

**Before the Subcommittee on Transportation,  
Committee on Appropriations**

**United States Senate**

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# **U.S. Coast Guard Fiscal Year 2002 Budget Request For Modernization**

**Statement of  
The Honorable Kenneth M. Mead  
Inspector General  
U.S. Department of Transportation**



Madam Chairman and Members of the Subcommittee:

We appreciate the opportunity to discuss the Coast Guard's modernization efforts and appropriation request for fiscal year (FY) 2002. The Coast Guard has been receptive to our views on the three subjects that will be discussed today. They are:

- (1) The Deepwater Capability Replacement Project,
- (2) The National Distress and Response System Modernization Project, and
- (3) Coast Guard's Search and Rescue Program.

Preliminary estimates indicate that capital improvement funding of \$15 billion or more will be needed over the next 20 years to modernize assets critical to the Coast Guard's Marine Safety, Search and Rescue, Law Enforcement, and Marine Environmental Protection missions. Coast Guard has reported that the Deepwater Capability Replacement Project will cost from \$10 billion to \$15 billion, and the National Distress and Response System Modernization Project will cost from \$240 million to \$300 million.

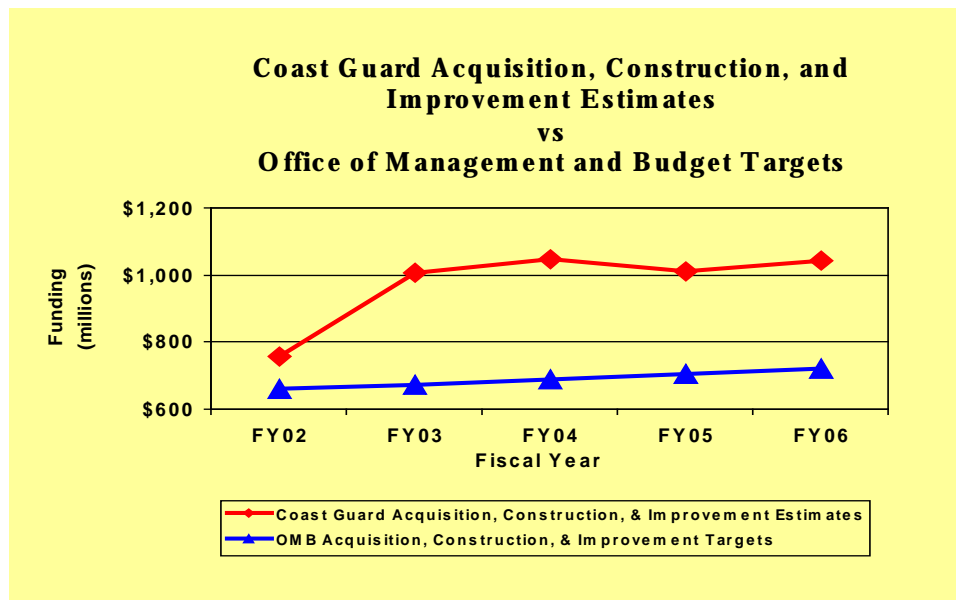
To meet the Coast Guard's goals, its capital acquisition budget will need to more than double, from \$400 million annually to about \$1 billion annually on a sustained basis. As a result, we have identified the Coast Guard capital acquisition budget as 1 of the top 10 management challenges in the Department of Transportation.

In recent years, Congress has responded to the nationwide problems of transportation congestion and capacity by passing the Transportation Equity Act for the 21<sup>st</sup> Century (TEA-21) and the Wendell H. Ford Aviation Investment and Reform Act for the 21<sup>st</sup> Century (AIR-21), providing an unprecedented infusion of funds for highway, transit, and airport infrastructure projects. Unlike the Federal Aviation Administration (FAA) and the Federal Highway Administration, the majority of the Coast Guard's budget comes from the General Fund and not trust funds.

Other transportation programs, such as a substantial portion of FAA (operations) and AMTRAK also are seeking budget increases and will be competing with Coast Guard for funding from the General Fund. These funding decisions and trade-offs will have to be made in the context of the missions and responsiveness expected of the Coast Guard, as well as those of FAA and AMTRAK. The immediate challenges are summarized below.

- Reconciling Capital Investment Priorities and Budget Targets. As shown in the chart below, Coast Guard's capital acquisition estimates exceed Office of Management and Budget (OMB) targets by more than \$300 million per year beginning in FY 2003. Coast Guard needs to establish capital investment priorities and continue working with OMB to reconcile their respective capital funding proposals and budget targets.

The budget plus-up being sought by the Coast Guard is not just an FY 2002 phenomenon. Once the Deepwater Project gets underway, sustaining it and other capital programs will require a Coast Guard acquisition budget of at least \$1 billion annually for the foreseeable future. Appropriating funds to begin acquisition for the Deepwater and the National Distress and Response System Projects in FY 2002 will set these two long-term modernization efforts in motion.



- FY 2002 Budget Request for the Deepwater Project. The planning process for Deepwater has been endorsed and praised by many organizations. However, the Coast Guard wants to proceed with a budget request for this project even though the planning process is not complete. The reason for this is that Coast Guard wants funding available to launch the Deepwater Project in FY 2002 after a contractor is selected and not have to wait until FY 2003. Given this, Coast Guard should be required to identify which Deepwater assets need to be acquired or modernized, how this will be done, what it will cost, and when funding will be needed.

- FY 2002 Budget Request for the National Distress and Response System Modernization Project. Like Deepwater, Coast Guard plans to proceed with a procurement request for the National Distress and Response System Project in FY 2002 before completing its separate planning process. The reason for this is that Coast Guard wants funding available to award a procurement contract in FY 2002 and not have to wait until FY 2003. The major task for Coast Guard is to present a specific system modernization plan for this important search and rescue capability that details what assets need to be acquired or modernized, how it will be done, what it will cost, and when funding will be needed.
- Search and Rescue Staffing, Training, and Equipment. The Search and Rescue Program is understaffed; many staff are not fully trained for their positions; and the small boats used in search and rescue missions are aging and consistently failing to meet Coast Guard standards. Despite these long-standing problems, the Coast Guard is maintaining a relatively high level of program effectiveness.

The following paragraphs summarize our specific observations on the status of Coast Guard's Deepwater Project, National Distress and Response System Modernization Project, and Search and Rescue Program.

- (1) **The Deepwater Capability Replacement Project (Deepwater)** proposes to replace or modernize 209 aircraft, 92 vessels, and associated sensor, communications, and navigation systems that are approaching the end of their useful life. This project involves replacing or modernizing all of the Coast Guard assets that are critical to missions that occur 50 miles or more offshore, including drug interdiction, search and rescue and alien interdiction.

This project is unusual not only because of its size, but, if all goes well, it concentrates the responsibility for project success with one contractor (called the Integrator) and subcontractors extending over a planned 20-year period. The Coast Guard is requesting \$338 million in FY 2002 for Deepwater and plans to request \$500 million annually, in 1998 dollars, for at least the next 19 years. Given this, the Coast Guard should expect a high level of scrutiny by the Department and the Congress regarding this Project.

The Coast Guard is planning to replace its Deepwater capability as an integrated system rather than a series of distinct procurements. For example, instead of specifying that it wants a medium cutter or long-range helicopter, Coast Guard is asking each of three industry teams to propose vessels and aircraft that can work together to meet mission needs more effectively.

To date, the Congress has supported the planning phase of the Project by appropriating about \$117 million. The resultant planning process is comprehensive, sound, and innovative. Scheduled for completion in the next few months, this process should provide Coast Guard a good basis for identifying its needs and developing its acquisition strategy.

The Coast Guard is rapidly approaching an important crossroads with respect to the Deepwater Project: the planning process is nearly complete, and initial procurement funding totaling \$338 million is being requested in FY 2002. Approval of the FY 2002 budget request for the Deepwater Project will start the Coast Guard moving forward on a course that is likely to be difficult and potentially expensive to alter once funding has been committed and contracts have been executed.

A key issue is not whether Deepwater assets need to be replaced or modernized, but what it will cost, what assets need to be acquired, when funding will be needed, and how the Project will be executed. Until a contractor is selected in March 2002, about six months after the budget is scheduled to be approved, the Coast Guard will not know which assets will be modernized or replaced and how much it will cost.

The Coast Guard faces risks in developing and carrying out its acquisition strategy. To its credit, the Coast Guard has sought input from a variety of sources in an attempt to minimize these risks. For example, in April 2001, it convened a panel of procurement experts to provide comments on potential improvements in the planned acquisition strategy. The acquisition strategy is not yet finalized.

Coast Guard has been receptive to questions that are being raised by the panel, the Office of Inspector General, the General Accounting Office, and the Office of Management and Budget. Close oversight by the Coast Guard will be required to minimize risks and ensure that the contract is completed on time and within funding limitations. The Coast Guard has delayed the release of its request for proposals by a few weeks so that an independent contractor can make recommendations to minimize its risks. We are very pleased that the Coast Guard is taking these concerns seriously and look forward to seeing the recommendations. Three of the major risks that have been identified so far include:

- The budget for Deepwater, the Coast Guard, and the Department has not been settled, so funding availability is not yet known. Funding availability is important because it is not clear how much of a downward swing from the planned \$500 million annually Deepwater could tolerate and remain

viable. Coast Guard's risk management plan has categorized the risk of not maintaining a \$500 million annual funding stream as "catastrophic".

The funding stream for Deepwater will need to be decided in the context of the needs for other Departmental programs that draw from the general fund such as FAA operations and AMTRAK.

Also, given the priority that Coast Guard is placing on Deepwater, it needs to ensure that other capital needs, such as the National Distress and Response System Modernization are not crowded out or allowed to slip further.

- Relying on a single contractor to manage and ensure delivery of assets critical to a large number of the Coast Guard's missions carries inherent risks. This is especially important in the context of Deepwater – the largest acquisition in the history of the Coast Guard involving all assets for missions that are 50 miles or more offshore. How problems of contractor non-performance are dealt with becomes extremely important. This is why we will closely scrutinize the "off-ramps" proposed by the Coast Guard in the event there is a performance or other problem once the Deepwater Project gets underway.
- The panel of experts commented that maintaining effective cost control will require that the Coast Guard use incentives to enhance competition, control costs, and meet its performance objectives. We will want to see how the Coast Guard proposes to accomplish this given the fact that portions of the contract will be on a cost reimbursable basis, where the significant portion of the risk is borne by the Government. In other Departmental procurements, such as the FAA's Air Traffic Control Modernization Project, contracts of this type have not been effective in controlling costs.

In order to effect appropriate cost control, the Coast Guard will need to establish goals and measurement criteria to measure contractor performance in the early years of the contract. The Coast Guard is currently considering a proposal from the panel of experts for measuring contractor performance in meeting short term cost reduction and performance improvement goals. It expects to incorporate these new, short-term criteria in the final Request for Proposals.

(2) **The National Distress and Response System Modernization Project** has been in the planning process since the late 1980s. The National Distress

System (NDS) serves as Coast Guard's primary short-range communications network. Its primary purpose is to monitor the distress frequency and coordinate search and rescue missions in response to mariner distress (911) calls. Its secondary purpose is to provide command and control communications for Coast Guard units performing Maritime Safety, Maritime Law Enforcement, National Security, and Marine Environmental Protection missions. This 30-year old short-range communication system no longer supports Coast Guard's communication needs. System deficiencies, such as communication coverage gaps and limited direction finding capabilities, impair Coast Guard's ability to effectively and efficiently perform search and rescue missions. (See attachment – 88 NDS Gaps)

Coast Guard has begun the acquisition process to replace the current system. To date, it has received \$49 million to plan a replacement system and has requested an additional \$42 million to continue planning in FY 2002. Coast Guard's current cost projections indicate the replacement system will cost between \$240 million and \$300 million, with deployment scheduled for completion in FY 2006. However, preliminary cost estimates from the contractors indicate costs could exceed \$1 billion. Given this potentially significant increase in cost estimates for the NDS, Coast Guard will need to reconsider its capital acquisition priorities.

- (3) **The Search and Rescue Program** is Coast Guard's first line of response to mariners in distress. For FY 2002, Coast Guard has requested \$407 million for operating and \$105 million for capital expenses for the program. By its own admission, readiness levels at Coast Guard's search and rescue stations have been deteriorating for more than 20 years. A 21 percent decline in the number of experienced station personnel, an aging small boat fleet that is failing Coast Guard readiness inspections, and a 225 percent increase in mishaps involving Coast Guard's small boats, are indicative of a program with significant problems. There is no easy solution to the staffing, training, and equipment needs facing the Search and Rescue Program. The problems did not happen overnight. Rebuilding the Search and Rescue Program's infrastructure and restoring small boat station readiness will require serious management attention.

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Preliminary estimates show Coast Guard will need capital improvement funding of \$15 billion or more over the next 20 years to modernize assets critical to the Coast

Guard missions. Over a 5-year period beginning in fiscal year 2002, Coast Guard's total capital funding gap is approximately \$1.4 billion. Funding decisions and trade-offs will have to be made in the context of the missions and responsiveness expected of the Coast Guard and the needs of the Department. The primary factors influencing pressures on the Coast Guard budget are the Deepwater Project and the National Distress and Response System Modernization Project. Coast Guard is facing the following three challenges.

## **DEEPWATER CAPABILITY REPLACEMENT PROJECT**

The Deepwater Capability Replacement Project proposes to replace or modernize 209 aircraft, 92 vessels, and associated sensor, communications, and navigation systems that are approaching the end of their useful life. This project is unusual because it proposes to replace assets that are important to a significant number of Coast Guard missions, such as Drug Interdiction, Search and Rescue, and Alien Interdiction. The Coast Guard is planning to replace its Deepwater capability as an integrated system rather than a series of distinct procurements. For example, rather than specifying that it wants a medium cutter or long-range helicopter, Coast Guard is asking each of three industry teams to propose vessels and aircraft that can work together to meet mission needs.

To date, the Congress has supported the planning phase of the Project by appropriating approximately \$117 million. The resultant planning process is



comprehensive, sound, and innovative. Scheduled for completion in the next few months, this process should provide Coast Guard a good basis for identifying its needs and developing its acquisition strategy.

## **Key Project Implementation Issues**

The Coast Guard is rapidly approaching an important crossroads with respect to the Deepwater Project. With the planning process nearly complete and initial procurement funding being requested, the FY 2002 budget will start the Deepwater process moving forward on a course that could be very expensive and complicated to alter once funding has been committed and contracts have been executed. A key issue facing the Coast Guard, the Department, and the Congress, is not whether Deepwater assets need to be replaced or modernized over the next 20 or more years, but what it will cost, what assets need to be acquired and when funding will be needed, and how the Project will be executed.

The Deepwater Project will be the single most costly project in the Coast Guard's history. The Coast Guard is requesting \$338 million in FY 2002 and plans to request \$500 million annually for at least the next 19 years to acquire or modernize Deepwater assets. The Coast Guard directed the contractors to use \$500 million per year for planning purposes. However, the actual amounts that will be available on an annual basis will depend on Coast Guard priorities, support from the Administration, and annual appropriations by the Congress. The

availability of funding is important because the Coast Guard's risk management plan for Deepwater has categorized the risk of not maintaining a \$500 million annual funding stream as catastrophic.

The Coast Guard has employed a sound planning process that will identify asset needs and alternatives, but it currently lacks key information about which assets will be acquired and when they will need to be integrated into the Deepwater asset inventory. In part, the lack of key information is due to the fact that some of the assets, such as the largest class of cutter, have not yet been designed, so valid cost estimates cannot yet be established. However, until contractors respond to the Request for Proposals and a contractor is selected in March 2002, the Coast Guard will not know with any degree of precision what specific assets are going to be purchased or when they will be delivered. Even then, the Project's ultimate cost will be difficult to project because of the risks inherent in a 20-year program involving a wide range of assets.

### **Coast Guard Acquisition Strategy**

The Coast Guard faces risks in developing and carrying out its acquisition strategy. To its credit, the Coast Guard has sought input from a variety of sources in an attempt to minimize these risks. For example, in April 2001, it convened a panel of procurement experts to provide comments on potential improvements in the planned acquisition strategy. The acquisition strategy is not yet finalized.

Coast Guard has been receptive to important the questions that are being raised by the panel, the Office of Inspector General, the General Accounting Office, and the Office of Management and Budget. Close oversight by the Coast Guard will be required to minimize risks and ensure that the contract is completed on time and within funding limitations. The major risks identified thus far include:

- The budget for Deepwater, the Coast Guard, and the Department has not been settled, so funding availability is not yet known. Funding availability is important because it is not clear how much of a downward swing from the planned \$500 million annually Deepwater could tolerate and remain viable. Coast Guard's risk management plan has categorized the risk of not maintaining a \$500 million annual funding stream as "catastrophic".

The funding stream for Deepwater will need to be decided in the context of the needs for other Departmental programs that draw from the general fund such as FAA operations and AMTRAK.

Also, given the priority that Coast Guard is placing on Deepwater, it needs to ensure that other capital needs, such as the National Distress and Response System Modernization are not crowded out or allowed to slip further.

- Relying on a single contractor to manage and ensure delivery of assets critical to a large number of the Coast Guard’s missions carries inherent risks. This is especially important in the context of Deepwater – the largest acquisition in the history of the Coast Guard involving all assets for missions that are 50 miles or more offshore. How problems of contractor non-performance are dealt with becomes extremely important. This is why we will closely scrutinize the “off-ramps” proposed by the Coast Guard in the event there is a performance or other problem once the Deepwater Project gets underway.
- The panel of experts commented that maintaining effective cost control will require that the Coast Guard use incentives to enhance competition, controls costs, and meet its performance objectives. We will want to see how the Coast Guard proposes to accomplish this given the fact that portions of the contract will be on a cost reimbursable basis, where the significant portion of the risk is borne by the Government. In other Departmental procurements, such as the FAA’s Air Traffic Control Modernization Project, contracts of this type have not been effective in controlling costs.

In order to effect appropriate cost control, the Coast Guard will need to establish goals and measurement criteria to measure contractor performance in the early years of the contract. The Coast Guard is currently considering a proposal from the panel of experts for measuring contractor performance in

meeting short term cost reduction and performance improvement goals. It expects to incorporate these new, short-term criteria in the final Request for Proposals.

## **NATIONAL DISTRESS AND RESPONSE SYSTEM MODERNIZATION PROJECT**

Established in 1970, the National Distress System's (NDS) primary purposes include monitoring the international distress frequency (VHF-FM Channel 16), known as the Maritime version of 911, and providing primary command and control for Coast Guard's search and rescue activities. It also serves as the primary short-range communications network for other coastal missions such as Maritime Law Enforcement and Marine Environmental Protection. However, changes in mission requirements over the last several years have created a capabilities gap.

### **Current System Has Limited Capabilities**

The current NDS system can no longer handle increased mission demands and has the following deficiencies.

- Communication coverage gaps exist where Coast Guard cannot hear calls from mariners in distress. These gaps represent approximately 14 percent of Coast Guard's area of responsibility.
- Limited radio direction finding capabilities contribute to prolonged searches for mariners in distress and an inability to identify hoax calls with any certainty. Coast Guard spent \$18 million in FY 2000 responding to hoax calls.
- Limited recording and playback capabilities contribute to delays in identifying actual distress calls, such as in the *Morning Dew* accident.
- The antiquated technology does not easily allow system upgrades.

### **Coast Guard Has Delayed Improvements to the NDS**

The NDS has deteriorated because Coast Guard has delayed replacement to fund higher priorities. Although Coast Guard began planning for NDS improvements in the late 1980s, serious problems with the system's infrastructure in Alaska caused Coast Guard to change the original project's scope. Between 1992 and 1998, Coast Guard spent over \$18 million addressing NDS deficiencies in Alaska. As a result, the nationwide NDS continued to deteriorate, and Coast Guard did not

resume the planning process until 1995. However, it was not until the *Morning Dew* accident, in December 1997, resulting in the death of four boaters off the South Carolina Coast, that additional emphasis was placed on the NDS Project.

### **Interim System Is a “Band-Aid” Approach**

In response to the National Transportation Safety Board’s recommendations concerning the *Morning Dew* accident, Coast Guard developed an interim measures program. During 1999, Coast Guard spent approximately \$4 million to purchase limited direction finding systems and replace outdated digital voice recorders at all communication centers. Described by Coast Guard as a “Band-Aid” approach, the interim measures program is not comprehensive and has not been fully deployed. Deficiencies such as communication coverage gaps and limited direction finding capabilities still limit Coast Guard from hearing and locating all boaters in distress.

### **Planning Process Will Not Be Completed Before FY 2002 Budget Request**

Though the modernization project has been delayed for over 10 years, Coast Guard intends to complete the planning process for replacing its National Distress System (NDS) during FY 2002. Using an acquisition strategy similar to the Deepwater Capability Replacement Project, Coast Guard selected

three contractors in August 2000 to develop independent design concepts. To date, it has received a total of \$49 million for the planning phase. Coast Guard has requested an additional \$42 million for FY 2002 to continue the planning phase, evaluate the system proposals, develop final system specifications, solicit bids, and award a procurement contract by the fourth quarter of FY 2002. Full deployment of the system is scheduled for FY 2006.

Like Deepwater, Coast Guard plans to proceed with a procurement request for the National Distress and Response System Project in FY 2002 before completing its separate planning process. The reason for this is that Coast Guard wants funding available to award a procurement contract in FY 2002 and not have to wait until FY 2003. The major task for Coast Guard is to present a specific system modernization plan for this important search and rescue capability that details what assets need to be acquired or modernized, how it will be done, what it will cost, and when funding will be needed.

### **Project's Cost Estimate Is Escalating**

Coast Guard faces an additional challenge concerning the NDS modernization project. The original cost baseline estimate of \$240 million to \$300 million is significantly understated. Preliminary contractor estimates indicate these costs could exceed \$1 billion over the next 5 years. Given this potentially significant



increase in cost estimates for the NDS, Coast Guard will need to reconsider its capital acquisition priorities.

## **SEARCH AND RESCUE PROGRAM**

For more than 120 years, the Coast Guard's Search and Rescue Program has been saving lives of recreational boaters and commercial mariners along our coasts. Search and rescue crews at small boat stations around the country are expected to respond to all distress calls, a large percentage of which occur during hours of darkness and in hazardous weather and sea conditions. The Coast Guard's 188 small boat stations, located along our coastline and inland waterways, are the first line of response to mariners in distress. Approximately 85 percent of calls for assistance are from boaters within 3 miles of the coastline.

The Search and Rescue Program is one of Coast Guard's most visible examples of its motto, *Semper Paratus* (Always Ready). During FY 2000, small boat stations responded to over 40,000 calls for help and saved over 3,300 lives. However, during this same period, more than 700 people died. Our ongoing audit of the Coast Guard's Search and Rescue Program is identifying staffing, training and equipment problems that require management attention.

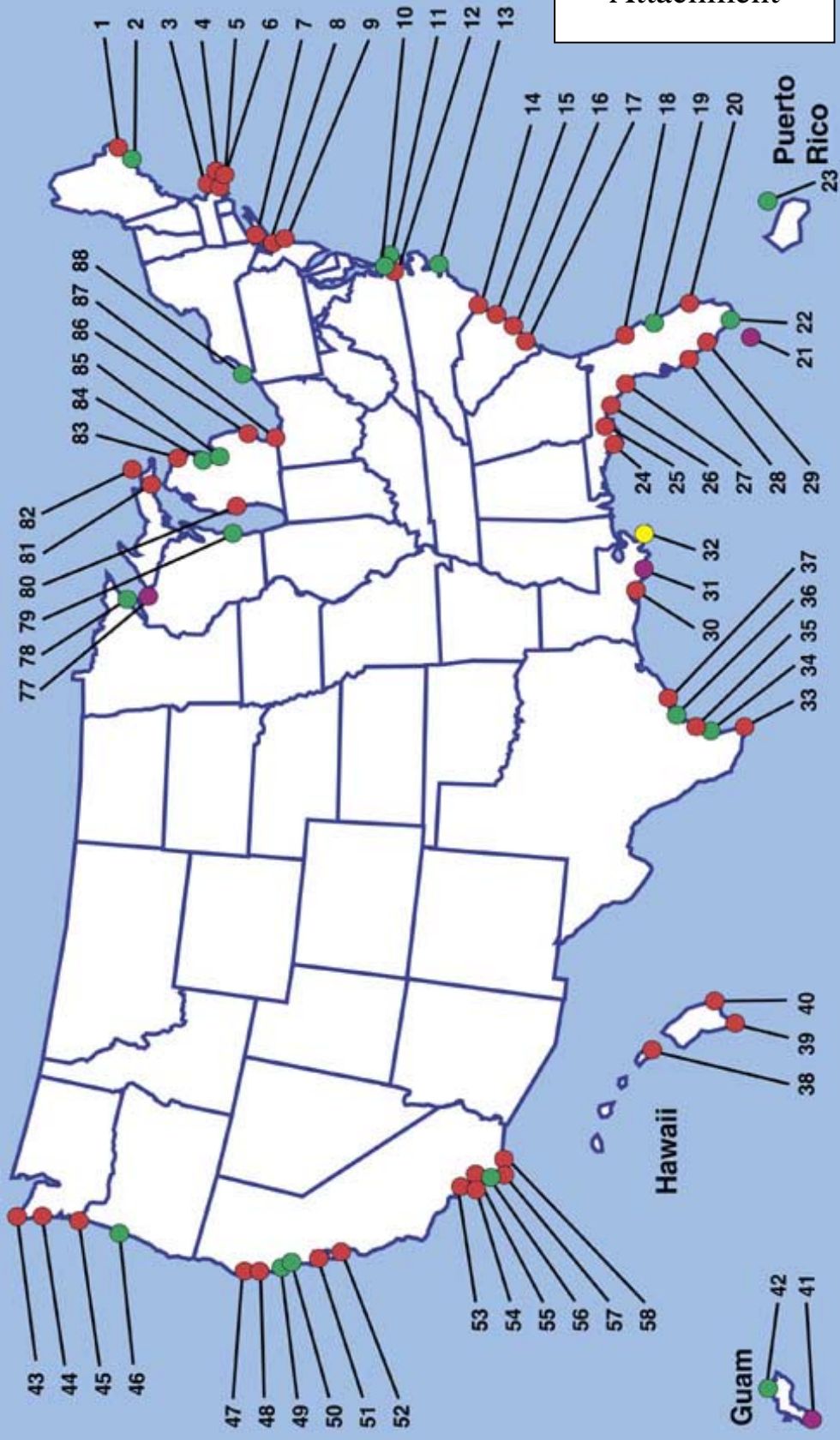
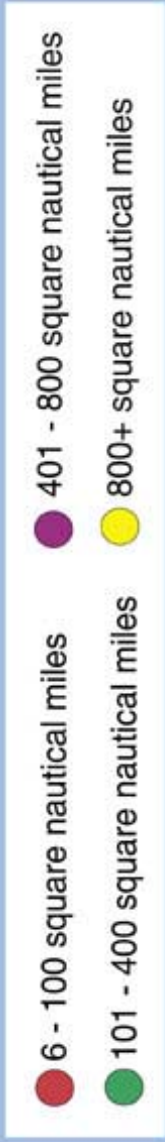
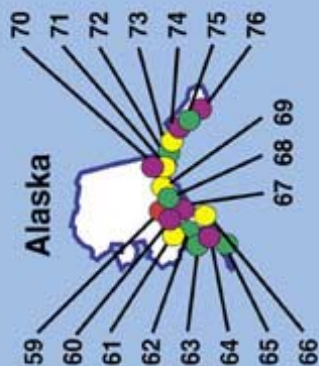
- Ninety percent of search and rescue stations are operating with a staffing level so low that personnel are required to work over 80 hours per week. These long hours increase the level of stress and fatigue among station personnel and ultimately increase the likelihood of boat mishaps. Mishaps involving Coast Guard small boats increased 225 percent over the past 2 years.
- Boat crews lack formal training. For example, at least 70 percent of personnel assigned to stations during the year ended June 30, 2000, arrived with little training in seamanship and water survival techniques, and no training in small boat handling, piloting and navigation, and search and rescue techniques. Since January 1996, the number of experienced personnel at stations decreased by 21 percent, while the number of inexperienced personnel increased by 184 percent. Experienced personnel provide on-the-job training to new station personnel.
- During FY 2000, 84 percent of the search and rescue boats were found “not ready for sea” by Coast Guard inspection teams. Many of these small boats are reaching the end of their service life. While Coast Guard has replaced some of these boats, it has not budgeted funding to replace the remaining boats or extend their useful service lives.

Staffing, training, and equipment problems impacting the Search and Rescue Program today have been identified, documented, and discussed in Coast Guard studies, reports, and testimonies dating back to 1981. However, Coast Guard has yet to implement many of the recommendations contained in these studies and reports. Rebuilding the Search and Rescue Program infrastructure and restoring small boat station readiness will require serious management attention.

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Madam Chairman, this concludes my statement. Thank you for inviting me to testify this morning. I would be happy to answer any questions the Subcommittee may have.

# 88 NDS Gaps



Attachment