

GAO

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

March 2004

COAST GUARD

Relationship between Resources Used and Results Achieved Needs to Be Clearer





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Highlights of [GAO-04-432](#), a report to the Subcommittee on Oceans, Fisheries, and Coast Guard, Committee on Commerce, Science, and Transportation, U.S. Senate

Why GAO Did This Study

The Coast Guard has responsibility for protecting America's ports, waterways, and waterside facilities from terrorist attacks. At the same time, the Coast Guard remains responsible for many other missions important to the nation's interests, such as conducting search and rescue and protecting important fishing grounds.

GAO's past work found that despite substantial budget increases, the Coast Guard's extensive homeland security responsibilities resulted in a reduction in the levels at which the agency's ship, boat, and aircraft resources were applied to non-homeland security programs. GAO was asked to update and expand this work by analyzing: the trends in resource usage, the trends in performance results, and the implications of these trends.

What GAO Recommends

GAO recommends that the Coast Guard develop a time frame for proceeding with plans to more accurately account for resources expended, and ensure that it develops a strategy for identifying the intervening factors affecting performance results, and systematically assesses the relationship between these factors, resources used, and results achieved. The Coast Guard reviewed a draft of this report and generally agreed with the facts and recommendations presented, but did not take a formal position on the recommendations.

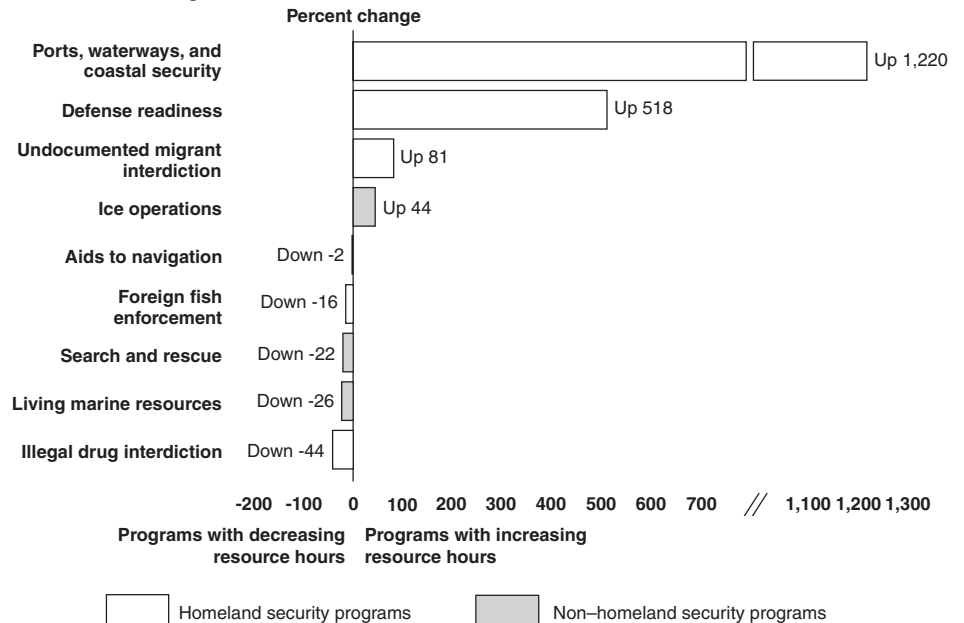
www.gao.gov/cgi-bin/getrpt?GAO-04-432.

To view the full product, including the scope and methodology, click on the link above. For more information, contact Margaret Wrightson at (415) 904-2200 or wrightsonm@gao.gov.

What GAO Found

Since the September 11 terrorist attacks, the Coast Guard has experienced a 32 percent increase in its budget, a 9 percent increase in personnel, and major shifts in the hours in which its ships, boats, and aircraft are used in the agency's various programs. Hours these resources are used for most homeland security programs greatly exceed their pre-September 11 levels, in part because of an infusion of new boats, with the number of hours for the ports, waterways, and coastal security program up more than twelve-fold. (See fig. below.) Conversely, with the exception of hours for ice operations, hours dedicated to each non-homeland security program remained below their pre-September 11 levels.

Percentage Change in Boat, Ship, and Aircraft Resource Hours, by Program, Pre-September 11 Baseline through Fiscal Year 2003



Source: GAO analysis of Coast Guard resource hour data.

The Coast Guard's performance results—measures used to track each program's annual progress—generally did not mirror the trends in resource use. Instead, results for programs GAO reviewed were generally stable or improved regardless of the resources applied, and nearly all of the programs that GAO reviewed met their performance targets—the goals they set out to achieve—in fiscal year 2003. Coast Guard officials said that various factors besides resources, such as increased operating efficiencies or unexpected events, also affected performance results, but they have limited information for assessing the impact of these factors. Initial steps have been taken to better develop this capability, but many are in early stages, and the Coast Guard does not have a time frame for completing the work or assurance that they will result in a systematic approach for assessing the results.

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Abbreviations

CAG	collisions, allisions, and groundings
DHS	Department of Homeland Security
DOD	Department of Defense
EEZ	Exclusive Economic Zone
GPRA	Government Performance and Results Act
HITRON	Helicopter Interdiction Tactical Squadron
HSAS	Homeland Security Advisory System
IACM	Interagency Assessment of Cocaine Movement
LED	light-emitting diode
MARSEC	Maritime Security Condition System
NYPD	New York Police Department
PWCS	ports, waterways, and coastal security
VMS	Vessel Monitoring System

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G A O

Accountability * Integrity * Reliability

United States General Accounting Office
Washington, DC 20548

March 22, 2004

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

These are challenging times for the Coast Guard. As the lead federal agency for maritime homeland security within the Department of Homeland Security, the Coast Guard is facing extraordinary, heightened responsibilities to protect America's ports, waterways, and waterside facilities from terrorist attacks and from becoming an avenue for terrorists to bring weapons of mass destruction into the country. The Coast Guard also remains responsible for many other missions important to the nation's interests, such as helping stem the flow of illegal drugs and illegal migration, protecting important fishing grounds, and responding to marine pollution. These expanded responsibilities come at a time when budget resources are increasingly constrained, making prioritization among competing agencies and programs an even more critical factor in congressional decision making. Our past work has shown that notwithstanding substantial increases in the Coast Guard's budget to accommodate its increased responsibilities, the Coast Guard's emphasis on homeland security has resulted in a reduction in the level of resources devoted to non-homeland security missions.

This report updates our earlier work on Coast Guard efforts to balance its homeland security and non-homeland security missions.¹ At the committee's request, we have expanded the scope of the prior work to examine both the trends in resource usage and corresponding

¹U.S. General Accounting Office, *Coast Guard: Challenges during the Transition to the Department of Homeland Security* (GAO-03-594T, April 2003); U.S. General Accounting Office, *Coast Guard: Comprehensive Blueprint Needed to Balance and Monitor Resource Use and Measure Performance for All Missions* (GAO-03-544T, March 2003); U.S. General Accounting Office, *Coast Guard: Strategy Needed for Setting and Monitoring Levels of Effort for All Missions* (GAO-03-155, November 2002).

performance results between fiscal years 2001 and 2003. Specifically, as agreed with your offices, this report addresses the following questions:

- What are the trends in resource usage for each Coast Guard program within its homeland security and non-homeland security mission areas?
- What are the trends in performance results for each Coast Guard program?
- What are the implications of these trends for Coast Guard management and accountability?

To answer these questions, we analyzed Coast Guard data, reviewed documents and records, and visited Coast Guard installations to determine how operations were being affected. Because the Coast Guard does not have a system that tracks how its personnel spend their time by program, our work on resource usage focused on resource hour data showing the number of hours that Coast Guard ships, boats and aircraft were used in conducting each Coast Guard program. This approach, while covering a considerable amount of the Coast Guard's activities, could not completely account for all of the resources used to achieve program results. Most notably, two of the Coast Guard's 11 programs—marine safety and marine environmental protection—are largely carried out without using ships, boats, and aircraft, and thus much of the effort dedicated toward these programs is not captured in the resource hour data.² Our work on performance results focused on data that the Coast Guard collects and analyzes under the Government Performance and Results Act (GPRA) to determine how well the agency is achieving its goals.³ For this part of our work, sufficient data were available to fully analyze 7 of the Coast Guard's

²Although resource hour data is captured for all of the Coast Guard's programs, to a much greater extent than other programs, the marine safety and marine environmental protection programs are carried out in ways other than using Coast Guard assets—ships, boats, and aircraft. Instead, marine safety office personnel are extensively involved in such things as conducting ship inspections in port, examining shore-side facilities, and carrying out port security activities. The Coast Guard's current information systems do not capture the majority of the time devoted to these activities, which appear to be increasing in importance as a result of the Coast Guard's new port security responsibilities.

³These performance measures were developed following the implementation of the Government Performance and Results Act in 1993. Many agencies, including the Coast Guard, began developing performance measures to strengthen government performance and accountability by focusing on the results of activities and spending. The act required agencies to establish missions, goals, and performance measures as well as clearer linkages between resources and results.

11 programs.⁴ For those programs that we could not fully analyze, because they had only resource hour information or performance data but not both, we provided limited information in relevant portions of this report. We conducted our work at Coast Guard headquarters and at five of the Coast Guard's nine districts that span three coasts—East, West, and Gulf. Our work, which was conducted from June 2003 through March 2004, was done in accordance with generally accepted government auditing standards. A detailed description of our scope and methodology appears in appendix I.

Results in Brief

Total Coast Guard resource hours increased 39 percent over their pre-September 11 levels in fiscal year 2003, and there have been major shifts in the distribution of these resource hours among the various Coast Guard programs as well. Not unexpectedly, homeland security programs were the greatest beneficiaries of the increased hours, as more vessels devoted to homeland security have been added to the fleet. Conversely, the resource hours for most non-homeland security programs have decreased as many more resources are now generally devoted to protecting the nation's ports and waterways. For example, resource hours for several programs that the Coast Guard has traditionally conducted, such as living marine resources, and search and rescue, declined by 26 percent and 22 percent, respectively.

The performance results—or indicators—that track a program's progress from year to year—remained stable or improved for seven of the eight programs we reviewed, when comparing fiscal year 2001 and 2003 results. Although there was some fluctuation in fiscal year 2002, four programs had stable performance results, three were improved and one had pending results for fiscal year 2003. For example, the living marine resources program—whose performance is assessed by measuring the percentage of fishermen that the Coast Guard found in compliance with certain fishing regulations—had stable results with a consistent compliance rate of about 99 to 97 percent between fiscal years 2001 and 2003. Results for the aids to

⁴We excluded the marine safety and marine environmental protection programs because they did not have complete resource-hour data that would allow us to compare resource-hour trends with performance results. We provided only resource hour information for the Coast Guard's newest program—called ports, waterways, and coastal security, or PWCS—because the Coast Guard has not yet established performance measures for it. Finally, we provided limited performance results information for the illegal drug interdiction program because performance results for this program for fiscal year 2003 were not yet available.

navigation program—which helps to ensure the safe passage of vessels—fluctuated in fiscal year 2002, but showed improvement when comparing fiscal years 2001 and 2003, as the number of vessel incidents (such as collisions and groundings) decreased. In addition to demonstrating stable or improved results in fiscal year 2003, five of the eight programs we reviewed also met their pre-established performance targets—the goals they aim to achieve each year. For example, the search and rescue program’s target for fiscal year 2003 was to save 85 percent of mariners in distress and the program achieved this goal by saving over 87 percent of them. Two programs, defense readiness and undocumented migrant interdiction, missed their performance targets in fiscal year 2003—defense readiness achieved a 78 percent readiness status result with a 100 percent target, and illegal migrant interdiction missed its target of interdicting 87 percent of illegal migrants by less than two percentage points. Results for the drug interdiction program were not yet available for fiscal year 2003.

When comparing the trends in the Coast Guard’s use of resources and its performance results, the relationship between resources used and results was not always what might be expected—that is, the resources expended and performance results achieved did not have consistent direction of movement and sometimes bore an opposite relationship. For example, performance remained stable for four programs, even though resources dedicated to them increased or decreased; and three programs demonstrated improved results despite decreases in resource hours for two of them. These results have important implications for resource management and accountability especially given the Coast Guard’s limited ability to explain them. In particular, the results prompt a logical question as to why, despite substantial changes in the resource hours of a number of programs over the period we examined, the corresponding performance results for these programs were not necessarily affected in the same way—that is, they did not rise or fall in keeping with changes in resources. The Coast Guard cannot say with any assurance why this occurred. For example, the resource hours invested in the migrant interdiction program increased by 81 percent and its performance results—which measure the program’s success in interdicting illegal migrants entering the United States by sea—remained stable when comparing fiscal year 2001 with fiscal year 2003. Likewise, search and rescue resource hours dropped by 22 percent, but the measurement of the Coast Guard’s ability to save mariners in distress remained stable for the same period. These results suggest that performance was likely affected by factors other than resources. One set of factors, cited by the Coast Guard as helping to keep performance steady despite resource decreases, involved strategies such as using new technology, better operational tactics, improved intelligence, and stronger

partnering efforts. For example, the Coast Guard identified improved intelligence and technology, along with efforts to partner more closely with other federal agencies, as contributors to its stable performance results in protecting living marine resources despite a decrease in hours dedicated to the program. Coast Guard officials also pointed to another set of factors, which are largely beyond its control (such as severe weather conditions), to explain performance results that did not improve despite resource increases. However the supporting data the Coast Guard was able to provide to account for the effects of these two sets of factors was limited. The Coast Guard has initiatives under way to better measure its resource usage and manage program results, but many of these initiatives are still in early stages of development and some do not have a time frame for their completion. In addition, the Coast Guard does not have a systematic approach for ensuring that these efforts will allow the agency to link its resources and performance results. As we have reported in previous studies on performance management, agencies that understand the linkage between resources expended and performance results achieved are better positioned to allocate and manage their resources effectively. And by building this type of environmental assessment into its strategic planning process, organizations can stay focused on their long-term goals even as they make changes in the way they intend to achieve them. An ability to understand these types of effects is important to the Coast Guard and the Congress to make informed decisions about resource needs.

We are recommending that the Secretary of the Department of Homeland Security direct the Commandant of the Coast Guard to (1) develop a time frame for expeditiously proceeding with initiatives to account more completely for resources expended and (2) ensure that through its planning process the agency develops a strategy for identifying the intervening factors that affect performance results, and systematically assesses the relationship between these factors, resources used, and results achieved.

Background

Now a part of the Department of Homeland Security (DHS), the Coast Guard has grown considerably in the aftermath of the September 11 terrorist attacks. The agency's operating budget in fiscal year 2003 was \$4.9 billion—an increase of 32 percent in real terms over its fiscal year

2001 operating budget.⁵ Corresponding to this funding increase, the agency's personnel numbers have also grown significantly, and at the end of fiscal year 2003, the Coast Guard had almost 44,500 full time positions about 9 percent more than it had in fiscal year 2001.⁶

The Coast Guard has responsibilities that fall under 11 programs within two broad missions—homeland security and non-homeland security.⁷ (See table 1.) While maritime homeland security duties are not necessarily new to the Coast Guard, the agency's resources used for this mission area prior to September 11, 2001, had been minimal when compared with most of its other programs.⁸ After September 11, the Coast Guard focused much more of its efforts on homeland security and established a new program area—the ports, waterways, and coastal security program (PWCS).

⁵The fiscal year 2003 operating budget included \$628 million in supplemental funding for Iraqi Freedom and Liberty Shield (P.L. 108-11, April 16, 2003). It also included a .65 percent rescission (P.L. 108-7, Feb. 20, 2003).

⁶In fiscal year 2003, there were about 38,300 military and 6,200 civilian personnel. In addition, the agency had about 7,900 reservists who support the national military strategy and provide additional operational support and surge capacity during emergencies, such as natural disasters. Furthermore, about 36,000 volunteer auxiliary personnel helped with a wide array of activities, ranging from search and rescue to boating safety education.

⁷The Coast Guard's homeland security and non-homeland security missions are delineated in the Homeland Security Act of 2002 (P. L. 107-296, Nov. 25, 2002).

⁸Prior to the fiscal year 2003 budget request, the Coast Guard included maritime security activities under its marine safety program area.

Table 1: Homeland Security and Non-Homeland Security Programs by Mission Area (as of March 2004)

Mission and program	Activities and functions of each program
Homeland security mission	
Ports, waterways, and coastal security	Conducting harbor patrols, vulnerability assessments, intelligence gathering and analysis, and other activities to prevent terrorist attacks and minimize the damage from attacks that occur
Illegal drug interdiction ^a	Deploying cutters and aircraft in high drug trafficking areas and gathering intelligence to reduce the flow of illegal drugs through maritime transit routes
Undocumented migrant interdiction ^a	Deploying cutters and aircraft to reduce the flow of undocumented migrants entering the United States by maritime routes
Defense readiness	Participating with the Department of Defense (DOD) in global military operations, deploying cutters and other boats in and around harbors to protect DOD force mobilization operations
Other law enforcement (foreign fish enforcement) ^b	Protecting United States fishing grounds by ensuring that foreign fishermen do not illegally harvest United States fish stocks
Non-homeland security mission	
Search and rescue	Operating multi-mission stations, and a national distress and response communication system, conducting search and rescue operations for mariners in distress
Living marine resources	Enforcing domestic fishing laws and regulations through inspections and fishery patrols
Aids to navigation	Managing United States waterways and providing a safe, efficient and navigable marine transportation system; maintaining the extensive system of navigation aids; monitoring marine traffic through vessel traffic service centers
Ice operations	Conducting polar operations to facilitate the movement of critical goods and personnel in support of scientific and national security activity; conducting domestic icebreaking operations to facilitate year-round commerce; conducting international ice operations to track icebergs below the 48th north latitude
Marine environmental protection	Preventing and responding to marine oil and chemical spills; preventing the illegal dumping of plastics and garbage in United States waters; preventing biological invasions by aquatic nuisance species
Marine safety	Setting standards and conducting vessel inspections to better ensure the safety of passengers and crew aboard commercial vessels, cruise ships, ferries, and other passenger vessels; partnering with states and boating safety organizations to reduce recreational boating deaths

Source: Coast Guard.

^aIn previous GAO work, these programs were identified as non-homeland security missions. However, with the implementation of the Homeland Security Act, the Coast Guard considers these programs to be under its homeland security mission. Prior to the passage of the act, the Coast Guard did not categorize its programs into non-homeland security and homeland security missions.

^bForeign fish enforcement is a key subset of the Coast Guard's other law enforcement program. For the purposes of this report, we consider only the resource hours and performance results associated with the foreign fish aspect of the other law enforcement program. We subsequently refer to this program as foreign fish enforcement.

To achieve its wide range of responsibilities, the Coast Guard is organized into two major commands that are responsible for its overall mission performance—one in the Pacific Ocean area and the other in the Atlantic area, including the Gulf of Mexico region. These commands are divided into nine districts, which in turn are organized into a number of groups, marine safety offices, and air stations.⁹ Groups provide more localized command and control of field units and resources, such as multi mission stations, and patrol boats. Marine safety offices are located at coastal ports and on inland waterways, and are responsible for the overall safety and security of maritime activities and for environmental protection in their geographic areas. Air stations conduct search and rescue, law enforcement, environmental response, ice, and defense operations.¹⁰

The Coast Guard has systems in place to track its resource hours and performance results for each of its program areas. Resource hours,¹¹ which are accumulated and reported by quarter, represent the time spent by the Coast Guard's major assets—ships, boats, and aircraft (helicopters and

⁹In total, the Coast Guard has 32 group commands, 75 marine safety offices or related units, and 31 air stations located throughout the United States and its territories.

¹⁰The Coast Guard recently announced an organizational restructuring that would combine marine safety offices and groups into single command structures to be known as sectors. The Coast Guard stated that the purpose of this new organizational structure is to strengthen unity of command in port, waterway, and coastal areas of operation by specific geographic areas of responsibility. According to the Coast Guard, sweeping changes to the agency's operational environment brought about since September 11 reinforce the need for these combined commands that will provide an interdependent approach to mission accomplishment, a common operating picture, and a focal point for intra-departmental, interagency, and other maritime stakeholders.

¹¹The Coast Guard maintains information, on a program-by-program basis, about how resources (assets such as ships, boats, or aircraft) are used to conduct its program missions including search and rescue; aids to navigation; defense readiness; other law enforcement (foreign fish enforcement); ice operations; marine environmental protection; illegal drug interdiction; living marine resources; undocumented migrant interdiction; ports, waterways, and coastal security; and marine safety. Each hour that these resources are used is called a resource hour. However, resource hours do not include such things as the time that the resource stands idle or the time that is spent in maintaining it. Resource hours associated with Coast Guard training for personnel and asset maintenance are captured in the miscellaneous support category of resource hours. Resource hours also do not represent the vast majority of marine safety and marine environmental protection efforts carried out by marine safety office personnel as these programs are largely carried out without using Coast Guard assets, and there are no similar data for making comparisons in the levels of effort. As a result, resource levels and performance results for the marine safety and the marine environmental protection programs were not analyzed for this report. In addition, the hours reported in the miscellaneous support category are not included in the total resource hours analyzed in this report.

fixed-wing aircraft)—conducting its programs. The Coast Guard measures its performance, that is, what these resource hours and its personnel hours accomplish, using a set of performance measures developed in accordance with the Government Performance and Results Act. The Coast Guard uses these performance measures and their corresponding goals to annually track the agency’s progress in attaining its strategic goals.

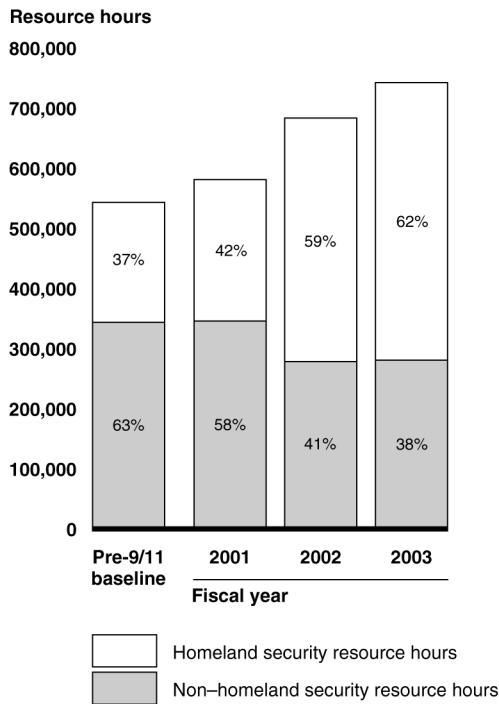
Generally, Resource Hours Devoted to Homeland Security Programs Have Increased Substantially, while Hours for Other Programs Have Decreased

Total Coast Guard resource hours devoted to its various programs have substantially increased since the terrorist attacks, and a major redistribution of these hours has also occurred, as many hours shifted from non-homeland security programs to homeland security programs. Total Coast Guard resource hours (for boats, ships, and aircraft devoted to all programs) increased by 39 percent from a level of about 534,000 resource hours prior to the terrorist attacks to about 741,000 hours by the end of fiscal year 2003.¹² Coast Guard officials told us that the addition of more ships, boats, and personnel contributed to the overall increase in resource hours. In particular, one official noted the acquisition of smaller boats as being a contributor to the increase in ports, waterways, and coastal security hours in fiscal year 2003.

As figure 1 shows, homeland security resource hours accounted for all of the increase, while total hours for non-homeland security programs decreased.

¹²The Coast Guard calculated a resource hour baseline from which the change in resource hours since the September 11 attacks can be estimated. This baseline is an average of the eight fiscal year quarters preceding September 11, 2001 multiplied by four to put it in terms of a full fiscal year. For the purposes of this report, we refer to this calculation as the pre-September 11 baseline or as pre-September 11 levels. According to Coast Guard officials, there is no special significance to this baseline period, other than it represents the historical mission activity of the Coast Guard at that period in time.

Figure 1: Total Resource Hours for All Coast Guard Programs



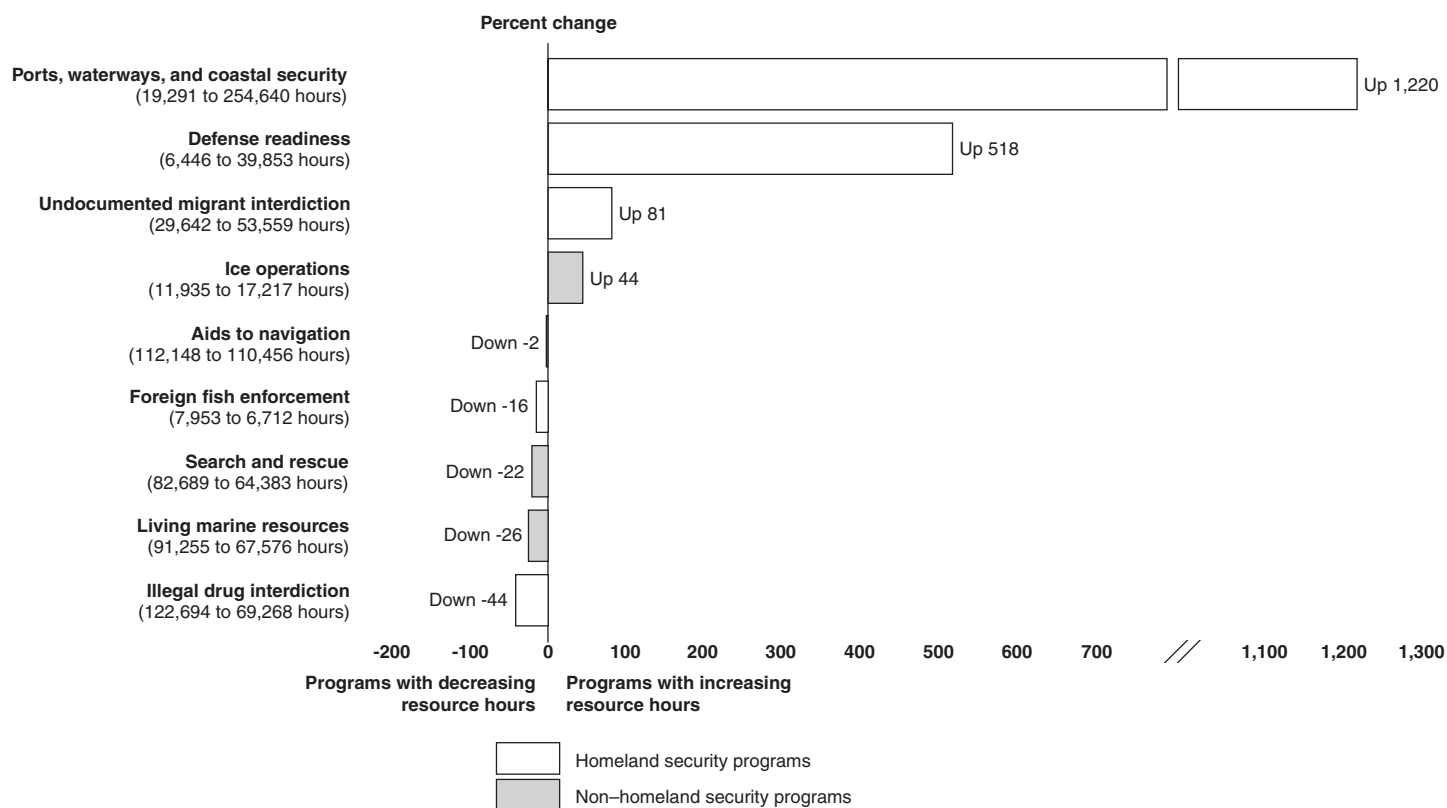
Source: GAO analysis of Coast Guard resource hour data.

On a program-by-program basis, there is a marked difference in the degree to which resource levels rose or declined. (See fig. 2.) Of the various programs, the ports, waterways, and coastal security program saw by far the largest increase, over 1,200 percent. Before the September 11 attacks, this program was a small component of the Coast Guard, with a baseline level of slightly more than 19,000 hours—less than 4 percent of the Coast Guard’s overall resource hours.¹³ By the end of fiscal year 2003, the Coast Guard had expended nearly 255,000 resource hours on this mission, representing about 34 percent of total resource hours. By contrast,

¹³According to a Coast Guard official, while the ports, waterways, and coastal security program did not exist as a separate program prior to September 11, 2001, resource hours related to this program’s activities were collected under four categories: port safety, port security-military, port security-other, and military operations-peace. The hours from these categories were combined after September 11 to make up the pre-September 11 baseline of resource hours for what the Coast Guard now defines as the ports, waterways, and coastal security program. After September 11, 2001, the Coast Guard began identifying resource hours under a ports, waterways, and coastal security program category.

resource hours spent during the same period on the illegal drug interdiction program declined from slightly less than 123,000 hours to just under 70,000 hours, a decrease of 44 percent. (See appendix II for the program-by-program trends by year.)

Figure 2: Percentage Change in Resource Hours, by Program, Pre-September 11 Baseline to Fiscal Year 2003



Source: GAO analysis of Coast Guard resource hour data.

Coast Guard officials cited a number of factors that contributed to the actual resource hours expended for its programs each year. One key factor, noted by several officials, is the impact of unplanned events on planned resource hours. For instance, although the agency may have planned to spend resource hours in a certain way at the beginning of a fiscal year, the actual resource hours expended often reflected the unexpected circumstances or events to which the Coast Guard had to react in that year. For example, when the nation shifts to an orange, or

high-alert, status,¹⁴ the Coast Guard concentrates more of its resources on security-related activities than initially planned. Severe weather, such as hurricanes, can also cause shifts away from planned resource use to spending time repositioning navigation markers that shift from their proper locations as a result of storms. The war in Iraq is another example of where resource hours shifted from planned usage when the Coast Guard deployed assets—11 ships, 24 boats, 2 aircraft, and 1,195 personnel in all—to the Persian Gulf; yet when the fiscal year 2003 budget was developed, the Coast Guard had anticipated using these assets for other programs.

The Coast Guard's Commandant noted that reductions in resource hours did not necessarily reflect changes in the agency's program emphasis. For example, while resource hours devoted to the search and rescue program declined, this program remained a top agency priority. Coast Guard officials suggested that the decline in resource hours for this program was due to three key factors. First, search and rescue is largely demand driven, and as a result, its hours largely reflect the number of incidents referred to the Coast Guard for action. The Coast Guard received fewer distress calls; therefore, resource hours decreased. Second, Successful preventive efforts such as fishing vessel safety examinations and boating safety classes may have prevented mariners from getting into distress—again, resulting in fewer distress calls to the Coast Guard. Third, Coast Guard boats were more frequently on security patrols, and as a result, these boats were sometimes closer to the search and rescue incident and thus could respond more quickly.

¹⁴According to a Coast Guard official, the Maritime Security Condition System (MARSEC) alerts all Coast Guard components of any perceived threats or risk to various Coast Guard ports or a particular industry. MARSEC 1 is equivalent to the Department of Homeland Security's Advisory System's (HSAS) threat level green (low risk of terrorist attack), blue (guarded or general risk of terrorist attack), and yellow (elevated or significant risk of terrorist attack). MARSEC 2 is equivalent to HSAS orange (high risk of terrorist attack) and MARSEC 3 is equivalent to HSAS red (severe risk of terrorist attack). In fiscal years 2001, 2002 and 2003, higher security levels existed for 19 days, 73 days, and 90 days, respectively.

Performance Results Remained Largely Unchanged or Improved for the Eight Programs We Assessed

For the period we examined, the Coast Guard's performance results for the eight programs we reviewed remained either largely unchanged or improved. In addition, in fiscal year 2003, most of the programs also met their pre-established performance targets.¹⁵ Still, some caution is needed in interpreting the Coast Guard's performance results because of limitations in some of the performance measures.

All Assessed Programs Had Stable or Improved Performance Results

Of the eight programs we reviewed for performance,¹⁶ four showed relatively stable performance results, although some minor fluctuations existed. For example, one of the stable programs, search and rescue, which measures its results as the percentage of lives saved each year, varied only a few percentage points from a low of 84.2 percent in fiscal year 2001 to a high of 87.7 percent in fiscal year 2003. Three programs (foreign fish enforcement, aids to navigation, and defense readiness), demonstrated improved results when comparing fiscal year 2001 and fiscal year 2003, although their results fluctuated a little within this period.¹⁷ We were unable to assess the results of the remaining program—illegal drug interdiction—because its performance results for fiscal year 2003 were not yet available at the time we did our analysis. (See table 2.) Appendix III provides a detailed summary of the performance results for all programs.

¹⁵According to GPRA, performance results are defined as the outcome of direct products and services delivered by a program. Performance targets or goals are defined as a set of annual goals that establish the agency's intended performance, stating a particular level of performance in either an absolute value or as a targeted level of improvement.

¹⁶We did not analyze detailed performance results for the marine safety and marine environmental protection programs because we were unable to obtain complete information on the resource hours for these programs; therefore, we had no basis for comparing resource levels with performance results. However, the performance results for the marine safety program for fiscal years 2001 and 2002 showed that there were 1,651 and 1,459 maritime injuries and fatalities in those years, respectively. Marine safety program performance results for fiscal year 2003 were not available at the time we completed our work. The marine environmental protection program had not yet developed a performance measure in fiscal year 2001, but its results for fiscal years 2002 and 2003 respectively showed that there were 43.3 and 29.4 spills (oil spills over 100 gallons and chemical spills) per 100 million tons of oil and chemicals shipped.

¹⁷For the purposes of this report, we were most interested in comparing performance results for our baseline year—fiscal year 2001—with the most currently available results—fiscal year 2003. As a result, we defined programs as “stable” or “improved” based on the known results for these two years. All programs defined as “stable” showed a differential of less than 4 percentage points when comparing fiscal year 2001 and fiscal year 2003 results.

Table 2: Performance Results by Program from Fiscal Year 2001 through Fiscal Year 2003

Program	Performance measure	Performance results by fiscal year		
		2001	2002	2003
Stable results				
Undocumented migrant interdiction	Percentage of interdicted illegal migrants entering the United States through maritime means	82.5%	88.3%	85.3%
Ice operations	Number of waterway closure days	7	7	7
Living marine resources	Percentage of fishermen found in compliance with regulations	98.6%	97.3%	97.1%
Search and rescue	Percentage of distressed mariners' lives saved	84.2%	84.4%	87.7%
Improving results				
Foreign fish enforcement	Number of detected Exclusive Economic Zone (EEZ) ^a incursions by foreign fishing vessels	219	250	153
Aids to navigation	Number of collisions, allisions, ^b and groundings	1,677	1,936	1,523
Defense readiness	Percentage of time units meet combat readiness status at C-2 level ^c	67%	70%	78%
Pending results				
Illegal drug interdiction	Percentage of cocaine seized out of total estimated cocaine entering the United States through maritime means ^d	11.7%	10.6%	NA ^e

Source: GAO analysis of Coast Guard performance data.

^aThe EEZ is defined by the 1976 Magnuson-Stevens Fishery Conservation and Management Act as an area within 200 miles of U.S. shores in which U.S. citizens have primary harvesting rights to fish stocks.

^bThe Coast Guard defines an "allision" as a vessel collision with a fixed object.

^cAccording to Coast Guard information, the C-2 level is defined as the level at which each unit possesses the resources and is trained to undertake most of the wartime missions for which it is organized or designed.

^dThe illegal drug interdiction performance measure only includes cocaine as cocaine has an analyzed flow rate, and it constitutes the preponderance of illegal drugs entering the United States through maritime means (that is, cocaine shipments are measured in tons while heroin, marijuana, and other illegal drugs are measured in pounds).

^eThe illegal drug interdiction performance result for fiscal year 2003 will not be calculated until the Interagency Assessment of Cocaine Movement (IACM) publishes its flow rate in spring of 2004.

Most Assessed Programs Also Met Their Performance Targets

Another way that the Coast Guard assesses its performance is by determining whether programs have achieved their performance targets each year. These targets—which represent the goals that the programs aim to achieve each year—were met in fiscal year 2003 by five of the eight

programs we reviewed.¹⁸ (See table 3.) Two of the programs that did not meet their performance targets were defense readiness and undocumented migrant interdiction. Coast Guard officials reported that the defense readiness program did not meet its target, in part, because of equipment problems associated with operating aging ships, and unit training deficiencies, such as cutters not having sufficient training time to perform gunnery exercises.¹⁹ As for the undocumented migrant interdiction program, Coast Guard officials reported that they consider their results to be a minimal decline in light of the substantial increase in the number of migrants they successfully interdicted during the year.²⁰ For example, of the key migrant populations tracked by the Coast Guard, about 5,300 illegal migrants were interdicted in fiscal year 2003 compared with about 2,400 in fiscal year 2002, an increase of 120 percent.²¹ We could not determine whether the remaining program, illegal drug interdiction, met its performance target because the performance results for fiscal year 2003 were not yet available at the time we conducted our work. (See app. III for a detailed summary of the performance targets and results for all programs.)

¹⁸The marine environmental protection program also met its performance target in fiscal year 2003 but was not included in our analysis. Also, since the marine safety program does not yet have performance results for fiscal year 2003, discussing its target is not relevant here.

¹⁹According to Coast Guard information, the C-2 level is defined as the level at which each unit possesses the resources and is trained to undertake most of the wartime missions for which it is organized or designed.

²⁰The undocumented migrant interdiction performance measure indicates the percentage of migrants interdicted or deterred from entering the United States via maritime routes. More specifically, it is the number of interdicted migrants divided by the estimated flow of undocumented migrants (which includes the number of law enforcement interdictions, known successful migrant arrivals, and the estimated number of migrants deterred from leaving their countries of origin). This estimate is prepared annually by the Coast Guard's Intelligence Coordination Center.

²¹According to the Coast Guard, the 2002 and 2003 illegal migrant numbers stated here include only those counted in the undocumented migrant performance measure, which uses the following four migrant populations, Haiti, Cuba, the Dominican Republic, and the People's Republic of China. The total number of all migrants interdicted in fiscal years 2002 and 2003 were 4,104 and 6,054 respectively.

Table 3: Performance Targets by Program for Fiscal Year 2003

Program	Fiscal year 2003 performance targets	Fiscal year 2003 result	Target met in fiscal year 2003?
Undocumented migrant interdiction	Interdict or deter at least 87 percent of illegal migrants entering the United States through maritime means	85.3%	No
Illegal drug interdiction	Seize 20.7 percent or more of cocaine entering the United States through maritime means	To be determined ^a	To be determined ^a
Ice operations	Limit waterway closures to 8 days during severe winters	7 days	Yes
Living marine resources	Raise percentage of fishermen found in compliance with regulations to 97 percent or above	97.1%	Yes
Search and rescue	Save at least 85 percent of all mariners in distress	87.7%	Yes
Foreign fish enforcement	Reduce number of detected EEZ incursions by foreign fishing vessels to 202 or less	153 incursions	Yes
Aids to navigation	Reduce five-year average of collisions, allisions, and groundings (CAGs) to 2,010 or less	1,523 CAGs	Yes
Defense readiness	Maintain an overall combat readiness status at C-2 level or better for 100 percent of assets	78%	No

Source: GAO analysis of Coast Guard performance data.

^aThe illegal drug interdiction performance result for fiscal year 2003 will not be available until spring of 2004.

Continuing Efforts Are Under Way to Strengthen Performance Measures

While the Coast Guard has been recognized in the past for its performance measurement efforts,²² Coast Guard officials also recognize that, as is true for all organizations, continual improvements are needed in their measures, and they are working toward these enhancements. And while the Coast Guard’s performance for the majority of its programs was

²²In recent years, the Coast Guard has been publicly recognized in several forums for its performance efforts including receiving one of the highest grades of 20 agencies identified by the Clinton administration as having a high impact on the American public. The Coast Guard was one of two agencies that received an agency grade of A in the Government Performance Project grading system—compiled by journalists from *Government Executive* and academics from the Maxwell School of Citizenship and Public Affairs at Syracuse University—and it was one of two agencies that received an A for managing for results. The criteria for managing for results included engaging in results-oriented strategic planning; measuring progress toward results and accomplishments; using results for policymaking, management, and evaluation of progress; and communicating results to stakeholders.

favorable in fiscal year 2003, there are reasons to be cautious in interpreting these results. That is, Coast Guard officials acknowledged that limitations exist in the measures and efforts are under way to improve their clarity and objectivity.²³ Coast Guard officials provided the following illustrative examples:

- Some measures do not currently distinguish among critical factors—such as how certain items are weighted—within the measure. For example, Coast Guard officials stated that the foreign fish enforcement performance measure—which counts the number of times foreign fishing vessels are identified as illegally entering into the United States Exclusive Economic Zone (EEZ)—does not distinguish the severity of each entry. As a result, a single fisherman in a small boat catching a few fish in the Western Pacific is weighted equally with a large foreign trawler in Alaskan waters that is harvesting fish by the tons. Each of these events would be counted as one incursion even though their impact could be significantly different. The Coast Guard is currently reevaluating the Fisheries Enforcement Strategic Plan to address this issue.
- Some measures are affected by fluctuations in demand; thus, the results may not directly reflect agency efforts. For example, the foreign fish enforcement performance measure—which counts the number of EEZ incursions by foreign fishing vessels—can be affected by oceanic and climatic shifts that can cause significant fluctuations in the migratory patterns of fish. As a result, EEZ encroachments could increase (or decrease) as fishermen follow their intended catch across EEZ boundaries (or stay within their own territories), depending on where the fish are located. According to Coast Guard officials, this type of migratory factor can influence the number of encroachments in a given year, and they are reviewing issues such as these to refine the measure. They plan to have a revised target in early 2004.
- Coast Guard officials reported that some measures might have inaccurate estimates that affect the quality of the measure. For example, the undocumented migrant interdiction performance measure contains estimated information, such as the number of illegal migrants entering the

²³Clarity issues relate to whether data in the measure could be confusing or misleading to users; objectivity issues relate to whether the performance assessment may be systematically over- or understated.

United States.²⁴ As a result, the Coast Guard reported that the estimated number of potential migrants, which is a key part of this performance measure, might contain significant error. Coast Guard officials explained that they are working to strengthen this measure, in part through an external program evaluation that will be completed by the summer of 2004. At this time, however, they believe their current measure is the best available.

- Some performance measures rely on the Coast Guard's presence or direct observation of events. A change in Coast Guard presence could skew results for these indicators. For example, an increased Coast Guard presence in a fishing area could result in more incursions being observed, and a decreased presence could result in fewer observations. To the extent such factors come into play, the results may be inaccurate. For example, the number of incursions might not have increased or decreased, but instead the Coast Guard simply had greater or lesser ability to identify them. The Coast Guard has acknowledged that some of its measures are subject to these weaknesses and directed its field personnel to be mindful of these issues in its planning guidance.

One measure—for illegal drug interdiction—was recently refined and illustrates how the Coast Guard can improve upon and incorporate better performance measures into this refinement process. The illegal drug interdiction performance measure was recently reevaluated because the former measure—cocaine seizure rates—did not adequately account for cocaine thrown overboard or destroyed by smugglers. Consequently, the Coast Guard changed its illegal drug interdiction performance measure for fiscal year 2004 to measure the cocaine removal rate—a measure that includes not only the cocaine seized but also cocaine that was jettisoned or lost. Coast Guard officials stated that the new measure, which encompasses both the cocaine lost to the smuggler (through seizures, jettison, burning, and other non-recoverable events) as well as the cocaine seized, will more accurately reflect the Coast Guard's counterdrug efforts and results.

²⁴The Coast Guard reported that the number of illegal migrants entering the United States is an estimated flow number generated by the Coast Guard Intelligence Coordination Center and Immigration and Naturalization Services. And, according to the Coast Guard, because of the speculative nature of the information used, and the secretive nature of illegal migration, particularly where professional smuggling organizations are involved, the estimated potential flow of migrants may contain significant error.

More Systematic Understanding of Resource Usage and Performance Results Is Important for Management and Accountability

While resource hours changed substantially for some programs between fiscal years 2001 and 2003, their corresponding performance results did not necessarily reflect the direction of these changes. In particular, performance remained stable for four programs even though resources increased for two and decreased for the other two. This suggests that performance results were likely affected by factors other than usage of these resources. One set of factors, cited by the Coast Guard as helping to keep performance steady in some programs despite decreases in resources, involves strategies such as using new technology, better tactics and operations, and stronger partnering with other agencies. Coast Guard officials also pointed to a set of other factors, often called externalities, which are largely beyond its control but have the ability to negatively affect performance results despite resource increases. For the Coast Guard, such externalities include such developments as an increase in the number of immigrants seeking to enter the country by sea and unpredictable or severe weather conditions. The Coast Guard has a variety of initiatives under way to better measure resource usage and manage program results. However, many of these initiatives are still in early stages of development and some do not have a time frame for their completion. In addition, the Coast Guard does not have a systematic framework that would allow it to better understand how the various factors are affecting the link between resources and performance. As we have reported in the past, agencies that understand the linkage between expended resources and performance results are better able to allocate and manage their resources effectively.

Coast Guard Officials Cite Various Factors Affecting Consistency between Expended Resources and Results Achieved

For most of the Coast Guard programs we reviewed, there was no clear relationship between the change in resource hours from pre-September 11 levels to fiscal year 2003 levels and the performance results reported for the program between fiscal years 2001 and 2003. One might expect that a significant change in resource hours over time would result in a corresponding change in performance results. However, for most of the seven programs we reviewed with complete performance results in fiscal year 2003, this was not the case.²⁵ For example, the four programs with stable performance results were evenly divided—two (undocumented migrant interdiction and ice operations) had increased resource hours of

²⁵The ports, waterways, and coastal security program does not yet have a performance measure, the illegal drug interdiction and marine safety programs' performance results have not yet been calculated for fiscal year 2003, and we did not analyze performance results for the marine environmental protection program.

at least 44 percent, and two (living marine resources and search and rescue) had decreased resource hours of at least 22 percent. Similarly, of the remaining three programs, two (foreign fish enforcement and aids to navigation) had improved results despite decreases in their resource hours. The only program with consistent direction of movement between its resource hours and performance results was the defense readiness program, which had improved results and a 518 percent resource hour increase.

Coast Guard officials acknowledged the apparent disconnect between resource hours expended and performance results achieved and offered two types of explanations for it. The first involved operational efficiencies—strategies that essentially allowed the Coast Guard to accomplish the same or greater results with fewer resources. These efficiencies were of four main types—improved technology, improved tactics, stronger partnerships, and improved intelligence. A limited sample of these efficiencies, described by Coast Guard officials during our visits to Coast Guard districts, is highlighted in table 4, and additional efficiencies are discussed in more detail in appendix IV. Many of these efficiencies stemmed from internal changes within the Coast Guard, such as using new equipment, a different procedure, or a new organizational alignment to do a task more quickly. However, some of the efficiencies, particularly those related to partnerships, involved the use of non-Coast Guard resources as well.

Table 4: Selected Examples of Operational Efficiencies Cited by Coast Guard Officials

Improved technology	<p><i>New ships.</i> The recapitalization of the buoy tender fleet offers a number of improvements, including greater transit speed, reducing travel time and allowing more work to be done in a day; a larger buoy deck, allowing the completion of more work during a single deployment and fewer trips back to base; and improved navigation systems, enabling safer navigation with fewer people.</p>
	<p><i>Different lighting for navigation aids.</i> In its aids to navigation program and in other aspects of its operations, the Coast Guard now uses lanterns with light emitting diodes (LEDs). Using LEDs results in fewer and quicker service visits, freeing time for other work.</p>
	<p><i>Improved data-monitoring system.</i> Coast Guard officials stated that the National Marine Fisheries Service's Vessel Monitoring System (VMS) helped to improve their operational efficiency in protecting United States fisheries. The Coast Guard leveraged this technology—which monitors fishing vessel information such as the vessel's name, catch data, and location—and used it in conjunction with industry intelligence and efforts to work more closely with federal and state enforcement partners. Although not yet fully operational, according to the Coast Guard, the system was responsible for 7 of the 97 significant violations detected in fiscal year 2003.</p>
Improved tactics	<p><i>Use of armed helicopters.</i> The Coast Guard reported that the Helicopter Interdiction Tactical Squadron (HITRON) provides personnel, training, and resources necessary to employ armed helicopters in support of counter drug operations. Prior to November 2002, the Coast Guard used two armed helicopters simultaneously with two cutters when responding to drug interdiction operations. The Coast Guard has since changed its tactics to use one HITRON with one cutter per operation and has seen no degradation in the effectiveness of this drug interdiction tactic.</p>
	<p><i>Use of helicopters for at-sea boardings.</i> One Coast Guard district identified a procedure whereby it uses helicopters rather than ships to conduct at-sea boardings of vessels of interest bound for United States ports. Doing so allows Coast Guard boarding personnel to reach their destination more quickly—for example, in 30 minutes rather than 2 or 3 hours. The time that the helicopters are in use is incorporated into the mandatory training schedule, resulting in no additional usage of air resources and a decrease in ship hours for this purpose.</p>
Stronger partnerships	<p><i>Interagency flight schedules.</i> In Miami, the Coast Guard and another Department of Homeland Security agency, the Immigration and Customs Enforcement office have developed a combined flight schedule to integrate patrol schedules and assets, which has led to less overlap in response efforts, saving time and resources for both agencies.</p>
	<p><i>Coast Guard/police department partnership.</i> The Coast Guard and the New York Police Department (NYPD) have a formalized partnership, and officials of the two organizations communicate several times daily on a variety of topics. They also often participate in joint training and first responder exercises. This partnership with NYPD adds significant communication and intelligence networks as well as a large number of additional assets to the Coast Guard's capabilities in New York.</p>
Improved intelligence	<p><i>Intelligence-sharing arrangements.</i> In 2001, the Coast Guard joined the United States Intelligence Community, a federation of executive branch agencies and organizations that work separately and together in intelligence-gathering activities. According to Coast Guard officials, this step greatly enhances the agency's access to information.</p>
	<p><i>New intelligence centers.</i> Created in 2003, one Maritime Intelligence Fusion Center is located on each coast. These centers increase collection and analytical capabilities, enhancing the Coast Guard's ability to fuse intelligence from various sources and improving the timeliness and quality of theater-level intelligence support to Coast Guard operational forces.</p>

Source: Coast Guard.

The second type of explanation provided by Coast Guard officials involved externalities—events or developments that were largely beyond the Coast Guard's control but had an influence on the amount of work the Coast

Guard had to confront. In fiscal year 2003, these factors included such things as “surge” demands, related to the Iraq War; a large increase in the number of undocumented migrants attempting to enter the United States by maritime routes, and poor weather conditions that increased icebreaking needs. According to Coast Guard officials, these externalities had a negative effect on performance results—that is, they made it more difficult for the Coast Guard to meet its goals, even when more resources were added. In the case of ice operations, because the Great Lakes region had one of the most “severe” winters it has experienced in the past 50 years and unpredicted amounts of ice formed ahead of forecasted dates, icebreaking needs in this region were higher than normal in fiscal year 2003. Despite this, the Coast Guard was still able to meet its performance goal in fiscal year 2003. However, according to Coast Guard officials, externalities were a factor in not meeting its goal for undocumented migrant interdiction because of the very large increase in illegal immigrants seeking to enter the United States by sea during fiscal year 2003.

Coast Guard Lacks Clear Understanding of Extent to Which These Factors Affect Results

While the factors cited by the Coast Guard likely have an effect on mission performance, the extent of that effect is largely unknown. Our site visits suggested that the efficiency factors cited by Coast Guard officials likely had positive effects on the agency’s performance by improving its effectiveness and productivity. For example, Coast Guard officials acknowledge that local authorities such as police and fire departments have assumed some of the Coast Guard’s search and rescue workload. Likewise, our site visits suggested that the various externalities cited by Coast Guard officials could have negatively affected the performance of some missions as well. For example, as noted, the Coast Guard did not meet its undocumented migrant interdiction program’s fiscal year 2003 performance target of interdicting or deterring 87 percent of the illegal migrants entering the United States by sea. Coast Guard officials identified the significant increase in migrants attempting to enter the United States in fiscal year 2003 (an externality that the Coast Guard has no control over) as one factor that contributed to the program missing its goal. However, the Coast Guard does not have a mechanism in place to systematically determine the extent to which either of these factors affects performance. For instance, it does not have data on the search and rescue cases handled by local responders and, therefore, is unable to determine the extent to which this assistance has reduced the workloads of small boat stations.

Accounting for the effects of such factors can be a difficult task. In past work, we have examined the efforts of a number of agencies to understand and assess the many factors that influence their performance results as a basis for better allocating and managing their resources.²⁶ Like the Coast Guard, other federal agencies face the challenge of having limited control over the achievement of their intended objectives. In past work, we have found that when various federal agencies attempted to assess performance, their greatest challenge in the analysis and reporting stage of the performance review process was separating a program's impact on its objectives from the impact of external factors, primarily because the program's objectives were the result of complex systems or phenomena outside the program's control. Thus, it is not surprising that the Coast Guard would have difficulty in attempting to account more precisely for the effects of these various factors, both internal and external.

Our reviews of various efforts to address these analytic challenges showed that agencies employed a wide range of strategies to respond to them. For example, some broke out data on subgroups or made statistical adjustments to attempt to reduce the influence of external factors on their measures. While there is no simple or standard approach, best practices suggest that managers should stay alert to the many factors—both inside and outside their organizations—that can influence their ability to achieve their goals. The successful organizations we studied tracked and monitored their internal and external environments continuously and systematically. By building environmental assessment into the strategic planning process, organizations can stay focused on their long-term goals even as they make changes in the way they intend to achieve them. An ability to understand the effects of these various factors is also important in helping Coast Guard managers and the Congress make informed decisions about resource needs.

The Coast Guard's ability to evaluate its resource needs is also affected by the lack of data about resource usage in two of its programs—marine safety and marine environmental protection. While the Coast Guard collects some resource hour data for these programs, the vast majority of

²⁶U.S. General Accounting Office, *Executive Guide: Effectively Implementing the Government Performance and Results Act* (GAO/GGD-96-118, June 1996); U.S. General Accounting Office, *Managing for Results: Analytic Challenges in Measuring Performance* (GAO/HEHS/GGD-97-138, May 1997); and U.S. General Accounting Office, *Managing for Results: Measuring Program Results That Are under Limited Federal Control* (GAO/GGD-99-16).

time dedicated to these two programs is not captured because these are people-intensive rather than asset-intensive programs, and the Coast Guard lacks a data collection mechanism for capturing these hours. More specifically, these programs may involve Coast Guard personnel conducting a facility inspection or responding to an oil spill in a marina—activities that often do not involve using Coast Guard ships, boats or aircraft. This “information deficit” became particularly significant after September 11 when the Coast Guard undertook significant additional port security responsibilities under the ports, waterways, and coastal security program. Coast Guard officials have acknowledged that resource hour shifts occurred from the marine safety and marine environmental programs to the ports, waterways, and coastal security program. However, they are generally unable to estimate the total effort dedicated to these programs or determine the level of resources the agency is likely to need to maintain program performance levels. In addition, to help meet its new responsibilities in the ports, waterways, and coastal security program, the Coast Guard issued guidance to its field units authorizing the suspension of certain marine safety and marine environmental protection program requirements. For example, Coast Guard units were given the flexibility to not perform lower-priority vessel boardings and to reduce the frequency of certain vessel inspections. They were also directed to leverage state and local agencies to respond to small spills to the maximum extent possible. While the guidance indicates that the marine safety office personnel should use risk-based decision making in implementing these types of measures, and negative impacts from these actions have not yet become evident, the potential effects of such reductions on future program performance could become a concern.

Coast Guard Has Started Efforts to Better Understand Effects of Internal and External Factors, but Impact Is Uncertain

Coast Guard officials agreed there is value in taking a more systematic approach to assessing performance, including better understanding of the effects of internal and external factors that affect their performance. As a result, the agency has begun a number of steps directed at improving various aspects of performance assessment. Many of these steps are still in their early stages, and while they represent a good beginning, it is not yet clear when they will be completed and whether they will tie together to address the weaknesses we have identified.

One step the Coast Guard has begun involves addressing the information gaps that currently exist regarding resource usage in the marine safety office programs, but the time frame for completing these projects is unknown. Specific actions under way that are expected to improve information about the level of Coast Guard personnel hours dedicated to

various programs include measuring the personnel overtime hours for certain programs, and a survey of Coast Guard units to assess how personnel hours were reallocated within the programs after September 11. In addition to making these efforts, the Coast Guard also recently estimated the marine safety office personnel hours it believes will be necessary to implement its new port security responsibilities—a positive step toward determining what its resource needs are likely to be in order to successfully implement these requirements.²⁷ The Coast Guard has also begun a broader effort to develop a system for tracking personnel hours at marine safety offices and related units. Development of this system is currently in a pilot stage, and Coast Guard officials did not know when it might be implemented Coast Guard-wide. As a result, the Coast Guard currently remains unable to account for the vast majority of the hours dedicated to two programs—marine safety and marine environmental protection, and this is a concern considering that together these programs account for 11 percent of the fiscal year 2004 enacted operating budget.

In addition to obtaining a better understanding of how resources are used to produce results, the Coast Guard has also made some program-specific efforts to better manage and allocate resources. In the illegal drug interdiction program, the Coast Guard has taken steps to better quantify the effect of specific operational strategies on performance results. By examining successful drug seizures, the Coast Guard has been able to determine how it is getting the most results. For example:

- *Stationing Coast Guard personnel aboard Navy ships.* According to Coast Guard officials, certain Coast Guard law enforcement units operating aboard navy ships (including those from the United States, the United Kingdom, the Netherlands, and Belgium) were responsible for 58 percent of the Coast Guard's cocaine seizures in fiscal year 2003.
- *Using armed instead of unarmed helicopters.* Use of armed helicopters was deemed an effective approach for the drug interdiction program, as Coast Guard officials determined that these helicopters could more effectively deter drug smugglers from escaping. According to the Coast

²⁷Responsibilities that are required under the Maritime Transportation Security Act (MTSA) (P. L. 107-295, November 25, 2002).

Guard, this strategy accounted for 34 percent of cocaine seizures in fiscal year 2003.²⁸

These specific efforts are noteworthy, but there is no indication that efforts such as these are occurring across the broad range of Coast Guard missions. Coast Guard officials were unable to identify similar actions across all programs to quantify operational strategies and establish more systematic linkages between resources expended and performance achieved.

Separate from these program-specific efforts, the Coast Guard is beginning an agency-wide strategic planning effort to better assess linkages between the agency's strategic goals and mission programs and the agency's overall strategic intent. Specific actions involve data collection and development of analytical models and decision support systems. Table 5 shows some of the specific actions. If properly designed and implemented, such actions should help the Coast Guard with its long-term strategic planning and its ability to make connections between the agency's resources and performance. Again, however, whether these efforts will address the weaknesses we identified or result in reliable means to link resources expended with performance achieved is unknown, since most of the efforts have just begun or are in progress.

²⁸ According to a Coast Guard official, the results obtained from these two strategies (law enforcement units on navy ships and armed helicopters) are not mutually exclusive. In some cases, these two strategies worked in tandem, so there is some overlap in the seizure results.

Table 5: Selected Examples of Actions Under Way to Improve Linkages between Resources and Performance Results

Mission cost model	Designed to capture mission operating costs on a program-by-program basis, this model allows the Coast Guard to calculate the operating expenses (including the direct costs, support costs, and overhead costs) associated with each program.
Readiness management system	This Coast Guard-wide system, currently under development, is designed to assess the agency's ability to respond to mission requirements in accordance with standards. This system will assess six facets of readiness: people, training, equipment, supplies, infrastructure, and information.
Analysis of long-term strategic planning needs	The Coast Guard is using a "scenario planning" approach to analyze its future long-term strategic planning needs. Called Project Evergreen, it involves developing "alternative future world scenarios," developing strategies for addressing these future scenarios, and determining potential resource needs.
Model for examining maritime operations	This computer model was designed to help the Coast Guard address the complexities of the deepwater maritime environment as the agency assessed its core needs for the Integrated Deepwater System, a 30-year, \$17 billion acquisition program. It simulates the core functions of the Coast Guard's maritime operations, analyzes alternative approaches, and projects performance results derived from adding and subtracting different asset combinations from its vessel and aircraft fleets.

Source: Coast Guard.

In discussions with us, the Coast Guard has not clearly articulated a strategy for how these various efforts will weave together. However, Coast Guard officials told us that more information regarding these efforts will be included in the agency's strategic blueprint.

Conclusions

The Coast Guard, like other federal agencies, needs to continue transforming itself into a more efficient, results-oriented organization if it is to meet the many fiscal, management, and policy challenges it is likely to face. At present, the Coast Guard lacks a systematic approach for explaining the relationship between its expenditure of resources and its performance results, limiting its ability to critically examine its resource needs and prioritize program efforts. Its new steps to improve the tracking of resource usage and assessment of external factors that may also have a bearing on its ability to meet performance goals are laudable, though it is still too early to determine the effect they will have. However, there is currently no assurance that such efforts will give the Coast Guard a systematic means to effectively understand and link resources expended with performance achieved. Without a clear understanding of this linkage or a time frame to ensure that it gets completed, the agency is at risk of misdirecting resources and missing further opportunities to increase productivity and efficiency to ensure the best use of its funds.

In our view, the Coast Guard needs to be clearer about two matters: how soon it will be able to have comprehensive program-by-program data

about how its personnel spend their time, and how the many actions under way in its agency-wide strategic planning effort can collectively be used to establish clearer links between resources and performance. With regard to the first point, the Coast Guard's project for tracking personnel time is currently in the pilot stage and has no time frame for completion. With regard to the second point, the agency's strategic blueprint, which is a likely place for explaining how the Coast Guard will go about analyzing the relationship between resources and results, is still in development. Action on both fronts is necessary to provide information that allows the Coast Guard to manage more effectively and the Congress to balance the Coast Guard's resource needs against those of other agencies and programs at a time when our nation's financial condition and fiscal outlook are sobering.

Recommendations

To provide the Coast Guard and the Congress with critical information necessary for an efficient and effective allocation of resources, we recommend that the Secretary of Homeland Security direct the Commandant of the Coast Guard to:

- develop a time frame for expeditiously proceeding with plans for implementing a system that will accurately account for resources expended in each of its program areas, and
- ensure that the Coast Guard's strategic planning process and its associated documents include a strategy for (1) identifying intervening factors that may affect program performance and (2) systematically assessing the relationship between these factors, resources used, and results achieved.

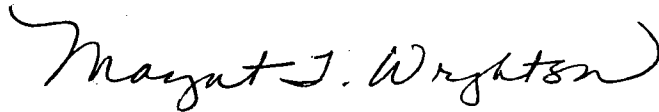
Agency Comments

We provided a draft of this report to the Department of Homeland Security and the Coast Guard for their review and comment. The Coast Guard generally agreed with the facts and recommendations presented in the report. Coast Guard officials provided a number of technical clarifications, which we incorporated to ensure the accuracy of our report. Neither the Department of Homeland Security nor the Coast Guard took a formal position on GAO's recommendations. In its response, the Coast Guard raised two points that merit specific responses. The Coast Guard believes that early in the report, GAO does not fully consider the changing environment in which the Coast Guard operates, and how this affects the resources used and results achieved. We believe that we addressed this issue fully later on in the report where we outline a number of intervening factors and externalities that could have affected the agency's performance results. In addition, although the Coast Guard generally

agreed with our recommendations, the agency believes that its multimission nature poses a higher degree of difficulty for the agency to implement these recommendations. We recognize this added challenge, but we do not believe that it mitigates the Coast Guard's responsibility to take these steps.

As agreed with your offices, unless you publicly announce the contents of this report earlier, we plan no further distribution until 30 days from the report date. At that time, we will send copies of the report to the Secretary of the Department of Homeland Security and the Commandant of the Coast Guard. In addition, the report will be available at no charge on GAO's Web site at <http://www.gao.gov>.

If you or your staff have any questions about this report, please contact me on (415) 904-2200. Other contacts and acknowledgments are listed in appendix V.



Margaret T. Wrightson
Director, Homeland Security
and Justice Issues

Appendix I: Objectives, Scope, and Methodology

To determine the trends in resource hours for each Coast Guard program following the September 11 terrorist attacks, we reviewed our previous report and resource hour data from the Coast Guard's Abstract of Operations (AOPS), and the Coast Guard's Aviation Logistics and Maintenance Information System (ALMIS). The resource hour data, reported by crews of cutters, boats, and aircraft, represents the hours that these assets spent in each of the Coast Guard's program areas. We analyzed resource hour data from fiscal years 2001, 2002, and 2003. We then compared the fiscal year 2003 data with a pre-September 11 resource hour baseline level developed by the Coast Guard. This baseline is calculated by determining the average of the eight quarters of resource hour data from fiscal year 1999 quarter 4 through fiscal year 2001 quarter 3 and then multiplying this quarterly average by four to obtain a full year's average. We recognize that there is an overlap between the pre-September 11 baseline data and some of the fiscal year 2001 data. However, because the comparisons we made were between the baseline and fiscal year 2003 data we were not concerned that this overlap would affect our results or our ability to meet our objectives. To determine the reliability of the data, we (1) reviewed existing documentation about the data and the systems that produced them, and (2) interviewed knowledgeable agency officials. We determined that the data was sufficiently reliable for the purposes of this report. However, we did not analyze resource hour data for the marine environmental protection, marine safety, or the other law enforcement programs. We did not analyze the resource hour data for marine safety and marine environmental protection programs because these programs are largely carried out without using Coast Guard assets, and thus the vast majority of effort related to these programs is not captured in AOPS or ALMIS. And furthermore, there are no data available that would allow us to make similar comparisons in the levels of effort for these programs. In addition, the Coast Guard reported that a surge in resource hours for the other law enforcement program (hours that were not related to foreign fish enforcement), was the result of a misinterpretation of port security activities, and as a result, we did not analyze changes in hours specifically related to the other law enforcement program.

We reviewed the resource hour data for the remaining programs—search and rescue; aids to navigation; defense readiness; foreign fish enforcement; ice operations; illegal drug interdiction; living marine resources; undocumented migrant interdiction; and ports, waterways, and coastal security—to identify how resources were utilized across programs both before and after September 11. In addition, we also spoke with officials at Coast Guard headquarters and at the Atlantic Area Command in

Portsmouth, Virginia, and in various Coast Guard district offices and operational units in Boston, Portsmouth, Miami, New Orleans, and Seattle, as well as personnel at operational units under these district commands.

To identify changes in performance results compared with increases or decreases in resource hours, we analyzed the Coast Guard's Periodic Table of Program Performance as well as its 2003 Performance Report. We assessed the reliability of the performance data by reviewing existing documentation about the data and the systems that produced them, and we interviewed knowledgeable officials. We determined that the data were sufficiently reliable for the purposes of this report.

We reviewed the performance data to determine how performance changed between fiscal years 2001 and 2003. We also interviewed Coast Guard officials within the Coast Guard's Office of Plans, Policy, and Evaluation and program officials in all 11 of the Coast Guard's programs. We also reviewed incomplete drafts of the Coast Guard's Strategic Blueprint.

To identify the Coast Guard's efforts to utilize intelligence, technology, tactics, and partnerships to enhance mission effectiveness, we reviewed our previous reports, and Congressional Research Service reports. In addition, we discussed efforts in utilizing intelligence and technology, developing partnerships, and employing new tactics at Coast Guard headquarters and district offices that we visited, as well as at local Coast Guard units under these districts' commands. We also reviewed Coast Guard mission planning guidance and the Coast Guard's Maritime Strategy for Homeland Security.

We conducted our work between June 2003 and March 2004 in accordance with generally accepted government auditing standards.

Appendix II: Program-by-Program Trends in Coast Guard Resource Hours

This appendix shows, for the nine Coast Guard programs with measurable resource hours, the trend in these hours from the Coast Guard's pre-September 11 baseline through fiscal years 2001, 2002, and 2003. In all, four of the nine programs saw resource hours increase, four saw declines, and one remained essentially the same.

Programs with Increasing Resource Hours

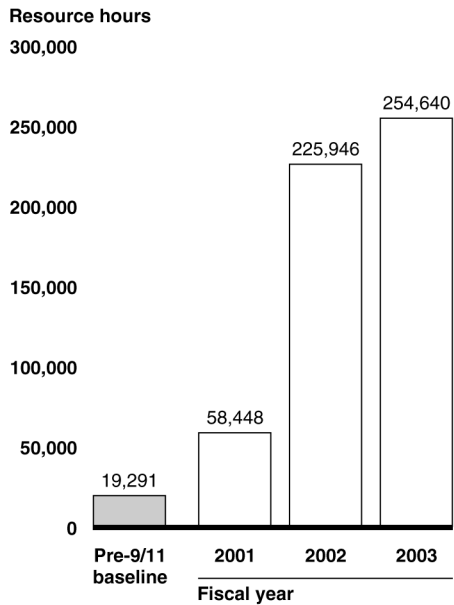
Homeland security programs such as ports, waterways, and coastal security; undocumented migrant interdiction; and defense readiness¹ were the primary beneficiaries of the growing Coast Guard resource hours. One non-homeland security program, ice operations, also experienced an increase in resource hours. However, compared with the other programs, this program accounted for relatively few hours.

Ports, Waterways, and Coastal Security

Prior to the events of September 11, the ports, waterways, and coastal security program was relatively small, with few resource hours. However, the program grew significantly after fiscal year 2001. (See fig. 3.) The program surged from a pre-September 11 baseline of 19,291 resource hours to 254,640 resource hours in fiscal year 2003. A Coast Guard official in Group Seattle attributed this substantial increase in resource hours to the many additional homeland security activities it was performing, including conducting port security patrols.

¹One additional program, other law enforcement (Other LE) also experienced an increase in resource hours. However, according to Coast Guard officials, it is likely that the surge in hours in fiscal year 2002 was the result of a misinterpretation of port security activities. Some Coast Guard crew entered what should have been PWCS hours under Other LE because of their interpretation of this data category. Coast Guard officials took action in fiscal year 2003 to clarify the appropriate categorization of port security activities and the hours have subsequently declined.

Figure 3: Ports, Waterways, and Coastal Security Resource Hours

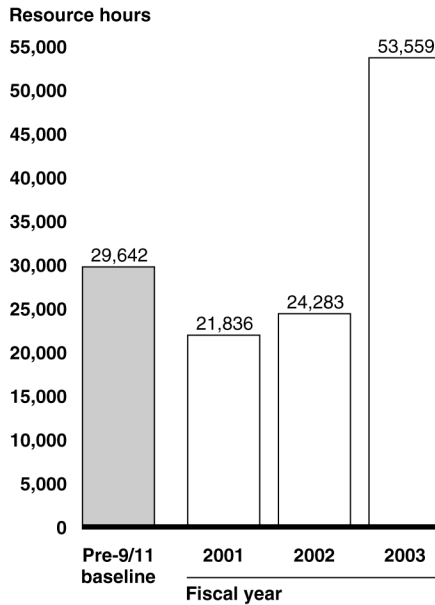


Source: GAO analysis of Coast Guard resource hour data.

Undocumented Migrant Interdiction

The undocumented migrant interdiction program's resource hours surged significantly in fiscal year 2003. (See fig. 4.) From its pre-September 11 baseline of 29,642 hours, undocumented migrant interdiction resource hours declined to 21,836 hours in fiscal year 2001 and then grew to 53,559 hours in fiscal year 2003. A District 7 Coast Guard official indicated that the additional hours resulted, in part, from increased priority for this program because of a growing recognition that illegal migrants successfully entering the United States were the equivalent of a security breach. In addition, another District 7 Coast Guard official also attributed the increase to the growing political instability in the Caribbean, which increased the flow of migrants from that region.

Figure 4: Undocumented Migrant Interdiction Resource Hours

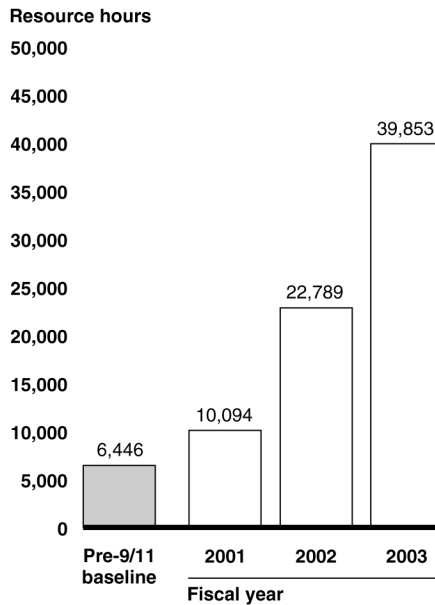


Source: GAO analysis of Coast Guard resource hour data.

Defense Readiness

Defense readiness resource hours grew incrementally until fiscal year 2003 and then surged upward. The pre-September 11 baseline level of about 6,000 hours accounted for 1 percent of total Coast Guard hours; by fiscal year 2003, the number of hours had grown to nearly 40,000 hours, or about 5 percent of total hours. (See fig. 5.) The increased hours were generally a result of 11 cutters and 24 boats being deployed to Iraq, where they provided security for United States assets.

Figure 5: Defense Readiness Resource Hours

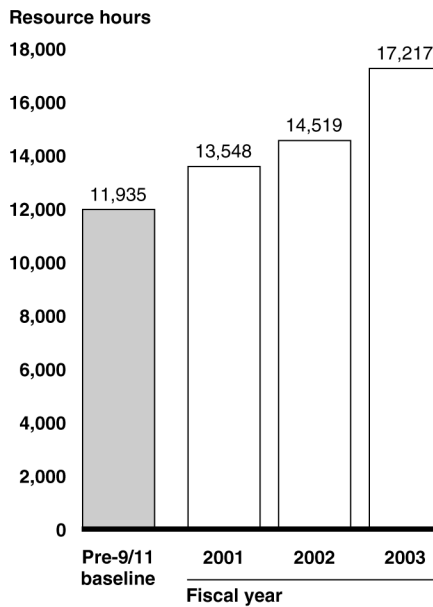


Source: GAO analysis of Coast Guard resource hour data.

Ice Operations

Ice operations is the one non-homeland security program with resource hours that increased from its pre-September 11 baseline levels. Ice operations resource hours increased from a pre-September 11 baseline of 11,935 hours to 17,217 hours by fiscal year 2003. (See fig. 6.) Coast Guard officials told us that the icebreaker *Healy* became fully operational in 2001 and that the addition of this asset contributed to the increased icebreaking hours as well. Furthermore, according to the Coast Guard, the weather conditions in fiscal year 2003 contributed to the increased hours as icebreaking assets needed additional time to address the more severe ice conditions. However, the increase in hours was smaller, on both a percentage and an actual basis than the increases for homeland security programs, and this program has considerably fewer resource hours than most of the other Coast Guard programs. In fiscal year 2003, the program accounted for about 2 percent of total Coast Guard resource hours.

Figure 6: Ice Operations Resource Hours



Source: GAO analysis of Coast Guard resource hour data.

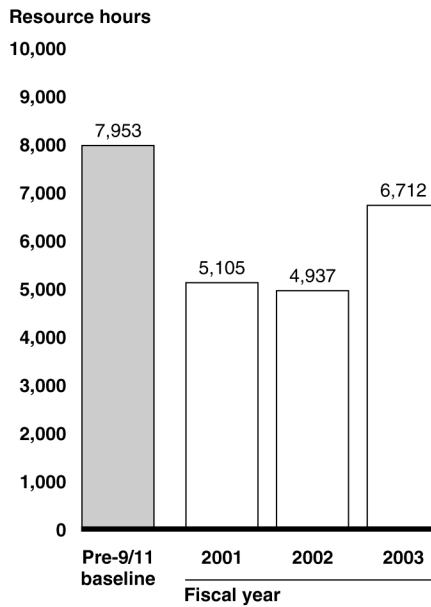
Programs with Declining Resource Hours

Resource hours for foreign fish enforcement, living marine resources, illegal drug interdiction, and search and rescue have declined from their pre-September 11 levels. Coast Guard officials acknowledged that the continued emphasis on ports, waterways, and coastal security has made it difficult for some programs to rebound to their pre-September 11 resource hour levels.

Foreign Fish Enforcement

Resource hours for the foreign fish enforcement program remained below their pre-September 11 baseline. From the baseline of about 8,000 hours, foreign fish enforcement hours declined to about 5,100 hours in fiscal year 2001. By fiscal year 2003, the number of hours had increased to approximately 6,700 hours, but this was still 16 percent below the pre-September 11 baseline level. (See fig. 7.) Coast Guard officials explained that the program is largely demand-driven, in that the incentive for foreign fishermen to violate regulations is based on such factors as weather, currents, market rates for fish, and where the fish are located.

Figure 7: Foreign Fish Enforcement Resource Hours

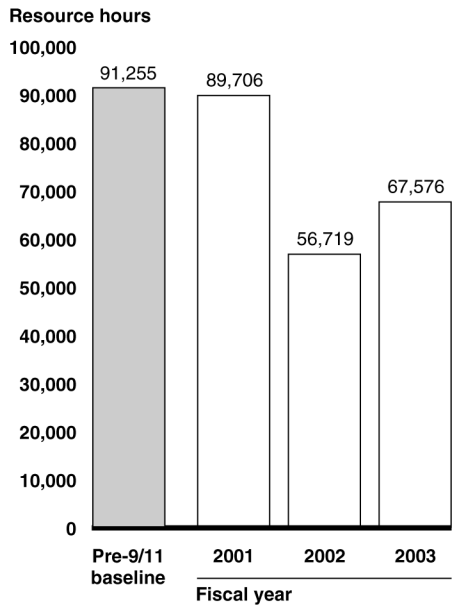


Source: GAO analysis of Coast Guard resource hour data.

Living Marine Resources

Living marine resources showed a similar decline in resource hours between its pre-September 11 level and fiscal year 2003. Resource hours declined from the pre-September 11 baseline of 91,255 to 67,576 in fiscal year 2003—a 26 percent decline. (See fig. 8.) Coast Guard officials said the early part of fiscal year 2003 was an unusually low year for domestic fish; because of the harsh winter weather fishermen did not venture out to fish. Coast Guard officials also said resource hours in the program tended to decline when the security threat level was raised, because boats, ships, and aircraft were reassigned to high security risk areas.

Figure 8: Living Marine Resources Resource Hours

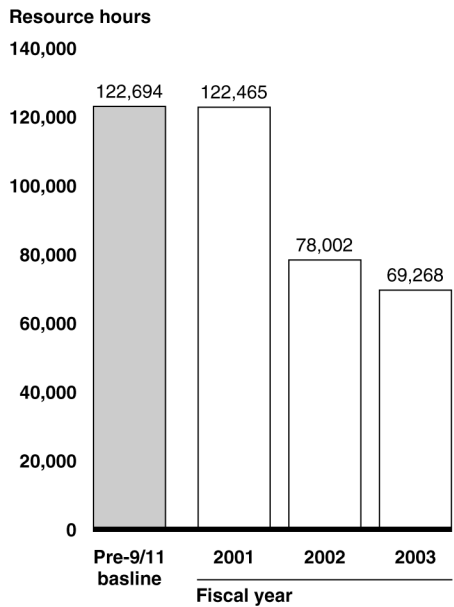


Source: GAO analysis of Coast Guard resource hour data.

Illegal Drug Interdiction

The pre-September 11 baseline for illegal drug interdiction resource hours totaled 122,694 but declined in fiscal year 2002 to 78,002 hours and then to 69,268 hours in fiscal year 2003. (See fig. 9.) Overall, illegal drug interdiction resource hours declined 44 percent between the baseline and fiscal year 2003. According to Coast Guard officials, the illegal drug interdiction program continued to successfully seize illegal drugs, despite the decrease in resource hours, in part because improved intelligence allowed them to better target their drug interdiction operations. Another factor that the Coast Guard believes has contributed to their drug interdiction efforts is a 1997 bilateral agreement with the government of Colombia that has improved cooperation and resulted in additional seizures and information.

Figure 9: Illegal Drug Interdiction Resource Hours

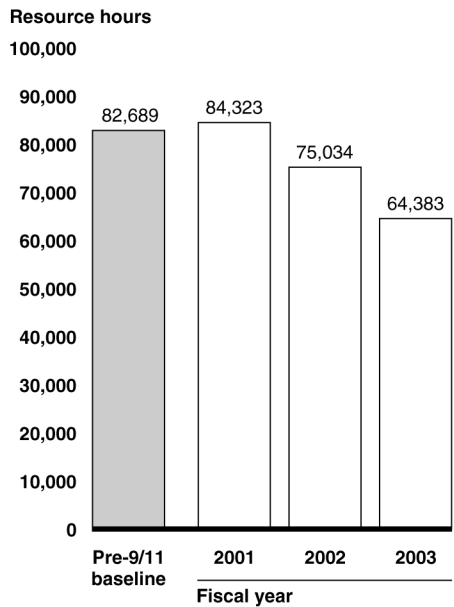


Source: GAO analysis of Coast Guard resource hour data.

Search and Rescue

The search and rescue program's resource hours also remain below pre-September 11 levels. From its pre-September 11 baseline of 82,689 hours, search and rescue declined to 64,383 resource hours in fiscal year 2003. (See fig. 10.) Coast Guard headquarters officials stated that the drop in search and rescue hours after September 11 probably resulted from increased security concerns that discouraged people from boating and fewer boaters could have resulted in fewer distress calls—a reduced caseload for the Coast Guard. In addition, a Group Seattle official believed that the group's prevention efforts and more frequent security patrols may have contributed to a reduction in hours as well.

Figure 10: Search and Rescue Resource Hours



Source: GAO analysis of Coast Guard resource hour data.

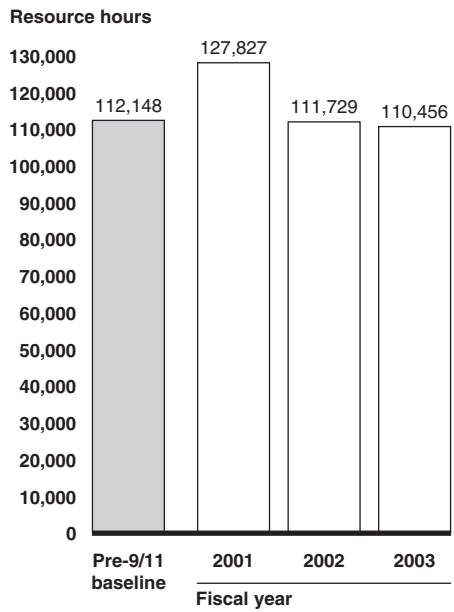
Programs with Stable Resource Hours

Only one Coast Guard program, aids to navigation, which is a non-homeland security program, had stable resource hours between the pre-September 11 baseline and fiscal year 2003.

Aids to Navigation

From their pre-September 11 baseline of 112,148 hours, aids to navigation resource hours rose to 127,827 hours in fiscal year 2001, (an increase of 14 percent), and then declined to 110,456 hours in fiscal year 2003, which was 2 percent below the pre-September 11 level. (See fig. 11.) A Coast Guard official said the slight decline resulted from the addition of more technologically advanced assets, which allow the Coast Guard to achieve the same results in less time.

Figure 11: Aids to Navigation Resource Hours



Source: GAO analysis of Coast Guard resource hour data.

Appendix III: Program-by-Program Trends in Coast Guard Performance Measures

To measure its accomplishments, the Coast Guard uses a set of performance measures developed in accordance with the Government Performance and Results Act (GPRA). GPRA is a key component of a statutory framework that the Congress put in place during the 1990s to promote a new focus on results.¹ Finding that waste and inefficiency in federal programs were undermining confidence in government, the Congress sought to hold federal agencies accountable for the results of federal spending through regular and systematic performance planning, measurement, and reporting. With the implementation of GPRA, federal agencies, including the Coast Guard, are required to set goals, measure performance, and report on their accomplishments. The act requires that federal agencies establish long-term strategic goals, as well as annual goals. Agencies must then measure their performance against the goals they set and report publicly on how well they are doing.

Coast Guard officials said their performance measures help focus efforts and link performance to a strategic outcome, manage programs at the headquarters level, and identify performance gaps.

The Coast Guard currently has performance measures for 10 of its 11 programs.² While some programs have historically contained multiple measures, they have been adjusted to one measure per program since the Coast Guard's transition to the Department of Homeland Security (DHS), as shown in table 6 below. The performance measures consist of performance results, which track the annual progress of each program, and performance targets, which are the goals their results aim to meet each year.

¹For a fuller discussion of the framework, see *Managing for Results: The Statutory Framework for Performance-Based Management and Accountability* (GAO/AIMD/GGD-98-52, January 28, 1998).

²According to Coast Guard officials, performance measures for the ports, waterways, and coastal security program are under development.

Table 6: Coast Guard Performance Measures by Program

Mission and program	Performance measure
Homeland security mission	
Defense readiness	Percentage of time units meet combat readiness status at C-2 level ^a
Foreign fish enforcement	Number of detected Exclusive Economic Zone incursions by foreign fishing vessels
Illegal drug interdiction	Percentage of cocaine seizures entering the United States through maritime means
Ports, waterways, and coastal security	Not yet determined
Undocumented migrant interdiction	Percentage of interdicted illegal migrants entering the United States through maritime means
Non-homeland security mission	
Aids to navigation	Number of collisions, allisions, and groundings
Ice operations	Number of waterway closure days
Living marine resources	Percentage of fishermen found in compliance with regulations
Marine environmental protection	Number of chemical and oil spills greater than 100 gallons per 100 million short tons shipped
Marine safety	Number of passenger vessel, maritime worker, and recreational boating fatalities and injuries
Search and rescue	Percentage of distressed mariners' lives saved

Source: Coast Guard performance data.

^aAccording to Coast Guard information, the C-2 level is defined as the level at which each unit possesses the resources and is trained to undertake most of the wartime missions for which it is organized or designed.

For the purposes of this report, we studied performance for 8 of the 10 programs with performance measures. We did not analyze the marine safety and marine environmental protection programs' performance results because we were unable to obtain any reasonable measurement of the levels of effort being directed into these programs, and therefore had no basis for comparing their resource levels with their performance results.

Overall, for the eight programs we studied, performance results remained stable or improved between fiscal years 2001 and 2003.³ Of these programs, all but defense readiness and undocumented migrant interdiction met their performance targets for fiscal year 2003.

³Illegal drug interdiction was the only exception. Because its fiscal year 2003 performance results will not be calculated until the spring of 2004, we were unable to assess its results between fiscal years 2001 and 2003.

Programs with Generally Stable Performance Results

Undocumented Migrant Interdiction

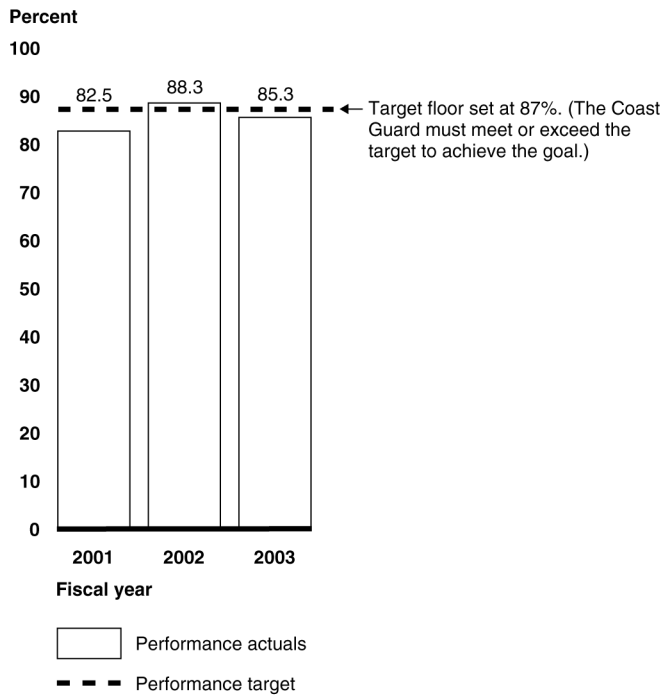
The undocumented migrant interdiction performance measure, which measures the percentage of migrants interdicted or deterred on maritime routes, had a result that remained relatively stable, between 82.5 percent to 88.3 percent. (See fig. 12.) Although the Coast Guard did not reach the program's target level of 87 percent in fiscal year 2003, the result has remained in this range, plus or minus about six percentage points, since fiscal year 2001.⁴ Coast Guard officials said they could not explain the decline but consider it to be minimal. According to the Coast Guard, in fiscal year 2003 there were 3,793 successful arrivals and an estimated threat—the estimated flow of migrants into the United States—of 25,750 migrants, yielding the 85.3 percent result. Although the interdiction rate decreased slightly, the activity level was up, reflecting the increase in resource hours dedicated to this mission. (The 2003 Mission Planning Guidance stipulated that 28,000 hours of cutter and aircraft time be used for undocumented migrant interdiction, whereas the 2004 guidance stipulated 47,000 hours of cutter and aircraft time be used.)

In fiscal year 2003, the Coast Guard reported 5,331 migrant interdictions compared with 2,409 in fiscal year 2002, an increase of over 120 percent.⁵ By comparison, the estimated threat rose by about 18 percent.

⁴According to Coast Guard officials, the undocumented migrant interdiction performance measure target was set at 87 percent based on a study done to incorporate deterrence as a measure of Coast Guard performance.

⁵The 2002 and 2003 illegal migrant numbers include only those counted in the undocumented migrant performance measure, which uses the following four migrant populations, Haiti, Cuba, the Dominican Republic, and the People's Republic of China.

Figure 12: Undocumented Migrant Interdiction Performance Results and Target by Fiscal Year



Source: GAO analysis of Coast Guard performance data.

Illegal Drug Interdiction

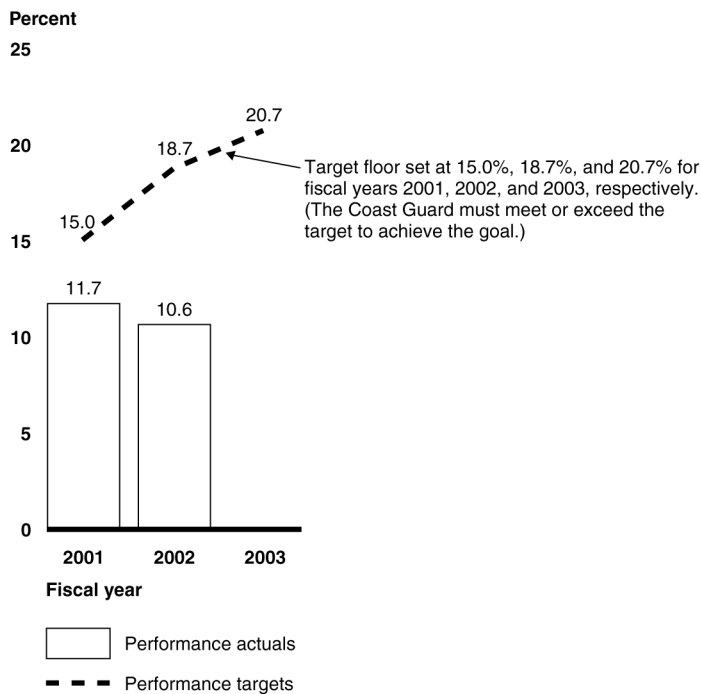
The illegal drug interdiction performance measure—the rate at which the Coast Guard seizes cocaine—remained relatively steady between fiscal years 2001 and 2002, ranging from 10.6 percent to 11.7 percent.⁶ (See fig. 13.) The seizure rate is defined as the metric tons of cocaine seized by the Coast Guard each fiscal year, divided by the estimated maritime flow of cocaine for the same year.⁷ The goal is based on a 1997 Department of Transportation requirement setting the target baseline at 8.7 percent and raising it 10 percent every 5 years. The Coast Guard did not meet its performance target for the drug program in fiscal years 2001 and 2002. Starting in fiscal year 2004, the Coast Guard is changing its illegal drug

⁶The illegal drug interdiction performance result for fiscal year 2003 will not be calculated until the Interagency Assessment of Cocaine Movement publishes its flow rate in spring 2004.

⁷The illegal drug interdiction performance measure includes only cocaine, because cocaine has an analyzed flow rate and is the preponderant illegal drug.

interdiction performance measure to a removal rather than a seizure rate. This new measure includes cocaine that is jettisoned or lost as well as cocaine that is seized. Coast Guard officials believe this new measure more accurately reflects the total impact of the program on disrupting the flow of illegal drugs into the United States.⁸

Figure 13: Illegal Drug Interdiction Performance Results and Targets by Fiscal Year



Source: GAO analysis of Coast Guard performance data.

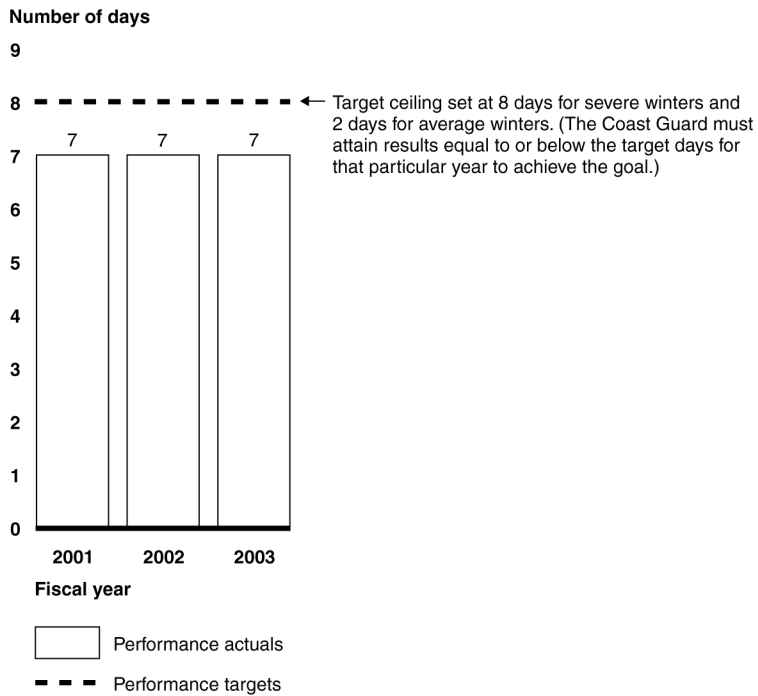
Ice Operations

Ice operations showed both stable performance results that met performance targets in fiscal years 2001 and 2003. (See fig. 14.) To meet the target, the ice operations program must keep winter waterway closures under 8 days per year for severe winters and under 2 days per year for average winters. The Coast Guard met this target in fiscal year 2003, with only 7 days of closures during the severe winter season. Ice

⁸The target for the new illegal drug interdiction measure was set at 15 percent, determined by looking at the trend of seizures across agencies and forecasting out 1 year. Coast Guard officials said they will not be confident in the target for at least 3 years, when they are able to look at trends in the removal rate and adjust the target to reflect a more realistic goal.

operations program managers attribute their success to good planning. Each year officials from the Canadian Coast Guard, the National Oceanic and Atmospheric Administration, and the United States Coast Guard hold a planning conference to develop a winter severity assessment. If the assessment determines the weather will be severe, they develop a strategy to dedicate more assets to ice operations in order to meet the target.

Figure 14: Ice Operations Performance Results and Targets by Fiscal Year

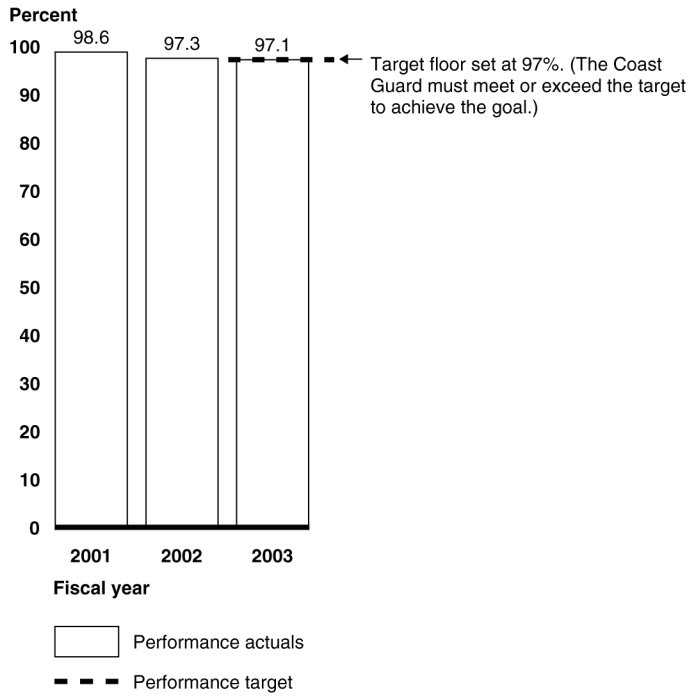


Source: GAO analysis of Coast Guard performance data.

Living Marine Resources

The performance measure for living marine resources—defined as the percentage of fishermen complying with federal regulations—remained stable between 97.1 and 98.6 percent over the past 3 years. The program also met its target of 97 percent, which was first established in fiscal year 2003. (See fig. 15.) Coast Guard officials attribute these results to concerted efforts to improve operational efficiency particularly through a vessel monitoring system and better intelligence sharing while working more closely with federal and state enforcement partners. Coast Guard officials said 16 of the 97 significant violations detected in fiscal year 2003, such as damage to the fish stock, were accomplished through these new efforts.

Figure 15: Living Marine Resources Performance Results and Target by Fiscal Year

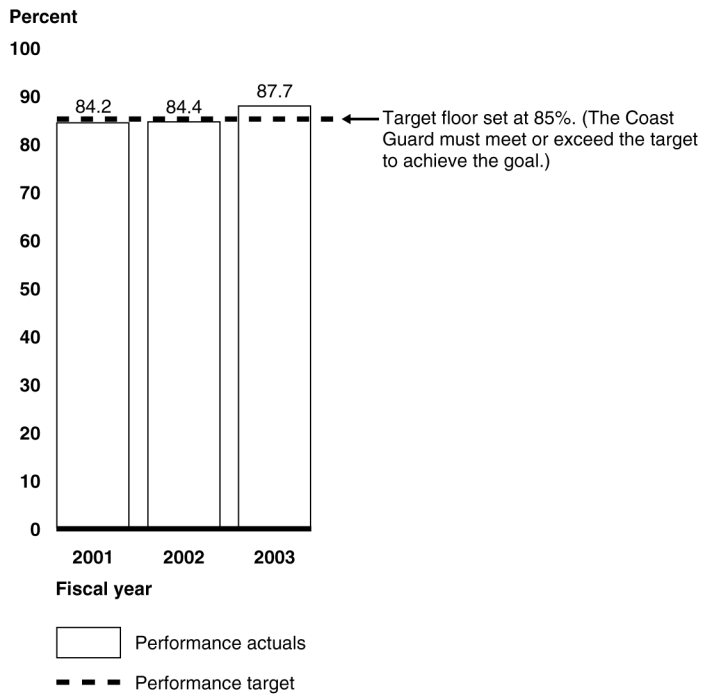


Source: GAO analysis of Coast Guard performance data.

Search and Rescue

Between fiscal years 2001 and 2003, the search and rescue program's performance results were steady. The performance measure for this program is the percentage of mariners' lives saved from imminent danger. The range over the 3 years was 84.2 percent to 87.7 percent, and the result in fiscal year 2003 was above the target of 85 percent. (See fig. 16.) Coast Guard officials attributed the improvement to continued focus on the search and rescue program. The Coast Guard has also added 950 new positions to the program since 2001. The Coast Guard indicated that this personnel increase is reportedly helping manage surge requirements as they occur.

Figure 16: Search and Rescue Performance Results and Target by Fiscal Year



Source: GAO analysis of Coast Guard performance data.

Programs with Improved Performance Results

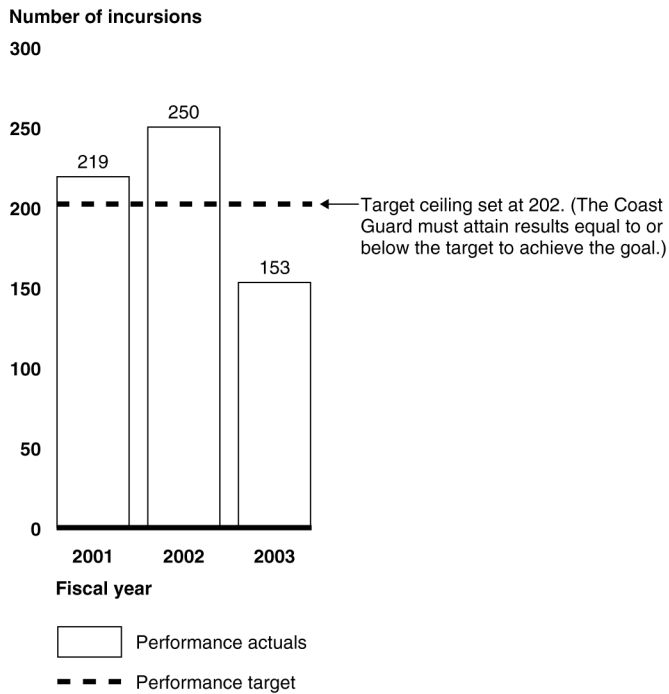
Foreign Fish Enforcement

The performance results for foreign fish enforcement, which indicate the number of foreign vessel incursions into the United States Exclusive Economic Zone (EEZ),⁹ dropped from 250 incursions in fiscal year 2002 to 153 incursions in fiscal year 2003. (See fig. 17.) Because of this

⁹The EEZ, established by the 1976 Magnuson-Stevens Fishery Conservation and Management Act, is the United States' maximum exclusive economic zone, which extends 200 miles from U.S. shores. Within the EEZ, U.S. citizens have primary harvesting rights to fish stocks.

improvement, foreign fish enforcement met its target for fiscal year 2003. (In this case, since the goal is to minimize incursions, a decline is a positive result.) The decrease was greatest along the United States/Russian maritime boundary line (6 incursions versus 22 incursions in fiscal year 2002) and in the Central and Western Pacific region (15 incursions versus 89 in fiscal year 2002). The Coast Guard reported that the drop along the United States/Russian boundary line was due to a near-constant enforcement presence, increased presence of Russian patrol vessels in the vicinity, and a stronger enforcement posture on the Coast Guard's part, including the option of employing warning shots and disabling fire against violators. The decrease in observed incursions in the Central and Western Pacific was more difficult for the Coast Guard to explain. One potential explanation the Coast Guard gave was reduced cutter and aircraft coverage, brought on by the need to shift resources to thwart known ongoing illegal high seas drift net fishing in the North Pacific. According to the Coast Guard, this lack of enforcement could have reduced detections, but since most detected incursions in recent years have come from third party reports and intelligence sources rather than directly from Coast Guard enforcement assets, they do not believe lack of enforcement to be the cause of this shift.

Figure 17: Foreign Fish Enforcement Performance Results and Target by Fiscal Year



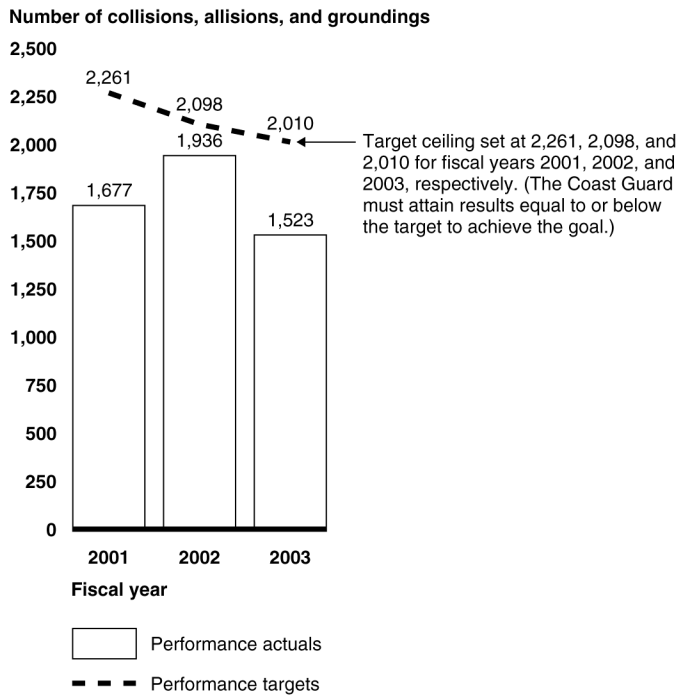
Source: GAO analysis of Coast Guard performance data.

Aids to Navigation

The aids to navigation program performance measure—which assesses the total number of collisions, allisions¹⁰, and groundings—also demonstrated improved results between fiscal years 2002 and 2003. The number of incidents declined from 1,936 in fiscal year 2002 to 1,523 in fiscal year 2003, a decrease of 21 percent in the last year. (See fig. 18.) Furthermore, the program met its target level in each of the three years. Coast Guard officials attribute their performance success to two reasons—an improved navigational infrastructure, and use of activities such as vessel inspection and mariner licensing and examination to reduce causal factors in collisions, allisions, and groundings.

¹⁰The Coast Guard defines allisions as vessel collisions with fixed objects versus collisions, which are vessel collisions with moveable objects.

Figure 18: Aids to Navigation Performance Results and Targets by Fiscal Year



Source: GAO analysis of Coast Guard performance data.

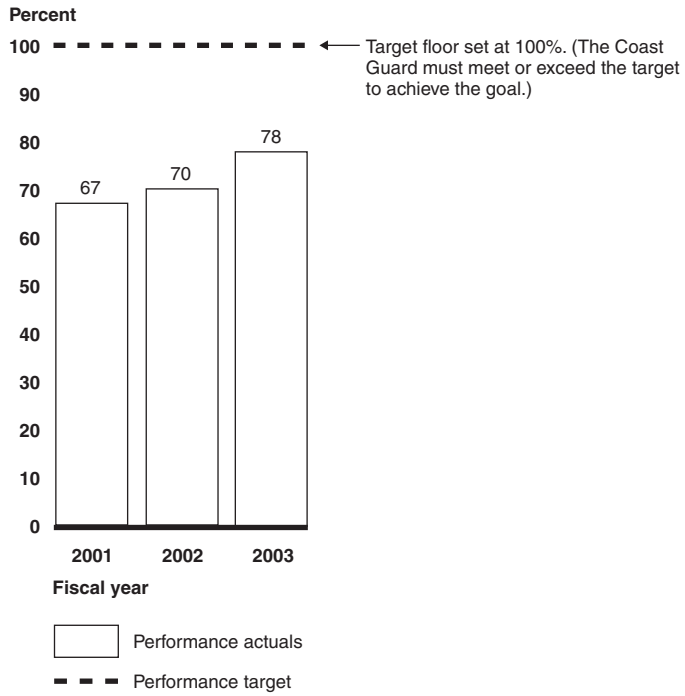
Defense Readiness

Defense readiness, as measured by the percentage of time units meet combat readiness status at a C-2 level,¹¹ improved during fiscal years 2001 to 2003. The percentage of time that defense readiness was at a C-2 level rose from 67 percent fiscal year 2001 to 78 percent in fiscal year 2003. However, defense readiness did not meet its target of 100 percent readiness. (See fig. 19.) The Coast Guard reported that this was due to equipment problems associated with operating aging ships and unit training deficiencies such as cutters not having sufficient training time to perform gunnery exercises.

¹¹According to Coast Guard information, the C-2 level is defined as the level at which each unit possesses the resources and is trained to undertake most of the wartime missions for which it is organized or designed.

Appendix III: Program-by-Program Trends in Coast Guard Performance Measures

Figure 19: Defense Readiness Performance Results and Target by Fiscal Year



Source: GAO analysis of Coast Guard performance data.

Appendix IV: Examples of Coast Guard Approaches to Enhance Operational Efficiency

One of the issues that we discussed with agency officials at Coast Guard headquarters and all five districts we visited was their efforts to utilize intelligence, technology, tactics, and partnerships to leverage existing resources. Coast Guard officials provided examples of new efforts that ranged in scope from agency-wide to location-specific. Greater access to intelligence information, new technologies and tactics, and a number of new or improved partnerships have likely increased efficiency to a degree, but in most cases the Coast Guard is unable to measure the impacts.

The following tables show selected examples of these efforts. The examples provided in the tables are not a comprehensive list of all Coast Guard efforts in these four areas, but they serve to illustrate the variety of efforts under way.

Intelligence

Intelligence efforts are primarily aimed at increasing the Coast Guard’s collection and analytical capabilities to enhance the usage of intelligence information. Greater coordination with external entities is another emphasis, adding to the amount of intelligence that the Coast Guard receives and is able to act upon. Table 7 shows examples of efforts at various Coast Guard levels.

Table 7: Selected Examples of Intelligence Efforts

Coast Guard location	Intelligence effort
Coast Guard–wide	<i>Intelligence Coordination Center (ICC)</i> . This strategic intelligence center serves as the focal point for interaction with the intelligence components of the Department of Defense, other law enforcement agencies, and the intelligence community. The ICC supports all Coast Guard missions and is the center for Coast Guard intelligence collection and management.
Atlantic area	<i>Joint Harbor Operations Center (JHOC)</i> . The Hampton Roads JHOC is a collaborative effort of the Navy and Coast Guard that provides an effective command, control, communications, and computer system and information, surveillance and reconnaissance (C4ISR) capability. The JHOC is to be assigned 9 Navy and 22 Coast Guard positions and is currently staffed with Coast Guard and Navy reservists.
Districts	<i>Field intelligence support teams</i> . These consist of Coast Guard intelligence analysts and Coast Guard special agents. They provide tactical intelligence support to Coast Guard captains of the port by collecting information and reporting suspicious or criminal activity in the port areas, sharing information with other agencies at the local level, and rapidly disseminating intelligence to the captain of the port and other local commanders.
Sector New Orleans	<i>Combined Operations and Intelligence Node (COIN)</i> . This effort includes a shared operations center staffed by personnel from the four Coast Guard commands located in or around New Orleans. The chief goal of COIN is to improve mission performance and tactical awareness through the efficient use of limited resources.

Source: Coast Guard.

Technology

Most technology acquisitions are done Coast Guard-wide, and the examples in table 8 reflect this focus. However, some districts and units have purchased or developed unique technologies to operate in their environment. The table shows several examples, including one unique to the fifth district (Portsmouth, VA), where a database has been designed to provide the real-time status of assets and personnel.

Table 8: Selected Examples of Technology Efforts

Coast Guard location	New technology
Coast Guard-wide	<i>Night vision goggles.</i> Used by cutter, aircraft, and maritime safety and security team personnel during periods of darkness, these goggles allow for safer operations and enhanced ability to detect intrusions.
	<i>Self-locating datum marker buoys.</i> For the search and rescue program, these new buoys provide more up-to-date data that can be used to better determine where to begin a search. The Coast Guard intends for this technology to improve both search effectiveness and efficiency.
Pilot program in various Coast Guard locations	<i>Personal data assistant (PDA).</i> In several locations, PDAs are being used by boarding officers and marine inspectors to conduct their work. The Coast Guard expects that using PDAs will reduce redundant paperwork and facilitate electronic database entries.
District 5 Portsmouth, Va.	<i>SMARTS.</i> This is a database created by personnel in District 5 to provide information about assets and personnel. This database is updated throughout the day by groups within the district and can also be used to analyze trend data. Officials in the fifth district told us that this data system saves both time and resources, because the information it provides would typically require numerous phone calls throughout the day.

Source: Coast Guard.

Tactics

Modifying standard operating procedures and improving the way that routine activities are carried out can lead to greater efficiencies, enhancing mission effectiveness. Coast Guard officials cited various examples of how they had done so—often with the help of the other types of efforts (intelligence, technology, and partnerships). Table 9 outlines examples of new Coast Guard tactics that officials described to us as improving efficiency.

**Appendix IV: Examples of Coast Guard
Approaches to Enhance Operational
Efficiency**

Table 9: Selected Examples of New Tactics

Coast Guard location	New tactic
Coast Guard-wide	<i>Advanced notice of arrival (NOA)</i> . The former 24-hour NOA prior to entering a United States port has been extended to 96 hours. The information provided with the NOA includes details on the crew, passengers, cargo, and the vessel itself. This increase in notice has enabled the Coast Guard to screen more vessels in advance of arrival and allows additional time to prepare for boardings.
Pacific and Atlantic area commands	<i>Maritime safety and security teams (MSSTs)</i> . These 100-person units, established after the September 11 attacks, provide a fast-deployment capability for homeland security, search and rescue, and law enforcement programs. MSSTs will deploy in support of national security special events such as Super Bowls and Olympics, as well as for severe weather recovery operations, protection of military load-outs, enforcement of security zones, defense of critical waterside facilities in strategic ports, and interdiction of illegal activities.
District 8 New Orleans, La.	<i>Inland River Vessel Movement Center</i> . Starting in March 2003, vessels with certain dangerous cargos must report their crew and cargo as they move on the Mississippi River. The integration software the Coast Guard utilizes for this tracking is new, but there is no new technology required for the industry participants. This tactic allows for easier and more consistent tracking of these cargos during transits through densely populated areas.

Source: Coast Guard.

Partnerships

In a past examination of Coast Guard activities, we commented that leveraging resources through partnerships provides mission efficiency to the Coast Guard.¹ The Coast Guard has attempted to develop ways to partner more effectively with local, state, and federal agencies, as well as with public and private entities, and we found a number of examples in the locations that we visited, especially for homeland security. Coast Guard officials told us that these relationships were not necessarily new but had certainly improved since September 11. Table 10 highlights some of these examples. They include new efforts in collaborating with other DHS entities. Coast Guard officials told us that while in some instances these relationships existed prior to the formation of DHS, they have grown stronger with the creation of the new department.

¹U.S. General Accounting Office, *Coast Guard Strategy Needed for Setting and Monitoring Levels of Effort for All Missions* (GAO-03-155, November 2002).

**Appendix IV: Examples of Coast Guard
Approaches to Enhance Operational
Efficiency**

Table 10: Selected Examples of Coast Guard Partnership Efforts

Coast Guard location	Partnership
District 7 Miami	<i>DHS Partners Forum Southeast Florida Region.</i> This group was formed to promote closer cooperation in southeast Florida among agencies moving to DHS. The objectives include sharing information and developing and implementing new coordinated initiatives. There are four interagency working groups that include operations/communications, intelligence, information management and public affairs, and mass migration planning.
District 8 Sector New Orleans	<i>Field Targeting Center (FTC).</i> Customs and Border Protection's (CBP) Office of Field Operations brings together members of CBP, Immigration and Customs Enforcement, Border Patrol, and the Coast Guard to screen and target vessels. Coast Guard Sector New Orleans placed a watch stander at FTC to establish a cooperative screening of all incoming vessels. As a result of the partnership, the Coast Guard was also able to get access to two systems that greatly improved information about incoming vessels and their crewmembers and passengers.
District 5 Group Hampton Roads	<i>Navy.</i> In addition to collaborating with the Navy on the Joint Harbor Operations Center (highlighted in table 7), the Coast Guard partners with the Navy on a number of different initiatives in the fifth district to combine resources and avoid overlap. Since 2001, the Navy has provided vessels to the Coast Guard for naval escorts, and now some of these vessels are staffed with law enforcement detachments and MSSTs. Group Hampton Roads also maintains an active working group with Navy officials, and the group meets often to discuss overlapping issues including enforcement of the local security zone and joint law enforcement boardings.
District 13 Marine Safety Office Puget Sound	<i>Washington State Ferries (WSF).</i> WSF is the largest ferry system in the United States and one of the Coast Guard's greatest security concerns in the Northwest. WSF, the Washington State Patrol, and local Coast Guard officials have established a committee to identify goals and recommendations concerning ferry security, including the refinement of a rapid response information network to be used when specific threats are detected.

Source: Coast Guard.

Appendix V: GAO Contacts and Staff Acknowledgments

GAO Contacts

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Staff Acknowledgments

In addition to those named above, William Bates, Elizabeth Curda, Michele Fejfar, Dawn Hoff, David Hooper, Dawn Locke, Allen Lomax, Heather MacLeod, Eileen Peguero, and Stan Stenersen made key contributions to this report.

Related GAO Products

Coast Guard: Challenges during the Transition to the Department of Homeland Security ([GAO-03-594T](#), April 1, 2003).

Coast Guard: Comprehensive Blueprint Needed to Balance and Monitor Resource Use and Measure Performance for All Missions ([GAO-03-544T](#), March 12, 2003).

Homeland Security: Challenges Facing the Coast Guard as It Transitions to the New Department ([GAO-03-467T](#), February 12, 2003).

Coast Guard: Strategy Needed for Setting and Monitoring Levels of Effort for All Missions ([GAO-03-155](#), November 12, 2002).

Managing for Results: Agency Progress in Linking Performance Plans with Budgets and Financial Statements ([GAO-02-236](#), January 4, 2002).

Performance Budgeting: Initial Experiences under the Results Act in Linking Plans with Budgets ([GAO/AIMD/GGD-99-67](#), April 12, 1999).

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Executive Guide: Effectively Implementing the Government Performance and Results Act ([GAO/GGD-96-118](#), June 1996).

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