

**Before the Subcommittee on Oceans, Atmosphere, and Fisheries
Senate Commerce, Science, and Transportation Committee**

United States Senate

For Release Upon Delivery
Expected at
3:00 PM EST
Tuesday
March 19, 2002
CC-2002-131

U.S. Coast Guard Budget and Management Issues

Statement of

The Honorable Kenneth M. Mead

Inspector General

U.S. Department of Transportation



Mr. Chairman and Members of the Subcommittee:

We appreciate the opportunity to discuss Coast Guard's budget and management issues. We have identified balancing Coast Guard's missions and budget needs in light of post September 11 priorities as 1 of the top 10 management challenges in the Department of Transportation.

The Coast Guard is seeking a significant increase in its budget to be able to deal with an expanded security mission, perform its other major missions, and proceed with an extraordinary set of important major acquisitions. The budget will increase from \$5.4 billion in fiscal year (FY) 2002 to \$7.3 billion in FY 2003. There are currently a number of uncertainties about Coast Guard mission requirements, how it will execute major acquisition projects, and control costs.

Coast Guard needs an effective cost accounting system that meets Federal accounting standards to provide a basis for accurately measuring the costs of specific activities and making decisions about where to apply resources. Without such a system, Coast Guard cannot provide detailed information concerning the allocation of resources or the true operating costs of specific missions.

My testimony today will address three areas.

First, the budget request for 2003. Coast Guard is seeking an increase of \$1.9 billion for FY 2003. A large portion of the increase is \$736 million for a required payment to Coast Guard's military retirement fund. Two other categories, operating expenses (up by \$1 billion) and acquisitions (up by \$99 million), account for most of the remaining increase. The increase in Coast Guard's operating capacity is not as large as it appears. About two-thirds of the increase will pay for entitlements and other inflationary adjustments and not add to operating capacity. The other one-third of the increase will fund the operation of new assets, such as seagoing buoy tenders and coastal patrol boats, continue increased security operations begun after September 11th and fund new security operations.

Immediately after September 11th, Coast Guard devoted 58 percent of its resources to port safety and security, while deployment to other core missions fell. For FY 2003, Coast Guard plans to dedicate 27 percent of its resources to port safety and security programs. This is roughly twice the amount that Coast Guard planned to dedicate to these missions for FY 2002 prior to September 11th. The relative amount of resources Coast Guard plans to devote to drug interdiction and fisheries enforcement in FY 2003 is expected to decrease from planned FY 2002 levels. Coast Guard views its FY 2003 budget request as the initial phase of a 3-year plan to enhance its homeland security missions while still conducting other

diverse missions that remain national priorities. It is not clear to us if Coast Guard intends to request additional increases in FYs 2004 and 2005 to support this plan.

Second, the Search and Rescue program. Last year we reported that the readiness of the Coast Guard's small boat station search and rescue program was declining because it did not have sufficient numbers of qualified personnel, a formal training program for key staff, and equipment that was up to standards. Coast Guard developed a strategic plan to improve readiness and the Congress provided \$14.5 million for FY 2002 for added search and rescue program personnel and equipment. We have been directed to audit Coast Guard's use of these added funds and certify that the \$14.5 million supplements and does not supplant Coast Guard's level of effort in this area in FY 2001. The FY 2003 budget proposal seeks \$22 million to follow through on Search and Rescue program enhancements such as adding crew members to the 47-foot motor life boats and procuring small search and rescue boats.

Small boat stations are also playing a key role in port security activities since September 11th. More than half of all station hours are currently devoted to port security and operating tempo has increased significantly. Given the emphasis on security missions, it is unclear whether Coast Guard has implemented its plan to address the Search and Rescue program deficiencies we identified. As part of our audit to certify the use of FY 2002 funds, we will determine the status of Coast Guard actions to address the deficiencies identified in our prior audit report.

Third, major acquisition projects. The FY 2003 budget seeks \$590 million for Coast Guard's two largest acquisition projects, the Deepwater Capability Replacement and the National Distress and Response System Modernization. Both projects are critical to improving Coast Guard's operations, but both also have significant uncertainties that the Subcommittee should expect to see resolved this fiscal year. Coast Guard, the Department's Deputy Secretary, and the Director of OMB have certified to congress that the FY 2003 5-year capital investment plan contains full funding for the Deepwater, NDS, and other essential search and rescue procurements.

- ***Deepwater*** - This is the second year that the Congress is being asked to appropriate procurement funding for the Deepwater project without a detailed cost and schedule estimate. If the Congress appropriates the \$500 million Coast Guard is seeking for 2003, it will have \$790 million available for the procurement phase of the project. Given the acquisition approach that Coast Guard is using, reliable estimates that describe what assets will be modernized or replaced, at what cost, when that will occur, and when funding will be required, will not be available until after a contractor is selected. The selection is currently scheduled for the third quarter of FY 2002.

Another area of uncertainty is how long the project will take to complete. Although Coast Guard originally stated this would be a 20-year project, the request for proposals states that the performance period for the contract could be up to 30 years. It is not clear to us whether this means that (1) previously planned annual funding levels will remain the same and result in increased cost, or (2) the planned annual funding levels will be spread out and reduce the level of funding required each year.

- ***National Distress and Response System (NDS)*** - Coast Guard has increased its estimate for the NDS project—the 911 system for mariners in distress—from \$300 million to \$580 million and it is seeking \$90 million in the FY 2003 budget to begin procurement. If the Congress appropriates the \$90 million Coast Guard is seeking for FY 2003, it will have \$125 million available for the procurement phase of the project.

The current system has many deficiencies including more than 88 communication coverage gaps, totaling 21,490 square nautical miles along the U.S. coastline where Coast Guard cannot hear mariners. The revised system will provide a significant improvement over the existing system.

However, we are concerned that Coast Guard reduced or eliminated capabilities in the revised system that it initially considered essential. This occurred because Coast Guard reduced performance specifications after contractors estimated that a system meeting Coast Guard requirements would cost more than \$1 billion. As a result of the reduced performance specifications, the revised system will still contain gaps in communication coverage. Because the acquisition strategy being used on NDS is following the same approach as that used on Deepwater, the number, size, and location of the gaps will not be known until a contractor's system is selected. Also, the time allowed to restore critical functions, if the system becomes unavailable, has been increased from 6 to 24 hours. However, at some time in the future, Coast Guard may have to upgrade the system to provide some or all of the capabilities that were to be provided by the \$1 billion system. We have recommended that Coast Guard develop an acquisition plan that includes cost and schedule estimates for upgrading the system to provide these capabilities.

Coast Guard's Budget Request Represents a 35.6 Percent Increase

Coast Guard's FY 2003 budget request seeks an increase of \$1.9 billion or 35.6 percent over the FY 2002 budget. As shown in the following table, most of the increase is in three categories: operating expenses; acquisition, construction, and improvements; and military retirement fund payment.

Comparison of Coast Guard's FY 2002 Budget With Its
FY 2003 Budget Proposal
(\$ 000)

	FY 2002 Enacted	FY 2003 President's Budget	Change	Percent Change
Operating Expenses	\$3,591,150	\$4,635,268	\$1,044,118	29.1%
Acquisition, Construction and Improvements (AC&I)	\$636,354	\$735,846	\$99,492	15.6%
Environmental Compliance and Restoration	\$16,927	\$17,286	\$359	2.1%
Alteration of Bridges	\$15,466	0	-\$15,466	-100%
Retired Pay	\$876,346			
Coast Guard Military Retirement Fund		\$889,000	\$12,654	1.4%
Reserve Training	\$83,194	\$112,825	\$29,631	35.6%
Research, Development, Test and Evaluation	\$20,222	\$23,106	\$2,884	14.3%
Oil Spill Recovery	\$61,200	\$61,200	\$0	0.0%
Boating Safety	\$64,000	\$64,000	\$0	0.0%
Gift Fund	\$80	\$80	\$0	0.0%
Sub Total	\$5,364,939	\$6,538,611	\$1,173,672	21.9%
Payment to Coast Guard Military Retirement Fund		\$736,000	\$736,000	N/A
Total	\$5,364,939	\$7,274,611	\$1,909,672	35.6%

The increase includes approximately \$736 million for payment to Coast Guard's military retirement fund consistent with legislation proposed in October 2001 by the Administration. The \$736 million will fund the future retirement benefits of

current Coast Guard uniformed personnel. The \$889 million funding item in the above table for the Coast Guard Military Retirement Fund finances payments to existing retirees.

The FY 2003 budget request also includes \$4.6 billion for Coast Guard operations and \$736 million for acquisitions. Operating expenses and acquisition funding have increased approximately \$1 billion and \$99 million, or 29 percent and 16 percent, respectively, over FY 2002. About two-thirds of this increase will fund entitlements, such as pay raises, health care costs, and other inflationary adjustments. The remaining one third will fund the purchase and operation of new assets—such as those included in the Deepwater and NDS projects—continue increased security operations begun after September 11th, and fund new and enhanced operations, including port security. Funding for new security initiatives includes \$48 million for marine safety and security team; \$19 million for maritime escorts and safety patrols; \$60 million for enhanced communications, information, and investigations, and \$37 million for force protection.

The FY 2003 Budget Seeks to Balance Current Priorities With Coast Guard's Multiple Missions

In response to the September 11th attacks, Coast Guard deployed 58 percent of its resources to port safety and security missions. These resources included its fleet of rescue boats at small boat stations around the country. The redeployment, however, came at the expense of other important core missions including drug

interdiction and Living Marine Resources (LMR) patrols (fisheries enforcement). For example, resources deployed to drug interdiction fell from approximately 18 percent to 7 percent. In Coast Guard's First District, no Living Marine Resources (LMR) patrols were conducted between September 11 and December 31, 2001. The First District estimates the number of patrol days devoted to LMR missions through the end of FY 2002 will be down at least 50 percent compared to historical averages. Other missions such as recreational boating safety, aids to navigation, commercial fishing vessel safety, and migrant interdiction were also hard hit.

For FY 2003, Coast Guard plans to use 27 percent of its operating expense budget for port safety and security programs. This is roughly twice the amount that Coast Guard planned to dedicate to these missions for FY 2002 prior to September 11th. To help fund the increased port safety and security program, Coast Guard will continue reduced levels of activity in other missions such as drug interdiction and fisheries enforcement. The following chart shows the resources projected to be used for major missions during FY 2003 compared to FY 2002. Because the amount of operating funding is different in each year, the change reflects the difference in the relative amount of resources projected by mission.

U.S. COAST GUARD MISSION PROFILE
Percent of planned Operating Expenses Budget by Major Programs

Program	FY 2002	FY 2003	Change
<i>Programs Increased in FY 2003</i>			
Marine Safety	14%*	5%	+13%
Ports, Waterways, and Coastal Security		22%	
Aids to Navigation	15%	17%	+2%
Defense Readiness	2%	3%	+1%
<i>Programs Unchanged in FY 2003</i>			
Search and Rescue	12%	12%	0%
<i>Programs Decreased in FY 2003</i>			
Ice Operations	4%	3%	-1%
Other Law Enforcement	3%	2%	-1%
Migrant Interdiction	5%	4%	-1%
Marine Environmental Protection	11%	8%	-3%
Living Marine Resources	16%	11%	-5%
Drug Interdiction	18%	13%	-5%

*Combined in FY 2002

The Coast Guard is in the process of balancing its enhanced port safety and security mission requirements with its other missions. According to Coast Guard, the FY 2003 budget request represents the initial phase of a 3-year plan to address its needs. The Coast Guard's goal is to enhance all of its homeland security missions while still conducting other diverse missions that remain national priorities. It is not clear to us if Coast Guard intends to request additional increases in FYs 2004 and 2005 to support this plan.

The changes in Coast Guard's mission structure have impacted its operating and capital requirements and emphasize the need for a comprehensive cost accounting system. Although Coast Guard began developing a cost accounting model in 1997, it does not have a cost accounting system that meets the Federal managerial

cost accounting standards. The cost accounting model contains only Coast Guard operating expenses and does not address acquisition, environmental compliance, retirement pay, reserve training, or research and development costs. Coast Guard must obtain a cost accounting system that includes all costs if it wants to make informed decisions concerning the allocation of its limited resources.

FY 2003 Budget Continues Efforts to Address Deficiencies in the Small Boat Station Search and Rescue Program

Coast Guard's small boat station Search and Rescue program provides the first line of response for mariners in distress. During FY 2000, the 188 small boat stations responded to approximately 40,000 calls for help and saved over 3,300 lives.

As we reported to you last year, the small boat station Search and Rescue (SAR) program was suffering from serious staffing, training, and equipment problems that go back more than 20 years. Our findings were:

- staff shortages required personnel at 90 percent of the SAR stations to work an average of 84 hours per week;
- high attrition rates among enlisted personnel were impacting experience levels at small boat stations;
- 70 percent of vacant positions at small boat stations were filled with Coast Guard boot camp graduates with little or no training in seamanship, piloting

and navigation, small boat handling, water survival, or search and rescue techniques;

- there was no formal training for boatswain's mates, who are key SAR staff and one of the largest of the Coast Guard's enlisted job specialties;
- 84 percent of the standard rescue boat fleet inspected by the Coast Guard in FY 2000 were found to warrant a "Not Ready for Sea" evaluation; and
- Coast Guard had not requested funding to replace or extend the useful life of its 41-foot utility boat fleet, which is reaching the end of its service life.

In response to our recommendations, Coast Guard initiated a multi-year strategy to improve readiness at small boat stations. For example, during FY 2002, Coast Guard added 199 billets to support station operations and is in the process of expanding training opportunities for station boatswain's mates. In its FY 2002 supplemental funding request, Coast Guard received an additional 54 billets and funding to purchase 18 port security boats to augment station port security operations.

In DOT's FY 2002 Appropriations Act, Congress directed Coast Guard to use \$14.5 million to add personnel, purchase personnel protection equipment, and begin the process of replacing its aging 41-foot utility boat fleet. We have been directed to audit and certify that the \$14.5 million supplements and does not supplant Coast Guard's level of effort in this area in FY 2001. The FY 2003

budget proposal seeks \$22 million to follow through on SAR program enhancements, such as adding crew members to the 47-foot motor life boats and procuring small search and rescue boats.

In December 2001, the Coast Guard briefed us on its strategic plan for the small boat station SAR program. The plan identified actions to address the deficiencies found during our audit by, for example, adding personnel at stations to reduce the hours crew members are on duty and to provide administrative support to station management, freeing up management to train and certify crew members. Coast Guard also plans to open a formal school for training aspiring boatswain's mates, provide additional training opportunities for its small boat coxswains, and establish traveling small boat training teams to ensure station boat crews have the critical skills to safely and efficiently perform search and rescue missions. Coast Guard also plans to enhance personal protective clothing inventories to ensure all active duty, reservists, and auxiliary personnel are protected from the environment. Coast Guard is also working to replace the 41-foot utility boat fleet.

Since September 11th, the operating tempo at small boat stations more than doubled as they responded to support port safety and security efforts while maintaining a successful search and rescue capability. More than half of all station hours are now devoted to the port security mission. In addition, Coast Guard called up reservists and enlisted the Coast Guard auxiliary to support the

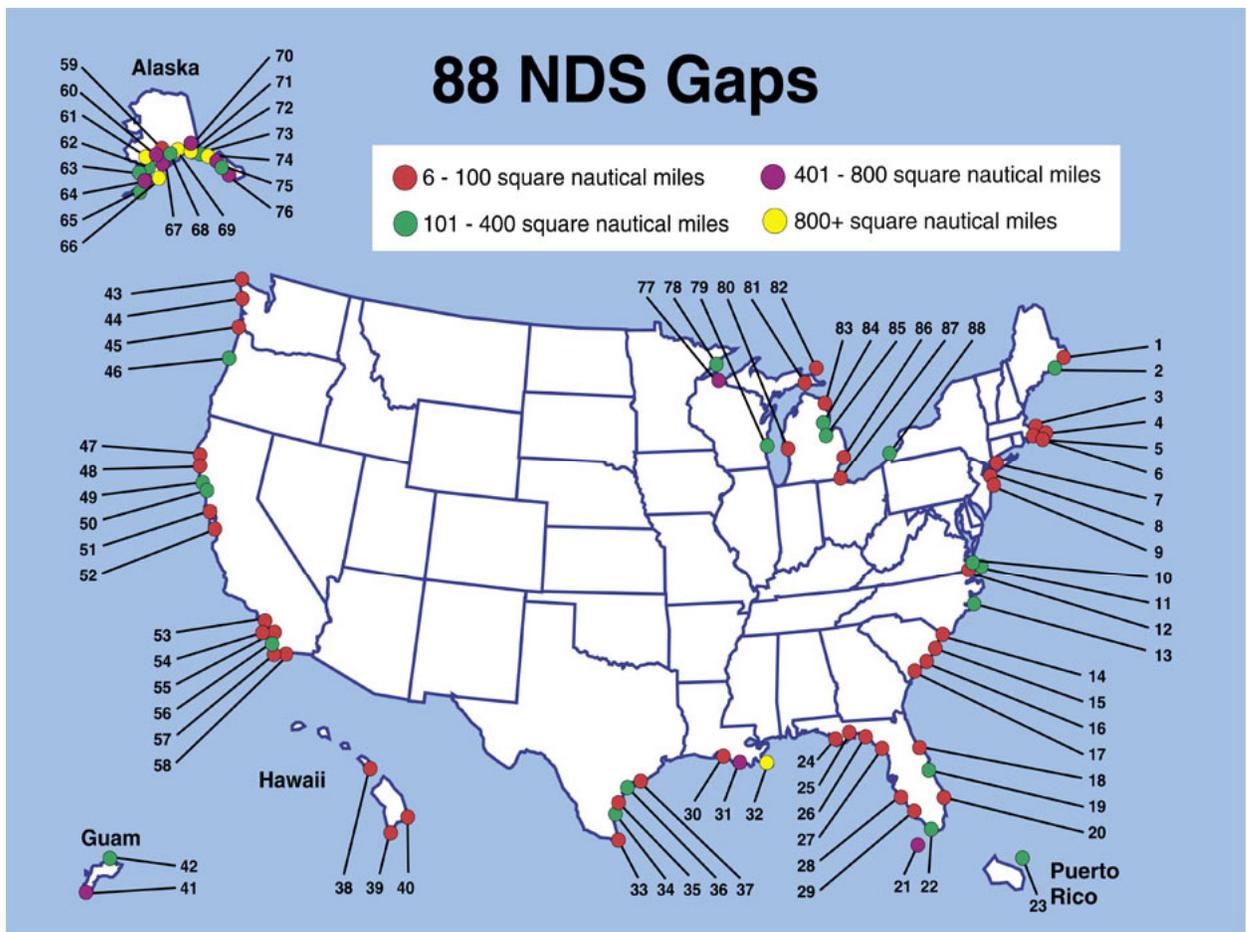
port security mission. This mission includes: enforcing security/safety zones around high-risk vessels, oil/gas/chemical terminals, and power plants; conducting harbor patrols; providing round-the-clock force protection around U.S. Navy and Coast Guard vessels and facilities; escorting high-risk vessels in and out of ports, and transporting sea marshals and boarding teams to and from vessels. Given the emphasis on security missions, it is unclear whether Coast Guard has implemented its plan to address the Search and Rescue program deficiencies we identified. As part of our audit to certify the use of FY 2002 funds, we will determine the status of Coast Guard actions to address the deficiencies identified in our prior audit report.

Acquisition, Construction, and Improvements Budget Provides a Significant Funding Increase for NDS and Deepwater

The FY 2003 budget request seeks an acquisition funding increase of \$99 million (16 percent) to \$736 million. The funding request includes \$90 million and \$500 million for the NDS and Deepwater projects, respectively. As proposed, the NDS and Deepwater projects account for 80 percent of Coast Guard's capital budget for FY 2003. Coast Guard, the Department's Deputy Secretary, and the Director of OMB have certified to congress that the FY 2003 5-year capital investment plan contains full funding for the Deepwater, NDS, and other essential search and rescue procurements.

The NDS Project Is Likely to Experience Cost Growth

The 30-year old National Distress System no longer supports Coast Guard's short-range communication needs. System deficiencies, such as communication coverage gaps and limited direction finding capabilities, complicate Coast Guard's ability to effectively and efficiently perform search and rescue missions. For example, at least 88 major communication coverage gaps exist where Coast Guard cannot hear calls from mariners in distress. Totalling about 21,500 square nautical miles, the communication coverage gaps represent 14 percent of the total NDS coverage area and range in size from 6 to more than 1,600 square nautical miles.



Over the last 6 years, Congress appropriated \$56 million for planning the NDS project. In the planning phase, Coast Guard and its technical support agent performed a significant amount of technical and market research and worked directly with three contractors to design a system that would meet Coast Guard's needs. During March 2001, each of the contractors submitted a cost proposal that individually exceeded \$1 billion—nearly three and a half times Coast Guard's \$300 million estimate.

When the contractors' cost estimates came in higher than expected, Coast Guard revised the system's performance specifications to lower the costs to an estimated \$580 million. The proposed system will provide significant improvement over the existing system. However, Coast Guard eliminated or reduced capabilities in the \$1 billion system that Coast Guard originally considered essential to address deficiencies in the existing system and to improve the SAR program efficiencies.

As currently designed the proposed system:

- Contains communication coverage gaps, meaning Coast Guard will not be able to hear and locate all mariners in distress even when they are within the system's planned range of 20 nautical miles of shore. While it is anticipated that the gaps will not be as large or as numerous as the 88 gaps in the existing system, the exact size and location will not be known until a contractor is selected later this year.

- Cannot pinpoint the location of distressed mariners. The proposed system will provide only the general direction of the distress call. Compared to the \$1 billion system, the revision has negatively impacted Coast Guard's original project goal to take the "search" out of search and rescue. Consequently, Coast Guard may have to perform other investigative procedures and conduct wide-area searches to locate distressed mariners.
- Restoring system outages will take longer. In the proposed system, the specified time allowed to restore critical system functions if they become unavailable has been extended from 6 hours to 24 hours and full system functions from 12 hours to 7 days. Coast Guard has no set parameters for restoring critical functions if the existing system becomes unavailable.
- Reduced the capability to support an increased level of operations during a national emergency or a natural disaster. Capabilities that were eliminated, such as the ability to send classified information and to talk with other agencies, may be necessary to support some Coast Guard homeland security activities.

While it is notable that Coast Guard has taken aggressive action to reduce cost estimates for NDS, Coast Guard may have to restore capabilities that were reduced or eliminated as the system is deployed to meet operational requirements. This

will not only increase the cost of the NDS project, but will further compound Coast Guard's capital acquisition challenge.

We have recommended that Coast Guard develop an acquisition plan for approval of the Department prior to obligating any funds appropriated for the procurement contract, which is anticipated to be awarded in the fourth quarter of FY 2002. Coast Guard fully concurred with our recommendation. However, given our concern over the reduction in capabilities, we have since recommended that Coast Guard ensure the acquisition plan also contains cost estimates and milestones for adding the capabilities that were reduced or eliminated. In addition, we recommended that the plan should identify how Coast Guard intends to meet its short-range communication needs in response to its increased homeland security mission.

Uncertainties With the Deepwater Project Should Be Resolved This Year

The Deepwater 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 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 migrant interdiction.

This project is unusual not only because of its size, but also because, if all goes as planned, it concentrates the responsibility for project success with one contractor (called the Integrator) and subcontractors extending over a planned period of at least 20 years. Given this, the Coast Guard should expect a high level of scrutiny by the Department and the Congress regarding this project.

The Congress supported the planning phase of the project by appropriating about \$117 million. The Coast Guard plans 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 endurance cutter or a long-range helicopter, Coast Guard tasked three industry teams to propose vessels and aircraft that can work together to meet mission needs more effectively. The planning process has been comprehensive and provides Coast Guard a good basis for identifying its needs and developing an acquisition strategy.

The Coast Guard is rapidly approaching an important crossroads with respect to the Deepwater project. Although it previously planned to award the Integrator contract in the second quarter of FY 2002, Coast Guard has appropriately delayed the award to provide additional time to further analyze industry proposals. The award is currently scheduled for the end of the third quarter of FY 2002. The award of the integrator contract 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.

Coast Guard has not yet provided a reliable cost estimate for the Deepwater project, but that should be resolved once the Integrator is selected. The selection of the contractor will allow the Coast Guard and the winning contractor to reach agreement on the exact system the contractor will provide. Once the final system design and configuration is determined, Coast Guard will be able to establish a cost estimate and deliverable schedule.

Coast Guard received \$290 million for the Deepwater procurement in FY 2002. If it receives the \$500 million requested in FY 2003, Coast Guard will have \$790 million available for the procurement phase of the project. Although Coast Guard originally thought this would be a 20-year project, the request for proposal states that the performance period for the contract could be up to 30 years. It is not clear to us whether this means that (1) previously planned annual funding levels will remain the same and result in increased cost, or (2) the planned annual funding levels will be spread out and reduce the level of funding required each year.

Mr. Chairman, this concludes my statement. I would be happy to answer any questions the Subcommittee may have.

Exhibit A. Listing of Major NDS Communication Coverage Gaps as of September 2001

Gap Number	District	Region	Location	State	Size (square nautical miles)
1	1	Southwest Harbor	Near Calais	ME	14
2	1	Southwest Harbor	South of Bar Harbor	ME	387
3	1	Boston	East of Riverside	MA	17
4	1	Woods Hole	East of Chatham	MA	19
5	1	Woods Hole	South of Squibnocket	MA	35
6	1	Woods Hole	South of New Shoreham	MA	28
7	1	Moriches	South, between Fire Island and Mastic Beach	NY	37
8	1	New York	Southeast of Sandy Hook	NJ/NY	76
9	5	Atlantic City	East of Selbyville	NJ	6
10	5	Cape Hatteras	East of Knots Island south to Kitty Hawk	VA	179
11	5	Hampton Roads	East of Eastville	VA	192
12	5	Hampton Roads	East of Virginia Beach	VA	79
13	5	Fort Macon	South of Morehead City	NC	270
14	7	Charleston	South of Southport	SC	61
15	7	Charleston	East of Charleston	SC	17
16	7	Charleston	South of Edisto Island	SC	45
17	7	Charleston	East of Sapelo Island	SC	13
18	7	Mayport	Northeast of Jacksonville	FL	23
19	7	Mayport	East of Daytona Beach	FL	138

Appendix A
(2 of 4 pages)

20	7	Mayport	Northeast of Vero Beach	FL	22
21	7	Key West	West of Key West Marquesas Keys	FL	416
22	7	Key West	West from Marco Island south to South Everglades	FL	154
23	7	Greater Antilles	East of Signal Hill	PUERTO RICO	347
24	8	Mobile	South of St. Georges Sound	FL	54
25	8	Mobile	South of Fort Walton Beach	FL	20
26	7	St. Petersburg	Southeast of St. Marks	FL	24
27	7	St. Petersburg	West of Cedar Key	FL	22
28	7	St. Petersburg	Northwest of Sarasota	FL	92
29	7	St. Petersburg	West of Fort Myers	FL	53
30	8	New Orleans	Between Grand Chenier and Atchafaya Bay	LA	61
31	8	New Orleans	South of Callou Bay	LA	622
32	8	New Orleans	Wrapping Mississippi Delta North to West	LA	820
33	8	Corpus Christi	Southwest of Baffin Bay	TX	57
34	8	Corpus Christi	Northwest of Corpus Christi	TX	179
35	8	Corpus Christi	Southwest of Matagorda Bay	TX	30
36	8	Galveston	South of Matagorda Bay	TX	153
37	8	Galveston	South of Galveston	TX	62
38	14	Honolulu	East of Maui	HI	13
39	14	Honolulu	Southwest of Kalapana	HI	63
40	14	Honolulu	South of Kaalualu Bay	HI	63
41	14	Guam	South end of Guam	GUAM	509
42	14	Guam	North end of Guam	GUAM	354
43	13	Port Angeles	Northwest of Neah Bay	WA	64

Appendix A
(3 of 4 pages)

44	13	Port Angeles	West of Quinault Indian Reservation	WA	12
45	13	Astoria	West of Columbia River Entrance	OR	36
46	13	Astoria	West of Cape Falcon	OR	175
47	11	Humbolt Bay	West of Point St. George	CA	6
48	11	Humbolt Bay	West of Klamath	CA	14
49	11	Humbolt Bay	Southwest of Eureka	CA	200
50	11	Humbolt Bay	West of Cahto Peak	CA	165
51	11	Humbolt Bay	West of Point Arena	CA	8
52	11	San Francisco	South of Point Sur	CA	8
53	11	LA/Long Beach	West of Grover City	CA	39
54	11	LA/Long Beach	West of Lompoc	CA	12
55	11	LA/Long Beach	West of Santa Barbara	CA	20
56	11	LA/Long Beach	South of San Nicolas Island	CA	374
57	11	San Diego	South and West of San Clemente Island	CA	87
58	11	San Diego	South of San Nicolas Island	CA	20
59	17	Kodiak	Turnagain Arm	AK	66
60	17	Kodiak	West of Kenai	AK	752
61	17	Kodiak	From Port Graham to Prince William Sound	AK	1,128
62	17	Kodiak	Kamishak Bay	AK	298
63	17	Kodiak	Port Lions	AK	166
64	17	Kodiak	South of Ugak Bay	AK	891
65	17	Kodiak	Larsen Bay	AK	165
66	17	Kodiak	North and West of Tugidak Island	AK	1,425

67	17	Valdez	Southwest of Latouche Island	AK	665
68	17	Valdez	South of Hichinbrook Island	AK	238
69	17	Valdez	From Hichinbrook Island to Icy Bay	AK	1,648
70	17	Juneau	Between Icy Bay and Yakutuk Bay	AK	601
71	17	Juneau	Between Dry Bay and Yakutuk Bay	AK	1,123
72	17	Juneau	Glacier Bay	AK	366
73	17	Juneau	Between Mount Crillon and Port Alexander	AK	1,367
74	17	Juneau	South of Zarembo Island	AK	623
75	17	Juneau	West of Prince of Wales Island	AK	322
76	17	Juneau	West of Sukkwan Island	AK	456
77	9	Sault Ste. Marie	North along Porcupine Mountains	MI	434
78	9	Sault Ste. Marie	North of Isle Royale	MI	300
79	9	Milwaukee	East of Sheboygan	WI	334
80	9	Grand Haven	Northwest of Muskegon	MI	21
81	9	Sault Ste. Marie	Northwest of Sault St. Marie	MI	53
82	9	Sault Ste. Marie	East of Traverse City	MI	45
83	9	Detroit	East Alpena	MI	58
84	9	Detroit	Saginaw Bay	MI	282
85	9	Detroit	East Between Harbor Beach and Lexington	MI	325
86	9	Detroit	East of Sterling Heights	MI	27
87	9	Detroit	East of Sandusky, Ohio	MI	57
88	9	Buffalo	West of Erie	NY	188
Total Square Nautical Miles of Communication Coverage Gaps					21,490

