pollution-related exercises, inspections of certain types of vessels and facilities, and boating safety). For law enforcement activities, which are carried out extensively with multiple-mission resources such as cutters, patrol boats, aircraft, and small boats, the effect can be partly seen in shifting usage patterns for these resources. Coast Guard data show that the number of hours spent on law enforcement by cutters and patrol boats, aircraft, and smaller boats dropped from about 67,000 hours for the quarter ending June 30, 2001, to about 39,000 hours for the quarter ending December 31, 2001. By the quarter ending September 30, 2002, total hours spent for law enforcement by these resources had risen to about 62,500, near the pre-September 11th level. Such aggregate data provide a useful indication of overall effort, but they do not tell the entire story, particularly for individual Coast Guard locations. Our visits to Coast Guard sites turned

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up examples in which law enforcement activities remained below pre-September 11th levels. For example, in the Northeast, some patrol boats formerly used for fisheries patrols were conducting security patrols, and as a result, fisheries patrols were 40–50 percent lower than in previous years. The Coast Guard does not have data that provide a similar overview of how marine safety activities were affected, but our visits to individual sites identified instances in which the level of these activities was reduced after September 11th and remained reduced as of mid-2002. At local marine safety offices, for example, officials said they had reduced planning and outreach functions, pollution and planning exercises, and selected safety inspections of fishing and other vessels.

Proposed funding increases for new mission-related initiatives in the Coast Guard's fiscal year 2003 request submitted as part of the President's budget would likely not have a major effect on the level of effort for nonsecurity missions, according to Coast Guard officials. The administration's fiscal year 2003 budget request for the Coast Guard proposes \$213 million for new initiatives, \$188 million of which would be directed at security missions; the remaining \$25 million is for search and rescue initiatives and enhancements to the vessel traffic information system. The proposed security initiatives would add 1,330 new staff, many of whom would replace reserve personnel activated after September 11th, and acquire more than 80 small patrol boats for security patrols. The Coast Guard is still working out plans for using new staff, but Coast Guard field personnel said that because the positions are largely expected to be replacements for reservists who would return to civilian status, opportunities to increase security staffing levels and thereby free up other staff for nonsecurity missions would be limited. Moreover, the Coast Guard's preliminary allocation of cutter, patrol boat, and aircraft hours for fiscal year 2003 largely mirrors the allocation for fiscal year 2002—a further indication that the Coast Guard does not plan major changes in the level of effort for nonsecurity missions in the short term. The Coast Guard, which so far has been understandably focused on developing and implementing its expanded homeland security missions, has not yet devised a plan for how much of its resources will be devoted to security-related and nonsecurity-related missions in the long term.

A number of opportunities to improve operational efficiency are potentially available for helping the Coast Guard with the challenges it faces in accomplishing all its missions and tasks in 2003 and beyond. In the past, we and others have made recommendations for improving the Coast Guard's operational efficiency. Many of them—such as examining whether

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dockside monitoring by other federal or state agencies can substitute for part of the Coast Guard's at-sea boardings of commercial fishing vessels—still have relevance in the Coast Guard's new environment. In particular, opportunities may exist for enhanced partnering with federal, state, and local agencies, as well as private entities, helping all parties to leverage limited resources and achieve efficiencies. For example, the Coast Guard is successfully partnering with the State of California and the Ports of Los Angeles and Long Beach to operate the area's vessel traffic-monitoring system. Such partnering may be possible in other locations where the Coast Guard operates such systems. Although some mechanisms are in place to help ports share information about the various kinds of successful partnering projects, these mechanisms are not working effectively.

Although the Coast Guard generates considerable information about its mission activities, this information in its current form does not provide a framework the Congress and the Coast Guard can use to monitor the agency's levels of effort and results attained for security and nonsecurity missions. As part of the proposed legislation creating the Department of Homeland Security, the Congress is currently considering a requirement for periodic reports about the levels of effort being directed at nonsecurity missions. Our current review, along with past reviews of other agencies, indicates that a useful framework for monitoring these levels involves two main components. The first is a strategy that identifies, at least in general terms, the levels of effort the Coast Guard projects for its various missions in future years, along with a time frame for achieving these planned levels. This strategy is not yet in place, and as a result the Congress does not know what the Coast Guard believes the appropriate levels of effort should be to achieve these missions over the longer term in this new operating environment. The second component is having adequate information for assessing progress in achieving these levels of effort and the desired results. Several kinds of quantitative measures are needed: inputs (such as budget allocation by mission); outputs (such as the utilization of Coast Guard cutters, or the number of fisheries patrols that are conducted); and outcomes (such as the percentage of distress calls that result in a successful rescue). To help interpret these measures correctly, it is also important for the Coast Guard to provide explanations of changes in its strategy and other pertinent developments. For example, a reduction in expenditures might occur for different reasons, such as a reduced effort or discovery of a way to accomplish the same task with fewer resources.

We are recommending that the Coast Guard develop (1) a longer-term strategy that outlines how the Coast Guard sees its resources—cutters,

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boats, aircraft, and personnel—being distributed across its various missions, as well as a time frame for achieving this desired balance among missions; (2) a useful reporting format allowing the Congress to understand and assess the Coast Guard’s progress in implementing this strategy; and (3) a systematic approach for reviewing past recommendations for operational efficiencies and sharing information about successful partnering projects. The Coast Guard reviewed a draft of this report, but did not take a formal position on GAO’s recommendations.

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## Background

The Coast Guard, a Department of Transportation agency, is involved in seven main mission or program areas: (1) enforcement of maritime laws and treaties; (2) search and rescue; (3) aids to navigation; (4) marine environmental protection; (5) marine safety and security (including homeland security);<sup>2</sup> (6) defense readiness; and (7) ice operations. The Coast Guard has two major commands that are responsible for the overall mission performance in the Pacific and Atlantic areas. These commands are further organized into a total of nine districts, which in turn are organized into a number of groups, marine safety offices, and air stations. Groups provide more localized command and control of field units, such as small boat stations, and patrol boats. Marine safety offices are located at coastal ports and on inland waterways, and they are responsible for the overall safety and security of maritime activities and for environmental protection in their geographic areas. To accomplish these varying missions and responsibilities, the Coast Guard operates a variety of equipment (see table 1), including high- and medium-endurance cutters,<sup>3</sup> patrol boats, and aircraft.

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<sup>2</sup>Since the events of September 11th, the Coast Guard has created a separate program area, called Ports, Waterways, and Coastal Security, for homeland security activities.

<sup>3</sup>“Cutter” is defined as any Coast Guard vessel 65 feet in length or greater with adequate accommodations for the crew to live on board. Besides high- and medium-endurance cutters, this definition includes icebreakers, buoy tenders, and patrol boats. In addition, the Coast Guard operates a variety of types of smaller boats. All vessels under 65 feet in length are classified as boats and usually operate near shore or on inland waterways. Examples include motor lifeboats, rigid-hull inflatable boats, and utility boats.



**Table 1: Description of Selected Coast Guard Ships and Aircraft**

Type of asset	Number	Description
<b>Ships</b>		
378-foot high-endurance cutter	12	This is the largest multipurpose cutter in the fleet. It has a planned crew size of 167, a speed of 29 knots, and a cruising range of 14,000 nautical miles. The Coast Guard operates it for about 185 days a year, and it can support helicopter operations.
270-foot medium-endurance cutter	13	This cutter has a planned crew size of 100, a speed of 19.5 knots, and a cruising range of 10,250 nautical miles. The Coast Guard operates it for about 185 days a year, and it can support helicopter operations.
210-foot medium-endurance cutter	14	This cutter has a planned crew size of 75, a speed of 18 knots, and a cruising range of 6,100 nautical miles. The Coast Guard operates it for about 185 days a year, and it can support operations of short-range recovery helicopters.
110-foot patrol boat	49	This patrol boat has a planned crew size of 16, a speed of 29 knots, and a cruising range of 3,928 nautical miles. The Coast Guard operates most of these craft for about 1,800 hours a year.
87-foot patrol boats	50	This patrol boat has a planned crew size of 10, a speed of 29 knots, and a cruising range of 900 nautical miles. The Coast Guard operates most of these craft for about 1,800 hours a year.
<b>Total</b>	<b>141<sup>a</sup></b>	
<b>Aircraft</b>		
HC-130 long-range surveillance airplane	27	This is the largest aircraft in the Coast Guard's fleet. It has a planned crew size of seven, a speed of 290 knots, and an operating range of about 2,600 nautical miles. The Coast Guard operates most of these aircraft for about 800 hours every year.
HU-25 medium-range surveillance airplane	25	This is the fastest aircraft in the Coast Guard's fleet. It has a planned crew size of five, a speed of 410 knots, and an operating range of 2,045 nautical miles. The Coast Guard generally operates these aircraft for about 800 hours a year.
HH-60J medium-range recovery helicopter	42	This helicopter is capable of flying 300 miles off shore, remaining on scene for 45 minutes, hoisting six people on board, and returning to its point of origin. The Coast Guard operates most for about 700 hours a year. It has a planned crew size of four, a maximum speed of 160 knots, and a maximum range of 700 nautical miles.
HH-65 short-range recovery helicopter	95	This helicopter is capable of flying 150 miles off shore. It has a crew allowance of three, a maximum speed of 165 knots, a maximum range of 400 nautical miles, and a maximum endurance of 3.5 hours. The Coast Guard operates most for about 645 hours a year.
<b>Total</b>	<b>200<sup>b</sup></b>	

<sup>a</sup>Total does not include icebreakers or buoy tenders but does include a 213-foot medium-endurance cutter that was commissioned in 1944, a 230-foot medium-endurance cutter that was commissioned in 1942, and a 282-foot medium-endurance cutter that was commissioned in 1999, following 26 years in service with the U.S. Navy.

<sup>b</sup>Total does not include three support aircraft (VC-4, C-20, and C-37) and eight leased MH-68A helicopters used in support of the counter-drug mission.

Source: Developed by GAO from data supplied by the Coast Guard.

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A federal agency that is also part of the armed services, the Coast Guard has both military and civilian positions. At the end of fiscal year 2001, the agency had over 41,000 total full-time positions—about 36,100 military and about 5,700 civilians. The Coast Guard also has about 8,000 reservists who support the national military strategy and provide additional operational support and surge capacity during emergencies, such as natural disasters. Also, about 35,000 volunteer auxiliary personnel assist in a wide range of activities, ranging from search and rescue to boating safety education.

Added homeland security requirements pose a challenge to the Coast Guard as it works to balance all of its missions. While maritime homeland security is not necessarily a new mission, the Coast Guard's level of effort in this mission prior to September 11th had been minimal when compared with most of its other missions.<sup>4</sup> The events of September 11th caused the Coast Guard to direct efforts increasingly into this area, highlighted by the Coast Guard's establishing a new program area: Ports, Waterways, and Coastal Security. Additionally, legislation now under consideration by both houses of Congress would mandate that the Coast Guard take on even greater homeland security responsibilities.<sup>5</sup> For example, some of the additional responsibilities the Coast Guard would be required to perform if the legislation passes include conducting port vulnerability assessments, establishing local port security committees, assessing antiterrorism measures at foreign ports, conducting antiterrorism drills, and maintaining harbor patrols.

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<sup>4</sup>Prior to the fiscal year 2003 budget request, the Coast Guard included maritime security activities under its marine safety program area.

<sup>5</sup>Pending legislation (S.1214 and H.R. 3983) proposes a number of security measures for U.S. seaports. Major provisions of these bills would require heavy involvement by the Coast Guard in conducting vulnerability assessments at U.S. ports, reviewing port security plans, developing seaport security standards, making loan guarantees and authorizing grants for port security improvements, and evaluating security at foreign ports that are points of origin for ships calling on U.S. ports.

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## Expanded Security Activities Primarily Affected Law Enforcement and Marine Safety Missions

Taken together, the available data and additional information provided by Coast Guard field personnel about levels of effort indicate that activities in two nonsecurity missions—law enforcement and marine safety—were the most affected by the Coast Guard’s shift of resources to security functions after September 11th. For law enforcement, data show that the Coast Guard shifted the use of multiple-mission resources like cutters and patrol boats to security efforts immediately after September 11th. Specifically, the data show a sharp decline in the number of hours these resources spent in law enforcement after September 11th, followed by a return to more traditional levels, though the results vary by type of resource and continue to be affected when the Coast Guard must respond to heightened security levels. For marine safety, which is largely carried out without using these resources, there are no similar data for making comparisons in the levels of effort. However, during our visits at individual Coast Guard sites, we were provided many examples showing that as of mid-2002, expanded security responsibilities were still affecting levels of effort for both missions. Resource levels in two other nonsecurity missions—aids to navigation and search and rescue—were also temporarily affected by September 11th, but according to Coast Guard personnel, overall effects on mission performance from these changes were minimal.

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## Initial Effect of September 11th on Resource Deployment Was Substantial

For the Coast Guard, the events of September 11th produced a dramatic shift in resources used for certain missions. The Coast Guard responded quickly to the attacks with a number of significant steps to ensure that the nation’s ports remained open and operating. The Coast Guard relocated vessels, aircraft, and personnel—especially those associated with law enforcement—to enhance security activities. For example, nearly all cutters that were conducting offshore patrols for drug, immigration, and fisheries law enforcement were recalled and repositioned at entrances to such ports as Boston, Los Angeles, Miami, New York, and San Francisco. Smaller patrol boats and motor lifeboats, which had been used for search and rescue, fisheries patrols, and other nonsecurity functions, were used to conduct security patrols within port facilities, becoming the port’s “cop on the beat,” according to Coast Guard officials.

This change can be seen in the mission hours logged by multiple-mission resources. The Coast Guard does not have an agencywide measure, such as a mission-by-mission breakdown of how all employees spend their time, that would provide a comprehensive picture of how nonsecurity missions were affected throughout the entire organization. The best quantitative

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picture of how missions were affected can be obtained from data about how the Coast Guard's multi-mission resources, such as cutters, boats, and aircraft, were used before and after September 11th. These resources are used in a variety of nonsecurity missions, and they figured heavily in the Coast Guard's homeland security response.<sup>6</sup>

The resource-hour data show a large rise in homeland security activity and a drop in several other missions, especially law enforcement. Overall, the data for all types of resources (cutters and patrol boats, other boats, and aircraft) showed that homeland security activities accounted for 2 percent of total hours during the quarter prior to September 11th (April–June 2001). For the quarter in which September 11th occurred (July–September), the figure for homeland security rose to nearly 16 percent, and in the subsequent quarter it more than doubled, to 37 percent. Law enforcement was the nonsecurity mission most affected as a consequence of this rapid rise in homeland security activities, according to Coast Guard personnel. Law enforcement accounted for 28 percent of all mission hours from April through June 2001, 26 percent from July through September, and 15 percent from October through December. Total law enforcement resource hours for the various types of resources declined from about 67,000 from April through June 2001 to about 39,000 from October through December. Here are resource-by-resource breakdowns:

- For Coast Guard high- and medium-endurance cutters, the months immediately before and after September 11th showed a dramatic shift toward security-related activities and away from law enforcement. Typically, 73 to 88 percent of these cutters' resource hours have been spent on law enforcement activities, compared with less than 3 percent on homeland security. In the second quarter of fiscal year 2001 (January–March 2001), for example, they logged about 25,700 resource hours in law enforcement activities, compared with less than 1,000 hours in security-related activities and about 4,600 hours in all other missions, including such activities as search and rescue and marine

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<sup>6</sup>The Coast Guard maintains information, on a mission-by-mission basis, about how these resources were used. Each hour that these resources are used in a mission is called a "resource hour." These resource hours are logged into employment categories that fall under such missions as search and rescue, aids to navigation, defense readiness, enforcement of laws and treaties, ice operations, marine environmental protection, ports and waterways security, and marine safety. Resource hours do not include such things as the time that the resource stands idle or the time that is spent in maintaining it. Coast Guard officials told us they estimate that the resource hours we use here would represent the employment in which approximately 77 percent of Coast Guard personnel spend their time.

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environmental protection. In the quarter immediately after September 11th (October–December 2001), law enforcement activities dropped to about 13,400 hours, or about 47 percent of their total resources hours; efforts devoted to security-related activities increased to more than 11,000 hours, and other missions were at about 3,800 hours.

- For the Coast Guard’s 82-, 87-, and 110-foot patrol boats, the shift was even greater. Prior to September 11th, these boats were used mainly for law enforcement and search and rescue activities in offshore waters, with law enforcement activities generally accounting for 68 percent or more of their resource hours and homeland security missions for less than 5 percent. In the quarter immediately after September 11th (October–December 2001), security-related hours increased to the point that they greatly exceeded the number of hours spent on law enforcement activities (about 20,500 hours for security versus about 12,000 hours for law enforcement).<sup>7</sup>

These and other changes put a strain on some resources. Local commanders reported that to meet new security requirements while still being able to meet other essential missions, such as search and rescue activities, they have had to operate small boats at 20 to 50 percent above normal levels. They reported that hours for patrol boats also increased, and that some personnel were working 60 to 100 hours a week.<sup>8</sup>

Although Coast Guard officials indicated that marine safety activities were also heavily affected by the need to shift personnel to security activities, the Coast Guard does not have data capturing the extent of this shift. To a much greater extent than for law enforcement, marine safety activities are carried out in ways other than using multiple-mission resources. For example, personnel at marine safety offices are extensively involved in conducting inspections of ships in port, examining facilities, and carrying out a variety of other shoreside activities. The Coast Guard’s current information systems do not capture the time devoted to these activities. Officials at Coast Guard districts and local offices told us that they had to curtail marine safety activities related to recreational boating safety, fishing

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<sup>7</sup>Small boats and aircraft resource hours also saw a shift away from law enforcement missions and toward homeland security.

<sup>8</sup>Coast Guard officials said that there were no significant increases in the resource hours for helicopters and fixed wing aircraft because of maintenance requirements and orders to stay within budget.

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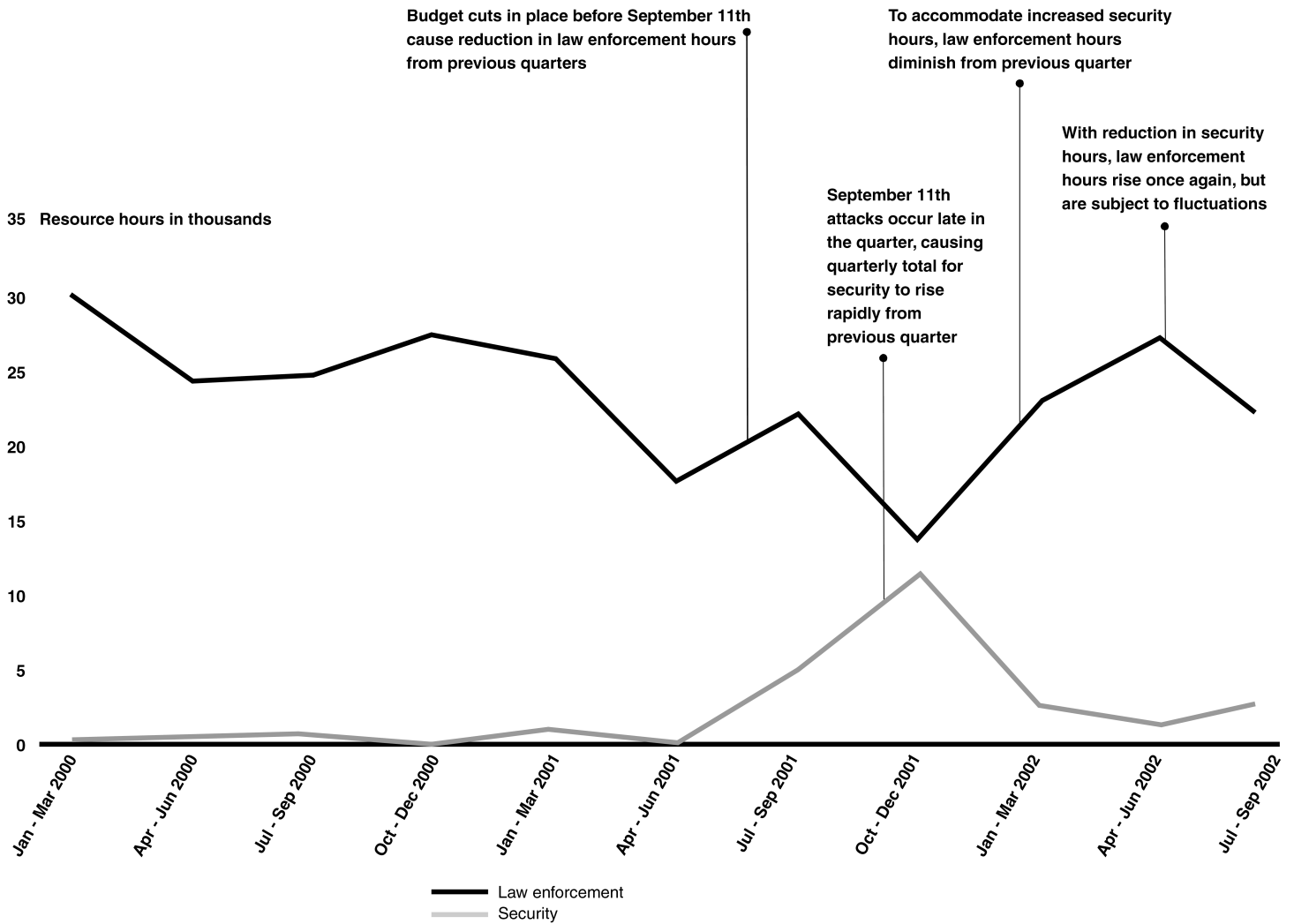
boat safety, pollution drills, and other activities. However, since these activities are not captured in terms of the level of resources expended on them, we were unable to quantify the overall extent to which these reductions occurred or the impact they had.

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### Nonsecurity Activities Have Increased, but Missions Are Still Affected

Since the initial response immediately following September 11th, levels of effort for nonsecurity missions in general—and for law enforcement in particular—have risen. During the first 6 months of 2002, the level of resource hours provided for law enforcement activities rose to the point that by July–September 2002, total resource hours were above 62,000—or within about 5,000 of the level of April–June 2001. The degree to which this occurred varied from resource to resource. For medium- and high-endurance cutters, for example, the amount of time spent on security-related activities dropped substantially in the January–March 2002 and April–June 2002 quarters, while the amount of time spent on law enforcement activities began to approach levels that existed in January–March 2001, and before. (See fig. 1.) During the April–June 2002 quarter, high- and medium-endurance cutters logged over 27,000 hours for law enforcement missions, compared with about 1,100 hours for security missions. This is in marked contrast to the quarter immediately following September 11th, when hours for the two types of missions were about the same. However, security hours rose sharply again in the July–September 2002 quarter. According to Coast Guard officials, this increase came in response to the Office of Homeland Security’s raising the national threat level from “elevated” to “high” risk. During this period, which lasted from September 10 until September 24, the Coast Guard reassigned its resources to respond to the increased threat condition. Such shifts show that even relatively short periods of increased security activity can affect other missions.

**Figure 1: Distribution of Resource Hours Spent Aboard High- and Medium-Endurance Cutters before and after September 11th**



Source: Developed by GAO from data in the Coast Guard *Abstract of Operations*.

The pattern was similar, but not as pronounced, for 82-, 87-, and 110-foot patrol boats. (See fig 2.) Compared with hours for high- and medium-endurance cutters, patrol boat hours continue to show a more

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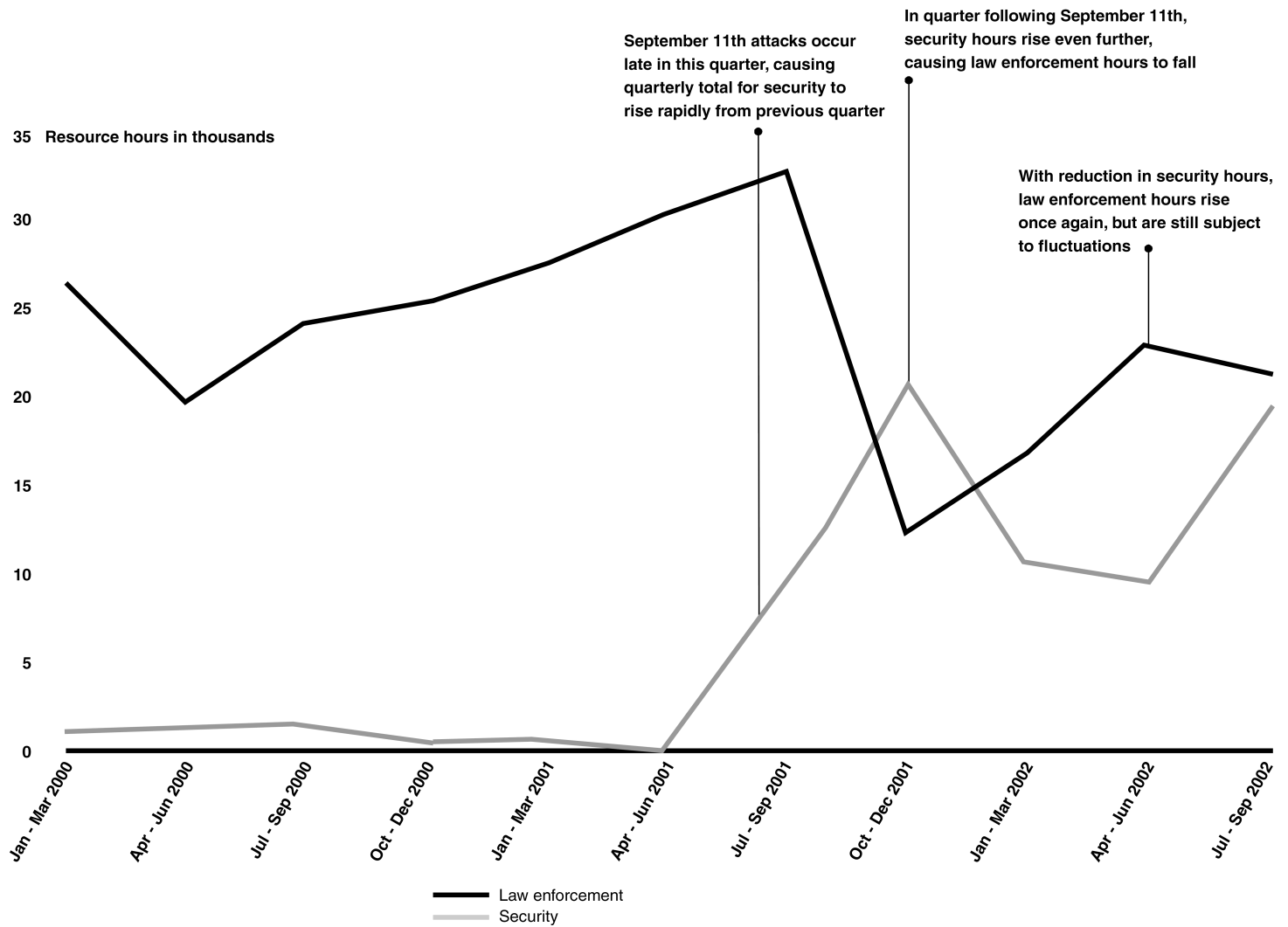
lasting effect for expanded security requirements.<sup>9</sup> Immediately after September 11th, hours logged by these boats on security activities outstripped law enforcement hours. By the April–June 2002 quarter, the number of hours devoted to law enforcement activities had once again increased so that it was more than twice the number spent on security activities. However, for the July–September 2002 quarter, patrol boat hours for security purposes nearly doubled in response to the heightened threat condition, and hours spent on other missions declined as a result.

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<sup>9</sup>Small boats saw shifts similar to patrol boats—that is, additional hours were spent on law enforcement in the most recent quarters—but the return to earlier levels was not as complete as it was for cutters.



**Figure 2: Distribution of Resource Hours Spent Aboard 82-, 87-, and 110-Foot Patrol Boats before and after September 11th**



Source: Developed by GAO from data in the Coast Guard *Abstract of Operations*.

Changes in resource hours provide a useful indicator of the overall level of effort for most missions, but these data alone do not tell the entire story. There are limitations in using the data, and these limitations make quarter-to-quarter comparisons difficult and potentially misleading. For example, as we pointed out earlier, the data do not include the activities of about one-fourth of the Coast Guard, particularly the personnel assigned to the

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Coast Guard's 43 marine safety offices spread throughout the country. Many of these personnel were and continue to be assigned to security functions, according to Coast Guard officials. In addition, the resource hour data do not reflect a working environment in which all fluctuations in hours over time can be readily attributed to the events of September 11th. For example, mission hours can be affected by seasonal fluctuations, such as the need for more fisheries patrols during the fishing season and the need for more buoy servicing because of weather damage, especially during hurricane season. Similarly, fluctuations can result from changes in budget levels, as they were in the months immediately preceding September 11th. During this period, in response to pending budget cuts, the Coast Guard pulled a number of cutters and aircraft out of service, some temporarily and others permanently. Finally, the Coast Guard's operating tempo increased sharply after September 11th, and the higher levels of resource activity, while feasible temporarily, may not be sustainable in the longer term because resources are being used far beyond their normal limits.

To determine whether the situation at specific locations was different from the trends shown in the overall data, we visited a number of Coast Guard facilities on the East, West, and Gulf coasts. Officials at individual Coast Guard districts and offices identified many examples of law enforcement and marine safety activities that, as of mid-2002, were still less than existed before September 11th. The type and extent of these examples varied from location to location, depending on the particular Coast Guard responsibilities in that location. For example, districts with large industrial ports receiving additional security attention after September 11th reported having to shift the most resources to security missions. The following are examples, from the five Coast Guard districts we visited, of how the districts said they were faring in returning resources to nonsecurity missions by June 2002:

- In the First District,<sup>10</sup> officials said that they reassigned patrol boats from security to nonsecurity missions because the number of security

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<sup>10</sup>The First District is headquartered in Boston and is responsible for Connecticut, Massachusetts, Maine, New Hampshire, Rhode Island, Vermont, and parts of New York and New Jersey.

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patrols<sup>11</sup> was reduced from 48 from October through December 2001 to 18 from April through June 2002. These reassignments allowed the district to increase such activities as fishing boat boardings, which had been reduced to 38 during the October–December 2001 period, compared with 300 in the same quarter the year before. Still, they said the capacity to conduct dockside safety inspections of commercial fishing boats had been cut in half from pre-September 11th levels. District officials also said that the increased hours of operation brought on by the security operations created \$400,000 in unforeseen maintenance expenditures.

- Fifth District<sup>12</sup> officials said that they once again use three 110-foot patrol boats for law enforcement patrols. However, because the district's 87-foot patrol boats are still involved with homeland security activities, they said that law enforcement operations conducted by patrol boats will likely remain about 40 to 50 percent lower than they were before September 11th. Officials said that this reduction in law enforcement operations would likely continue for several years. At one of the district's local marine safety offices we visited (Hampton Roads, Virginia), officials said that they eliminated or reduced activities in such areas as planning and outreach, pollution planning exercises, and selected safety inspections of foreign vessels.
- Eighth District<sup>13</sup> officials said that all missions have seen significant resource reductions except for homeland security, search and rescue, and aids to navigation. For example, during fiscal year 2002, the district boarded 1,020 U.S. fishing vessels, compared with 2,701 boardings for fiscal year 2001. At one of the local offices we visited (Houston/Galveston), officials reported that the requirement for providing cruise ship security had a major impact on personnel

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<sup>11</sup>The district defines security patrols as specific high-interest vessel security escorts or nonroutine security patrols.

<sup>12</sup>The Fifth District is headquartered in Portsmouth, Virginia, and is responsible for North Carolina, Virginia, the District of Columbia, Delaware, Maryland, and parts of New Jersey and Pennsylvania.

<sup>13</sup>The Eighth District is headquartered in New Orleans and is responsible for Colorado, Nebraska, Oklahoma, New Mexico, Texas, Kansas, Wyoming, Louisiana, Arkansas, North Dakota, South Dakota, Missouri, Mississippi, Iowa, Alabama, Kentucky, Tennessee, West Virginia, and parts of Minnesota, Wisconsin, Ohio, Illinois, Indiana, Pennsylvania, Georgia, and Florida.

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allocations. Local marine safety unit officials said that they currently assign at least six marine safety personnel for terminal security sweeps, sea marshal operations, and tugboat and bunker barge security monitoring; they also dedicate both an aircraft and patrol boats for cruise ship escort duty. They said that an expected increase in cruise ship activity would add to this workload.

- In the Eleventh District,<sup>14</sup> officials said that they were not sending a 110-foot patrol boat to southern California and northern Mexico to conduct counter-drug patrols. Prior to September 11th they had done so, but since the terrorist attacks this boat has remained within the district's area of responsibility to conduct security-related activities. Besides reductions in counter-drug patrols, district staff indicated that other missions were being affected by increased security requirements. For example, in San Francisco, officials said that they used patrol and small boats to conduct harbor patrols and enforce established security zones. The group commander said that since the terrorist attacks he has had to eliminate a number of nonsecurity missions for these boats, including fishing vessel–safety inspections and fisheries- and other living marine resources–enforcement operations.
- In the Thirteenth District,<sup>15</sup> officials said that they had resumed some ready cutter patrols,<sup>16</sup> which were suspended between September 2001 and April 2002. Nonetheless, the district is continuing to use one of its patrol boats for homeland security patrols on inshore waters and along the border. This precludes using this boat for its former duty in fisheries enforcement patrols, since these patrols are normally conducted on offshore waters.

These examples of local officials' difficulties in returning nonsecurity missions to earlier levels reflect a central issue that Coast Guard officials have pointed out: a number of their activities are dependent on cutters, patrol boats, and aircraft that are used to meet a variety of missions. If a

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<sup>14</sup>The Eleventh District is headquartered in Alameda, California, and is responsible for Arizona, California, Nevada, and Utah.

<sup>15</sup>The Thirteenth District is headquartered in Seattle and is responsible for Washington, Oregon, Idaho, and Montana.

<sup>16</sup>The district defines "ready cutter patrols" as having at least one patrol boat assigned to conducting full-time law enforcement operations.

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cutter or patrol boat is assigned to conduct security patrols because this mission is judged to be a higher priority, it is less available to perform other types of missions. Coast Guard officials said that multiple-mission resources may be involved in simultaneous missions, such as a cutter's engaging in both fisheries enforcement and marine environmental protection tasks while at sea. However, particularly when these resources are engaged in close-in security work, they said the resources are less available to multitask in this way or less effective in doing so.

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### Effects on Other Nonsecurity Missions Were Not as Great

While other nonsecurity missions besides law enforcement and marine safety were affected by the increased emphasis on homeland security, the available data and our discussions with Coast Guard officials indicate that by comparison, other missions were affected to a much lesser degree than law enforcement and marine safety. For example:

- Although search and rescue resources were used to perform homeland security functions, doing so did not materially affect the Coast Guard's ability to respond to search and rescue missions, according to Coast Guard officials. Although search and rescue boats were initially redeployed for harbor security patrols, they said that any potential impact of doing so was tempered by normal changes in workload in the season when the attacks occurred. Search and rescue hours normally tend to follow a cyclical pattern, with heavier demand in the April-through-September period, and lower demand in October through March. They said that because the attacks occurred at the beginning of the low-demand season, resources could be redeployed with little or no effect on the mission. Coast Guard officials also emphasized that search and rescue is a primary mission that will always receive priority. Operational data we reviewed showed that the drop in search and rescue hours after September 11th mirrored the normal annual cycle, and that since that time, the quarterly fluctuations have continued as they have done historically.
- For aids to navigation, the data showed a drop in cutter resource hours after September 11th, when, according to Coast Guard officials, some boats that normally operate as buoy tenders were used for security purposes instead. However, this drop was not as great as it had been for law enforcement and was relatively short-lived. By the April-June 2002 quarter, the number of cutter resource hours spent on aids to navigation had returned to traditional levels. Coast Guard officials said that

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resources for aids to navigation were among the first to be returned to their former missions.

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## Funding Increases Proposed in Fiscal Year 2003 Budget May Not Have a Major Effect on Nonsecurity Missions

Most of the proposed funding increase for new mission-related initiatives in the Coast Guard's fiscal year 2003 budget request is directed at security activities and, according to Coast Guard officials, would likely have a limited impact on nonsecurity missions. The \$213 million proposed for new operational initiatives would be directed primarily toward new, permanent, security-related personnel positions and new security patrol boats. The Coast Guard is still working out plans for how these additional personnel would be used and where they would be assigned, but, according to Coast Guard personnel in the units we visited, it is unlikely that the additional personnel would allow units to shift substantial resources to nonsecurity missions. Many of the proposed new positions would replace reservists activated on a temporary basis after September 11th. To the degree that the proposed positions would replace temporarily activated reservists, they would not result in a net addition of staff.

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## Proposed Spending for New Initiatives Is Focused on Expanded Security Role

The administration's fiscal year 2003 budget request for the Coast Guard includes a total of \$213 million for new mission-related initiatives.<sup>17</sup> Of this amount, \$188 million (88 percent) is proposed for security-related purposes, such as increased patrols and vessel boardings; the remaining \$25 million is for enhanced staffing of search and rescue operations, and for vessel traffic information system improvements. One of the main objectives of the security-related initiatives is to provide permanent staff following the Coast Guard's initial staffing buildup after September 11th, which was accomplished largely by temporarily activating reservists. While there is variation among the districts, many of the proposed positions would be permanent slots that would replace the positions filled by

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<sup>17</sup>In addition to requesting \$213 million for new mission-related initiatives, the Coast Guard is also requesting the following other increases: \$172 million for pay increases and military personnel entitlements; \$123 million in various technical adjustments; \$49 million in other expenditures, such as reserve training; and \$14 million for capital expenditures. The budget request also includes \$1.2 billion in retirement-related costs for current and future retirees, according to Coast Guard officials. These retirement-related costs were included in response to proposed legislation (Managerial Flexibility Act of 2001 [S.1612]) directing agencies to fully fund the future pension and health benefits of their current workforces. Although this legislation has not been enacted, the Coast Guard complied with the administration's requirement to include these costs in its fiscal year 2003 budget request.

reservists. In all, the Coast Guard plans to hire almost 2,200 new personnel by the end of fiscal year 2003. Of these positions, 870 were authorized in the supplemental appropriation approved for fiscal year 2002, and 1,330 are proposed in the fiscal year 2003 budget request. The Coast Guard expects nearly 90 percent of these 2,200 new positions to be assigned to security-related functions. (See table 2.) Coast Guard officials expect that at least 80 percent of the personnel will be assigned to field units (area commands, districts, marine safety offices, marine safety units, air stations, or small boat stations).

**Table 2: Allocation of Proposed New Personnel by Program Area, Fiscal Year 2003 Budget Request**

<b>Program area</b>	<b>Number of additional personnel</b>
<b>Security mission</b>	
Maritime domain awareness	316
High-interest vessel control	268
Presence and response capabilities	1,062
Critical infrastructure and force protection	85
Domestic and international outreach	190
Homeland Security Liaison Billets	43
<b>Total for security mission</b>	<b>1,964</b>
<b>Nonsecurity missions</b>	
Commissioning and operation of three seagoing buoy tenders	165
Maritime search and rescue/Personnel safety	193
47-foot motor life boat follow-on	36
Commissioning and operation of three coastal patrol boats	35
Decommissioning of three seagoing buoy tenders	-195
<b>Total for nonsecurity missions</b>	<b>234</b>
<b>Grand total</b>	<b>2,198</b>

Source: Developed by GAO from Coast Guard data.

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In addition to the increased numbers of permanent positions, the Coast Guard plans to buy 80 homeland security response boats and 4 87-foot coastal patrol boats.<sup>18</sup> While both types of boats are multi-mission capable, officials stated that these new boats are intended mainly for use in homeland security missions.

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### Ability to Shift Resources to Nonsecurity Missions May Be Limited

The additional personnel and assets included in the fiscal year 2003 budget request may allow field units to free up some resources for nonsecurity missions, but for several reasons, the flexibility to do so appears limited. One reason is that many of the new positions would replace reservists activated at field locations since September 11th, thereby providing these units only the resources necessary to maintain operations at current levels. The Coast Guard can use reservists for up to 2 years, but from a practical standpoint, the agency typically uses them in large numbers only for surge capability during emergencies. Moreover, having permanent personnel is more cost effective and provides long-term workforce stability, according to Coast Guard officials. Our interviews with district staff indicated that this would be the case to a greater degree in some locations than in others. Coast Guard staff in some districts told us that new personnel would largely replace currently activated reservists, and therefore would do little more than allow them to maintain the status quo. Some districts also reported that because of the large number of reservists called to active duty, there would not be enough new active duty personnel to replace reservists on a one-to-one basis. As a result, the new authorized personnel strength would not match the current personnel numbers at some locations, and the impact would actually be a reduction in resources allocated to lower-priority missions.

The second reason why the flexibility to shift additional resources to nonsecurity missions may be limited is that the Coast Guard plans to assign a number of the new positions to security units that would provide only limited replacement of any existing activity. Nearly 430 personnel, or 20 percent of all new personnel, are expected to be assigned to six maritime

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<sup>18</sup>These figures include boats funded through the fiscal year 2002 supplemental appropriations. The supplemental appropriations funded 42 of the 80 homeland security response boats, and all 4 of the coastal patrol boats.



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safety and security teams.<sup>19</sup> Currently, the Coast Guard has four such teams—in Seattle; San Pedro, California; Houston/Galveston, Texas; and Hampton Roads, Virginia—and there are plans for two additional teams in Jacksonville, Florida, and New York City. Our conversations with Coast Guard officials indicated that there are still many unresolved issues concerning how these teams will be used. District and headquarters officials believed that these teams help meet certain security requirements, but individual teams will have to learn how best to use these assets.

The third reason for limited flexibility is the time that will probably elapse before many of the people in these new positions could be in place or ready to make optimum contributions. Time lags normally occur from when a position is authorized to when a person is assigned to fill it. Both headquarters and district officials have reported that they do not expect some personnel to start filling headquarters and field positions for at least 6 months, or maybe even longer. In addition, once a number of these positions are filled, the effectiveness of the persons in them could be decreased by what some Coast Guard personnel refer to as “juniorocity”—that is, persons at a lower rank or pay grade (in the case of civilians) filling positions that call for higher-level candidates. Coast Guard officials said that this could potentially occur, and if it does, these people may need additional supervision from senior personnel.

The Coast Guard’s fiscal year 2003 allocation of cutter and patrol boat resource hours provides further indication that nonsecurity missions would not be greatly increased, because the resource hours allocation is relatively the same as it was for fiscal year 2002. The Coast Guard sets this allocation for all law enforcement program areas in its annual operational and maritime safety mission planning guidance. This guidance shows that for fiscal year 2003, the overall number of cutter hours for those activities is to rise by about 5,700, a 2 percent increase from the previous year, with each of the law enforcement areas seeing small changes from the prior year. The planning guidance data support the conclusion that even with new security boats funded in the fiscal year 2003 budget request, the Coast Guard would not be able to redeploy cutters to nonsecurity missions. According to the guidance, continued shifting of small boats and 87-foot

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<sup>19</sup>The maritime safety and security teams are each composed of 71 personnel. They are under the administrative and operational control of the area commanders, but the tactical control of the local unit.

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patrol boats to port security activities will leave gaps in inshore fisheries enforcement.

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## Opportunities for Increased Operational Efficiency Could Help Meet Mission Responsibilities

A number of opportunities for improving operational efficiency are potentially available to help the Coast Guard accomplish its various missions. In recent years, we and others have studied Coast Guard operations and made recommendations for more efficient operations, and a number of these recommendations have merit in this new operating environment. In addition, the Coast Guard has attempted, through local port organizations, to develop ways to partner more effectively with local, state, and federal agencies, as well as with public and private entities. Individual ports have made notable—but isolated—accomplishments in this regard. Although some mechanisms are in place to help ports share information about these projects, these mechanisms are not working effectively.

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## Previous Recommendations for Improving Operations Still Have Merit

Over the past decade, we and other outside organizations, along with the Coast Guard itself, have studied Coast Guard operations to determine where greater efficiencies might be found. We consolidated many of these recommendations to improve Coast Guard operations in reports issued in 1997 and 1999.<sup>20</sup> As part of previous initiatives aimed at operating more efficiently, the Coast Guard has used many such recommendations, undertaking such steps as reducing administrative staff, consolidating offices, and streamlining operations. However, a number of past recommendations that were not adopted still have relevance. For example:

- Dockside fisheries enforcement by the National Marine Fisheries Service. Past studies found that the Coast Guard had opportunity to replace some of its at-sea boardings for domestic fishing vessels with dockside enforcement by the National Marine Fisheries Service (an agency of the National Oceanic and Atmospheric Administration) and by state agencies. Whether this same opportunity still exists in the current environment is unknown, but it represents a possible way to leverage resources and minimize any overlap that may be occurring. A

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<sup>20</sup>*Coast Guard: Challenges for Addressing Budget Constraints* (GAO/RCED-97-110, May 14, 1997) and *Coast Guard: Review of Administrative and Support Functions* (GAO/RCED-99-62R, Mar. 10, 1999).

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closer look at potential efficiencies seems particularly warranted given the increasingly complex nature of the Coast Guard's work in fisheries enforcement. For example, fishing regulations in the New England fisheries have evolved to include 18 fisheries management plans involving more than 40 marine species.

- Privatizing vessel traffic service systems in more ports. Vessel traffic service systems, which are responsible for controlling harbor traffic operations in a number of the nation's ports, are operated predominantly by Coast Guard personnel. However, two systems—Delaware Bay and Los Angeles/Long Beach—are either privately operated or operated jointly with the Coast Guard, and past studies have recommended that the Coast Guard examine the possibility of privatizing at least some additional systems. At Los Angeles/Long Beach, for example, the system uses Coast Guard and Marine Exchange personnel to monitor traffic and provide mariners with information.<sup>21</sup> The state of California reimburses the Coast Guard's personnel costs, using fees paid by vessel owners using the system.

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## Leveraging Resources through Partnerships Provides Mission Efficiencies to the Coast Guard

One area that has come to the forefront since September 11th, given the expanded duties that the Coast Guard and other port stakeholders have assumed, is the agency's potential ability to partner with other port stakeholders to help accomplish the varied security and nonsecurity goals involved in port operations. These stakeholders include state and local agencies as well as private-sector interests. As we visited Coast Guard locations, we noted many examples in which cooperative arrangements had been used to accomplish these varied goals successfully. Table 3 provides examples of some of the partnerships we found.

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<sup>21</sup>The Marine Exchange of Los Angeles and Long Beach operates the vessel traffic information system serving these two ports.

**Table 3: Examples of Coast Guard Partnering in Individual Ports**

Port	Example of partnering
Boston	<p><u>Coast Watch</u>. This program acts in a neighborhood-watch fashion and allows fishermen and other port stakeholders to alert the Coast Guard to irregularities that might indicate security threats.</p> <p><u>Liquid Natural Gas (LNG) Escorts</u>. In developing its plan for escorting LNG ships, the Coast Guard cooperated with other agencies and entities to share the burden. As a result, state and local agencies in the Port of Boston assist in escorting LNG ships through the port, providing on-shore security, and coordinating bridge closures.</p> <p><u>Spill Response</u>. The Coast Guard has turned over responsibility for responding to minor oil spills to the state of Massachusetts.</p>
Hampton Roads	<p><u>Maritime Incident Response Team (MIRT)</u>. Local municipalities have created a firefighting cooperative to respond to marine fires. In the event of an incident, in addition to deploying as first responder, the team acts under the command and control of the captain of the port and liaises with affected municipalities. The MIRT trains by conducting field exercises with the Coast Guard. Through this program, the Coast Guard benefits from the presence of a marine firefighting resource, while the municipalities involved benefit from coordinated federal participation.</p>
Houston/Galveston	<p><u>Mobility Program</u>. The Coast Guard partnered with the Houston/Galveston Navigation Safety Advisory Committee on identifying mobility issues associated with both recreational and commercial users of the Houston Ship Channel, Galveston Bay, and connecting waters. As a result, the Coast Guard derived lists of local waterways needs and their relative importance to the users' outcomes.</p> <p><u>Ship Rider Information Exchange Program</u>. The Coast Guard entered into agreements that allow vessel inspectors to ride on many of the chemical and oil tank ships that frequent Houston, the nation's largest petro-chemical port. The inspectors get to see bridge resource management, cargo operations, tank cleaning evolutions, and engine room procedures first hand. The program exposes Coast Guard inspectors to the unique aspects of the tank industry, while allowing the ships' crew to develop insights into Coast Guard enforcement and U.S. and international legal requirements.</p>
Los Angeles/Long Beach	<p><u>Vessel Traffic Service</u>. In cooperation with the state of California and local interests, the Coast Guard jointly operates a VTS system. State law requires all vessels over a certain size to participate, and operating costs are paid from user fees on vessels using the system. Developed under Coast Guard guidance, the system operates under many of the same rules and procedures as Coast Guard VTS sites, provides the Coast Guard valuable assistance during its search and rescue efforts and law enforcement actions, and aids in the dissemination of captain of the port orders.</p>
Puget Sound	<p><u>Harbor Safety Plan</u>. Through the efforts of the Puget Sound Harbor Safety Committee, guidelines were developed to cover issues such as emergency response, lightering, and pilotage. By working through the harbor safety committee, the Coast Guard was able to achieve buy-in from those affected by the plan, thereby ensuring greater success. Guidance developed through this process has been incorporated into the charts that mariners use when navigating the waters of Puget Sound.</p> <p><u>Ballast Water</u>. The Puget Sound Harbor Safety Committee developed voluntary standards of care for exchanging ballast water that were eventually used as the basis for new state regulations.</p> <p><u>Standards of Care to Prevent Drifting Ships</u>. Through the work of the Puget Sound Harbor Safety Committee, a mechanical problem was identified that caused seven to eight groundings per year, on average. This cooperative effort resulted in a new standard of care that requires ship operators to complete a check of their propulsion systems upon checking in with the Vessel Traffic System. The change mitigates groundings that could result in spills or loss of life.</p>

Source: Developed by GAO.

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The Coast Guard has recognized possibilities for greater efficiencies through partnering and is beginning to implement better guidance and procedures in this area. In May 2002, the Commandant stated that the Coast Guard intended to build strategic partnerships to enhance its mission outcomes, bring clarity to mission planning and execution, and leverage the capabilities of Coast Guard forces. Likewise, the Coast Guard's strategic plan declares partnering to be a guiding principle for decisionmaking. To help local Coast Guard officials promote these efforts, headquarters has issued general guidance to aid in the development of harbor safety committees. Although there are other cooperative arrangements in ports, including area committees and port security committees, the Coast Guard has focused on harbor safety committees or their equivalents<sup>22</sup> because it believes that such committees, composed of facility operators and port users, are often the only local bodies available to meet and discuss mutual safety, mobility, and environmental protection issues.

Harbor safety committees, established largely on an ad hoc basis by the Coast Guard or other entities over the years, differ widely in their membership and structure. These differences, in part, reflect the differences that exist from port to port. The Coast Guard guidance is intended to increase harmonization between committees without imposing a mandated structure for them. The guidance illustrates the attributes of particularly successful committees and focuses on overall organizational structure, committee membership, and areas for potential action. The guidance also points out that tools are available to assist committees in their work, particularly the Coast Guard's National Harbor Safety Committee Web site. Coast Guard officials told us that some recently formed committees were established using the guidance, and that some existing committees have made changes to come into closer alignment with the guidance.

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### Effectiveness of Some Partnerships Is Hampered by Limited Scope of Activity and Lack of Information Sharing

Although the Coast Guard recognizes the potential offered by partnering and has provided guidance toward this end, current efforts are limited by two main problems. The first is related to the variations between harbor safety committees: some are much narrower in scope and activity than others. The second is related to the lack of effective sharing of information among harbor safety committees.

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<sup>22</sup>The Coast Guard uses the term "Harbor Safety Committee" to refer to any port Marine Transportation System (MTS) coordinating body or committee in its guidance on the topic.

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The makeup of harbor safety committees, which varies somewhat from port to port, can sometimes affect their ability to tackle new projects. The actions the Coast Guard can undertake often reflect the extent of the individual committee's interests. Some committees have broad representation among various stakeholder groups. For example, the committee in Puget Sound has included a broad mix of shipping industry groups, labor organizations, port representatives, environmental agencies, and state representatives. Consensus efforts of this committee resulted in new state regulations about the dumping of ballast water, for example. By contrast, in Philadelphia, when the Coast Guard attempted to carry out a safety assessment with the cooperation of the local harbor safety committee, the stakeholders perceived the assessment effort as threatening the competitiveness of the port and decided not to cooperate. Coast Guard officials attributed this lack of interest to the makeup of the committee, which did not have representation beyond industry representatives.

More effective information-sharing is another way the Coast Guard could better leverage its resources. There currently is no effective way for stakeholder groups in the more than 100 locations where such committees exist to share information with each other about successful projects or about best practices that contribute to these successes. Our discussions with Coast Guard and port officials indicated that information between committees tends to be exchanged sporadically, by word of mouth or happenstance. There currently is no national harbor safety association or other umbrella group that can share information, although a few committees have recently expressed interest in forming an association. Likewise, no formal process exists for sharing best practices and information within the Coast Guard. Numerous Coast Guard personnel noted that personal relationships and the rotation of personnel currently are the best tools available for information-sharing about the operation of other ports.

In the absence of a mechanism or process for effectively sharing information, communication within the Coast Guard and among its partners could be facilitated by greater use of the Coast Guard's National Harbor Safety Committee Web site, which is currently underutilized. When we checked in September 2002, it had just five examples of best practices—three from Puget Sound, one from the National Oceanic and Atmospheric Administration, and one from the Coast Guard. By contrast, during our field visits we were told about examples of good partnerships in each of the ports we visited.

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## Framework for Monitoring Levels of Effort and Results Has Two Main Components

The Congress has expressed great interest in monitoring the Coast Guard's mission resource levels, especially for nonsecurity missions. In particular, legislation currently under consideration for establishing a Department of Homeland Security includes a requirement for the Coast Guard to report regularly on the status of its nonsecurity missions. We think our experience in reviewing such information may be helpful in establishing a meaningful framework for keeping the Congress informed. In this instance, such a framework would involve two main components. The first component is a strategy that identifies, at least in general terms, the planned levels of effort for these various missions in future years and a time frame for achieving these planned levels. The second component is adequate information for assessing progress. This information has to capture not only how much the Coast Guard is spending on these missions but also what these expenditures produce, both in the level of service provided and the results achieved. Much of the necessary information may already exist, but not in a report that specifically responds to the Congress's interest in nonsecurity missions.

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### First Component: Establishing Planned Resource Levels and a Time Frame for Achieving These Levels

In the Coast Guard's substantial transformation following September 11th, it is understandable that the agency's primary planning focus has been on incorporating its expanded security mission. The agency has not yet developed a plan for how it intends to balance these various missions over the longer term. For its multiple-mission resources such as cutters and aircraft, the Coast Guard has established fiscal year 2003 resource levels for its various missions, but there is no indication that these levels represent planned levels for future years.

Specifying the proposed resource levels for these missions, as well as establishing a strategy for achieving them, is an important first step in the Coast Guard's communication with the Congress and other decisionmakers about what it intends to accomplish with its additional resources. This information is critical; without it, neither the Coast Guard nor the Congress knows what level of activities and services are to be expected. Operating without such knowledge for an extended period of time places decisionmakers in the position of being asked to decide on funding levels without knowing what this funding is likely to produce.

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**Second Component:  
Adequate Information for  
Assessing Progress**

Once resource levels are set, it is important to be able to assess progress in achieving those levels. An effective reporting mechanism needs a variety of measures and a way to set these measures in context. Although the Coast Guard may already be collecting this information, it currently does not exist in a useful format.

**Measures That Address Both  
Efforts and Accomplishments**

Program measures are most useful when, taken together, they can provide a picture of both the resources being applied to a mission (inputs) and the results of applying these resources (outputs and outcomes). Input measures include such things as the amount of money spent on a mission or the number of persons assigned to the mission. (See table 4 for other examples.) Output measures, such as the number of patrols or inspections conducted, describe what is being provided with these resources. Outcome measures go further than output measures, in that they address the extent to which program goals are accomplished. Together, these different measures allow decisionmakers to answer questions about how many resources are being applied, how the application of these resources translates into specific activities, and what these activities are producing.<sup>23</sup>

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<sup>23</sup>In addition to these three types of measures, there is a fourth main type—one that relates efforts to accomplishments. Efficiency measures, which provide information about the cost of providing a certain level of service, are the most common form of effort measure. We have omitted this category of measurement here because the category, while important, is not as central as the other three for answering questions about returning to previous levels of effort and program results.



**Table 4: Types of Measures for Monitoring Agency Missions and Activities**

Type (or subtype) of measure	Explanation
<b>Measures of effort: inputs</b>	
Financial information	These measures are based on information about expenditures. This can include items such as salaries, employee benefits, materials, supplies, and equipment.
Nonfinancial information	These measures focus on the number of personnel used in a specific mission or activity. Using nonfinancial information in effect removes wage, benefit, and cost-of-living differences from resource inputs, making it easier to compare levels of effort over time.
Other information	These measures could include such things as the amount of equipment or assets assigned to a specific mission or activity.
<b>Measures of accomplishment: outputs and outcomes</b>	
Outputs	These measures focus on the quantity of a service provided to address a specific mission or activity, such as the number of inspections conducted.
Outcomes	These measures are used to determine whether the service provided results in an actual accomplishment besides the activity itself. These measures are useful in setting goals, targets, and standards.

Source: Developed by GAO based on information from the Governmental Accounting Standards Board.

Having all three types of measures is important, because exclusive dependence on any one type has built-in limitations. For example, a rising level of expenditures (an input measure) does not necessarily equate to higher levels of effort (outputs). Instead, it may be a reflection only of rising personnel costs or increased capital expenditures. Similarly, although a rising level of outputs (such as increased numbers of patrols) may appear desirable, they tell only a limited story on their own. Increased outputs may simply represent inefficiencies—more effort is expended, but with little or no increase in the desired outcome. Including outcome measures is particularly important because they provide a “so what” tool to help assess whether the level of effort is justified and whether it needs to be modified in some way.

The Coast Guard currently has a variety of all three types of measures. (See table 5 for examples.) Many of these measures are already reported in some context or another. In particular, the Coast Guard currently collects and reports a variety of outcome data to comply with the Government Performance and Results Act (GPRA). Under GPRA, DOT is required to establish annual performance plans that contain annual goals and measures to assess progress in reaching these goals, which are linked to their long-term strategic goals. The Coast Guard’s current performance plan also contains some discussion of how security-related priorities are

affecting performance targets for other missions in fiscal years 2002 and 2003. The plan notes five areas that have been negatively impacted by increased security requirements—drug interdiction, foreign fishing vessel interdiction, fisheries protection, military readiness, and support for military operations. For example, the Coast Guard does not expect to reach its fiscal year 2002 cocaine seizure rate goal, because drug interdiction resources have been diverted to port security missions.

**Table 5: Examples of Measures Currently Developed by the Coast Guard**

Type of measure	Example
Input	Dollar expenditures by mission, both planned and actual
	Authorized strength levels for specific units or offices
	Number of vessels or aircraft assigned to specific program areas or missions
Output	Number of hours that assets such as cutters, patrol boats, and aircraft were spent on each mission
	Number of fisheries patrols conducted
	Number of vessel-safety and -security inspections conducted
Outcome	Percentage of mariners in distress who were saved
	Number of foreign fishing vessel incursions detected
	Percentage of time that navigation aids were fully operational

Source: Compiled by GAO from Coast Guard reports and information systems.

**Additional Information Providing Context for Measurement Data**

To give context to these various types of measures, it may be necessary to report other explanatory information. Such information might be needed to explain changes in the way an agency is doing business, or special circumstances that had an impact on the agency’s goals or missions. This information is of two main types:

- External factors, such as environmental or demographic characteristics, that are outside of an organization’s control. Declines in fish stocks, for example, can be affected by many things beyond the management of the fishery, such as climate or actions by other nations.
- Internal factors, such as staffing patterns, patrol routes, or any other significant developments that the agency has control over. Such information is important because data from the measures themselves—particularly input and output measures—may, in isolation, tell only part of the story. For example, the Coast Guard’s marine safety office in New Orleans recently curtailed some of its safety-related foreign flag–vessel

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inspections because of reduced staff levels. Any measure related to the number of inspections made by Coast Guard personnel would thus likely show a decline and lead to a conclusion that the Coast Guard had significantly curtailed its safety oversight. However, the Coast Guard decided in this instance to rely on Coast Guard-approved maritime classification societies for these safety inspections. This additional information would be needed to put the data in proper context.

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### No Current Report Usefully Provides This Information

Although much potentially useful information exists for explaining and analyzing the Coast Guard's levels of effort in nonsecurity missions, no current report assimilates this information and sets it in the context of organizational or program developments related to accomplishing nonsecurity missions. The Coast Guard's annual performance plan, while acknowledging in several places that nonsecurity performance targets are likely to be negatively affected by ongoing security efforts, has a relatively limited amount of data, is not intended as a report on increasing resource levels for nonsecurity missions, and does not have the level of detail that may be desired on this issue.

Assembling a meaningful report calls for a mix of input, output, and outcome measures and a complementary explanation of what difficulties the Coast Guard is facing, what externalities have affected the outcome, and what plans the Coast Guard is making either to bring more resources to bear or to find ways to leverage resources or otherwise operate more efficiently. A meaningful report could potentially use many different measures. In concept, the best set of measures would be one that allowed both the Coast Guard and the Congress, to the degree possible, to link resources and activities with results—for example, linking the number and types of fisheries patrols with the recovery of fish stocks, or the level of drug enforcement patrols with the level of success in preventing drugs from entering the country.

It is important for the Coast Guard to work with the Congress in defining what information should be provided, because some information is readily available while other information is not. For example, under current information systems, it is much easier to determine, on a mission-by-mission basis, how personnel aboard ships and aircraft spend their time than it is to create a similar mission-by-mission picture of how time is spent

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in headquarters and program offices.<sup>24</sup> The value of developing additional measures that are not already in place needs to be weighed against the possible cost. We did not undertake a detailed evaluation of the Coast Guard's information systems to determine the full range of information these systems might be able to supply. It may be that, if the Congress decides that certain additional measures are important for reporting purposes, Coast Guard information specialists can assemble the data with relative ease. However, if the systems do not already collect the information, considerable work may be needed, and there may be little historical information to provide a benchmark for current data.

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## Conclusions

The Coast Guard's adjustment to its new post-September 11th environment is still largely in process. Sorting out how traditional missions will be fully carried out alongside new security responsibilities will likely take several years. The Congress has expressed strong interest in monitoring the activity levels for these missions, particularly those nonsecurity missions that saw a reduction in activities after September 11th. The Coast Guard acknowledges that for the foreseeable future, absorbing new security activities will continue to affect activity levels for some of these other missions. After September 11th, the Coast Guard's attention understandably turned to assimilating added security responsibilities, and beyond its short-term plans for fiscal year 2003 it has not indicated the levels of effort its various missions are likely to receive. However, given the degree of congressional concern, it is important for the Coast Guard to develop a framework that will keep the Congress apprised of what is happening. It is also important for the Coast Guard to develop and share with the Congress a longer-term strategy that identifies, at least in general terms, the levels of effort the Coast Guard projects for its various missions, along with a time frame for achieving these planned levels. Because the Coast Guard must adjust to rapid changes in its multi-mission environment, these levels are likely to remain fluid and therefore in need of revision as necessary, but the direction they set is nonetheless important. Without this sense of direction, decisionmakers are less able to make

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<sup>24</sup>The Coast Guard collects and reports information about the number of hours that each resource, such as a cutter, a patrol boat, or a helicopter, is used for each type of mission. However, this asset-based information does not include mission-related time spent by other personnel. Coast Guard officials told us that new information systems currently under development are expected to provide a variety of information related to the tasks of these employees, such as the number of inspections performed or the number of boardings conducted.

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spending and other decisions with a clear understanding of how the Coast Guard intends to balance its missions.

It is also important for the Coast Guard to provide decisionmakers with information about progress in achieving the intended balance among missions. The Coast Guard currently collects and disseminates a wide variety of information about its nonsecurity missions and activities, but this information is in disparate forms and documents. To make such information more useful for the Congress, a better synthesis is needed. In short, existing information must be analyzed in the context of the Coast Guard's efforts to address all of its missions as effectively and efficiently as possible. In doing so, information regarding agreed-upon performance measures also needs to be developed and provided to congressional decisionmakers. The absence of such information limits their ability to assess current efforts and decide if changes should be made.

In meeting the challenges involved with its various missions, it is also important for the Coast Guard to carefully consider and implement, where appropriate, ways of operating more efficiently and effectively. Many past suggestions for more efficient operation still appear relevant. These would include looking for ways to share monitoring duties with other agencies, eliminating possible duplication of effort, and conducting joint operations or projects with state and local partners. The Coast Guard's recent efforts to expand partnerships with other maritime stakeholders at individual ports offer promising examples of greater leveraging of existing resources. However, the processes for sharing information between ports are limited, diminishing the potential for replicating a port's successes in other locations.

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## Recommendations

To provide the Congress with a useful framework for reviewing and monitoring Coast Guard activities, we recommend that the Secretary of Transportation direct the Commandant of the Coast Guard to:

- Develop a longer-term strategy that outlines how the Coast Guard sees its resources—cutters, boats, aircraft, and personnel—being distributed across its various missions, as well as a time frame for achieving this desired balance among missions.
- Work with the Congress to develop and implement a useful reporting format that provides a full range of input, output, and outcome

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measures, as well as a means to keep the Congress apprised of ongoing developments that have an effect on nonsecurity missions.

To improve operational efficiencies and help leverage resources, we also recommend that the Secretary of Transportation direct the Commandant to reexamine past recommendations for operational efficiencies and, in particular, to develop an effective way to systematically share information on successful partnership efforts.

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## Agency Comments and Our Evaluation

We provided a draft of this report to the Department of Transportation and the Coast Guard for their review and comment. Coast Guard officials provided a number of comments and clarifications, which we incorporated to ensure the accuracy of our report. The Coast Guard did not respond in writing to our recommendations, but, in oral comments, Coast Guard officials expressed a concern that our recommendation about developing a longer-term strategy would involve disclosing budgetary information well in advance of approval by DOT and Office of Management and Budget officials in the normal budget process. We have modified the wording of the recommendation to help clarify that it is meant to identify, in more general terms, how the Coast Guard envisions distributing its resources to meet its many missions.

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As agreed with your offices, unless you publicly announce the contents of this report earlier, we plan no further distribution until 7 days from the report date. At that time, we will send copies of the report to the Honorable Norman Y. Mineta, Secretary of Transportation, and Admiral Thomas H. Collins, Commandant of the Coast Guard. We also will make copies available to others upon request. In addition, the report will be available at no charge on the GAO Web site at <http://www.gao.gov>.

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If you have any questions about this report, please contact me at [heckerj@gao.gov](mailto:heckerj@gao.gov) or (202) 512-2834, or Randall Williamson at [willamsonr@gao.gov](mailto:willamsonr@gao.gov) or (206) 287-4860. GAO contacts and acknowledgments are listed in appendix II.

A handwritten signature in black ink that reads "JayEtta Z. Hecker". The signature is written in a cursive style with a long horizontal line extending to the right.

JayEtta Z. Hecker  
Director, Physical Infrastructure

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# Objectives, Scope, and Methodology

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To determine the extent to which the Coast Guard has restored its nonsecurity missions following the September 11th terrorist attacks, we reviewed the Coast Guard's *Abstract of Operations*. This data, reported by crews of cutters, boats, and aircraft, represents the hours that these resources spent in each of the Coast Guard's mission areas. We reviewed this data to identify how resources were utilized across missions both before and after September 11th. In addition, we also spoke with officials at Coast Guard Headquarters and at the Atlantic Area and Pacific Area commands in Portsmouth, Virginia, and Alameda, California, respectively, regarding restoration of nonsecurity missions. To obtain information on how the restoration varied around the country, we visited Coast Guard district offices and operational units in Alameda, Boston, New Orleans, Portsmouth, and Seattle, as well as personnel at operational commands under these district commands.

To assess the impact of the fiscal year 2003 budget request on nonsecurity operations, we reviewed the Coast Guard's fiscal year 2002 budget and supplemental appropriations, as well as their fiscal year 2003 budget request. In addition, we interviewed Coast Guard officials within the Coast Guard's Office of Programs, the Human Resource Directorate, Operations Directorate, and the Marine Safety Directorate to identify where budget increases would be spent and the impact of the budget increase. To discuss the impact of the increase in the budget request, we interviewed staff at Coast Guard Headquarters, area commands, and district offices. In addition, we also reviewed Coast Guard planning documents to determine the extent of changes in planned resource allocations for fiscal year 2003.

To identify types of operational efficiencies the Coast Guard should consider to help restore nonsecurity missions, we reviewed previous GAO and Department of Transportation Inspector General reports. In addition, we discussed options for operational efficiencies and for the development of partnerships at district offices we visited, as well as at local Coast Guard offices under these districts' commands. We also reviewed Coast Guard guidance for Harbor Safety Committees and Marine Transportation System issues.

To identify a framework that would help the Coast Guard report on progress toward restoring nonsecurity missions, we reviewed previous GAO work on performance management and developing performance measures. We reviewed the Coast Guard's current strategic documents and discussed these reports with staff in the Coast Guard's Office of Programs



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**Appendix I**  
**Objectives, Scope, and Methodology**

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to determine the extent to which existing data collection activities could support a reporting framework.

# GAO Contacts and Staff Acknowledgments

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## GAO Contacts

JayEtta Z. Hecker (202) 512-2834  
Randall B. Williamson (206) 287-4860

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## Acknowledgments

In addition to those named above, David Hooper, Christopher M. Jones, Molly C. Laster, Sara Moessbauer, Tim Schindler, and Stan Stenersen made key contributions to this report.

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