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Report to the Senate and House Committees on Appropriations

January 2005

COAST GUARD

Station Readiness Improving, but Resource Challenges and Management Concerns Remain

GAO-05-161

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Highlights

Highlights of GAO-05-161, a report to the Senate and House Committees on Appropriations.

Why GAO Did This Study

For years, the Coast Guard has conducted search and rescue operations from its network of stations along the nation's coasts and waterways. In 2001, reviews of station operations found that station readiness—the ability to execute mission requirements in keeping with standards—was in decline. The Coast Guard began addressing these issues, only to see its efforts complicated by expanded post-September 11, 2001, homeland security responsibilities at many stations. GAO reviewed the impact of changing missions on station needs, the progress made in addressing station readiness needs, and the extent to which plans are in place for addressing any remaining needs.

What GAO Recommends

To assist the Coast Guard in addressing station readiness concerns, GAO recommends that once security requirements have been defined, the Coast Guard

- revise strategic plans to reflect new security responsibilities and to include specific actions and other mechanisms for meeting station needs,
- develop annual station goals, and
- revise practices for funding station personal protection equipment.

The Department of Homeland Security and the Coast Guard reviewed a draft of this report and generally agreed with the findings and recommendations.

www.gao.gov/cgi-bin/getrpt?GAO-05-161.

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

The Coast Guard does not yet know the extent to which station readiness needs have been affected by post-September 11 changes in mission priorities, although increases in homeland security operations have clearly affected activities and presumably affected readiness needs as well. Following the attacks, stations in and near ports received the bulk of port security duties, creating substantial increases in workloads. The Coast Guard is still in the process of defining long-term activity levels for homeland security and has yet to convert the homeland security mission into specific station readiness requirements. Until it does so, the impact of these new duties on readiness needs cannot be determined. The Coast Guard says it will revise readiness requirements after security activity levels have been finalized.

Increased staffing, more training, new boats, more personal protection equipment (such as life vests), and other changes have helped mitigate many long-standing station readiness concerns. However, stations have been unable to meet current Coast Guard standards and goals in the areas of staffing and boats, an indication that stations are still significantly short of desired readiness levels in these areas. Also, because Coast Guard funding practices for personal protection equipment have not changed, stations may have insufficient funding for such equipment in the future.

The Coast Guard does not have an adequate plan in place for addressing remaining readiness needs. The Coast Guard's strategic plan for these stations has not been updated to reflect increased security responsibilities, and the agency lacks specific planned actions and milestones. Moreover, the Coast Guard has yet to develop measurable annual goals that would allow the agency and others to track stations' progress.

A Coast Guard Boat and a Multimission Station

Source: U.S. Coast Guard.

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Abbreviations

GPRA	Government Performance and Results Act
MARSEC	Maritime Security Condition
MSO	Marine Safety Offices
MSST	Maritime Safety and Security Teams
OIG	Office of Inspector General
PPE	personal protection equipment
PWCS	Ports, Waterways, and Coastal Security

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GAO
Accountability * Integrity * Reliability

United States Government Accountability Office
Washington, DC 20548

January 31, 2005

The Honorable Thad Cochran
Chairman
The Honorable Robert C. Byrd
Ranking Minority Member
Committee on Appropriations
United States Senate

The Honorable Jerry Lewis
Chairman
The Honorable David R. Obey
Ranking Minority Member
Committee on Appropriations
House of Representatives

The 188 Coast Guard multimission stations located along the nation's coastlines and interior waterways have been a mainstay of one of the Coast Guard's oldest missions—finding and rescuing mariners in danger.[1] In 2001, after a series of search and rescue mishaps, the Coast Guard and others conducted reviews of station operations. These reviews showed that station readiness had been declining for more than 20 years and was continuing to decline.[2] In response to these findings, the Coast Guard began a long-term effort to address station needs. The response focused in large part on reconfiguring operations and bolstering resources in four areas—staffing, training, boats, and the personal protection equipment used by personnel during operations, such as life vests and survival suits.

[1]Multimission stations perform all Coast Guard missions.

[2]Office of Inspector General, Department of Transportation, *Audit of the Small Boat Station Search and Rescue Program*, MH-2001-094 (Washington, D.C.: Sept. 14, 2001) and June 13, 2001, testimony by Kenneth M. Mead, Inspector General, U.S. Department of Transportation, CC-2001-184. In 2001, the Coast Guard issued its own internal report—the *Project Kimball Report*—on the operational readiness of all its boat units, including stations. The findings of the report were largely consistent with the issues identified by the Inspector General.

This effort, which began prior to the terrorist attacks of September 11, 2001, was complicated by the new and increased homeland security responsibilities stations assumed in the wake of the attacks. With the intensification of maritime security operations, the Coast Guard faces additional challenges in reorganizing resources to meet potential maritime threats and at the same time reach new and sustainable levels of readiness.

The term "readiness," as used by the Coast Guard, involves more than the ability to carry out required operations, such as a rescue or a security patrol; it involves the ability to do so at a sustainable level while adhering to agency standards. For example, a station may have enough personnel to carry out rescues and other required missions, but not enough to meet agency standards that specify the number of hours personnel should work. In this scenario, the station is not considered fully ready because it is not complying with agency standards and, therefore, may have difficulty maintaining its performance over an extended period. However, as the example illustrates, a lack of full readiness should not be interpreted as an inability to meet basic mission responsibilities. Moreover, readiness requirements can change depending on the needs of the mission. While some assets at a station may not fully meet readiness requirements for certain missions, they can be used to perform other missions. For example, a rescue boat with a mechanical problem that precluded operating it at top speed would not meet full readiness requirements for rescues or high-speed chases, but it could meet requirements for missions that did not typically require high speeds, such as patrols or vessel escorts. Thus, a lack of full readiness does not affect all missions equally.

This report, the second of two reviews directed by Congress on multimission station operations,[3] focuses on the Coast Guard's progress in addressing long-standing station readiness needs[4] while balancing changing mission demands. Specifically, this report addresses the extent to which the Coast Guard:

[3]Our first report addressed whether the Coast Guard's outlays for stations in fiscal year 2003 exceeded those in fiscal year 2002 by the designated amount of $15.7 million, as directed in P.L. 108-7, Division 1, Title 1 (Consolidated Appropriations Resolution, 2003). See GAO, *Coast Guard: Station Spending Requirements Met, but Better Processes Needed to Track Designated Funds*, GAO-04-704 (Washington, D.C.: May 28, 2004).

[4]"Readiness needs" refers to the resources, people, training, and equipment that stations require to execute mission requirements in accordance with standards.

- has experienced a change in multimission station readiness needs as a result of post-September 11 changes in mission priorities;
- has been able to address readiness concerns through the addition of resources in the areas of personnel, training, boats, and personal protection equipment; and
- has plans in place for addressing any readiness needs that may still exist.

To address these objectives, we analyzed Coast Guard data, reviewed relevant documents, and interviewed headquarters and field officials. The key data we reviewed included (1) station resource (boat) hour data, used to track the number of hours spent on individual missions; (2) port activities data, used to monitor security operations at key ports; (3) various operations data (in the areas of staffing, training, boats, and personal protection equipment), used to monitor station needs; and (4) fiscal year 2003 results from the Coast Guard's annual station workload survey, used to assess changes in personnel workloads. On the basis of interviews with knowledgeable agency officials, data assessments from previous reports, and reviews of existing documentation, we determined that these data were sufficiently reliable for this report. To better understand stations' readiness needs and how those needs have changed over time, we also visited 8 multimission stations on the Pacific and Atlantic coasts and interviewed relevant field officials. The stations were selected based on geographic location, proximity to a strategic port,[5] and the number of station resource hours expended on various missions during fiscal year 2003. To further explore how changes in mission priorities after September 11 affected stations, we interviewed by telephone officials responsible for operations at 8 additional stations, located at various strategic ports, which we selected based on the number of station resource hours expended on port security operations. For security purposes, the 16 stations we visited or reviewed through telephone interviews are not identified in this report. On the basis of input from station personnel, we also interviewed officials from 13 local and state organizations that have partnerships with 8 of the stations we reviewed. Appendix I explains in more detail the scope of our work and the methodology we used. We conducted our work for this second report

[5]"Strategic ports" are ports having critical assets and infrastructure of economic, environmental or national security significance.

from September 2003 through December 2004 in accordance with generally accepted government auditing standards.

Results in Brief

The Coast Guard does not yet know the extent to which station readiness needs—primarily resource levels—have been affected by post-September 11 changes in mission priorities. However, increases in homeland security operations after the September 11 terrorist attacks clearly affected stations' mission activities and presumably the readiness needs related to those activities. Following the attacks, the Coast Guard elevated the homeland security mission to a level commensurate with the search and rescue mission, and stations were assigned the brunt of the Coast Guard's port security responsibilities. These new responsibilities led to substantial increases in the stations' security workloads. In addition, these workload levels may change in the future once the Coast Guard has established long-term security activity standards for stations and other units. Currently, the Coast Guard is operating under interim homeland security guidelines, which establish recommended security activities for field units according to each maritime security threat level. These guidelines are not, according to Coast Guard officials, considered requirements because the recommended operations established by the guidelines exceed current resource levels. Because the Coast Guard is still in the process of defining long-term, risk-based standards for security activities, it has yet to translate the impact of security-related mission responsibilities into specific station readiness requirements, such as staffing standards. Until it does so, the impact of these new homeland security responsibilities on readiness needs cannot be determined. Further, without specific requirements, neither the Coast Guard nor others can measure the progress made in meeting station readiness needs. Officials said they plan to start revising station readiness requirements once long-term homeland security requirements have been finalized, which the Coast Guard expects to occur in February 2005. Because the interim security guidelines exceed available resources, officials told us stations and other units are expected to perform security operations as allowed for by their existing resources. Given these factors, Coast Guard data indicate that stations and other units are meeting most of the port security activities expected of them.

Operational improvements in staffing, training, boats, and personal protection equipment, as well as increases in resource levels at stations, have helped mitigate a number of long-standing readiness concerns. However, even without the new readiness requirements as a gauge to measure progress, it is clear that stations have been unable to meet current Coast Guard standards and goals related to staffing, boats, and equipment, which indicates that stations are still significantly short of

desired readiness levels in some areas. Since 2001, the Coast Guard has increased station staffing by 25 percent and realigned the stations' staffing structure, expanded training programs, embarked on an extensive program to replace and standardize aging boats, and provided all station personnel with personal protection equipment. However, there are indications that station personnel continue to work significantly longer hours than are allowed for under the Coast Guard's work standards, which are in place to ensure that personnel do not become overly fatigued. Regarding boats, although the Coast Guard has replaced old boats and increased the number of boats at many stations, Coast Guard inspections showed that about five boats in every six inspected at selected stations in 2003 did not initially meet readiness requirements. Finally, while station personnel appear to have been outfitted with sufficient personal protection equipment as of fiscal year 2003, the Coast Guard's processes and practices for determining funding needs—such as not basing funding estimates on the number of personnel assigned to stations and historically funding only about half of identified needs—raise concerns that the Coast Guard may not allot sufficient funds in the future for station equipment.

The Coast Guard does not have an adequate plan in place for achieving and assessing station readiness in its new post-September 11 operating environment. The *Boat Forces Strategic Plan*—the Coast Guard's strategy for maintaining and improving essential multimission station capabilities over the next 10 years—is the agency's primary tool for measuring progress in meeting station readiness requirements. Although the plan outlines a significant array of long-term goals, objectives, and initiatives for addressing station readiness needs, it has not been updated to reflect increased homeland security responsibilities imposed on stations in the wake of September 11. The plan also lacks key elements, such as specific planned actions and milestones that would help assure Congress and others that the Coast Guard will continue to make progress in restoring station readiness. For example, the plan does not identify what actions will be needed to ensure that station personnel are placed in positions that are appropriate with their experience, or to increase the actual length of time personnel are assigned to stations. In addition, the plan lacks a clear link between objectives and required funding levels. Furthermore, the Coast Guard has yet to develop measurable annual goals that would allow the agency to track its progress in achieving long-term goals and objectives, allow others to effectively monitor and measure progress, and provide accountability. Coast Guard officials told us that changing priorities can make it difficult to adhere to long-term strategic plans and to maintain program consistency; they also noted that the Coast Guard intends to review the *Boat Forces Strategic Plan* on an annual basis.

To assist the Coast Guard in addressing past and future readiness concerns, we are recommending that the Secretary of the Department of Homeland Security, in consideration of any revised homeland security requirements, direct the Commandant of the Coast Guard to ensure that the *Boat Forces Strategic Plan* is revised to (1) reflect the impact of homeland security requirements on station needs and (2) identify specific actions, milestones, and funding requirements for meeting those needs and responsibilities. We are also recommending that the Coast Guard develop measurable annual goals for stations and revise funding practices for personal protection equipment to reliably identify annual station funding needs and to use this information when making future funding decisions.

Background

What Are Multimission Stations?

As shore-based units located along the nation's coasts and interior waterways, the Coast Guard's 188 multimission stations conduct a wide range of operations, from rescuing mariners in distress to patrolling ports against acts of terrorism. The stations are involved in all Coast Guard programs,[6] including search and rescue, port security, recreational and commercial fishing vessel safety, marine environmental response, and law enforcement (drug and migrant interdiction). Their involvement varies geographically from one Coast Guard district to the next, depending on differing conditions among regions.[7] Some program operations also vary depending on the season—for example, search and rescue operations are greater in the summer when recreational boating is more active and lower in the winter. Because stations are traditionally associated with search and rescue operations, they can be compared to fire stations, in the sense that crew members remain at the station for extended periods, on duty, ready to respond to an emergency.[8]

Stations range in size from as few as 4 personnel at seasonal stations to as many as 60 personnel at larger stations. Individual stations are usually

[6]The Coast Guard has responsibilities that fall into 11 programs within two broad missions—homeland security and nonhomeland security.

[7]For example, in South Florida migrant interdiction is a major program at some stations, but it is virtually nonexistent in the Great Lakes region.

[8]Coast Guard standards require that boat crews be able to launch a boat within 30 minutes of a distress call.

commanded by a command cadre consisting of an officer-in-charge—such as a senior chief petty officer—an executive petty officer, and an engineering petty officer. The command cadre is responsible for overseeing personnel, equipment, and mission-related issues. In support of operations, the stations also provide unit-level (on-the-job) training as well as equipment and minor boat maintenance. As shown in table 1, stations employ personnel in numerous occupations, but the principal staff usually consists of boatswain's mates—those who operate the boats and carry out many station duties. In addition to performing essential station responsibilities, boatswains' mates can undergo additional training for more advanced occupations, such as a coxswain (a boat driver) or a surfman (a coxswain who is qualified to operate boats in heavy weather and high surf conditions).

Table 1: Selected Types of Positions and Occupations at Stations

Rate (occupation)/position	Rank and grade[a]	Description
Seaman apprentice/seaman	Seaman apprentice/seaman (E-2 – E-3)	Personnel who are in training for deck, weapons, administrative, and certain electronics positions.
Fireman apprentice/fireman	Fireman apprentice/fireman (E-2 – E-3)	Personnel who are in training for engineering and certain hull positions.
Machinery technician	Starts at petty officer 3rd class (E-4)	Personnel who operate, maintain, and repair engines, gas turbines, and transmissions equipment, as well as auxiliary, refrigeration, air conditioning, and electrical equipment.
Boatswain's mate	Starts at petty officer 3rd class (E-4)	Personnel who are proficient in deck and boat seamanship and have a working knowledge of all Coast Guard programs.
Coxswain	Starts at petty officer 3rd class (E-4)	A boatswain's mate who is in charge of a boat and is qualified to drive it.
Surfman	Starts at petty officer 2nd class (E-5)	A coxswain—boat driver—who is qualified to drive boats in heavy weather and high surf conditions.[b]
Communications watchstander	Starts at seaman (E-3)	Personnel who stand watch—that is, who staff communications systems and towers—for specific periods of time.
Storekeeper	Starts at petty officer 3rd class (E-4)	Personnel who budget, order, receive, inventory, and account for station purchases and requisitions.

Source: U.S. Coast Guard.

[a]The grade E-1, which is not listed, applies to seaman recruits—personnel who are undergoing recruit training to become oriented to the Coast Guard and a military environment.

[b]Surfmen are usually stationed at designated surf stations, which are defined as stations that experience surf greater than 8 feet for 37 or more days during a calendar year.

Like the number of personnel, the number of boats at stations varies. Small, seasonal stations may have only one boat, while larger stations can have as many as nine. Table 2 describes the type of boats stations typically operate. (see app. II for pictures of selected boats). All station personnel are required to wear personal protection equipment (PPE), while operating or riding in a boat. Coast Guard personnel use PPE to protect against various dangers, such as inclement weather and cold water exposure. PPE includes items such as life vests, helmets, goggles, gloves, cold weather protection suits, thermal underwear, and electronic location devices. (See app. II for more information on the nature and use of PPE.)

Table 2: Selected Types of Boats Operated by Stations

Type of boat	Specifications	Purpose
Response boat (small)	25-foot, maximum speed of 43 knots, maximum seas of 6 feet, brought into service in 2003[a]	Used to conduct high-speed maneuvering tactics, including homeland security operations.
Utility boat (big)	41-foot, maximum speed of 26 knots, maximum seas of 8 feet, brought into service in 1973[b]	Designed to operate in moderate weather and sea conditions (commonly referred to as the station "workhorse").
Motor lifeboat	47-foot, maximum speed 25 knots, maximum seas of 30 feet and surf of 20 feet, started production in 1997	Designed as a fast-response rescue boat for high seas, surf, and heavy weather conditions, it is used in extreme at-sea weather conditions.
Nonstandard boats	Varies from 9-foot to 30-foot, with a range of capabilities[c]	Used for a variety of missions, including search and rescue and law enforcement.

Source: U.S. Coast Guard.

[a]The Coast Guard plans to continue purchasing these boats through 2009, to replace nonstandard boats.

[b]The Coast Guard is planning to replace these boats with more versatile and faster response boat mediums and plans to award a contract for production in 2005.

[c]Nonstandard boats include a variety of small boats purchased at the field level; these boats were purchased based on the preference and discretion of the local commander rather than through a centralized, coordinated effort.

What Are the Roles of Multimission Stations in Port and Nonport Areas?

Following the events of September 11, the Coast Guard created a new program area for homeland security operations—the Ports, Waterways, and Coastal Security (PWCS) program.[9] The type and frequency of PWCS activities performed by stations varies depending on whether a station is located in a port area or in a nonport area. Stations located in or near a port tend to perform more PWCS tasks, such as patrolling, escorting vessels, and other duties.[10] The responsibilities can vary by port, however, depending on several factors, including the availability of other Coast Guard units to share in operations, the strategic importance of the port, and the support of non-Coast Guard entities—such as state and local agencies—in both homeland and nonhomeland security activities. Although stations located in nonport areas also conduct PWCS operations, such as patrolling waterways, they tend to have fewer PWCS responsibilities. In general, stations located in nonport areas do not have the responsibility of maintaining the security of critical infrastructure, high-profile vessels, or shore operations as do stations located in port areas. As tactical units,[11] stations do not determine the nature or frequency of their tasks; rather, they carry out the tasks assigned to them by operational units,[12] which provide oversight as well as operational and administrative support to the stations.

Why Is Readiness a Concern?

In 2001, studies by the Office of Inspector General (OIG) and a Coast Guard internal review team found that readiness conditions at multimission stations had been deteriorating for over 20 years.[13] The studies, which had largely consistent findings, identified readiness concerns in the areas of staffing, training, and boats and presented recommendations for addressing these concerns. Table 3 presents selected findings from these studies, as well as congressional concerns regarding station readiness. In December 2002, in response to a

[9]The PWCS program includes activities such as conducting harbor patrols, vulnerability assessments, and other activities to prevent terrorist attacks and minimize the damage from attacks that occur.

[10]For security purposes, the specific duties of these stations are not identified.

[11]In this sense, the term "tactical" refers to procedures or maneuvers carried out in pursuit of a goal.

[12]Operational units, which can include a group, activity, or a sector, serve as a parent unit for overseeing station operations and for providing guidance on policy and administrative matters.

[13]OIG, MH-2001-094 and U.S. Coast Guard, *Project Kimball Report*.

recommendation from the OIG and at the direction of the Senate Appropriations Committee,[14] the Coast Guard developed a draft strategic plan to maintain and improve essential capability of all its boat force units, including stations.[15] The plan recognized that stations did not have sufficient resources to be fully capable of meeting all their workload requirements and that it would take both increases in resources as well as "more judicious tasking by operational commanders" to address the imbalance.[16] In its 2003 report on station operations, the OIG criticized the plan for being too general in nature, specifically regarding how and when the Cost Guard will increase staffing, training, equipment, and experience levels at stations.

Table 3: Selected Findings from OIG, Coast Guard, and Senate Reports on Multimission Station Readiness Concerns

Category	Concern	Explanation/impact
Staffing	A shortage of personnel	Increases workweek hours for crew and compels command cadre to fill in during operations
	Declining levels of experienced personnel	Reduces the number of qualified staff available to supervise, provide on-the-job training, and conduct necessary operations
	Shortened tours of duty (high personnel turnover)	Exacerbates the impact of personnel shortages and lack of senior personnel for on-the-job training and supervision
	Inadequate mix of positions, skills, and expertise across stations	Affects mission performance
	Positions filled with uncertified or inexperienced personnel	Increases workweek hours and affects mission performance
	Insufficient number of qualified surfmen	Increases workweek for crew and command cadre
Training	Lack of formal entry-level training for boatswain's mates	Increases the training burden for senior station personnel Results in nonstandard training techniques and knowledge gaps among personnel
	Lack of standardized training in boat operations	Increases the number of boat mishaps and training burden for senior station personnel

[14]Senate Report 107-38, Senate Committee on Appropriations, accompanying the Department of Transportation and Related Agencies Appropriations Act, 2002 (P.L. 107-87).

[15]U.S. Coast Guard, *Report on Boat Forces Strategic Plan* (Washington, D.C.: July 7, 2004). Although a draft of the plan was provided to the OIG for comment in 2002, it was not released to Congress until 2004.

[16]United States Coast Guard, *Boat Forces Strategic Plan*, p. 5.

Category	Concern	Explanation/impact
Boats	Nonstandard boats	Contributes to boat mishap rates (in part because of lack of adequate training)
	Aging boats[a]	Reduces operational and maintenance effectiveness
	Boats failing to meet operational inspection standards	Reduces mission capability
Personal protection equipment	Shortage of adequate equipment	Reduces crew safety during search and rescue missions

Source: OIG, U.S. Coast Guard, and U.S. Senate Committee on Appropriations.

[a]Boats nearing the end of their service life.

Added Security Responsibilities Had Impact on Readiness Needs but Extent of Impact Unknown

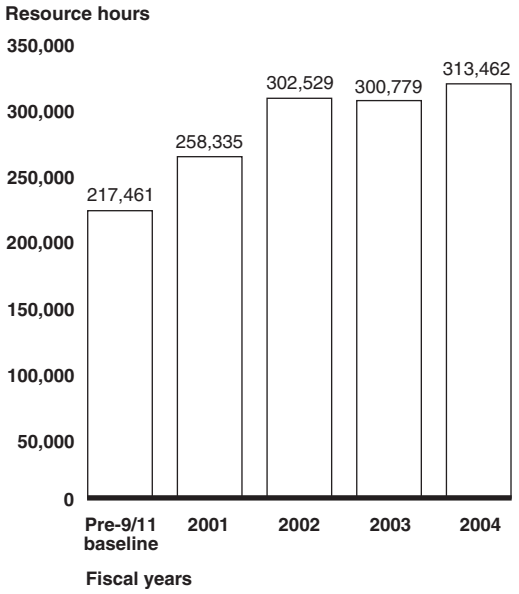
Added security responsibilities after the September 11 attacks had a definite—but as yet unmeasured—impact on stations' readiness needs. Stations have seen a substantial increase in their security workload, along with a shifting of activity levels in other missions. The effect of these changes on readiness needs is still largely undetermined, mainly because the Coast Guard has not yet translated the security-related mission responsibilities into specific staffing standards and other requirements. Until it does so, the impact of increased responsibilities on readiness cannot be determined nor can the Coast Guard or others measure progress made in meeting station needs. With the support of state and local entities, stations and other units appear to be meeting the majority of port security responsibilities identified in the Coast Guard's interim guidelines.

Stations Have Increased Operations to Address Homeland Security Responsibilities

After September 11, the Coast Guard's multimission stations experienced a substantial rise in overall activity levels. Following the attacks, the Coast Guard elevated the priority of the homeland security program to a level commensurate with search and rescue, and according to field and headquarters officials, stations were assigned the brunt of the Coast Guard's port security responsibilities. These responsibilities led to considerable increases in the stations' security workloads. One way to see this change is in the number of hours that station boats were operated before and after September 11. Station boat hours increased by 44 percent from a level of about 217,000 hours prior to the terrorist attacks to more

than 300,000 hours by the end of fiscal year 2004 (see fig. 1). [17] Coast Guard officials explained that increases in boat hours were due to increased homeland security responsibilities and the 160 additional boats and personnel stations received from fiscal years 2002 to 2004.[18]

Figure 1: Total Boat Hours for All Station Programs, Pre-September 11 Baseline through 2004



Source: GAO analysis of U.S. Coast Guard data.

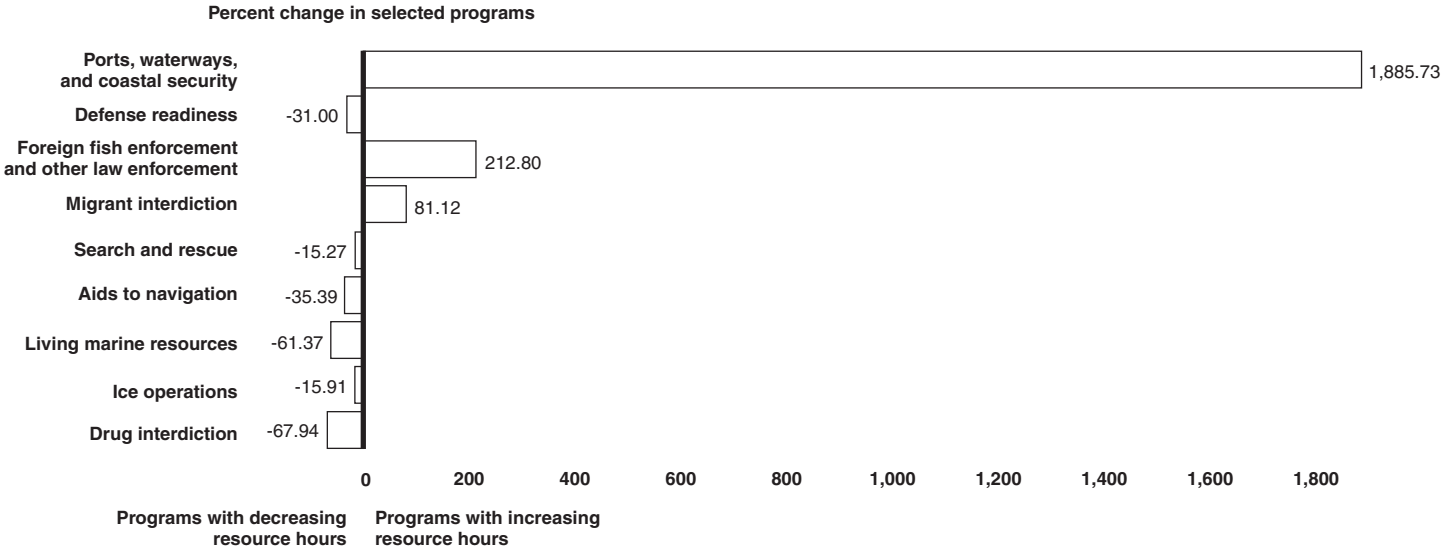
Note: Data for "Pre-9/11 baseline" represents a 2-year average of boat hours expended in fiscal years 1999 and 2000.

[17]We calculated a resource hour baseline from which the change in resource hours following the September 11 attacks could be estimated. This baseline is an average of the 2 complete fiscal years preceding the attacks, fiscal years 1999 and 2000. We did not include 2001 data because these data were not available on a monthly basis. We developed this baseline as a more representative depiction of boat hours expended by stations prior to the events of September 11. For the purposes of this report, we refer to this calculation as the pre-September baseline or as pre-September 11 levels. Coast Guard officials agreed with this approach to this analysis.

[18]According to officials, stations received 50 new boats in fiscal year 2002, 34 in fiscal year 2003, and 76 in fiscal year 2004. Each of these boats was allotted approximately 500 to 600 hours of operating time per year. Stations also received additional boats as part of replacement needs, but these boats would not account for increases in overall boat hours for the time period we reviewed.

While total boat hours for stations increased following September 11, the trend among specific programs varied greatly, with some programs experiencing substantial increases and others experiencing declines (see fig. 2). Most notably, boat hours for the PWCS program increased by almost 1,900 percent between pre-September 11 levels and fiscal year 2004. Coast Guard officials attributed the increases in PWCS hours to (1) stations' expanded homeland security responsibilities, (2) several elevations in the Maritime Security Condition (MARSEC) after 2001,[19] and (3) acquisition of new boats and additional personnel stations received in fiscal years 2002 through 2004. Conversely, during the same period, hours dedicated to nonhomeland security programs decreased. For example, boat hours expended for search and rescue decreased by 15 percent, while hours for living marine resources decreased by 61 percent.

Figure 2: Boat Hours for Selected Programs, Pre-September 11 Baseline through 2004



Source: GAO analysis of U.S. Coast Guard data.

Note: Data for "Pre-September 11 Baseline" represents a 2-year average of boat hours expended in fiscal years 1999 and 2000.

[19]MARSEC, the Coast Guard's security assessment system, corresponds to the Department of Homeland Security's Homeland Security Advisory System, which uses a series of colors to inform the nation about the federal government's perception of the terror threat level. As MARSEC levels rise, so does the level of security activities the Coast Guard is expected to conduct.

Similar trends emerge in the limited data available about how Coast Guard personnel spend their time at stations. While the Coast Guard does not formally track the number of work hours station personnel spend on each program (either when operating a boat or while at the station), it does administer a survey each year to personnel at selected stations, asking them to estimate how they spent their time over an average week or week period in August.[20] Survey results indicated that the number of hours spent on PWCS activities increased for those responding by about 29 percent between calendar years 2002 and 2003, while the number of hours spent on search and rescue activities decreased by about 12 percent.

Coast Guard officials told us that although the stations' workload has increased since September 11, mission performance has not suffered. This does not mean that they believe stations' readiness needs were not affected by the increase in operations, only that stations have been able to sustain expected performance despite increased workloads. Officials responsible for overseeing operations at the stations we contacted explained that stations have been able to sustain performance levels by achieving greater efficiencies in operations, specifically by (1) conducting multiple missions during port security operations and (2) coordinating their efforts with state and local organizations. They also noted that stations have received additional boats and personnel since September 11. It is likely that other factors also play a role in this issue. Our prior work on the Coast Guard's overall use of resources suggests an additional possible factor, such as decreases in search and rescue responsibilities over time.[21] This work also showed that even in those program areas in which the number of boat hours declined following September 11, the Coast Guard was generally able to meet performance goals.

Effect of Homeland Security Responsibilities on Readiness Needs Not Yet Known

The Coast Guard has not yet determined the extent to which changes in post-September 11 mission priorities—specifically, increases in homeland security responsibilities—have affected station readiness needs. Coast Guard officials told us there are two reasons for this. First, the Coast Guard's maritime homeland security requirements are being revised to

[20]The Coast Guard has administered this survey each year since 1991, with the exception of years 1999–2001. The response rate in 2003 was 54 percent.

[21]See GAO, *Coast Guard: Relationship between Resources Used and Results Achieved Needs to Be Clearer*, GAO-04-432, (Washington, D.C.: Mar. 22, 2004). This work addressed all Coast Guard operations, not just station operations.

better align with current resource levels. The Coast Guard is currently working under Operation Neptune Shield, an interim set of guidelines that establishes Coast Guard's homeland security activity levels—taskings—under each MARSEC level. However, because the guidelines call for a level of operations that exceeds the Coast Guard's current resource levels, the Coast Guard is in the process of revising the guidelines. Officials told us they expect the new, long-term, risk-based requirements to establish more realistic activity levels that better align with existing resources and take into account support from state and local organizations at strategic ports.[22] Officials told us they expect to have new activity level standards finalized by February 2005. Under these new standards—requirements—it is possible that station workload levels may change. Officials also told us that although the new requirements, known as the Strategic Deployment Plan, will better align security operations with existing resources, the Coast Guard will need to monitor this balance in the future given the dynamic nature of homeland security issues.

Second, because homeland security requirements have yet to be finalized, the Coast Guard has begun, but not yet completed, efforts to update station staffing standards and other requirements to reflect post-September 11 changes in mission priorities and station readiness needs. Officials told us that once homeland security requirements have been finalized under the Strategic Deployment Plan, they will revise station staffing standards and other requirements to better reflect readiness needs. Although station staffing levels have been increased in response to the new homeland security priorities and past reports of staffing readiness concerns, the staffing standards are still based upon pre-September 11 mission priorities (i.e., search and rescue operational levels). Until the Coast Guard can translate the impact of security-related activities into specific station requirements, the impact of the new homeland security responsibilities on station readiness needs cannot be determined. Furthermore, without specific requirements, neither the Coast Guard nor others can measure the progress made in meeting station readiness needs.

[22]Officials told us that because units may not have the resources to carry out the responsibilities outlined in Operation Neptune Shield, they are considered to be "guidelines." However, the new responsibilities, because they will more closely align with resources, will be considered "requirements."

With Assistance from Other Entities, Most Stations Can Perform Expected Port Security Operations

While the impact of new responsibilities on overall readiness needs remains unknown, there is evidence that most stations have been able to meet the port security responsibilities—i.e., activity levels—expected of them given their available resources and, in some cases, all security responsibilities with the help of other entities. Since the level of security activities established under the interim guidelines exceeds available resources, the Coast Guard has communicated to stations and other units that they are expected to carry out security operations within the constraints of existing resources.[23] The Coast Guard does not track station-specific performance regarding port security responsibilities, but in 2003 it developed an unofficial evaluation system that indicates that current security responsibilities for major ports—for which stations bear significant responsibility—are largely being met. This evaluation system—referred to as the Scorecard system—captures activity levels for selected PWCS standards at ports of high military and economic significance.[24] However, it is important to note that the Scorecard results are not station-specific in that (1) they do not separate tasks handled by stations from those of other entities (either Coast Guard or other) that address port security needs and (2) stations that do not contribute to port security are not included. Nonetheless, the Scorecard results do provide some indication that at least some stations are for the most part able to meet their current port security responsibilities. Furthermore, of the 16 stations we reviewed, officials from all but 1 told us that PWCS responsibilities—as identified by the interim guidelines—were being met. In most instances, stations reported meeting PWCS responsibilities with the assistance of state and local entities, which were either directly performing PWCS tasks or performing other mission responsibilities—such as fisheries enforcement or search and rescue—that allowed station personnel to focus on PWCS responsibilities.

[23]According to senior officials, the Coast Guard does not expect units, including stations, to fully meet the taskings identified in the interim guidelines. Senior headquarters officials told us that operational commanders are responsible for executing Operation Neptune Shield's operational guidelines within station resource levels. However, the officials responsible for operations at the majority of the 16 stations we reviewed said that they interpreted these operational responsibilities to be required tasks.

[24]The Scorecard reflects efforts of all entities involved in waterborne activities, and in some cases includes support from state, local, and other federal agencies. The scorecard assigns one of three ratings for ports based on the level of PWCS activities attained: (1) "green" when 90 percent or more of security responsibilities are completed, (2) "yellow" when the majority of responsibilities are completed, and (3) "red" when less than 70 percent of responsibilities are completed.

There are also clear signs that partnerships with other agencies and other Coast Guard units play an essential role in the stations' ability to meet assigned homeland security tasks. Most of the officials responsible for overseeing operations at the 16 stations we reviewed told us that their stations have been able to meet increased operational responsibilities only by sharing overall tasks—nonhomeland security-related as well as homeland security-related—with state and local partners as well as other Coast Guard entities. Officials explained that they have developed two main types of partnerships. First, they have established partnerships with local organizations such as police, fire, and marine patrol units to conduct port security operations as well as nonhomeland security activities. Officials at the majority of stations we contacted told us that they rely on assistance from marine patrol units to conduct patrols of key infrastructure, such as harbor docks; officials from several stations also indicated that these units assist with vessel escorts. Officials also told us that stations rely on partner organizations to conduct nonhomeland security activities, such as search and rescue, and that expanded partnership efforts have resulted in operational efficiencies. For example, officials representing one station located at a major port told us that a local partner increased its search and rescue operations following September 11, allowing the Coast Guard station to focus more of its efforts on homeland security operations.

Second, stations have relied on varying levels of support from other Coast Guard components, namely, Marine Safety Offices (MSO)[25] and Maritime Safety and Security Teams (MSSTs),[26] to conduct port security operations. Station officials we interviewed told us that the level of support provided by both components varied. For example, MSST support varied by geographic location. One official told us that certain MSSTs located on the Pacific Coast each set aside 5,000 hours a year to perform port security operations, while those on the East Coast do not. Headquarters officials told us that because the Coast Guard is still considering the role MSSTs will play in port security operations, the amount of support they provide to

[25]MSOs are the Coast Guard's primary operational units for promoting safe boating practices. MSO responsibilities include establishing and enforcing standards and regulations for vessel operations; licensing mariners; conducting boating safety outreach efforts, and investigating marine accidents. There are 47 MSO offices in the United States.

[26]The Maritime Transportation Security Act of 2002 (P.L. 107-295) directed the formation of MSSTs to provide fast deployment capability in response to domestic threats in U.S. ports and waterways. As of January 2005, 12 of 13 MSSTs had been commissioned; the Coast Guard expects the 13th MSST to be operational in 2005.

stations will vary. One senior headquarters official told us that newly established MSSTs can generally provide only a limited amount of support because of initial training requirements. As the MSSTs mature, they are usually able to assume greater responsibilities for port security operations.

While stations' efforts to leverage external support are commendable, the extent to which they can continue to rely on that support is unclear. To better understand the potential for support levels to change, we contacted a number of state and local organizations that partner with the stations we interviewed. We asked them if they expected their level of support would change in the future. Of the 13 organizations we contacted, officials from 12 organizations told us that since the September 11 attacks, they have either directly increased port security operations or increased other operations—such as search and rescue—that enable Coast Guard stations to focus on port security and other missions. One of the organizations we contacted explained that they had plans to decrease resource levels allocated to port security in future years. In addition, another 6 organizations we contacted emphasized that while they did not have plans in place to reduce funding levels for port security, they were not confident that future funding would continue at current levels.

Progress Made in Addressing Readiness Concerns but Stations Are Still Unable to Meet Standards and Goals

The Coast Guard has made progress in addressing multimission station readiness concerns identified prior to September 11. The Coast Guard has increased station staffing levels by 25 percent, expanded formal training programs and increased training capacity, begun modernizing its small boat fleet, and as of fiscal year 2003 appeared to have provided station personnel with appropriate amounts of PPE. However, despite this progress, the Coast Guard has yet to meet existing readiness standards and goals in the areas of staffing and boats and does not have adequate processes in place to help ensure the future funding of station PPE, a shortcoming that could result in an insufficient supply of PPE at stations in future years.

Station Staffing Levels Have Increased but Key Staffing Standards and Goals Have Not Yet Been Met

Since 2001, the Coast Guard has developed a variety of initiatives aimed at resolving long-standing staffing concerns at multimission stations. Table 4 presents a selection of the initiatives, either planned or under way, that we identified as noteworthy in addressing station staffing needs. (App. II contains a more detailed description of the initiatives.)

Table 4: Examples of Coast Guard Efforts to Address Station Staffing Needs

Concern	Initiatives undertaken to address concerns
A shortage of personnel	*Staffing levels increased* • In fiscal years 2002 and 2003, the number of personnel assigned to stations increased by 1,109 active duty personnel, or 25 percent. • An additional 451 personnel were added in fiscal year 2004 for stations and command centers. • According to one senior official, no additional personnel will be assigned to stations in fiscal year 2005.
	Number of authorized positions increased • In fiscal years 2002 and 2003, the number of full-time positions at stations increased by 482. • An additional 317 positions were added in fiscal year 2004. • According to one senior official, no additional positions will be added to stations in fiscal year 2005.
Declining levels of experienced personnel	*New direct retention initiatives initiated* • In fiscal year 2003, $5.9 million was expended on 312 selective reenlistment bonuses to station boatswain's mates and machinists. • Between fiscal years 2003 and 2004, the surfman pay premium was increased by 33 percent.
Shortened tours of duty (high personnel turnover)	*Assignment practices modified* • New personnel assignment practices are being implemented to allow for increased tour lengths for surfman-qualified personnel and to reduce turnover in all personnel assignments.
Inadequate mix of skills, expertise, and positions across stations	*Staffing mix being reconfigured* • In fiscal year 2001, an occupation (rating) review was concluded. • Reconfiguring of station staffing standard is expected to begin in 2005.
	Number of specialized and senior positions increased • In fiscal years 2002-2004, 99 support positions were added (with 19 more needed). • In fiscal years 2002 and 2003, 486 senior petty officer positions were added.[a]
Positions filled with uncertified or inexperienced personnel	*Assignment and incentive systems being revised* • Plans are under way to (1) establish officer and enlisted career paths, (2) base station assignments on position requirements and personnel experience, and (3) develop motivation and incentive systems for enlisted personnel.

Source: U.S. Coast Guard.

[a]Senior personnel are considered to be petty officer 2nd class (grade E-5) and above.

In addition to increasing the number of personnel and positions allotted to stations by 25 and 12 percent,[27] respectively, the Coast Guard has begun to reconfigure aspects of the station staffing program to provide more effective operations. For example, in an effort to provide a more appropriate mix of positions and skills at stations and to address concerns about insufficient numbers of senior personnel, the Coast Guard added 99 support officer positions in fiscal years 2002 through 2004, and 486 senior petty officer positions in fiscal years 2002 and 2003. According to one official, the additional support positions will allow station command cadre to spend less time on administrative work and more time on operations. Recognizing that in the past a significant number of positions had been initially filled with unqualified personnel, the Coast Guard plans to take steps to base assignments on position requirements and experience. Furthermore, once long-term homeland security responsibilities have been determined, the Coast Guard plans to complete steps it has already begun to reconfigure its station staffing standards, which define the number and type of positions at stations based on mission requirements. The reconfiguration is expected to better align staffing resources with mission activities. Despite this progress, the Coast Guard has yet to meet five key standards and goals related to staffing at the stations. Each is discussed below.

Adherence to Workweek Standards

Most notably, despite increases in station staffing levels over the past 2 years and other actions, average station workweek hours continue to exceed, by significant levels, the 68-hour standard established by the Coast Guard in 1988 to limit fatigue and stress among station personnel.[28] According to the Coast Guard's *Boat Forces Strategic Plan*, excessive workweek hours is symptomatic of "the adverse operational trends, identified lack of resources, and general reduction in …readiness" experienced by stations in recent years.[29] Moreover, the plan also notes that the high number of stations working in excess of 68 hours shows that "staffing continues to be a significant problem at stations." According to

[27]See pages 28 and 36 for a discussion of the relationship between station positions and personnel.

[28]The Coast Guard cites the 68-hour work-week standard as the *objective* for Coast Guard shore units with 24-hour operational readiness requirements, such as multimission stations and air stations. Although it holds out the 68-hour workweek as the standard, the Coast Guard also allows station officers-in-charge the discretion to choose longer workweek schedules that may better meet readiness and performance requirements.

[29]The United States Coast Guard *Boat Forces Strategic Plan*, July 7, 2004, p. 27.

estimates from Coast Guard surveys of station personnel, although the average work week at stations decreased somewhat between 1998 and 2003, since 1994 it has not dropped below 81 hours per week.[30] It should be noted that these survey data, although the best source of information available on station workweek hours, may have limitations. That is, the survey is administered every August—during both the peak search and rescue season and the Coast Guard's period for rotating personnel—and it may be that a year-round average, which would include off-peak, winter hours, would be lower. In addition, although response rates for every year were not readily available, the 2003 response rate was relatively low, with only a little over half of the personnel surveyed responding.[31]

An explanation of how workweek hours are measured may be helpful in interpreting this workweek information. The way in which the workweek is measured at stations is similar to the way it is measured in professions such as firefighting, in that personnel are on duty for an extended amount of time—such as 24 hours—to respond to emergencies but may spend part of it in recreation, sleep, exercise, training, or other activities. Personnel can thus be on duty or off duty for consecutive periods of time during a week. Workweek hours are calculated by totaling the amount of hours spent on duty or at a station, over a 1-week period, or averaging the amount of time spent on duty over a 2-week period. The Coast Guard's 2003 survey of stations indicated that slightly less than half of all respondents reported working either an average 77- or 84-hour workweek. Approximately 6 percent of respondents reported working a 68-hour workweek. (See app. II for more information regarding these results.)

[30]Since 1991(with the exception of years 1999–2001), the Coast Guard has conducted an annual survey of station workweek hours. The Coast Guard has used the results of the surveys to try to gauge changes in the average number of hours personnel work each week. Personnel are asked to report the number of hours spent among 49 predefined activities during an average workweek in August.

[31]In 2003, personnel at 77 of the 188 stations were surveyed, with personnel from 64 stations responding (a total response rate of 54 percent of all personnel surveyed). One possible reason for this low response rate may be that nonrespondents did not have time to complete the survey, which could mean that workweek hours were under-reported. However, it is also possible that personnel who were working longer hours per week were more inclined to report that condition, leading to an over-reporting of workweek hours.

According to the Coast Guard, working excessively long hours leads to injury and illness.[32] Officials told us that station personnel can exceed the 68-hour work week standard in one of two ways.[33] First, they can be assigned to a work schedule that averages to more than 68 hours a week, such as an 84-hour schedule. The work schedule, which is determined by the officer-in-charge, defines the number of days personnel spend on duty and is therefore the primary driver of whether personnel will consistently work an average of 68 hours per week or some number above that amount.[34] There are advantages and disadvantages associated with each of the many possible schedules stations can adopt—table 5 shows a comparison of the 68- and 84-hour work schedules. For example, a potential disadvantage to having personnel work the 68-hour schedule is that it requires stations to retain more qualified personnel for duty work than the 84-hour schedule, which could be one reason why officers-in-charge who are short of qualified personnel would use the higher hour schedule. The 84-hour schedule, in contrast, requires smaller numbers of qualified personnel, which could be of benefit to stations with high workloads and too few qualified personnel. It could also be preferred by some personnel because it provides for 3-day weekends. However, a significant disadvantage to the 84-hour schedule, as noted in the station operations and training manual,[35] is that it puts personnel "at significant

[32]It should be noted that long work hours do not necessarily entail long hours underway (i.e., operating a boat). According to officials, station crew members can work an 84-hour schedule that does not include more hours underway than what crewmembers working a 68-hour schedule experience. However, the Coast Guard's *Boat Operations and Training Manual* cautions that an 84-hour work schedule should be restricted to units with "low response mission workloads," meaning units that do not have a high launch rate. Thus, although it does not automatically follow that working longer hours puts personnel at a greater risk of exceeding agency fatigue standards, it is possible. The Coast Guard has established fatigue standards that limit the number of hours crew members can be underway in order to reduce the likelihood of accidents due to overwork. For example, crew members operating in heavy weather—seas and swell conditions combining to exceed 8 feet or winds exceeding 30 knots—cannot operate a boat for more than 6 hours in a 24-hour period and require 8 hours of rest, leaving 10 hours for other activity.

[33]According to Coast Guard officials, there are no penalties to exceeding the 68-hour work week, as long as fatigue standards are not exceeded. The Coast Guard accepts that local operations requirements and unit characteristics allow command discretion on alternative schedules that meet readiness and performance requirements; while these schedules may be more attractive to personnel, they may also require more hours at the unit.

[34]Although personnel can work less than a 68-hour workweek under some circumstances, officials told us the 68-hour workweek should be considered the threshold of hours worked.

[35]*U.S. Coast Guard Boat Operations and Training (BOAT) Manual*, Volume I, Part 3, Chapter 1, Section G, p. 3-25.

risk of exceeding fatigue standards," which is why it is normally restricted to stations with low numbers of response-driven cases. In other words, personnel at stations that have a greater number of response operations—such as rescue cases—are at a higher risk of exceeding fatigue standards because they are underway (that is, operating a boat) more often. The Coast Guard's 1991 staffing study found that long hours on duty resulted in lost time among personnel because of illness and injury, as well as increased attrition levels.[36] According to officials, in the late 1990s the Coast Guard switched from an 84-hour standard—which it had adopted to better meet significant staffing shortages—to the present 68-hour standard because of concerns about crew fatigue and an increasing number of boat accidents.

Table 5: Comparison of the 68- and 84-Hour Workweek Schedules

68-hour workweek	Average 84-hour workweek
Workweek is divided into duty work, nonduty work, and off-duty hours.[a]	Workweek is divided into duty work and off-duty hours.[b]
Crew accomplish training and maintenance tasks during nonduty work hours.	Crews perform all work—mission- and nonmission-related—during duty hours.
Does not provide for 3-day weekends.	Provides for two 3-day weekends each month.
Reduces unproductive work time (that is, time spent eating and sleeping).	Since crews are at the station for longer periods of time, they spend more time eating and sleeping.
Reduces the potential for crew on duty to exceed fatigue standards.	Crews are at significant risk of exceeding fatigue standards. Therefore, this work schedule is normally restricted to stations that do not have high numbers of response-driven cases (higher numbers of such cases increase the likelihood that crew members will become overly fatigued).
Requires more qualified personnel because each person spends less time in duty status.	Requires fewer qualified personnel because each person spends more time in duty status.

Source: GAO analysis of U.S. Coast Guard data.

[a]Personnel who are in "duty" status must remain at a station—usually for 24 hours or longer—and be available to perform mission requirements and operations. Depending on the schedule, personnel can also perform "nonduty" work (called "day work"), which consists of any work other than watchstanding, certain administrative and personal tasks, and unit training. Personnel in nonduty status usually spend a limited number of hours—a normal workday—at the station. While on duty or nonduty status, personnel can perform watchstanding, which is the performance of certain operational tasks that require personnel to be at specific places for specified amounts of times (e.g., communications, security). Personnel standing watch may, depending on the nature of the watch, also perform collateral tasks.

[36]*U.S. Coast Guard Station Staffing Study In Pursuit of Excellence: Building a Better Station* (Washington, D.C.; July 31, 1991).

[b]Under this schedule, crew members work 120 hours during 1 week (2 days on duty, 2 days off, and 3 days on) and 48 hours the next (2 days off duty, 2 days on, 3 days off). Over a 2-week period, the crew average 84 hours on duty and 84 hours off duty a week.

A second way personnel can exceed the 68-hour schedule is by working overtime, which, if significant, can also lead to lost time due to illness and injury. Overtime generally occurs when required operations exceed the number of qualified, available personnel. As with the 84-hour work schedule, significant amounts of overtime can increase the likelihood that personnel will exceed Coast Guard fatigue standards and can lead to lower retention levels for trained personnel.

Field and headquarters officials told us that at most stations, the high number of hours worked is being driven by the following factors:

- an increase in homeland security responsibilities;
- an increase in the number of inexperienced personnel;
- the formation of MSSTs, which siphoned experienced and qualified crewmembers from stations; and
- a lack of sufficient support for training, building and equipment maintenance, and administrative duties.

Of these factors, the primary one is the increased homeland security role. One senior official told us that although increased staffing levels may have been sufficient to meet pre-September 11 mission needs, the homeland security mission has greatly expanded the stations' workload, and it is unknown whether current staffing levels will be sufficient to meet operational requirements as well as the 68-hour work week standard. According to senior Coast Guard officials, it may take 5 to 10 years before the 68-hour standard is attained at all stations because of the high levels of inexperienced personnel and other issues previously discussed. In fact, one senior official questioned whether stations will ever reach the goal given competing Coast Guard priorities.[37] Officials told us that the Coast Guard will not be able to determine optimum station staffing levels until (1) long-term homeland security requirements have been identified,

[37]The Coast Guard does not plan to add either positions or personnel to stations in fiscal year 2005 because, according to one official, the stations need time to adjust to the influx of new personnel they have received, as well as their increased homeland security responsibilities.

(2) inexperienced staff have grown into senior positions,[38] and (3) all new staffing initiatives (such as increased administrative support) have taken effect. Until these issues have been addressed, officials said it is likely that stations with high workloads and resource constraints will continue to work longer work weeks.

Appropriate Mix of Junior and Senior Personnel

The Office of Boat Forces' targeted goal for senior personnel, as a percentage of total station personnel, is 50 percent;[39] as of March 2004, senior staff comprised about 37 percent of total staff. Officials told us that in recent years stations have received a significant number of relatively inexperienced personnel, which has skewed staffing proportions, and that it will take at least 3 years to increase the number of senior personnel to desired levels.

Adherence to Full Assignment Length

The Coast Guard has yet to meet its goal of an average 48-month station assignment (tour of duty) for experienced personnel.[40] According to Coast Guard data, the average tour of duty length for boatswain's mates increased from 33 months in 1999 to 35 months in 2000, but has remained fairly constant between 35 and 36 months through 2003.[41] Although assignment practices have been modified for some personnel to allow for longer tour lengths at stations, officials told us that meeting the 48-month goal will be a challenge given that stations draw upon a pool of personnel they share with other units—such as ships—that generally require shorter tours of duty.[42] Thus, significant changes to station assignment policies will affect these other units. One senior official told us that although the stations may not meet the 48-month goal in the foreseeable future, given

[38]According to the Coast Guard, it takes approximately 5 years for a new recruit to advance to petty officer 2nd class rank (E-5) and approximately 10 years to advance to petty officer 1st class (E-6).

[39]The Office of Boat Forces oversees station operations and resource needs.

[40]According to officials, this goal does not apply to inexperienced personnel (E-2 and E-3), who are in the process of qualifying for their jobs These personnel have shorter duty lengths than experienced personnel because of the need to expose them to as many different experiences as possible during their training period. One senior official told us that this practice may be revisited given the training burden it places on senior station personnel.

[41]Data represent average tour lengths for boatswain's mates E-4 through E-6.

[42]For example, sea duty (on ships) is considered "arduous duty" and, therefore, is limited to 1, 2, or 3 years. Stations, for the most part, are considered nonarduous duty, and therefore, assigned personnel generally have longer tour-of-duty assignments.

competing personnel needs from other units, even extending the average tour length to 36 months would be a significant improvement. Increasing the tour length lessens the training burden on senior station personnel (i.e., they end up training fewer new personnel) and allows a station to reap the benefits of the training it has already invested in junior personnel.[43]

Sufficient Levels of Qualified Surfmen

Stations continue to experience a shortage of qualified surfmen. As of June 2004, approximately 42 percent of surfman positions were not filled with qualified personnel. According to training and program officials, in the past this shortage stemmed from difficulties in recruiting sufficient numbers of applicants, because of several factors: (1) a long training process of 3 to 6 years (deters potential applicants); [44] (2) higher workloads (because of the shortage of qualified personnel); (3) remote assignment locations (surfman stations are largely located in remote areas of the Northwest); (4) obstacles to promotion (promotion to senior enlisted ranks requires a year of sea duty, which surfmen, who are needed at stations, have difficulty obtaining); and (5) program challenges (make it difficult to retain bonus pay benefits).

To address these challenges, the Coast Guard has revised relevant personnel policies to facilitate career advancement and to clarify the process for becoming a surfman. The Coast Guard has also revamped the surfman training program by developing courses that that address training needs. Regarding the former, the Coast Guard has (1) eased requirements for advancement (waived the requirement for 1 year of sea duty for promotion to senior positions) and (2) allowed surfmen to retain special pay status after they transfer to a new station and are in the process of certifying for their new area of operation.[45] Beginning in May 2005,

[43]According to officials, personnel who are within 1 year of their full tour of duty are usually eligible for reassignment. Generally, the Coast Guard will look first to transfer personnel who have completed their full tour of duty, but if this is not possible, it will next evaluate those who are closest to completing their tour.

[44]Hands-on surfman training can take place only in the winter, when surf conditions are appropriately severe. In some years, trainees do not have the opportunity to practice surfman skills under appropriate weather conditions, a fact that can prolong the time it takes to qualify.

[45]Surfmen receive a special pay status—a salary bonus—as an incentive for continuing to serve as a qualified surfman. Changes in personnel policy now allow surfmen to retain their special pay status after they transfer to a different station and are in the process of certifying—learning the area of operations—at their new station assignment.

surfmen will also receive additional points on their service-wide exams, the scores of which are used to determine promotions. Regarding training, the Coast Guard has concentrated on a two-pronged approach. First, to increase the number of trainees who actually qualify as surfmen, in 2004 the Coast Guard implemented a new 2-year intensive training program that will require trainees to reside at the surfman training center; this will allow trainees to concentrate more fully on the training process. Officials told us they would not know the impact of this new training initiative until 2006, when the first class of resident trainees graduates. Second, to improve formal training for personnel who are qualifying through on-the-job training at their stations, in November 2004, the Coast Guard implemented a new 2-week surfman course. Because the course was designed in part to relieve the training burden on stations (which are short of qualified surfmen who can serve as instructors), trainees will complete most of their qualification requirements during training. Officials expected 18 students to take the course during the winter of 2004.

Matching Number of Personnel with Number of Positions

The Coast Guard has not met its goal of aligning the number of individuals assigned to stations with the number of designated positions, making it unclear whether station staffing levels (individuals assigned to stations), which are currently greater than designated positions, will remain at current levels or decrease, potentially affecting station workweek hours and other issues.[46] At the end of fiscal year 2004, the estimated number of personnel assigned to stations exceeded the number of Coast Guard-designated positions by an estimated 1,019 (or about 17 percent of total estimated personnel assigned to stations).[47] Because the 1,019 personnel are not assigned to permanent positions, and thus their assignment is potentially more temporary than that of other personnel, the Coast Guard could not assure us that the estimated fiscal year 2004 station staffing level of 5,925 personnel will be maintained in the future.[48] In contrast, the

[46]The OIG raised this issue as a concern in its 2003 report (MH-2003-028, pp. 5 and 10), noting that the shorter average tour length for entry-level personnel (9 to 23 months) added to the uncertainty of permanent dedicated staffing levels. In responding to these findings, the Coast Guard agreed that all personnel assigned to stations should be placed in permanent positions.

[47]This figure was calculated by comparing the number of positions designated to stations in fiscal year 2004 with the estimated number of personnel assigned. It does not reflect attrition, transfers, or other actions that may have occurred during the year.

[48]This figure was calculated by adding the estimated number of personnel assigned to stations and command centers in fiscal year 2004 (451 personnel) to the number of personnel assigned during fiscal year 2003 (5,474 personnel). It does not reflect attrition, transfers, or other actions.

number of designated positions—4,906 at the end of fiscal year 2004—is considered permanent. Officials told us that although the Coast Guard's goal is to align personnel and position levels, it has been necessary to assign a greater number of less experienced staff to the stations, above designated staffing levels, to develop required numbers of senior staff (officials estimate it takes three junior personnel to produce one senior crew member). Attrition patterns, limited space on ships, and the need to expose junior personnel to on-the-job-training are driving factors in this decision. The Coast Guard does not plan to add either additional personnel or positions to stations in fiscal year 2005; rather, it will use this time to evaluate current station resource levels and give junior personnel time to gain experience and become fully trained. It is unclear how this decision may affect staffing levels—if staffing levels drop, the number of hours station personnel work might increase. On the other hand, if lower staffing levels are accompanied by higher levels of experienced personnel, then workweek hours might be unaffected or even decline. The impact will also depend in part on other factors, such as the implementation of remaining staffing initiatives—such as the station staffing standards—and the nature of future homeland security responsibilities.

Coast Guard Has Formalized the Majority of Its Training and Taken Steps to Increase Training Capacity at National Training Centers

Since 2001, the Coast Guard has made progress in developing a more formalized training program and in expanding the number of training slots available for the majority of station occupations. As late as August 2003, when we began our work, the Coast Guard had yet to determine whether formal training delivered in a classroom environment was preferable to on-the-job training—administered by senior personnel at stations—or whether it should utilize a combination of both on a long-term basis. Subsequently, the Coast Guard identified formal training as its preferred training method because, according to officials, it provides greater accountability for consistent and uniform training across all occupations and stations.[49] To date, the Coast Guard has taken steps to formalize or augment several aspects of station training, including boatswain's mate and boat driver training. With respect to boatswain's mate training, in

[49]Coast Guard operations officials told us that although formal training has been recognized as the preferred training mechanism for station personnel, on-the-job training, which is also an important component of station training, will still be maintained. Our previous work in the area of training design has shown that federal agencies can use a variety of training delivery mechanisms as long as criteria are used that link agency goals with training efforts. See GAO, *Human Capital: Selected Agencies' Experiences and Lessons Learned in Designing Training and Development Programs*, GAO-04-291 (Washington, D.C.: Jan. 30, 2004).

fiscal year 2002 the Coast Guard instituted a formal training center with the capacity to train 120 trainees per year; during fiscal year 2003 it more than tripled the center's capacity to 450 training slots. Training officials told us they plan to further expand the capacity of the center each year through 2006, when its annual capacity is expected to reach 1,000 slots, the estimated number of new boatswain's mates needed each year. Furthermore, in conjunction with efforts to modernize its boat fleet, in fiscal year 2003 the Coast Guard increased the amount of formal training available to boat drivers who were learning to operate new response boats and nonstandard boats. Training officials told us that they employed a two-pronged approach to train operators on the new boats using on-site training teams, which conduct training at the stations, and a new 2-week national training center course. Table 6 provides additional information regarding the Coast Guard's initiatives to address training needs. (See app. II for a more detailed discussion of the Coast Guard's planned and ongoing initiatives regarding station training needs.)

Table 6: Examples of Coast Guard Efforts to Address Station Training Needs

Need	Initiatives undertaken to address concerns
Boatswain's mate training	*Boatswain's mate training center reinstituted* • The boatswain's mate training center was reinstituted in fiscal year 2002; boatswain's mates' trainee positions were increased from 120 in fiscal year 2002 to 450 in fiscal year 2003. • Four additional classrooms and 51 personnel were added at the training center in fiscal years 2003 and 2004, at a cost of $3.5 million, to meet training throughput goals. *Training center to augment on-the-job training established* • A provisional training center was established in fiscal year 2003 to augment station on-the-job training.[a]
Coxswain (boat driver) training	*On-site response boat training developed* • Training teams were established to provide on-site training to station personnel in boat handling techniques. *Boat driving course established* • In fiscal year 2004, a 2-week training course on driving, law enforcement, and boat operations was implemented.
Surfman training	*Efforts to expedite surfman training initiated* • A 2-year training program was instituted in fiscal year 2004 to accelerate the surfman training process for 10 surfman trainees. *New surfman training course established* • A new surfman training course was established in fiscal year 2004 to provide intensive training in heavy weather conditions.
Boarding officer and boarding team member training	*Formal law enforcement training expanded* • Efforts were initiated to increase training slots for boarding officers and boarding team members by over one-fourth (between fiscal years 2004 and 2005) by relocating maritime law enforcement training to the Department of Homeland Security's Federal Law Enforcement Training Center.[b]
Evaluation of job performance	*Written examinations reconfigured* • In 2004, to better assess knowledge levels regarding station operations, written examinations that are administered to station personnel biennially were revised.

Source: U.S. Coast Guard.

[a]This training center also provides training to boatswain's mates assigned to cutters.

[b]The Federal Law Enforcement Training Center provides basic, advanced, specialized, and refresher training for law enforcement officers from 75 federal agencies. The Maritime Law Enforcement Center, which provides boarding officer and boarding team member training to all Coast Guard personnel, was relocated to increase capacity and to develop training partnerships with other federal agencies.

According to officials, the Coast Guard's efforts to train boat drivers were developed to address missions with greatest priority as well as for training needs for new boats going into service. For example, in 2003 and 2004, training teams were deployed to all strategic ports to provide training in tactical operations, an emerging requirement following the attacks of September 11. In addition, to address safety concerns associated with the operation of nonstandard boats, officials told us that training efforts were targeted at stations that would retain nonstandard boats, while the Coast Guard completes its program to replace stations' nonstandard boats.

Progress Made in Modernizing Boat Fleet, but Inspection Results Indicate Weaknesses in Boat Readiness

Since 2001, the Coast Guard has made progress in restructuring the stations' boat fleet to address safety and operational concerns resulting from aging and nonstandard boats. The Coast Guard has focused a major part of its efforts on replacing an assorted variety of nonstandard small boats with new, standardized boats. Officials told us that although the Coast Guard had just started planning the acquisition of the new boats in 2001, following the attacks of September 11, it expedited the purchase of 100 of the new boats to meet stations' increased homeland security responsibilities. Approximately 50 of these boats were distributed to stations located at strategic ports, to provide quick response capabilities for port security operations, and to stations in critical need of new boat replacement. The remaining 50 boats were distributed to MSSTs. In 2003, the Coast Guard developed a multiyear contract to replace the remainder of stations' aging and nonstandard boats with an estimated 350 new boats. The Coast Guard has also initiated efforts to replace the aging 41-foot utility boat fleet, which will reach the end of its 25-year service life beginning in 2005, with a medium-size utility boat. Officials told us that as of August 2003 the Coast Guard was in the process of reviewing three medium boat prototypes and that they expect to select a manufacturer in 2005. In addition, in 2003, the Coast Guard completed the replacement of the 30-year old 44-foot motor lifeboat with a fleet of new 47-foot motor life boats. Table 7 describes the Coast Guard's actions to address concerns regarding the stations' boat fleet. (See app. II for a more detailed discussion of ongoing and planned efforts for addressing station boat needs.)

Table 7: Examples of Coast Guard Efforts to Address Station Boat Needs

Need	Initiatives undertaken to address concerns
Aging and nonstandard small boats[a]	*New small boats acquired to address increased security responsibilities* • One hundred small response boats were purchased following the attacks of September 11 to augment security capability at strategic ports and to replace nonstandard boats. *Multiyear contract to purchase small boats was developed* • A contract was signed allowing for the purchase of up to an additional 700 small response boats through fiscal year 2009 to replace the remainder of the aging nonstandard boats and to supplement stations' multimission response capability.
Aging medium-sized boats	*Efforts to replace medium boats initiated* • Efforts were initiated to replace 41-foot utility boats with a new medium response boat; $12 million was requested in its fiscal year 2005 budget to begin production.[b]
Inspection of small boats	*Inspection teams for small boats instituted* • In fiscal year 2004 the Coast Guard instituted teams to inspect new standardized small boats, at a cost of $637,000.

Source: U.S. Coast Guard.

[a]The Coast Guard expects to replace approximately 350 nonstandard small boats in use at stations. Approximately 50 nonstandard boats used by stations for unique geographic or weather-specific operational requirements—such as 14-foot skiffs and 30-foot special purpose craft boats—will be retained.

[b]The Coast Guard has determined that the 41-foot utility boat—acquired between 1973 and 1980—is approaching the end of its service life.

Despite this progress, the Coast Guard has yet to meet mission readiness goals for medium-sized boats (utility and motor life boats), as indicated by internal inspection results.[50] The Office of Boat Forces' goal is for 80 percent of boats inspected to meet readiness standards at the initial inspection. Results from the Coast Guard's fiscal year 2003 inspections indicate that only 16 percent of the motor lifeboats and utility boats inspected met mission readiness goals when initially inspected.[51] After a 1-day opportunity to correct identified problems, approximately 81 percent had met readiness goals. It is important to note that the majority of the discrepancies cited were not of such severity that they would prevent the boats from being used in most mission operations. For example, the failure of navigation lights on a 41-foot utility boat could preclude the boat

[50]As of 2004, the Coast Guard had conducted inspections of stations' medium boats (utility and motor life boats). The Coast Guard plans to begin inspecting its new small response boats in 2005.

[51]In fiscal year 2003, teams inspected 49 motor lifeboats and 37 utility boats at 84 of the 188 Coast Guard multimission stations.

from being operated (i.e., disable it) until the lights were fixed or the operational commander issued a waiver outlining the conditions under which the boat could be operated. Boats that receive waivers are considered able to "perform some missions, but not all missions safely."[52] In this scenario, the boat's failure to meet full readiness standards would not necessarily affect the station's operational readiness. Officials also told us that in order to ensure that operational readiness is maintained at stations when a boat is disabled, all multimission stations have more than one boat.

Officials attributed the inability of stations to meet full readiness standards for boats to the following:

- Junior engineers did not have the necessary experience to perform maintenance in compliance with operating manuals and configuration updates from the manufacturer.
- Engineers lacked sufficient time to perform maintenance because of increased operational hours (that is, the boats are being used more often, and the engineers assigned to perform maintenance are spending more time conducting boat operations).
- Station utility boats were reaching the end of their service life and had deteriorated to the point that they required more maintenance to meet mission readiness standards.
- New boats are more technologically advanced (e.g., satellite navigation systems) requiring specialized technical training in order to perform maintenance.

Officials told us that they are taking various steps to respond to these issues. First, to compensate for the lack of experience among junior engineers, the Coast Guard intends to intensify the training that is provided to engineers for the motor lifeboat. In November 2004, the Coast Guard implemented a 2-week course focused specifically on motor

[52]According to the Coast Guard's boat operations manual, when issuing a waiver, operational commanders can decide whether a boat should be restricted from performing certain missions. Operational commanders have the flexibility to determine whether a boat can perform some missions or whether it could perform all missions with certain restrictions. In the case of inoperable navigation lights, Coast Guard officials told us that a commander would likely issue a waiver to restrict the boat from being operated at night but would allow crews to operate and perform all missions during daytime hours.

lifeboat operations and maintenance. The Coast Guard does not have plans, however, to provide specialized training for utility boat maintenance, given that these boats are at the end of their life span and will be replaced within a few years with new medium response boats. Likewise, the replacement of the utility boats will address low scores related to their deteriorating condition. Regarding the lack of time engineers have to perform maintenance, officials told us that this issue will be examined after the Coast Guard has reassessed changes in station workloads following September 11.

Processes and Practices for Estimating PPE Funding Needs Result in Allocation Shortfalls

As of the end of fiscal year 2003, station personnel appeared to have sufficient PPE, but the Coast Guard does not have adequate processes and practices in place to help prevent funding shortfalls from recurring. The Coast Guard's continued use of these processes and practices in fiscal year 2004 resulted in a $1.9 million shortfall in estimated PPE funding needs for that year. As we discussed in our previous report,[53] following the expenditure of an additional $5.6 million on PPE in fiscal year 2003 to address perceived shortfalls, active and reserve station personnel appeared to possess sufficient PPE. However, the Coast Guard's processes and practices for estimating station PPE needs and allocating funds have historically resulted in an underfunding of station PPE, despite congressional direction to provide adequate supplies of PPE.[54] If these funding practices are not modified, funding shortfalls could continue to occur in the future. Moreover, such funding shortages would affect the Coast Guard's ability to meet one of its strategic objectives for stations—namely, to ensure that station personnel are properly outfitted with mission-specific equipment, such as PPE.[55] A shortfall in estimated PPE funding needs of $1.9 million occurred in fiscal year 2004, although the actual impact of the shortfall—in terms of PPE that was needed but not purchased—is not known, since the purchase of PPE is not tracked at the

[53]GAO-04-704, p. 8.

[54]Congress has repeatedly identified the importance of PPE. In fiscal years 2002 and 2003, Congress earmarked a total of $30.2 million for station readiness needs, including PPE needs. See P.L. 107-87, Title 1, (Department of Transportation and Related Agencies Appropriations Act, 2002) and P.L. 108-7. (An earmark refers to funds set aside within an appropriation for a specified purpose.) The Maritime Transportation Security Act of 2002 (P.L. 107-295) also directs the Commandant to ensure that all Coast Guard personnel are equipped with adequate safety equipment while performing search and rescue missions.

[55]This objective is identified in the Coast Guard's *Boat Forces Strategic Plan*, July 7, 2004, p. 41.

headquarters level. A shortfall of $1.9 million is projected for fiscal year 2005.

Following a mishap in 2001 in which the improper use of PPE was found to have contributed to the death of two station personnel, the adequacy of PPE took on added importance.[56] The Coast Guard has emphasized the importance of PPE, both through a Commandant directive and in its policy manual,[57] stating that the proper supplies and use of PPE is one of the top priorities of Coast Guard management.

Although these measures are important, several aspects of the Coast Guard's processes for estimating and allocating station PPE funds raise concerns. Appendix II discusses these concerns in detail, but they are summarized as follows:

- The Coast Guard's forecasting models do not recognize PPE funding needs for personnel assigned to stations over and above the number of designated positions. This is because the forecasting models are predicated on the number of positions designated for stations, rather than the number of personnel assigned (in fiscal year 2004 the estimated number of personnel assigned to stations exceeded positions by an estimated 1,019). According to program officials, historically the amount of funds allotted by the Coast Guard each fiscal year for station PPE has not been sufficient to fund the estimated needs of all assigned station personnel. For example, in 2003, the OIG reported that the Coast Guard had not provided PPE funding for 541 (69 percent) of the 789 personnel it had added to stations during fiscal year 2002.[58]

[56]*Chief of Staff's Final Decision Letter on a Class "A" Mishap: Coast Guard Station Niagara CG-214341 Capsizing and Subsequent Fatalities on 23 March 2001* (Feb. 6, 2002). Following this mishap, the Coast Guard began requesting additional funds for station PPE with each budget request that included additional positions. Officials also revised the qualification guide to require boat crewmen to don and manipulate each piece of survival equipment required of them in the conditions for which the equipment was designed. Moreover, the training manual now requires crewmen to annually demonstrate proficiency in survival techniques if lost overboard or involved in a capsizing. The Coast Guard has also taken steps to ensure that personnel performing boat operations are either outfitted with a personal location device or that their boats are equipped with a float-free location device.

[57]May 2003 Commandant Directive 10470 and *Rescue and Survival Systems Manual*, chapters 3 and 4. In the directive, the Commandant cited an internal research report that attributed 20 percent of the total risk facing boat personnel to exposure to extreme weather conditions.

[58]OIG, MH-2003-028, p. 4.

- Even when funding is narrowed to just designated positions, the Coast Guard's traditional practice has been to fund only about half of PPE station needs, according to program officials.[59] For example, in fiscal year 2003, the Coast Guard initially allocated $1.8 million, or 56 percent, of the estimated $3.2 million needed to provide PPE for personnel in designated station positions.[60] Stations also receive general operating funds that may be used to purchase PPE, although these funds are also used for other purposes, such as boat maintenance.

- Assumptions used in PPE forecasting models have not been validated, according to officials.[61] Without validated assumptions, the Coast Guard could be either underestimating or overestimating the life span and replacement cycle of the PPE. According to one official, the assumptions were based on input from station personnel.

- The Coast Guard does not require that PPE funds allocated to stations and oversight units actually be spent on PPE, according to program officials. Officials told us that in the interests of command flexibility units are allowed to spend allocated PPE funds on various operational expenses. Although such flexibility may be needed, the former PPE program manager told us that it was possible that oversight units have not been passing PPE funds on to stations as intended (i.e., the amount expended for PPE may be less than the amount allocated). To help address this possibility, the official said that in recent years he has disclosed to stations the total amount of PPE funding available to them, including funds held by oversight units.

  Officials told us the Coast Guard has no immediate plans to revise the traditional PPE funding allocation process because they believe it has been sufficiently reliable for the agency's purposes. However, the process may change once long-term homeland security requirements have been identified. Given the historic shortages in PPE funding that have resulted

[59]The Coast Guard was unable to provide data on historical modeling estimates; the program manager told us that these data are not retained.

[60]During fiscal year 2003, the Coast Guard allotted an additional $5.6 million in earmarked funds to address—according to officials—accumulated PPE shortfalls. The $5.6 million was part of $15.7 million in specially designated funds appropriated in fiscal year 2003 to address station readiness needs.

[61]According to officials, the forecasting models assume that PPE for active duty station personnel will need to be replaced every 3 years, PPE for reserve personnel every 5 years, and PPE for auxiliary personnel every 7 years.

from the Coast Guard's allocation processes, as witnessed by the onetime increase in funding during fiscal year 2003, it seems likely that stations will experience shortfalls in the future if PPE allocation processes and practices are not adjusted.

Strategic Plan for Improving Station Readiness Lacks Key Components for Measuring Progress

The Coast Guard Guard's *Boat Forces Strategic Plan*,[62] its 10-year plan for maintaining and improving readiness at stations and other boat units, lacks key components for achieving and assessing station readiness in the post-September 11 operating environment. The plan, although extensive, has not been updated to include the impact of post-September 11 homeland security requirements on station operations. The plan also does not identify the specific actions, milestones, and funding amounts needed to assure Congress and others that the Coast Guard is committed to achieving identified readiness levels. Moreover, the Coast Guard has yet to develop measurable annual goals for stations that would (1) allow it to track its progress in achieving long-term goals and objectives, (2) allow others to effectively monitor and measure progress, and (3) provide accountability. Without these key planning elements, the strategic plan's effectiveness as a management tool, as well as the Coast Guard's ability to ensure desired progress in meeting station readiness needs, is limited.

Current Strategic Plan Outlines Numerous Goals, Objectives, and Initiatives

The *Boat Forces Strategic Plan* identifies strategic goals in four areas: (1) leadership and management; (2) personnel and staffing; (3) training and expertise; and (4) equipment, support, and technology. These goals are supported by objectives and initiatives, the latter of which are prioritized, by fiscal year, in a summary implementation plan. Table 8 presents examples of goals, objectives, and initiatives, as well as the targeted time frames, pertaining to each of the four readiness categories (staffing, training, boats, and PPE). The initiatives contained in the plan are designed to address station readiness concerns identified in 2001. For example, to address the concern that stations' have not received the appropriate number of positions or qualified personnel, the plan contains

[62]The Coast Guard's *Boat Forces Strategic Plan*, July 7, 2004. The *Boat Forces Strategic Plan* is designed to support the Coast Guard's overall strategic plan, the *United States Coast Guard Strategic Plan 1999*. The *Boat Forces Strategic Plan* presents a strategic approach for all Coast Guard boat forces units, including stations, groups, aids to navigation, and other units. For this discussion, we focus only on those sections of the plan that apply to multimission stations.

an initiative to revise station staffing standards as well as an initiative regarding the need to staff stations according to these revised standards.

Table 8: Selected Examples of Coast Guard Strategic Goals, Objectives, and Initiatives for Multimission Stations

Category	Goals	Objectives	Initiatives	Fiscal year time frames
Staffing	Provide leadership to ensure effective boat operations	Ensure that tasking can be met by available resources	Establish a mechanism that outlines intended capabilities of resources provided to stations	2003
	Ensure the right number of positions/ people, with appropriate experience and skills	Ensure sufficient numbers of personnel—with appropriate experience/skills—are assigned	Revise station staffing standards	2003
			Staff stations according to standards	2003-2007
Training	Deliver new training in a standardized manner	Establish a system to provide appropriate operations training	Increase staffing and throughput at training centers	2003-2005
		Ensure personnel receive training appropriate to each mission	Coordinate with training centers to provide mission-specific training	2005
Boats	Acquire and maintain capital assets, facilities, equipment, and technology	Acquire capital assets (boats)	Recapitalize small and medium-sized boats	2003-2006
PPE	Acquire and maintain capital assets, facilities, equipment, and technology	Coordinate, enable, align, and monitor mission-specific equipment to ensure appropriate outfitting	Coordinate with program managers to fully fund mission-specific equipment	2005, 2006, 2008, 2010, 2012

Source: GAO analysis of U.S. Coast Guard data.

Lack of Key Planning Elements

Although the strategic plan provides an indication of what overall measures may be needed to restore station readiness, the Coast Guard has not developed key planning elements in four areas—either pertaining to the strategic plan or related to it—that are essential to setting clear expectations about what will be achieved, and translating the expectations into specific funding needs. In four key areas, as discussed later, the Coast Guard does not follow practices that we and others have identified as necessary to effectively measure performance and hold agencies accountable for results.[63]

- **Plan not updated to reflect homeland security responsibilities**: The plan has not been updated to reflect the impact of post-September 11 homeland security requirements on stations. Although it incorporates performance goals for other Coast Guard programs,[64] the plan does not incorporate—because they have yet to be finalized—goals and requirements for the PWCS program, a major driver of station operations.[65] Until those requirements have been developed, the capability and resources stations will need to address one of their most significant operational responsibilities, and hence overall readiness needs, cannot be fully determined. For example, the plan cites two important initiatives in the category of staffing—(1) revise station staffing standards (i.e., determine the optimal number and type of personnel needed at each station) and (2) staff stations according to those standards. According to the plan's implementation summary, these standards were to be revised in fiscal year 2003 and station staffing completed by fiscal year 2007. As of January 2005, officials had yet to revise the standards because long-term homeland security responsibilities had not been finalized. Until the staffing standards have been revised, the bigger picture—when stations staffing needs will be met—cannot be determined.

[63]We have issued numerous reports on results-oriented management, including guides to developing and reviewing strategic plans. The criteria presented in these guides stem from the Government Performance and Results Act (GPRA) of 1993 (P.L. 103-62). See *Executive Guide: Effectively Implementing the Government Performance and Results Act*, GAO/GGD-96-118 (Washington, D.C.: June 1996) and *Agencies' Strategic Plans Under GPRA: Key Questions to Facilitate Congressional Review*, GAO/GGD-10.1.16 (Washington, D.C.: May 1997, Version 1). Other entities have also used GPRA to provide guidance for strategic planning; see, for example, Office of Management and Budget, Circular No. A-11, Part 6, Sections 200 (*Overview of Strategic Plans, Performance Budgets, and Performance and Accountability Reports*) and 210 (*Preparing a Strategic Plan: The Main Elements*).

[64]According to the Coast Guard, the plan's goals and objectives were based on the estimated station capacity required to meet individual program performance goals.

[65]As previously discussed, the Coast Guard has been operating under interim homeland security guidelines and is in the process of identifying long-term requirements.

- **Plan contains insufficient details on specific planned actions and milestones**: The plan does not identify, in sufficient detail, planned actions and milestones.[66] Effective strategic plans should show an obvious link between objectives and the specific actions that will be needed to meet those objectives. These actions, in turn, should be clearly linked to milestones. Although the plan includes a summary implementation schedule, it does not clearly identify what steps will be taken to implement the initiatives and when they will be completed. For example, the plan does not identify what actions will be needed to ensure that station personnel are placed in positions that are appropriate for their experience, or to increase the actual length of time personnel are assigned to stations.

- **Plan's objectives not linked with budget**: The plan lacks a clear link between objectives and required funding levels. Without a clear understanding of the funding needed each year, there is little assurance that initiatives will be implemented and long-term objectives realized.[67] Clearly identifying funding needs would also help to ensure that projected goals and objectives are commensurate with available resource levels.[68] Because the plan does not identify the funding needed to carry out key objectives and initiatives, even in the short term, it is unclear whether the Coast Guard will be able to fund initiatives according to proposed time frames.

[66]In 2002, the OIG reviewed a draft of the strategic plan and found it too general to be useful in guiding Coast Guard efforts or in measuring the progress of those efforts (see MH-2003-028, p. 6). In light of these limitations, the OIG recommended that the Coast Guard revise the plan to identify specific actions, time frames, and responsibilities required for meeting long-term objectives, such as the 68-hour workweek standard. Although the Coast Guard generally agreed with the recommendations, officials told us the plan was not revised to include the OIG's recommendations nor does the Coast Guard have plans to incorporate them in the future.

[67]In 1993, the Senate Committee on Governmental Affairs stressed that a multiyear strategic plan not only lay out long-term goals for implementing an organization's mission but include the resources needed to achieve these goals. (Senate Report 103-58, accompanying GPRA of 1993, P.L. 103-62.)

[68]The Coast Guard notes in the strategic plan that resource proposals should reference the goals of the plan. The Coast Guard also notes that the plan should serve as the foundation for new budget initiatives, for reprioritizing and reallocating existing resources (positions, boats, and funding), and for adjusting taskings to available resource levels.

- **Lack of measurable annual goals**: The Coast Guard has not established measurable annual goals linked to the long-term goals identified in the strategic plan. Without annual goals, Congress, the Coast Guard, and others cannot effectively and readily measure an agency's progress in meeting its long-term goals.

The above planning elements would help the Coast Guard and Congress use the strategic plan as a more effective tool for monitoring station readiness needs and identifying areas of continuing concern. As with any strategic plan, Coast Guard officials agree that it will also need to be revisited and revised to keep pace with changing events and, thus, the plan will be reviewed on an annual basis. The Coast Guard's plan may be particularly susceptible to changing circumstances, given that it must deal with so many unpredictable events, ranging from natural disasters and accidents to the uncertainties of terrorist threats. A senior headquarters official told us that while the Coast Guard should more clearly identify expectations regarding annual goals, continually changing priorities often make it difficult for the agency to adhere to—and fund—long-term strategic plans and in some cases to even maintain program consistency. We acknowledge that these difficulties exist and must be considered in developing and using the plan, but even with these difficulties, incorporating the key elements discussed above would improve the plan's effectiveness as a management tool.

Conclusions

It has been 3 years since the September 11 terrorist attacks changed the mission priorities for multimission stations, and there is no doubt that station readiness requirements need to be updated to reflect this new reality. The Coast Guard's decision to hold off updating these requirements until they can be aligned with homeland security responsibilities Coast Guard-wide is sensible. The readiness of multimission stations is but one of the many competing demands the Coast Guard must balance as it attempts to meet increased homeland security responsibilities while continuing to support other missions. Nonetheless, the Coast Guard still needs to have the necessary plans, processes, and safeguards in place to help ensure that it can continue the impressive progress made thus far in addressing 20 years of operational deterioration at stations. In particular, indications of high workweek hours for many personnel and inadequate processes and practices used to estimate and fund needs for personal protection equipment may limit the stations' readiness. Historic shortages in station PPE funding allocations, which continued in fiscal years 2004 and are estimated for 2005, indicate that stations will continue to experience funding shortfalls in the future

unless PPE allocation processes and practices are adjusted. Perhaps more significantly, it remains unclear where station readiness falls in the Coast Guard's list of priorities, as evidenced by a lack of measurable annual goals related to stations and the lack of detail—in terms of both specific actions as well as necessary funding—in the *Boat Forces Strategic Plan*, the Coast Guard's strategy for addressing station readiness issues. The lack of specificity on the Coast Guard's part thus far is perhaps understandable given the challenges it has faced in the wake of September 11. However, continuing in this way will make it difficult to know what the Coast Guard intends as a readiness baseline, how close or far away it is from achieving this level, and what it thinks will be needed to get there.

Recommendations

To help ensure that the Coast Guard and Congress have the information necessary to effectively assess station readiness needs and track progress in meeting those needs, and that multimission station personnel receive sufficient personal protection equipment to perform essential and hazardous missions as specified by Congress, we recommend that the Secretary of Homeland Security, in consideration of any revised homeland security requirements, direct the Commandant of the Coast Guard to take the following three actions:

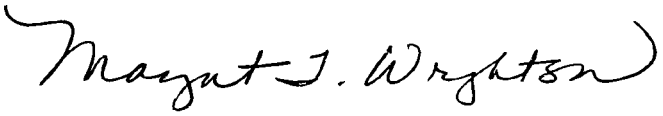
- Revise the *Boat Forces Strategic Plan* to (1) reflect the impact of homeland security requirements on station needs and (2) identify specific actions, milestones, and funding needs for meeting those needs.
- Develop measurable annual goals for stations.
- Revise the processes and practices for estimating and allocating station PPE funds to reliably identify annual funding needs and use this information in making future funding decisions.

Agency Comments and Our Evaluation

We provided a draft of this report to the Department of Homeland Security and the Coast Guard for their review and comment. The Department of Homeland Security and the Coast Guard generally concurred with our findings and recommendations and did not provide formal comments for inclusion in the final report. The Coast Guard, however, provided technical clarifications as well as suggested contextual adjustments, which we incorporated to ensure the accuracy of the report.

We are sending copies of this report to interested congressional committees and subcommittees. We will also make copies available to others on request.

If you or your staffs have any questions about this report, please contact me at (415) 904-2200 or Steven N. Calvo at (206) 287-4839. Key contributors to this report are listed in appendix III. This report will also be available at no charge on GAO's Web site at http://www.gao.gov.



Margaret T. Wrightson,
Director, Homeland Security
and Justice Issues

Appendix I: Scope and Methodology

To examine the extent to which multimission station readiness needs changed as a result of post-September 11 changes in mission priorities, we reviewed relevant Coast Guard documents, including Operation Neptune Shield, the agency's interim guidelines for implementing homeland security operations; the Maritime Strategy for Homeland Security; and mission planning guidance used to establish fiscal year 2004 mission priorities. We also reviewed our previous work on the Coast Guard's efforts to balance its homeland security and nonhomeland security missions.[69] In addition, we interviewed headquarters officials regarding trends in station operations and the agency's plans for addressing the homeland security mission. To better understand how station performance was affected by changes in mission priorities, we reviewed data from the Coast Guard's Scorecard System, its unofficial process for monitoring security operations at strategic ports. We interviewed officials responsible for analyzing and compiling these data at the field and headquarters levels and determined that the data were sufficiently reliable for the purposes of this report, given the parameters of the system. We also reviewed boat hour data from the Coast Guard's Abstract of Operations database to determine trends in the number of hours station boats were operated, by program, both before and after September 11. Boat hour data, reported by station crews, represent the number of hours that boats were operated by station personnel. To develop a more representative estimate of pre-September 11 boat hours and to normalize for fluctuations in hours that might occur in a single year, we averaged the number of boat hours expended during fiscal years 1999 and 2000 to create a pre-September 11 baseline.[70] The Coast Guard agreed with our use of this 2-year average as an appropriate baseline of pre-September 11 boat hours. To determine the reliability of the data, we used assessments from our previous report,[71] which consisted of (1) a review of existing documentation regarding the data and the systems that produced them and (2) interviews with knowledgeable agency officials. On the basis of these assessments, we determined that the data were sufficiently reliable for the purposes of this report.

[69]See GAO, *Coast Guard: Relationship between Resources Used and Results Achieved Needs to Be Clearer*, GAO-04-432 (Washington, D.C.: Mar. 22, 2004) and GAO, *Coast Guard: Challenges during the Transition to the Department of Homeland Security*, GAO-03-594T (Washington, D.C.: Apr. 2003).

[70]We did not include fiscal year 2001 data because these data were not available on a monthly basis.

[71]See GAO-04-432.

We visited 8 multimission stations on the Pacific and Atlantic coasts, as well as the four groups and activities responsible for overseeing their operations, to better understand how stations' readiness needs changed following September 11.[72] These stations were selected on the basis of geographic location, proximity to a strategic port, and the number of boat hours expended in fiscal year 2003 on homeland security, search and rescue, and law enforcement operations. To further explore how increased homeland security operations had affected stations, we conducted telephone interviews with field officials responsible for overseeing operations at 8 additional stations located at strategic ports. We selected these additional 8 stations based on the number of station resource hours expended on port security operations. To assess the levels of support provided to stations by state and local organizations, we contacted 13 organizations identified as key partners for 8 of the stations we reviewed.

To address multimission station readiness concerns identified prior to September 11, we reviewed the Department of Transportation's Office of Inspector General (OIG) reports on station readiness,[73] the Coast Guard's internal review of station operations,[74] and various congressional reports. We also spoke with Coast Guard headquarters officials from the Offices of Boat Forces; Budget and Programs; and Workforce Performance, Training, and Development. To identify actions the Coast Guard has taken or is planning to take regarding station readiness concerns, we reviewed available Coast Guard data regarding station staffing, training, boats, and personal protection equipment (PPE). In the areas of staffing and PPE, we used data from our May 2004 report—such as the number of staff and positions added to stations in fiscal year 2003 and the estimated amount of funds expended on station PPE in fiscal year 2003—which we had determined were sufficiently reliable for reporting purposes. To assess the reliability of training and boat data, we (1) reviewed existing documentation regarding the data and how they were developed and (2) interviewed knowledgeable agency officials. We determined that the data were sufficiently reliable for the purposes of this report. Furthermore,

[72]For security purposes, we are not identifying the ports we visited.

[73]Office of Inspector General, Department of Transportation, *Audit of the Small Boat Station Search and Rescue Program*, MH-2001-094 (Washington, D.C.: Sept. 14, 2001) and *Audit of the Use of Fiscal Year 2002 Funds to Improve the Operational Readiness of Small Boat Stations and Command Centers*, MH-2003-028 (Washington, D.C.: Apr. 15, 2003).

[74]U.S. Coast Guard, *Project Kimball Report*, October 11, 2001.

we interviewed officials responsible for overseeing operations at the 16 stations we reviewed, as well as at relevant oversight units. To review the Coast Guard's training programs and identify progress made in expanding formal training opportunities for station personnel, we visited the following Coast Guard training centers: the Motor Life Boat School; the Boatswain's Mate School, the Boat Forces Center, the Boat Engineering School; and the Maritime Law Enforcement Center. In addition, we interviewed officials from the Coast Guard's internal inspection teams to discuss biennial inspections of station operations and reviewed station inspection results for fiscal years 2002 and 2003.

To obtain a better understanding of personnel workloads and how those workloads may be changing, we also reviewed fiscal years 2002 and 2003 survey results from the Coast Guard's annual survey of station personnel activities. With some exceptions, the Coast Guard has conducted an annual survey of station workweek hours since 1991. The Coast Guard uses the survey results to gauge changes in the average number of hours personnel work each week, and thus have not validated the survey. Personnel are asked to report the number of hours spent among 49 predefined activities during an average workweek in August. In 2003, personnel at 77 of the 188 stations were surveyed, with personnel from 64 stations responding, for a total response rate of 54 percent of all personnel surveyed. (Response rate data were not readily available for other survey years.) One possible reason for this low response rate may be that nonrespondents did not have time to complete the survey, which could mean that workweek hours were under-reported. However, it is also possible that personnel who were working longer hours per week were more inclined to report that condition, leading to an over-reporting of workweek hours. To assess the reliability of the data, we interviewed the headquarters officials who oversee the survey as well as available documentation. Recognizing the limitations of the data—such as the low response rate—we determined that the data were sufficiently reliable for the purposes of this report. That is, as an indicator of average station workweek hours, and general trends in those hours over time, the survey results are sufficiently reliable.

To assess the extent to which Coast Guard's plans address station readiness needs, we reviewed the Coast Guard's *Boat Forces Strategic Plan*, the agency's strategy for maintaining and improving essential operations capabilities for all boat units, including multimission stations.

We also reviewed the Department of Transportation OIG's assessment of the draft plan.[75] To identify practices for effectively measuring program performance, we reviewed the Government Performance and Results Act (GPRA) of 1993,[76] our prior work on results-oriented management,[77] and Office of Management and Budget circulars.[78]

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

[75]OIG, MH-2003-028.

[76]GPRA of 1993 (P.L. 103-62).

[77]See GAO, *Executive Guide: Effectively Implementing the Government Performance and Results Act*, GAO/GGD-96-118 (Washington, D.C.: June 1996) and *Agencies' Strategic Plans Under GPRA: Key Questions to Facilitate Congressional Review*, GAO/GGD-10.1.16 (Washington, D.C.: May 1997, Version 1).

[78]Office of Management and Budget, Circular No. A-11, Part 6, Sections 200 (*Overview of Strategic Plans, Performance Budgets, and Performance and Accountability Reports*) and 210 (*Preparing a Strategic Plan: The Main Elements*).

Appendix II: Actions Taken by Category to Meet Station Readiness Needs

This appendix presents additional information regarding the four categories of multimission station operations we reviewed—staffing, training, boats, and PPE. The appendix also contains additional information regarding the initiatives the Coast Guard has either started or plans to develop to address concerns in each of these categories.

Staffing

The Coast Guard has initiated multiple efforts to address staffing concerns at multimission stations. This section provides additional information regarding Coast Guard (1) station survey results regarding workweek hours and (2) initiatives to address staffing concerns.

Survey of Station Workweek Hours

Approximately 44 percent of the individuals who responded to the Coast Guard's 2003 station staffing survey indicated that they worked an average workweek that was in excess of the 68-hour standard (see table 9).[79] Approximately 6 percent of those questioned indicated they worked a standard 68-hour work week.

Table 9: Workweek Results of August 2003 Station Survey

Average workweek hours	Number of responses	Percent
84	393	29
77	202	15
68	87	6
Other[a]	408	30
Not applicable[b]	118	9
Did not answer	158	12
Total	**1,366**	**101**

Source: U.S. Coast Guard.

Note: Percentages do not total to 100 because of rounding.

[a]Indicates individual worked some combination of hours other than the three listed (i.e., 68, 77, or 84).

[79]Since 1991, with the exception of years 1999-2001, the Coast Guard has conducted an annual survey of station workweek hours. The Coast Guard has used the results of the survey to try to gauge changes in the average number of hours personnel work each week. In 2003, personnel at 77 of the 188 stations were surveyed, with personnel from 64 stations responding (a total response rate of 54 percent of all personnel surveyed). One possible reason for this low response rate may be that nonrespondents did not have time to complete the survey, which could mean that workweek hours were under-reported. However, it is also possible that personnel who were working longer hours per week were more inclined to report that condition, leading to an over-reporting of workweek hours.

[b]Number of responses for which the question was not relevant, usually because the individual's schedule did not match the options provided.

Initiatives to Address Staffing Concerns

Table 10 presents additional information on initiatives the Coast Guard has under way or plans to develop with regard to station staffing needs.

Table 10: Additional Examples of Implemented or Planned Initiatives to Address Station Staffing Needs

Area of concern	Initiatives undertaken to address concerns
A shortage of personnel	*Staffing levels increased* • To address a perceived shortage of personnel, in fiscal years 2002 and 2003, the Coast Guard added 1,109 personnel to stations, an increase of 25 percent. In fiscal year 2004, another 451 personnel were added to stations and command centers and 80 personnel to groups in support of station search and rescue activities. These increases addressed staffing inequities between stations, especially those with high operational tempos and high workweek hours. The Coast Guard reported in fiscal year 2003 that increased staffing levels had reduced the average workweek for station personnel by 3.18 percent from 1998 to 2002.
	Number of positions increased • The number of personnel assigned to stations exceeds the number of full-time positions authorized (in fiscal year 2003, the number of assigned personnel exceeded full-time positions by 885). To address this imbalance and better match the number of assigned positions with required operational tasking levels, the Coast Guard added 482 full-time positions to stations in fiscal years 2002 and 2003 and an additional 317 positions in fiscal year 2004.
Declining levels of experienced personnel	*Direct retention initiatives initiated* • In fiscal year 2003, the Coast Guard expended $5.9 million on 312 selective reenlistment bonuses to station boatswain's mates and machinists ($4.2 million for boatswain's mates and $1.7 million to machinery technicians). • Between fiscal years 2003 and 2004, the surfman pay premium was increased by 33 percent.[a] • Beginning in fiscal year 2002, enlisted personnel have been entitled to a basic allowance for food. • The average portion of housing costs paid by personnel has decreased from 18.3 percent in fiscal year 2000 to 3.5 percent in 2004; in 2005, this expense will be reduced to zero.
	Indirect retention initiatives • Individual stations have also invested in projects that indirectly contribute to retention through improved staff morale. At our request, the Coast Guard asked 29 (15 percent) of the 188 multimission stations to provide data on estimated expenditures for such projects. The 24 stations that responded reported expenditures of $350,000 in fiscal year 2003 for infrastructure and lifestyle improvements such as new furniture, sports equipment, and entertainment systems.[b]

Area of concern	Initiatives undertaken to address concerns
Shortened tours of duty (high personnel turnover)	*Assignment practices modified* • New personnel assignment practices are being implemented to allow for increased tour lengths for surfman-qualified personnel and to reduce turnover in all personnel assignments. • Plans to set policy for average assignment length for enlisted personnel at grades E-4 through E-6 for 48 months or longer, or as identified for specific units.
Inadequate mix of skills, expertise, and positions across stations	*Staffing mix being reconfigured* • To ensure consistency across stations, address mission performance needs, and provide necessary skills, the Coast Guard concluded an occupation (rating) review in fiscal year 2001 and expects to begin reconfiguring the station staffing standard (staffing model) in fiscal year 2005. *Number of specialized and senior positions increased* • To ease the administrative burden on stations, in fiscal years 2002-2004, the Coast Guard added 99 support positions (with 19 more needed). • To better meet unit tasking and responsibilities, in fiscal years 2002 and 2003, the Coast Guard added 486 senior petty officer positions at stations.[c]
Positions filled with uncertified or inexperienced personnel	*Assignment and incentive systems being revised* • Plans to establish officer and enlisted (boatswain's mate and machinist) career paths. • Plans to base station assignments on position requirements and personnel experience. • Plans to identify work factors that reduce the incentive of personnel; develop ways to mitigate the impact of these factors on personnel. • Develop motivation and incentive systems for personnel.

Source: U.S. Coast Guard.

[a]A surfman is a coxswain—boat driver—who is qualified to pilot boats in heavy weather and high surf conditions.

[b]According to a Coast Guard official, the source of funds for these improvements can be station, group, or district operating budgets or donations by Coast Guard support groups.

[c]Senior personnel are considered to be petty officer 2nd class (E-5) and above.

Training

Initiatives to Increase Formal Training Opportunities for Station Personnel

Since 2001, the Coast Guard has taken steps to increase training capacity at national training centers. Two efforts to expand formal training slots have been the reinstituting of the boatswain's mate training center and the implementation of response boat training courses. Additional information regarding training efforts are summarized in table 11.

Table 11: Examples of Coast Guard Efforts to Address Station Training Needs

Need	Initiatives
Boatswain's mate training	*Boatswain's mate training center reinstituted* • Reinstituted the boatswain's mate training center in fiscal year 2002, which more than tripled the number of boatswain's mates training slots, from 120 in 2002 to 450 in fiscal year 2003, plans to train 800 boatswain's mates in fiscal year 2005. *Training capacity at boatswain's mate training center increased* • Added four additional classrooms and personnel to the center in fiscal years 2003 and 2004 at a total cost of $3.5 million. • Condensed the training curriculum from 12 weeks in 2002 to 9 weeks in 2003 to increase the number of students trained. *Training center to augment on-the-job training established* • Established, at a cost of $960,000, a provisional training center in fiscal year 2003 to augment station on-the-job training; trained 300 station personnel in 2003.[a] *Training curriculum for station trainees amended* • Initiated new training curriculum for boatswain's mate trainees at stations that better links tasks with qualification requirements and improves command cadre oversight of training efforts.
Coxswain (boat driver) training	*On-site response boat training developed* • Established training teams to provide on-site training to station personnel on boat handling techniques. *Response boat driving course established* • In fiscal year 2004, at a cost of $500,000, implemented a 2-week training course on driving and boat operations.[b] The Coast Guard expects to train approximately 100 students in fiscal year 2004 and projects it will train 300 students in fiscal year 2005.
Surfman training	*Efforts to address shortage of qualified surfmen initiated* • Instituted, at a cost of $667,000, a 2-year training program in fiscal year 2004 to expedite the surfman training process for 10 surfman trainees. *New surfman training course established* • Established a new surfman training course in fiscal year 2004. *Capacity at training center increased* • Expanded training facilities to add one new classroom at a cost of $500,000.
Boat engineer training	*New engineering training course established* • Established a new 47-foot boat engineer-training course in 2004.
Boarding officer and boarding team member training	*Formal law enforcement training expanded* • Initiated plans to increase training slots for boarding officers and boarding team members by over one-fourth between fiscal years 2004 and 2005. *Law enforcement training center relocated to increase capacity* • Relocated the Maritime Law Enforcement Center—which provides training to boarding officers and boarding team members—to the Federal Law Enforcement Training Center at Charleston, South Carolina, at a cost of $2.2 million.[c]

Source: U.S. Coast Guard.

[a]This training center also provides training to boatswain's mates assigned to cutters.

[b]Funds provided a new boat docking facilities and personal protective equipment for students.

[c]The Federal Law Enforcement Training Center, a component of the Department of Homeland Security, provides basic, advanced, specialized, and refresher training for law enforcement officers from 75 federal agencies. The Maritime Law Enforcement Center, which provides boarding officer and boarding team member training to all Coast Guard personnel, was relocated to increase capacity and to develop training partnerships with other federal agencies. Expenses included new boat facilities, a new training simulator, and the relocation of training boats.

Initiatives to Evaluate Station Personnel Knowledge Levels

The Coast Guard has also taken steps to improve the way it evaluates job performance for station personnel. To monitor knowledge levels and provide insight on areas of training that may need improvement,[80] every 2 years station personnel are tested on requisite areas of job performance.[81] In an effort to improve how the examinations measure station personnel knowledge levels, the Coast Guard employed professional test writers in 2004 to revise the examinations.[82] Over the past few years test scores for station personnel have shown mixed trends. For example, between fiscal years 2002 and 2003 assessment results for boat drivers and motor lifeboat engineers improved somewhat, while results for crew members (boat personnel other than the boat driver or engineer) and for utility boat engineers decreased slightly. Coast Guard officials told us that they are exploring the reasons for these results, but in general, increases in test results can be attributed to improvements made in on-the-job training. Conversely, decreases can be attributed to a continued lack of experience

[80]This exercise is in addition to the initial and recurring testing requirements that personnel face when they qualify for a rating and a job. As well as being required to recertify for their rating every 6 months, station personnel must be certified when they move to a new station. Station senior personnel are responsible for ensuring that on-the-job training satisfies training requirements.

[81]Test scores are not tracked by individual and there are no consequences for a low score. Rather, results are examined in total, and low scores are used to examine the appropriateness of the training provided to stations in specific areas.

[82]The Coast Guard administers separate examinations to station personnel, by type of boat, to three different groups: (1) boat drivers, (2) engineers, and (3) crew members. These examinations are in addition to the on-the-job training and formal training station personnel receive when training to qualify for a job. Written examinations assess overall training provided to station personnel through formal and on-the-job training. We did not evaluate the adequacy of the training provided to station personnel, as this was not identified as an area of concern in either the OIG or internal Coast Guard studies. In its 2001 report, the Inspector General highlighted that the Coast Guard does not assign a pass or fail score to examination results. In response, Coast Guard officials told us that the intent of the examinations is to assess stations' overall performance and not identify individual performance levels.

on the part of junior personnel, the number of which have increased in the past few years, and to high levels of personnel turnover at stations.

Boats

Multimission station personnel use a variety of boats to support operations. Figures 3 and 4 illustrate three of the primary boats used by station personnel.

Figure 3: Coast Guard 47-Foot Motor Lifeboat (left) and 41-Foot Utility Boat

Source: U.S. Coast Guard.

Figure 4: Response Boat Small

Source: GAO.

The Coast Guard has made progress in replacing nonstandard and aging boats to support station operations. Table 12 presents additional information regarding the Coast Guard's initiatives to modernize stations' boat fleet.

Table 12: Examples of Coast Guard Efforts to Address Station Boat Needs

Need	Initiatives
Aging and nonstandard small boats[a]	*New small boats acquired immediately after September 11 to address increased security responsibilities* • Purchased 100 small response boats following the attacks of September 11, to augment security capability at strategic ports and to replace nonstandard boats in a critical state of deterioration;[b] 50 went to stations and 50 to Maritime Safety and Security Teams (MSSTs). *Multiyear contract to purchase small boats developed* • In May 2003, the Coast Guard signed a contract allowing for the purchase of up to an additional 700 small response boats through fiscal year 2009, at a cost of $145 million.[c] These boats are intended to replace the remainder of the aging nonstandard boats and to supplement stations' multimission response capability for search and rescue and homeland security operations. Boat acquisition is also a component of the Coast Guard's initiative to enhance security operations in support of its maritime strategy for homeland security. • As of January 2005, the Coast Guard had purchased 205 boats, with plans to purchase an additional 30 boats by March 2005. Of these, 31 went to MSSTs, 10 to training centers, and 164 to stations. *Response boat training implemented* • Implemented on-site training at stations and a 2-week course at the national boat training center to provide training in boat handling techniques.
Aging medium-sized boats	*Efforts to replace medium boats initiated* • Initiated efforts to replace 41-foot utility boats with a new medium response boat; requested $12 million in its fiscal year 2005 budget request to begin production on 6 boats.[d] • Tested three prototypes and expects to award a contract in 2005 for fleet replacement.
Inspection of small boats	*Inspection teams for small boats instituted* • In fiscal year 2004, the Coast Guard instituted teams to inspect new standardized small boats, at a cost of $637,000 (includes a staff of eight inspectors).

Source: U.S. Coast Guard.

[a]The Coast Guard expects to replace approximately 300 of the 350 nonstandard small boats in use at stations in 2001. Approximately 50 nonstandard boats used by stations for unique geographic or weather-specific operational requirements—such as 14-foot skiffs and 30-foot special purpose craft boats—will be retained.

[b]The Coast Guard purchased these boats in 2002 for stations and MSSTs to address port security responsibilities at strategic ports; they were not a part of the May 2003 contract Coast Guard developed to replace nonstandard boats.

[c]These boats are essentially the same as those purchased immediately after September 11—both are off-the-shelf.

[d]The Coast Guard has determined that the 41-foot utility boat—acquired between 1973 and 1980—is approaching the end of its service life.

PPE

As we previously reported,[83] anecdotal and quantitative data indicate that as of fiscal year 2003 active and reserve station personnel possessed sufficient levels of PPE. During fiscal year 2003, the Coast Guard spent $7.5 million to address PPE shortfalls for station personnel, of which $5.6 million came from specially designated funds. In fiscal year 2003, the cost of a total basic PPE outfit was $1,296. The cost of a cold weather PPE outfit, which is used by personnel working at stations where the outdoor temperature falls below 50 degrees Fahrenheit, was $1,431. (Fig. 5 shows a station crew member in cold weather PPE.) According to the Coast Guard, personnel at 135 (72 percent) of the 188 multimission stations require cold weather PPE in addition to basic PPE.

Figure 5: Station Crew Member Wearing Cold Weather PPE

Source: U.S. Coast Guard.

Despite indications that the Coast Guard had met its goal in fiscal year 2003 of providing sufficient amounts of PPE to all active duty and reserve station personnel, concerns remain as to whether the Coast Guard will provide sufficient funding for station PPE in the future. The Coast Guard's processes for estimating station PPE needs and allocating funds have historically resulted in an under funding of station PPE. See table 13 for concerns regarding the Coast Guard's processes and practices for allocating funds for station PPE.

[83]See GAO, *Coast Guard: Station Spending Requirements Met, but Better Processes Needed to Track Designated Funds*, GAO-04-704 (Washington, D.C.: May 28, 2004).

Table 13: Concerns Regarding Coast Guard Processes and Practices for Identifying and Funding Station PPE Needs

Concern	Explanation
Forecasting models do not recognize PPE funding needs for personnel assigned over and above the number of designated positions	• Officials told us that historically the amount of funds allocated each fiscal year for station PPE was not sufficient to fund the estimated needs of all personnel.[a] Because the forecasting models are predicated on the number of positions designated rather than the number of personnel assigned, it does not recognize PPE funding needs for personnel assigned over and above the designated number of positions. • In fiscal year 2003, the Coast Guard allocated $5.6 million to address PPE shortfalls at stations but did not adjust its forecasting models.[b] Officials told us that in addition to receiving specific PPE allocations for designated positions, each year stations receive general operating funds, which can be used toward PPE for personnel assigned over and above the designated number of positions.
Historically the Coast Guard has funded approximately half of all PPE needs associated with designated positions	• According to officials, the Coast Guard has historically funded between 50 and 60 percent of the identified recurring PPE costs for designated positions.[c] In fiscal year 2004, approximately 55 percent of estimated PPE needs associated with designated active and reserve positions were funded, leaving a shortfall of approximately $6 million in estimated needs.
Assumptions used in forecasting models have not been validated[d]	• According to officials, the assumptions used in PPE forecasting models were based on input from station personnel and have not been validated or reassessed in light of current operations.
Units are not required to spend allocated PPE funds on PPE	• According to officials, the total amount of funds allocated for PPE are distributed among stations and their oversight units, but in the interests of command flexibility units are not required to spend these funds on PPE.[e] When stations need PPE, they are to communicate this need to the oversight units. • According to the former PPE program manager, it is possible that oversight units may not pass the funds onto stations as intended (i.e., the amount allocated for PPE may not be the amount expended). To address this possibility, in recent years the official had disclosed to stations the total amount of PPE funding available to them, including funds held by oversight units.
Coast Guard headquarters does not track the expenditure of survival PPE funds	• Although the Coast Guard tracks overall PPE expenditures, the category tracked includes items other than survival PPE, such as body armor and toxic mask protectors. It is the responsibility of field commanders to ensure that station PPE requirements are met.

Source: GAO analysis of U.S. Coast Guard data.

[a]In its fiscal year 2002 audit (MH-2003-028, p. 5), the OIG reported that the Coast Guard did not provide PPE funding for 69 percent of the personnel added to stations during fiscal year 2002.

[b]In fiscal year 2003, Coast Guard allocated $5.6 million in designated appropriation funds for PPE purchases. According to officials, fiscal year 2003 was the first year in which the Coast Guard provided PPE funds for personnel assigned to stations over and above designated positions.

[c]In fiscal year 2003, the forecasting models estimated PPE needs of $3.2 million for personnel in designated positions, but the Coast Guard initially allocated $1.8 million, or 56 percent, of the identified need to fund PPE.

[d]According to officials, the forecasting models assume that PPE for active duty station personnel will need to be replaced every 3 years, PPE for reserve personnel every 5 years, and PPE for auxiliary personnel every 7 years.

[e]As an exception to this practice, in fiscal year 2003, Coast Guard headquarters advised field units that the additional $5.6 million could be used only for the purchase of station PPE.

Appendix III: GAO Contacts and Staff Acknowledgments

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