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COAST GUARD APPROPRIATIONS AUTHORIZATION

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HEARING BEFORE THE SUBCOMMITTEE ON MERCHANT MARINE AND FISHERIES OF THE COMMITTEE ON COMMERCE UNITED STATES SENATE NINETIETH CONGRESS

FIRST SESSION

ON

S. 1060

A BILL TO AUTHORIZE APPROPRIATIONS FOR PROCUREMENT
OF VESSELS AND AIRCRAFT AND CONSTRUCTION OF SHORE
AND OFFSHORE ESTABLISHMENTS FOR THE COAST GUARD

MARCH 3, 1967

Serial No. 90-7

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COAST GUARD APPROPRIATIONS
AUTHORIZATION

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COAST GUARD AUTHORIZATION

FRIDAY, MARCH 3, 1967

U.S. SENATE,
COMMITTEE ON COMMERCE,
SUBCOMMITTEE ON MERCHANT MARINE AND FISHERIES,
Washington, D.C.

The subcommittee met at 10:10 a.m. in room 5110, New Senate Office Building, the Honorable E. L. Bartlett, chairman of the subcommittee, presiding.

Senator BARTLETT. The committee will now consider S. 1060, a bill to authorize appropriations for procurement of vessels and aircraft and construction of shore and offshore establishments for the Coast Guard.

A copy of the bill, S. 1060, will be inserted in the record at this point.

(The bill follows:)

[S. 1060, 90th Cong., first sess.]

A BILL To authorize appropriations for procurement of vessels and aircraft and construction of shore and offshore establishments for the Coast Guard

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That funds are hereby authorized to be appropriated for fiscal year 1968 for the use of the Coast Guard as follows:

Vessels

For procurement, extension of service life, and increasing capability of vessels, \$39,776,000.

A. Procurement:

- (1) one high-endurance cutter;
- (2) one oceanographic cutter;
- (3) two large patrol craft;
- (4) two river tenders; and
- (5) design of icebreaker.

B. Increasing capability:

- (1) install balloon tracking radar on four high-endurance cutters;
 - (2) obtain precision navigational equipment for high-endurance cutters;
- and
- (3) increase fuel capacity and improve habitability on six high-endurance cutters.

C. Extension of service life:

- (1) improve icebreakers.

Aircraft

For procurement of aircraft, \$25,475,000.

- (1) nine medium-range helicopters;
- (2) twelve short-range helicopters;
- (3) one transport aircraft; and
- (4) search and rescue reconfiguration of medium-range aircraft.

Construction

For establishment or development of installations and facilities by acquisition, construction, conversion, extension, or installation of permanent or temporary public works, including the preparation of sites and furnishing of appurtenances, utilities, and equipment for the following, \$37,963,000.

- (1) Base, Mobile, Alabama: Industrial facility;
- (2) Base, Ketchikan, Alaska: Sewage disposal system;
- (3) Training Center, Alameda, California: Recruit barracks;
- (4) Radio Station, San Francisco, California: Operations and receiver building and receiving antennas at Fort Cronkhite; transmitters and transmitting antennas at San Bruno;
- (5) Academy, New London, Connecticut: Auditorium; recreation hall; rehabilitation of existing Chase Hall barracks;
- (6) Base, New London, Connecticut: Bulkheads; wharf; dredging;
- (7) Station, Panama City, Florida: Barracks, messing, and operations building; industrial facilities; mooring facilities;
- (8) Air Station, Barbers Point, Honolulu, Hawaii: Helicopter hangar; nose-dock facility;
- (9) Air Station, Chicago, Illinois: Modify existing Navy building at Naval Station, Glenview, Illinois, for Coast Guard use;
- (10) Station, Jonesport, Maine: Barracks, messing, and operations building; mooring facilities; public family quarters;
- (11) Yard, Curtis Bay, Maryland: Barracks; sewage disposal system; fabricating shop;
- (12) Station, Sassafras River, Kennedyville, Maryland: Barracks, messing, and operations building; mooring facilities; public family quarters;
- (13) Moorings, Vicksburg, Mississippi: Establish moorings for aids to navigation tender;
- (14) Station, Wellesley Island, Alexandria Bay, New York: Barracks, messing, and operations building; public family quarters;
- (15) Station, Fire Island, New York: Barracks, messing, and operations building; public family quarters;
- (16) Base, Governors Island, New York: Industrial facilities; barracks;
- (17) Training Center, Cape May, New Jersey: Water tank and system;
- (18) Station, Wrightsville Beach, North Carolina: Barracks, messing, and operations building; mooring facilities; public family quarters;
- (19) Moorings, Fort Sallisaw, Oklahoma: Establish moorings for aids to navigation tender;
- (20) Reserve Training Center, Yorktown, Virginia: Student barracks;
- (21) Base, Milwaukee, Wisconsin: Barracks, messing, and recreation building;
- (22) Loran Station, Gagil-Tomil Island, YAP, Western Caroline Islands, Pacific Ocean: Fuel-oil system;
- (23) Various locations: Aids to navigation projects including, where necessary, advance planning and acquisition of sites;
- (24) Various locations: Automation of manned light stations;
- (25) Various locations: Advance planning, construction design architectural services and acquisition of sites in connection with public works projects not otherwise authorized by law; and
- (26) Various locations: Public family quarters.

SEC. 2. Funds are hereby authorized to be appropriated for fiscal year 1968 for payment to bridge owners for the cost of alteration of railroad and public highway bridges to permit free navigation of navigable waters of the United States in the amount of \$3,800,000.

Senator BARTLETT. Our first witness this morning will be Adm. Willard J. Smith, U.S. Coast Guard.

STATEMENT OF ADM. WILLARD J. SMITH, COMMANDANT, U.S. COAST GUARD, ACCOMPANIED BY: VICE ADM. P. E. TRIMBLE, ASSISTANT COMMANDANT; REAR ADM. M. A. WHALEN, CHIEF OF STAFF; AND CAPT. E. D. SCHEIDERER, ACTING DEPUTY CHIEF OF STAFF

Admiral SMITH. Mr. Chairman, Secretary Davis is not in town, so he will not be here today.

Senator BARTLETT. I assume you have a prepared statement?

Admiral SMITH. That is correct, Mr. Chairman.

Senator BARTLETT. Before you commence to read it, may I ask when the Coast Guard will officially be transferred to the Department of Transportation.

Admiral SMITH. The transfer has not yet taken place. The date is now scheduled for April 1.

Senator BARTLETT. Mr. Betts, are you going to go over with the Coast Guard?

Mr. BETTS. No, Mr. Chairman, I am going to have to stay in Treasury. I must say that it is with deep regret that I am probably appearing for the last time with the Coast Guard. They have been a very fine part of the Treasury. It is with considerable sadness on my part that they will be leaving the Treasury Department.

Senator BARTLETT. Admiral, you may proceed if you care to.

Admiral SMITH. Mr. Chairman, I have a rather lengthy statement. I also have prepared a summary of the statement, if you so prefer.

Senator BARTLETT. Let's have a summarized statement. We will put the complete paper in the record.

Admiral SMITH. Very well.

(The statement referred to follows:)

STATEMENT OF ADMIRAL WILLARD J. SMITH, COMMANDANT, U.S. COAST GUARD, DEPARTMENT OF TRANSPORTATION

Mr. Chairman and Members of the Committee, I welcome the opportunity to appear before you for the first time to discuss the capital requirements of the Coast Guard. In this initial period of my new term, I have become even more acutely aware of the importance of this Committee's assistance in aiding the Coast Guard to accomplish the badly needed replacements for our ageing capital plant, and to acquire the new facilities essential to support expanding national programs. This need has been further heightened by the increasing demands upon our personnel and facilities in several most significant areas such as participation in the Viet Nam conflict, the assumption of all the nation's polar icebreakers, and cooperative efforts in re-examining the national oceanographic program. Permit me to just briefly bring you up-to-date.

We currently have over 550 officers and men in Southeast Asia. Some are operating a four-station Loran-C electronic navigation system which became operational in August of last year after a tremendous team effort which took only slightly more than nine months after receiving the go-ahead from the Department of Defense. The majority of our personnel are assigned to Operation Market Time with 26 patrol boats deployed in 3 divisions off the coasts of South Viet Nam. The primary mission of this operation is to deny the use of the sea to the Viet Cong for logistic support. In the first full year of operation, this contingent detected more than 160,000 junks and boarded over 35,000 of them. A Coast Guard officer, advisor to the Commander, Military Sea Transportation Service, Far East has been assigned to the Saigon area where he assists in the resolution of problems aboard U.S. merchant ships supporting U.S. operations in Viet Nam. Additionally, we have two port security teams assisting in supervising the offloading of explosive cargoes in Viet Nam, and an aids to navigation team to advise on the establishment of an adequate system of port and channel markers.

On 15 December 1966, the last of five Navy polar icebreakers was transferred to the Coast Guard. Each of these vessels, with the exception of the *Glacier*, is over 20 years old and has seen rugged duty in the Arctic and Antarctic. This Committee has previously authorized a start on rehabilitation and increased capability projects for these vessels to extend their service life until replacement icebreakers can be designed and built. Funds for feasibility studies for a replacement design were authorized and appropriated last year, and we are well into evaluations to determine the characteristics of the replacement ship, including the type of propulsion.

The termination of the search and rescue vessel standby requirement at Bermuda in September of last year enabled us, without additional funding, to assign one major vessel to full time oceanographic duties, and to add some additional oceanographic tasks to the Atlantic ocean station vessel program to acquire oceanographic data essential to the national program. While touching on this subject, I should mention the National Data Buoy Systems Study which the Coast Guard is heading up for the Interagency Committee on Oceanography. The study will compile and analyze the oceanographic and meteorological data needs for all Federal agencies and the scientific community and will determine the state-of-the-art of data buoy technology. After a cost-utility analysis has determined those requirements which can best be met by data buoys, a step-by-step implementation plan, together with the requisite research and development program, will be assembled. This plan could eventually have a significant impact on our involvement in the national oceanographic program.

The Bermuda phase-out, which included an air station also, was permitted by improved Atlantic search and rescue coverage resulting from closing our Argentina, Newfoundland Air Station and reassigning the associated C-130B long range search aircraft to our station at Elizabeth City, North Carolina. This consolidation also made several aircraft available to meet an urgent training requirement. Including both ships and aircraft, over \$10 million in costs were thereby avoided which would have had to be otherwise budgeted.

CURRENT AUTHORIZATION REQUEST

By far, the larger part of the Coast Guard's plant is multifunctional and operates in two or three different mission areas. Our missions by law are the basic programs which we carry out, namely: Search and Rescue; Aids to Navigation; Merchant Marine Safety; Marine Law Enforcement; Oceanography, Meteorology, and Polar Operations; Military Preparedness and Military Operations; and Reserve Training. Our long range plans for replacement or additions to capital plant are contained in three major facility plans; the Cutter Plan, the Aviation Plan, and the Shore Units Plan. These were recently amended and transmitted to you to provide the basis for annual authorization and appropriation requests. These revised plans establish a desirable average annual funding level of \$201.3 million up to 1974 (compared to \$188.8 million for the plans replaced).

The Bill before you would provide authority for projects totaling \$107,014,000 as compared to last year's authorization of \$126,079,000 and subsequent appropriation of \$103,000,000. Our 1968 program includes funds for certain alterations to bridges previously provided through the Corps of Engineers budget. This bridge responsibility has been assigned to us in conjunction with the realignment and consolidation of functions under the new Department of Transportation.

VESSELS

The old Vessel Plan, made up in 1962 and carrying through 1974, suffered slippage to the point that the average annual requirement for 1968-1974 stood at \$120 million. The amended plan carrying through to the same date requires \$117.6 million annually. This downward adjustment was made possible by a re-evaluation of requirements in several areas which resulted in substitution of smaller, but adequately capable facilities, and a reduction in end requirements, most notably in the high endurance cutters which decreased from 38 to 33. These large cutters have been conducting the ocean station patrols, providing the capability for our major search and rescue efforts as well as providing a trained and ready force to augment the Navy's ASW fleet when called upon to do so. In addition to replacement, average annual requirements for increasing capability and extending service life are \$5.3 million. This brings our annual average vessel replacement and improvement requirements to \$122.9 million. The vessel request before you amounts to \$41.4 million. To keep within funding limitations we must necessarily stretch out our replacement plans.

Our authorization program includes only one 378-foot High Endurance Cutter this year. This provides 9 since the replacement program commenced in 1962, compared to 33 required. Because of the slow rate of replacement, we are seeking funds to increase the capability and improve habitability of all six of our 327-foot "Secretary" class cutters, now in their thirtieth year of service but still very seaworthy vessels. Increasing fuel capacity and modernizing crews' living and messing accommodations in these ageing ships makes their continued use acceptable in our stretched-out replacement program.

You will recall that the Marine Resources and Engineering Development Act of 1966 called for a greatly increased national oceanographic effort. Supported by the National Council established under that Act, we are requesting funds for the construction of one oceanographic cutter. With singular foresight, this Committee last year authorized, and funds were appropriated for the design of such a vessel. We are out to contractors now with requests for proposals for conceptual study, and both preliminary and construction design. Oceanographic research is a type of operation for which the Coast Guard is well suited, having gained extensive experience in the past through our oceanographic and meteorological efforts in connection with the Atlantic and Pacific ocean station program, polar icebreaking operations, and the International Ice Patrol. These efforts presage an active and highly cost-effective role for the Coast Guard in a National Oceanographic Program where our inputs come from many of our diverse and multi-functional activities.

Returning to the discussion of search and rescue vessels, you will note we have requested funds for two large patrol cutters, the design for which was authorized last year. They will be approximately 120 feet in length and are in lieu of 210-foot class medium endurance cutters previously planned. The savings afforded by this substitution will be approximately \$5 million. They are being designed to meet a particular requirement in the Gulf of Mexico.

Two river buoy tender vessels and their companion pusher barges are requested, one for 129 miles on the Lower Mississippi River and one in connection with navigational aids for channel improvements extending 289 miles up the Arkansas River.

We are requesting \$1.5 million additional funds for contract design services, including detailed drawings and specifications, for the prototype replacement polar icebreaker. Feasibility studies to determine the type of power plant to be installed—nuclear or conventional—and the design features consistent with the state-of-the-art for icebreaking are being conducted this year with funds authorized by this Committee last year. Meanwhile, authorization is included for continued limited rehabilitation of existing polar icebreakers to extend their service life since it will be some time before replacement of all icebreakers is feasible. Except for the icebreaker GLACIER, they were built during World War II.

Increased ICAO and Department of Defense meteorological data requirements necessitate the continuation of weather balloon tracking radar installations on our High Endurance Cutters. These equipments track balloons carrying instruments aloft to obtain data routinely up to 100,000 feet almost to the vertical plane above the vessel. This contrasts with data now obtained only to 80,000 foot heights which is inadequate for modern forecasting. You authorized a prototype installation last year, and four more are included this year. This equipment can be shifted from old vessels to new replacement ships as they are built.

Precise navigation positioning required for oceanographic data collection will become possible by the installation of both Loran-C and Navy Navigation Satellite System receivers on selected major cutters and polar icebreakers as their missions dictate. These equipments will be transferrable, and placed only on those vessels having the need during specific missions, thereby improving the cost-utility ratio.

You may have noted that no offshore structures for replacement of overage lightships are requested in this year's authorization. Instead, we are requesting funds to procure additional large navigation buoys to replace certain lightships. Although one very large buoy is presently under construction for use at the Scotland lightship location off New York Harbor, additional developmental work will be necessary to provide equivalent lightship service at other locations. Compared to lightship or offshore construction and operation, unmanned super buoys, where usable, offer savings in capital outlay as well as savings in operating expense.

AVIATION

The 1960 Aviation Plan was developed for a 5 year period, and at the end of 1966, slippage amounted to \$27 million against an average annual plan requirement of \$31.7 million. The Extension to the 1960 Aviation Plan, which carries through 1973 and provides for an orderly replacement and agumentation program for our air fleet as well as of several additional helicopter air stations, shows an average annual planned requirement of \$33.4 million. Against this average requirement we are asking for \$27.6 million in 1968.

Our air fleet is used predominantly for search and rescue, law enforcement, and logistic support of isolated Alaskan and overseas stations. Unfortunately, by 1970 more than 50 aircraft of our present fleet of 168 will have become overage. The bulk of these are the Grumman Albatross Amphibian, our fixed-wing medium range search aircraft which has been a reliable mainstay of our air fleet since the early 1950's.

We are starting replacement of some of these amphibians with the HH-3F, a medium-range rescue twin-turbine helicopter. Nine of these replacement helicopters were previously authorized and funded, and we are seeking funds for nine more in FY 1968. This will leave us with only two medium range aircraft overage in 1968. Looking toward 1970, however, preliminary arrangements must be made by 1969. No aircraft presently available completely meets our requirements. Since development and design costs of a replacement model would be prohibitive, we should modify an existing design to meet our needs. We estimate \$1.5 million for reconfiguring, testing, and evaluating the prototype aircraft to meet medium range search and rescue requirements in 1970 and beyond.

Having all the nation's polar icebreakers, we also must provide helicopters to work with the vessels. These aircraft carry supplies to otherwise inaccessible polar regions and help to spot weakened areas in the ice fields through which our breakers escort resupply vessels. In the transfer agreement with the Navy, Coast Guard was to provide its own helicopters with trained crews by 1 July 1969. Ten of the necessary single-turbine helicopters were authorized in 1967 and six remain to be funded in FY 1968. Additionally, three single turbine helicopters are required for a new Great Lakes Air Station, and three others are needed for back-up and support for the operating helicopter fleet. Our 1968 order, along with several more in 1969, will very likely see the end of the manufacturing line for this particular model and we must forelay against attrition by, in part, procuring support or back-up aircraft.

Our new Chicago Station is to be located at the Naval Air Station at Glenview, Illinois and will be the seventh of fourteen small helicopter stations originally included in the Aviation Plan. These stations are strategically located around our coast to give effective search, rescue, and law enforcement coverage. As a trade-off, the extended coverage will permit us to close a rescue station at Racine, Wisconsin. For years our plan anticipated using spare hangar space at this Naval Station, but recent increases in Navy operations preclude this. We must now construct our own hangar and shop space, but this was not contemplated in the President's budget. The added costs are about equal to another project "Radio Station, San Francisco, California" to improve Coast Guard communications in the Western Area. Because of siting problems we propose, with Bureau of the Budget concurrence, that the project be deleted and the \$823,000 added to the Chicago Air Station project for a new total of \$2,852,000.

Authorization is also requested for one small modern turbojet transport aircraft as a replacement for two propeller type transport planes becoming overage in 1968.

I have spoken almost entirely about aviation hardware items, however, there is one major construction project at our Air Station at Barbers Point, Honolulu, Hawaii, for which authorization is requested. The existing wooden aircraft maintenance dock at this station has become outmoded and has suffered extensive termite damage. It is also planned to construct a helicopter hangar to house and service helicopters scheduled for assignment to this station.

SHORE UNITS

The image of the Coast Guard indelibly in the minds of many is that of the small boat from the small shore station pulling a drowning person from a turbulent sea. Indeed most of our rescues are performed by just such units. There are almost 200 small Coast Guard stations with the primary responsibility of saving life and property and, in most cases, also performing law enforcement and aids to navigation duties. Provision for the establishment or replacement of this type of

station, along with our other shore facilities such as aids to navigation and housing, is contained in the Shore Units Plan. Previous planning was based on an average annual requirement of \$38.5 million. The amended plan increases the requirement to \$41.2 million annually. Our program for 1968 provides for \$34.2 million.

In FY 1968, station construction work is planned at six of our most critical locations: Jonesport, Maine; Alexandria Bay, New York; Fire Island, New York; Sassafras River, Kennedyville, Maryland; Wrightsville Beach, North Carolina; and Panama City, Florida.

Considerably more expensive than the work at the small stations are the projects involving the New York Base (Governors Island) and the complementing projects at the Yorktown Training Center and New London Base. Consolidation of Coast Guard units at Governors Island is proceeding satisfactorily although difficulties not fully anticipated have forced some delay in the move of the Training Center now at Groton, Connecticut and the Industrial Base, now on Staten Island, New York. Current scheduling has the Groton Center, which provides advanced training for our enlisted personnel, now transferring activities by October of this year, and Staten Island Base in April 1968.

In the initial planning for the utilization of Governors Island, the regular service engineman school at the Groton Training Center was to be included. Through careful scheduling of classes it developed that, with some augmentation, the existing engineman laboratory and classrooms at the Yorktown Reserve Training Center could be more efficiently utilized on a year-round basis to train both regular service and reserve enginemen. Two 500-man barracks for the replacement of World War II temporary wooden buildings, part of the long-range unit development plan at Yorktown, are consequently extremely important for the adequate accommodation of a full-year student body.

In New London, Connecticut, a new waterfront base will replace three separate old or inadequate installations around the metropolitan area, and will provide berthing for three ocean station vessels as well as buoy tenders operating in the area. Also at New London, plans for the Academy include a new auditorium and recreation building, and some rehabilitation of the Chase Hall cadet barracks built in 1932.

At most Coast Guard training commands, temporary wooden buildings built during World War I or II, are being gradually replaced. In the request before you, a 500-man barracks will be erected at our West Coast Recruit Training Center, Alameda, California, as the first of two planned for construction there. At the East Coast Recruit Training Center, Cape May, New Jersey, the fresh water distribution system will undergo much-needed improvement.

At Mobile, Alabama, we have an opportunity to move our Base to a superior waterfront location at Brookley Air Force Base currently scheduled for closing. Our present location at Choctaw Point has long been inadequate for its aids to navigation maintenance work and port safety operations. It will be far less expensive over the long-run to adapt facilities for Coast Guard purposes at Brookley than to replace portions of the Base at Choctaw Point. Also, additional land has not been available adjacent to the present Base. Further, to more efficiently meet our increased aids to navigation responsibilities along the Eastern Gulf of Mexico, an inland buoy tender and barge now stationed at Mobile will be transferred to a new station planned at Panama City, Florida, and that station will be equipped with a minor industrial capability.

In keeping with the national emphasis on pollution abatement and control, you will note several projects involving sewage systems. Although we still have quite a job ahead of us in pollution abatement, remedial action at many shore units must await certain municipal arrangements such as sewer line extensions.

Out of about 14,000 married Coast Guard personnel, close to 7,000 are inadequately housed. With the cooperation of this Committee we are gradually improving the lot of our people. Authorization is sought in FY 1968 for construction of more family quarters on Governors Island to increase the present 548 to about 600 units. We have a population of around 4,000 persons living or working there now. We are also faced with a housing problem in the San Francisco area and if it can be worked out, we would like to join with a Navy construction project at Treasure Island to construct about 140 quarters for Coast Guard use. Besides these large blocks and one small project at Santa Barbara, California, we plan to construct 16 more family units at our Air Station at Annette Island, Alaska to complete a project started several years ago.

No less important than Coast Guard construction of public family quarters is the Coast Guard's leased housing program. That program, authorized by this

Committee last year, offers an early way out of our housing dilemma in some locations. It is sufficiently flexible that any subsequent adjustment of Coast Guard forces need not be constrained by concern for either housing disposition or acquisition and, for moderate periods of time, is more economical than Coast Guard construction of family quarters. We anticipate having 170 to 200 units of housing under lease by this summer, with more to follow.

I might also mention the study of the Coast Guard Yard which you recall was contracted last spring. The Bureau of the Budget raised questions about the need for the Yard, and Treasury obtained the services of a consulting firm to make a study. The scope of the evaluation included an analysis of the Yard's effectiveness and operating costs, a comparative evaluation of the Yard with alternative sources of capability (principally commercial ship yards), and development of a recommended plan for certain improvements if the Yard is retained. As a result of the study, it was concluded that the Coast Guard Yard should be retained at this time and recommendations for improving Yard effectiveness are being evaluated and scheduled for implementation as practicable. One facet of improved operations is the refurbishing of the fabricating shop space contained in this request to effect certain economies.

Finally, funds are included for aids to navigation for rivers and harbors improvement projects completed by the Corps of Engineers, and to meet the changing needs of maritime commerce; for advance planning, construction design, and architectural services; and automation of manned light stations.

As you are aware, we will become a charter member of the new Department of Transportation. It is exceedingly difficult to sever a connection reaching back to 1790 without a considerable tinge of regret. Treasury Secretary Fowler and Assistant Secretary Davis along with their predecessors, Secretary Dillon and Assistant Secretary Reed, have been most helpful in moving the Coast Guard in a direction which has also been of concern to this Committee—a sensible program for replacing an aging plant. For these endeavors we are most grateful. Looking ahead, we can visualize a new impetus in our missions as Secretary Boyd copes with the enormous problems facing this country's transportation system. More than ever must we re-emphasize all aspects of safety of life and property at sea. We must continue to remain in the forefront of efforts to obtain international approval of such important matters as fire hazard reduction on passenger vessels, the need for which has been well known since the disastrous fires on the *Lakonia* and *Yarmouth Castle*. In a similar vein, comprehensive safety regulations are being developed for marine transportation of bulk chemicals, and improvements are being sought in the fields of intership communications, Rules of the Road, navigation in congested harbor entrance approaches through the use of sea lanes, recreational boating safety, enforcement of conservation laws, rivers and harbor icebreaking, and port safety. We are also studying ways to extend the automation of our manned lights and better utilize buoy tending vessels. The expanding oceanographic activities of our ships, combined with an increased use of aircraft for infra-red temperature surveys over the continental shelf for migratory fish studies by the Department of Interior, ice surveys, and the National Data Buoy Systems Study mentioned earlier, reflect the Coast Guard's interest and capability in providing a major input to the National Oceanographic Program. Nor is our interest confined solely to classical oceanography. With a view to providing services which will be required in the future, the Coast Guard in coordination with other agencies and the National Council is now carefully studying our responsibilities in ocean engineering, certification of submersibles, precision aids to navigation in the ocean depths, and underwater search and rescue. I anticipate specific recommendations to you in future legislation and authorization requests.

The extent of our input to national programs underway and foreseen should prove to be of considerable significance to the future of our country's water-oriented transport. So much so that we are giving serious thought to assembling an in-house organizational component appropriately staffed to supervise our research and technological efforts in the scientific environment with which we should be keeping abreast. This will assist us in moving ahead more expeditiously in the field of transportation problem-solving while simultaneously producing more cost-effective methods of carrying out our present missions.

I and my staff will be most happy to develop further such matters as you may wish to discuss.

Admiral SMITH. Mr. Chairman and members of the committee, I know how much this committee shares my resolve to replace, in a

timely manner, the Coast Guard's aging capital plant and to acquire the new facilities essential to support expanding national programs.

Intensifying this resolve are increasing demands upon our personnel and facilities such as the Vietnam conflict, where there are more than 550 Coast Guard men, 26 patrol boats, and a four-station loran-C navigational system; the assumption of all the Nation's polar ice-breakers; and cooperative efforts in reexamining the national oceanographic program.

In connection with the latter I should mention that the Coast Guard is heading the national data buoy system study for the Interagency Committee on Oceanography.

While touching on oceanography, I wish to point out that we have been able to assign one high endurance cutter to full-time oceanographic duties and to add some oceanographic tasks to the Atlantic Ocean station vessel program by terminating the requirement for a search and rescue standby cutter at Bermuda.

No less important, the consolidation of forces, of which the Bermuda phaseout was a part, resulted in the avoidance of over \$10 million in costs which would otherwise have had to be budgeted.

As you know, our long-range plans for replacement or additions to the capital plant are contained in three recently amended major facility plans, the "cutter plan," the "aviation plan," and the "shore units plan," which establish a desirable average annual funding level of \$201.3 million up to 1974.

The bill before you would provide authority for projects totaling \$107,014,000 including funds for certain alterations to bridges previously provided through the Corps of Engineers' budget.

The vessel request amounts to \$41.4 million of an annual average requirement of \$117.6 million. Significant items indicated are a high endurance cutter, an oceanographic cutter, two large patrol boats, two river buoy tenders and barges, and more design funds for the prototype replacement polar icebreaker.

Against an average annual aviation requirement of \$33.4 million we are asking for \$27.6 million in 1968. Provided here will be nine twin turbine helicopters to replace fixed wing amphibians, and 12 single turbine helicopters, three of which are backup aircraft while the remainder are to operate from icebreakers and a new air station at Glenview, Ill.

The \$34.2 million shore units portion of the authorization request can be compared to an average annual requirement of \$41.2 million. In this are included funds for construction work at six stations; consolidation of units at Governors Island, N.Y.; New London, Conn., and Mobile, Ala.; public family quarters; aids to navigation; and several sewer system projects in keeping with the national emphasis on pollution abatement.

We will soon become a charter member of the new Department of Transportation, severing, and not without considerable regret, the relationship we have had with the Treasury Department since 1790.

We can visualize a new impetus in our missions as Secretary Boyd copes with the enormous problems facing this country's transportation system. The extent of our input to national programs underway and foreseen should prove of considerable significance to the future of our country's water-oriented transportation.

More than ever we must reemphasize all aspects of safety of life and property at sea, continuing to obtain international support of fire hazard reduction on passenger vessels, to develop comprehensive safety regulations for marine transportation of bulk chemicals, to improve navigation in congested harbor approaches and to increase port safety.

My staff and I will be most happy to develop further such matters as you may wish to discuss.

(Additional information follows:)

COAST GUARD SUMMARY

On the eve of the establishment of the newest Executive Department in the Federal Government—Transportation, the Coast Guard stands "Always Ready" with its multitudinous capacities, all related in one manner or another to the safe passage of commerce through the maritime regions.

The facilitation of maritime commerce has been a national objective with which the Coast Guard has been associated since the earliest days of the Republic. New developments such as offshore oil drilling rigs and seagoing cargo carriers transporting previously unheard of exotic fuels and chemicals require aids to navigation and port security programs that are sufficiently dynamic to meet the demands placed on them. As the world's population expands, the protection of our fishing rights becomes an increasing problem, as does the need for more knowledge of the sea—Oceanography. This mission starting almost as a collateral part of the International Ice Patrol is now gaining momentum in its contribution to the growing body of scientific knowledge regarding the ocean and the atmosphere above the ocean. At the base of this growth is the realization that the world's bodies of water are sources of national and international wealth hitherto unrecognized.

The frame, during peacetime, that binds these various missions together is search and rescue or the safe passage of the public and crews on vessels engaged in transport, the greater safety of the boating public, and the prompt availability of assistance for aircraft in distress over maritime regions.

Although fully occupied with peacetime missions, the Coast Guard stands as an organized military force in being, oriented to its wartime tasks in close liaison with the Navy. The transition from normal to wartime tasks is facilitated by a common language, logistics system, training activities, and closely paralleled geographic commands. Reaction time is minimized through coordinated planning and is characterized by contingency capability planning and action such as the current deployment of 26 Coast Guard cutters and 567 men to the military operations in Viet Nam.

As of December 31, 1966, the personnel statistics for the Coast Guard are as follows:

ACTIVE SERVICE		READY AND STANDBY RESERVE	
Flag officers.....	22	Flag officers.....	1
Officers (other).....	3, 517	Officers (other).....	4, 909
Warrant officers.....	1, 167	Warrant officers.....	185
Enlisted.....	30, 004	Enlisted.....	27, 080
Civilian.....	5, 526		
Total.....	40, 236	Total.....	32, 175

The Coast Guard maintains a fleet of 228 seagoing vessels including patrol craft. Of this total, 26 patrol craft are now stationed in Viet Nam. The larger Coast Guard cutters are stationed as indicated:

Portland, Maine
 Boston and New Bedford,
 Massachusetts
 New London, Connecticut
 New York, New York
 Cape May, New Jersey
 Baltimore, Maryland
 Yorktown, Virginia
 Norfolk, Virginia

Wilmington, North Carolina
 Miami, Florida
 Pensacola, Florida
 Cheboygan, Michigan
 Long Beach and Alameda, California
 Seattle and Port Angeles, Washington
 Kodiak, Alaska
 Honolulu, Hawaii

The Coast Guard has 26 air units, the major air stations being located at:

Salem, Massachusetts	San Diego, California
Brooklyn, New York	San Francisco, California
Elizabeth City, North Carolina	Port Angeles, Washington
Miami, Florida	Annette, Alaska
Mobile, Alabama	Kodiak, Alaska
Traverse City, Michigan	Barbers Point, Oahu, Hawaii

Coast Guard manned short units number 756, the major installations being located at:

New London, Connecticut	Cape May, New Jersey
New York, New York	Yorktown, Virginia
Curtis Bay, Maryland	Alameda, California

The Coast Guard's appropriation for fiscal 1967 is broken down as follows:

Operating expenses-----	\$345,431,000
Acquisition, construction, and improvements-----	103,000,000
Retired pay-----	44,250,000
Total-----	492,681,000

ACQUISITION, CONSTRUCTION, AND IMPROVEMENT PROJECTS NOT INCLUDED IN CONGRESSIONAL STAGE OF COAST GUARD FISCAL YEAR 1968 BUDGET

1. Urgent items not included in initial planning:	(In thousands)
(a) Construct Cape May gym and recreation facilities-----	\$2,697
2. Items deleted from initial planning Stage:	
(a) Vessels:	
(1) Implement vessel plan: (a) Construct 2 HEC's at \$14,500-	29,000
(b) Aviation plan:	
(1) Augmentation of aircraft and ground facilities:	
(a) Establish air station Coos Bay, Oreg. (2 HH-52's)-----	2,526
(b) Establish air station Cape Kennedy, Fla. (no helos)-----	1,000
Total-----	3,526
(c) Expansion of support facilities:	
(1) Construct phase I, Yerba Buena Island, Calif. (moorings)-	1,004
(d) Aids to navigation:	
(1) Automate manned light stations-----	525
(a) Huron Island, Mich. (9th).	
(b) Waukegan, Ill. (9th).	
(c) Point Washington, Wis. (9th).	
(d) Point Sur., Calif. (12th).	
(e) Point Reyes, Calif. (12th).	
(f) Smith Port, Md. (5th).	
(g) Guard Island, Alaska (17th).	
(h) Smith Island, Wash. (13th).	
(e) Public family quarters: (1) 46 to 72 units (dependent on location)-----	1,870

SHORE UNITS

	<i>In thousands</i>
1. Replacement of existing facilities (in order of priority):	
(a) Station, Port Aransas, Tex. (8th) (renew bulkhead)-----	\$383
(b) Station, Suislaw River, Oreg. (13th) (station building)-----	502
(c) Station, Grays Harbor, Wash. (13th) (station building)-----	167
(d) Loran station, Cape San Blas, Fla. (8th) (barracks, family housing)-----	468
(e) Base, San Juan, P.R. (7th) (waterfront renewal)-----	470
(f) Pier, Kodiak, Alaska (17th)-----	1, 000
(g) Radio station, Washington, D.C. (130-man barracks)-----	943
(h) Station, Hobucken, N.C. (5th) (station building, family housing)---	670
(i) Station, Boston Harbor, Mass. (1st) (new station)-----	697
(j) Station, Portsmouth Harbor, N.H. (1st) (moorings, cable-handling facilities)-----	942
Total-----	6, 242
2. Increase capability (in order of priority):	
(a) Implementation of shore units at:	
(1) Stratford, Conn. (3d)-----	326
(2) Cape Charles City, Va. (5th)-----	562
(3) Apena, Mich. (9th)-----	602
(4) Crisfield, Md. (5th)-----	699
(5) Algona, Mich. (9th) (St. Clair Flats)-----	500
Total-----	2, 689

COAST GUARD MISSION AND ROLES IN MARINE SCIENCES

Nineteen sixty-seven marks the one hundredth year of Coast Guard participation in oceanography. For in 1867 the cutter *Lincoln* sailed for the newly acquired territory of Alaska to carry out scientific investigations of currents, soundings and marine life. The cutters *Corwin*, *Bear*, *Northland* and many others continued this tradition of scientific exploration during the next half century.

However it was in 1914 that classical oceanography became operational in the Coast Guard when, as a result of the *Titanic* disaster, the Coast Guard established the International Ice Patrol Service—with the mandate not only to operate an assistance and warning service but also to study and observe ice and current conditions in the North Atlantic.

Ice patrol scientists have developed survey methods into a sophisticated routine that produces dependable current charts, and have pioneered techniques such as conductivity bridges for salinity determinations and portable shipboard computers for rapid data processing and dynamic topographical chart production at sea. Improved operating methods have paralleled technological advances. As a result ice patrol operations which were first carried out by a force of cutters are now conducted by a single oceanographic research ship and long range aircraft equipped with advanced detection equipment and scientific instruments. Satellite photography was first used in 1966 to delineate ice field boundaries. To further exploit this new sensor system the Coast Guard is a member of the Spacecraft Oceanography Committee and plans to participate in the earth resources satellite program now in the research and development stages.

Coast Guard missions of search and rescue, oceanography, law enforcement, aids to navigation, merchant marine safety, icebreaking, ocean station operations and military readiness all combine to make it the major agency providing services to maritime interests—be they fishing, scientific, merchant marine, government agencies such as Navy, ESSA, Bureau of Commercial Fisheries and Customs, or the boating public. To meet its responsibilities the Coast Guard utilizes its over 40,000 military and civilian personnel to operate some 325 ships, 750 shore stations, 160 aircraft, 2390 boats and 24,000 buoys—often using its facilities for more than one mission for maximum effectiveness at minimum cost.

Prior to 1961 the Coast Guard's primary statutory mission in oceanography was ice patrol. But due to the inherent capability of its personnel and facilities, a sizeable cooperative oceanographic program evolved to meet the requirements of other agencies. In 1961 Congress, recognizing the Coast Guard potential, passed legislation stating the Coast Guard "shall conduct such oceanographic research, . . . and collect and analyze such oceanographic data, in cooperation with other agencies of the Government, or not, as may be in the national interest". The Coast Guard responded to this Congressional direction by developing a

plan which (1) addressed priority programs identified by the Interagency Committee on Oceanography and individual government agencies, (2) made maximum use of knowledge and experience gained in ice patrol and cooperative oceanographic endeavors, and (3) made effective use of existing Coast Guard multi-mission ships, aircraft, and shore stations.

As a result the Coast Guard is now engaged in a major program to measure and evaluate variations of the ocean parameters leading (1) to longer term development of a dynamic model of the ocean for use in long range prediction of fish migration and ice and sonar conditions, and (2) to immediate operational use for short term predictions in the same areas. This program is directly responsive to requirements of user agencies, particularly Navy and the Bureau of Commercial Fisheries. It utilizes the full time services of two oceanographic research ships and one oceanographic buoy tender, and the part time services of 8 icebreakers, 31 high endurance cutters, selected aircraft, offshore structures, and lightships—all appropriately outfitted for oceanographic investigations. Program direction and quality control are provided by the Coast Guard Oceanographic Unit.

The Coast Guard cooperates with other agencies through the major programs already discussed. It also uses its facilities and personnel whenever requested and feasible for limited support of oceanographic activities of other agencies. These cooperative efforts have not been costed or documented as a Coast Guard contribution to the national oceanographic program due to their limited size, but they currently total over 40 projects on the Great Lakes, estuaries and oceans and involve such diverse programs as radioactive fallout; wave, surf and tide measurements; plankton sampling, buoy servicing; current measurements using floating bottles; and underwater panels measuring marine growth. Agencies involved include Navy, Weather Bureau, Coast and Geodetic Survey, Corps of Engineers, Atomic Energy Commission, Bureau of Sports Fisheries and Wildlife, Bureau of Commercial Fisheries, Geological Survey, Lakes Survey, and several institutions under contract to the government.

Under the broader category of marine sciences, the Coast Guard conducts sizeable research and development programs to support its search and rescue, aids to navigation, icebreaking and merchant marine safety operations. New areas of investigation include underwater search and rescue, techniques for greatly increasing the accuracy of existing Coast Guard Loran A and radio beacon systems, and development of suitable criteria for certification of civil submersibles, including new requests for legislation. Coast Guard missions reach on, over and within the seas; they are interrelated; they often use the same facilities for cost effective operations; and they use common support systems. The complementing marine science activities are similarly interwoven.

In keeping with our growing involvement in oceanography and in response to the Marine Resources and Engineering Development Act of 1966, we have made major strides in our marine science program during the past year. Through appropriated funds a major new oceanographic research ship and a new class of icebreakers are being designed. By reallocation from other mission areas and without an increase in appropriations, two ships have been assigned to full time oceanography from other mission areas. The Marine Sciences program has been expanded and elevated to Division status within our administrative organization. We are putting advanced oceanographic instrumentation on a new offshore structure and a large navigational buoy. Our cutters are furthering United States policy by participating in three major international oceanographic programs—Investigation of the Eastern Tropical Pacific, Cooperative Study of the Kurishio, and the oceanographic program of the International Commission on Northwest Atlantic Fisheries.

Of particular note this year is the national ocean data buoy systems study which is being managed by the Coast Guard at the request of the Interagency Committee on Oceanography. The study will compile and analyze maritime oceanographic and meteorological data requirements; survey the state of the art in data buoy systems; conduct a cost utility analysis to determine which data requirements can most economically be met by data buoy systems and which systems have the best promise for cost-effective acquisition of data; and finally, develop a step-by-step plan for the research, development and implementation of national oceanographic and meteorological buoy systems.

The Coast Guard FY 1968 program continues the FY 1967 impetus by internal reallocation of an additional ship year to oceanographic investigations. The President's FY 1968 budget request to Congress also contains funds for a new oceanographic research ship; additional personnel for postgraduate training and data

analysis; and Loran C and navigational satellite receivers for selected ships to improve the geographical accuracy of oceanographic observations.

Analysis of the Coast Guard oceanographic program shows that while it was designed originally to provide the ice and current surveys and research essential to an effective ice patrol, the major portion of our oceanographic investigations is now in support of other national programs. It is a user oriented program that is a logical extension of the other Coast Guard missions involving services to maritime interests. The Coast Guard, by reason of net cost on a systems basis and quality of data provided, is well equipped to develop, construct, operate, maintain and service oceanographic platforms—be they ships, aircraft or buoys. Such programs can be totally responsive to agencies generating the basic requirements, just as the existing programs are now responsive to the requirements of the Departments of Navy, Interior and Commerce and other agencies. We welcome the emphasis placed on increased direction of the national marine sciences program. We have been and will continue to utilize our marine sciences capability, and in concert with the Department of Transportation will work with the National Council and Commission to ensure that the Coast Guard's capabilities are used in the national interest.

AIDS TO NAVIGATION ON THE ARKANSAS RIVER

The Coast Guard has taken steps to plan for the establishment and operation of aids to navigation to mark the Arkansas River for maritime commerce which will use the improved waterway being constructed by the U.S. Army, Corps of Engineers. The River and Harbor Act of 24 July 1946, as modified by the Flood Control Act of 17 May 1950, calls for improvement of the Arkansas River and its tributaries to provide a navigable channel 9 feet in depth and 300 feet wide from the Mississippi River to Catoosa, Oklahoma or 443 miles of navigable river, canals, reservoirs, and connecting locks. The schedule calls for opening the first 46.5 miles of navigable water by June 1967 and then extending navigation up river in annual stages until the project is completed in 1970. Aids to navigation will be established to mark the waterway as it is opened so that all aids will be in place and operating when traffic needs them.

Exact plans of the waterway are not available so that precise data on the aids to be established cannot be given. Although details may vary slightly in the completed project, it is presently estimated that the following aids will be established:

1. 460 lights @ \$500.....	\$230,000
2. 100 daybeacons @ \$85.....	\$8,500
3. 15 lighted buoys @ \$2,200.....	\$33,000
4. 900 unlighted buoys @ \$60.....	\$54,000

In order to service the aids to navigation in this project, the Coast Guard will need the following new facilities:

1. One small, river-type buoy tender with barge operating on the Lower Arkansas River with homeport at Pine Bluff, Arkansas. This tender will have a crew of 12 men, cost \$710,000 to build and approximately \$100,000 annually to operate. This vessel should be on station in September 1968.

2. A Depot with dock, administrative building, and storage building at Pine Bluff, Arkansas. This Depot will be manned by 4 personnel who will have a truck and trailer mounted buoy boat to use to help service aids. The Depot is estimated to cost \$237,000 to build and \$27,000 annually to operate.

3. One small, river-type buoy tender with barge operating on the Upper Arkansas River with homeport at Fort Sallisaw, Oklahoma. This tender will have a crew of 12 men, cost \$761,000 to build and approximately \$100,000 annually to operate. This vessel should be on station in December 1969.

4. A Depot with dock, administrative building, and storage building at Fort Sallisaw, Oklahoma. This depot will be manned by 4 personnel who will have a truck and trailer mounted buoy boat to use to help service aids. The Depot is estimated to cost \$127,000 to build and \$27,000 annually to operate.

The total capital cost of this project is \$2,327,000 which is divided into several phases.

Phase I FY 67.....	\$1,028,000
Phase II FY 68.....	1,153,000
Phase III FY 69.....	146,000

It is the Phase II funds which are being requested or \$1,153,000.

Senator BARTLETT. Thank you.

We note the presence in the committee of the chairman of the full committee, Senator Magnuson.

Do you have any questions to put to Admiral Smith, Senator Magnuson?

Senator MAGNUSON. I have been reading your statement, Admiral, and I have just a few questions. There has been established, as you know, a National Oceanographic Commission which is separate from the Oceanographic Council headed by the Vice President. The mission of the Commission will be to make recommendations to the Congress and to the President regarding the national oceanographic program.

Would you have any estimate of how much the Coast Guard diverts of their funds to oceanography?

Admiral SMITH. Yes, Mr. Chairman. I can give you that figure right now, if you will give me a moment. At the present time, fiscal year 1967, Mr. Chairman, we allocate about \$6 million directly. And this is in addition to some moneys that we spend that contribute to oceanography, but are not charged directly to the oceanographic part of the Coast Guard.

The CHAIRMAN. I suppose it would be hard to pinpoint to the dollar amount of the contribution. It is too interrelated, isn't it?

Admiral SMITH. Mr. Chairman, we can make an estimate.

Senator MAGNUSON. I wish you would give us a rough estimate. I appreciate that the Coast Guard is called upon on many occasions, and sometimes the work you do can be a part of your regular work or part-time work, or maybe a little moonlighting once in a while. But we would like to get some reasonable estimate of just how much work you do in this field. Of course it is a continuing operation of the Coast Guard anyway. You are in many fields in the oceans.

Admiral SMITH. That's correct. We contribute to the program in a great many ways, through the use of our ships, with the cooperation of our shore stations, our offshore structures, as well as our polar icebreakers. In fiscal year 1966 we contributed \$5.2 million, in 1967 \$6 million, and 1968 we estimate \$20 million will be spent including the construction of an oceanographic cutter.

Senator BARTLETT. How many icebreakers? Did you mention the number of icebreakers?

Admiral SMITH. I did not mention them.

Senator MAGNUSON. In your statement, Admiral, you do cover part of this. Your responsibilities under the act that this committee passed on the Marine Resources and Engineering Development Act. It will be in the record. This is a field which I suppose no one would appreciate more than the Coast Guard if we had some coordination and some sense of direction so that we all know what we are doing in this field.

Thank you very much.

Diverting a minute, Admiral, the chairman and I naturally have almost a direct intense interest in this matter. I understand you seized a Russian fishing vessel yesterday.

Admiral SMITH. That's correct, Mr. Chairman.

Senator BARTLETT. Can you give us details of the seizure?

Admiral SMITH. I think I can give you the information that you would like to have.

First of all, this seizure took place in Alaskan water, at a point about 100 miles east of the Shumagin Islands, near an island called

Mitrofanina. This lies between Kodiak and the Shumagin Islands south of the Alaskan Peninsula.

Our cutter *Storis* sighted the Russian vessel, the SRTM 8-413, fishing within the 3-mile limit, within the territorial waters of the United States. She spotted the vessel first on radar and it was anchored. She was on patrol in that area, anchored and keeping her under surveillance.

The *Storis* proceeded and found the Russian vessel and sighted her within the territorial waters, taking in her trawl. She had been fishing.

The Russian vessel took in her trawls as quickly as she could, and after getting in her gear, proceeded to get underway and head offshore. The *Storis* pursued and apprehended her, and seized her by placing on board a small party from the *Storis*.

Then, after some discussions with the commodore of the fleet, he agreed to let her start in toward Sand Point, escorted by the *Storis*. At the present time the ships are underway. At about 1 o'clock this afternoon they will arrive at a point about 20 miles from Sand Point in the Shumagin Islands where our commanding officer will again have a conference with the commodore of the Russian fishing fleet.

The commodore of the Russian fishing fleet has advised his government about the incident, and I think he is expecting some instructions, or he will expect us to have some further information through our offices here in Washington for this conference.

Our position is quite clear under the law that prevents foreign vessels from fishing in our territorial waters, and makes the Coast Guard the enforcement agency for this purpose. For us it is just a clearcut matter of identifying the vessel with a positive navigational fix, and then taking the necessary action to seize the ship and bring her in for disposition by the Department of Justice.

Senator MAGNUSON. What is the size and tonnage?

Admiral SMITH. She is about 178 feet long. I don't know what her tonnage is. She is a trawler.

Senator MAGNUSON. She is a trawler?

Admiral SMITH. Yes.

Senator MAGNUSON. And within your report—we don't want to prejudice this—your report is that she was within the 3-mile limit.

Admiral SMITH. Within the 3-mile limit. This is quite clear in our report, Mr. Chairman.

Senator MAGNUSON. Was she part of a bigger fleet of Russian fishing boats?

Admiral SMITH. Yes, there were other Russian vessels in the general area. And there are quite a large number of them in the Alaskan waters at the present time, something in the neighborhood of 200 altogether.

Senator MAGNUSON. We are probably to assume she was part of a Russian fishing task force and not an isolated Russian fishing ship.

Admiral SMITH. We are sure that's correct.

Senator MAGNUSON. So we will just have to wait until the report comes in. Of course the reason the Senator from Alaska in particular, and I, are so deeply interested, we have just concluded, we hope, a very sensible proposed treaty with the Russians on fishing. It is in the process of being approved by the Governments of both the Soviets and ourselves. We want to be sure that any incident would be handled

with great care and caution, because we are in a very sensitive time in this whole treaty matter.

We do have the law, and the Coast Guard should be complimented on enforcing the law.

Admiral SMITH. Mr. Chairman, I think we have been extremely careful about this incident, as well as the other incidents, and that we are positive that our identification of the position of the vessel is accurate and can be supported before the U.S. Commissioner.

Of course the U.S. attorney in Alaska, and the Commissioner who will be at Sand Point when the vessel arrives, will have a wide latitude as to how they might dispose of a case like this. It doesn't necessarily involve permanent seizure of the vessel. There are a number of alternatives in the law that provide for fines, that provide for the seizure of the catch, and under extreme conditions would provide for the seizure of the vessel.

Senator MAGNUSON. I have no further questions.

Senator BARTLETT. Admiral, it is true, is it not, that generally speaking the Russian fishing vessels obeyed our laws? You haven't had many cases where you found them fishing within the territorial waters, have you?

Admiral SMITH. This is true. It is our experience that they are quite careful to abide by the law and by the boundaries that are established.

Senator BARTLETT. Have you had a report as to whether the captain of the fishing vessel submitted willingly to boarding by the Coast Guard?

Admiral SMITH. We haven't had a detailed report of the incident. But the ship was boarded without any opposition on the part of the personnel of the Russian fishing vessel.

I mentioned previously that when he was sighted he got underway and started to run out to sea. When the *Storis* overhauled him, when he hove to, he offered no opposition to our people.

Senator BARTLETT. No physical opposition. Was there any verbal opposition that you heard of?

Admiral SMITH. Mr. Chairman, we have not heard of any verbal opposition. The only item here that we have is the dispatch reported to us that the commodore of the fleet has registered the protest with his government.

Senator BARTLETT. He did protest?

Admiral SMITH. Yes.

Senator BARTLETT. Since this incident was reported to you, has the Coast Guard had any contact with the State Department or with the Justice Department?

Admiral SMITH. We have kept our own Treasury Department fully informed of the details. The General Counsel of the Treasury informed me that he was going to apprise the Justice Department here in Washington. The U.S. attorney in Alaska, of course, has been working with our commander of the 17th district from the beginning of the case. We have been in constant contact with the State Department, and the State Department does have all of the information that we have with reference to the incident.

Senator BARTLETT. It is up to other agencies of the Government now that the Coast Guard has performed its duty.

I join the chairman in complimenting the Coast Guard on moving so promptly and properly.

Actually, they were within 1 mile or less of shore; were they not?

Admiral SMITH. Yes; that's correct. The information we have here is that they were within about a mile of the beach.

Senator BARTLETT. And even with lousy navigators, they should have had an idea they were not too far from shore.

Admiral SMITH. It seems difficult to believe that they couldn't be aware that they were within the territorial waters.

Senator BARTLETT. Admiral, let's turn to the bill before us. In the area of vessel procurement, what do you propose for the coming fiscal year?

Admiral SMITH. Mr. Chairman, to become specific in this matter, under vessel procurement we propose the construction of one additional high-endurance cutter, one oceanographic cutter, two large patrol craft that would actually replace two medium-endurance cutters, two river tenders for the Mississippi River; one for the lower Mississippi River, one for the Arkansas River that will become navigable when the Corps of Engineers finish their project there. And another \$1.5 million to continue the preliminary design of a polar icebreaker.

In addition we are asking for \$800,000 to install four balloon tracking radars of improved design on ocean-station vessels, and we are asking for \$1,244,000 to obtain 20 shipboard Ioran-C receivers to improve the navigating capabilities of our ocean-station vessels, which is essential to their continued performance of the oceanographic duties.

For the six "secretary" class cutters built in the 1930's we are asking for \$2.5 million to improve their habitability and to increase their fuel capacity. These are very good ships and the hulls are still in good condition. We think by spending a little money on them now we can extend their service lives for a number of years beyond what we presently anticipate.

Senator BARTLETT. The total amounts to \$39,776,000?

Admiral SMITH. That's correct.

Senator BARTLETT. And that compares with what amount of money that was appropriated for the same purposes in the current fiscal year?

Admiral SMITH. Under 1967 appropriations, we had \$49.4 million.

Senator BARTLETT. You have had three amended plans, I believe you said, for modernization, bringing up to date Coast Guard facilities. Will the appropriation of \$39 million, almost \$40 million, for these purposes, for the next fiscal year, meet the requirements of any of those plans?

Admiral SMITH. It does not meet the requirements of our vessel plan prorated over the period of time that the plan is designed for, Mr. Chairman. In other words, we would need an additional amount of money above this figure to prorate the continuation of the vessel plan to its completion date of 1974.

Senator BARTLETT. If you had your druthers, if the Coast Guard had been able to come before these committees on both sides of the Capitol for authorization as you saw desirable and needed, what would you have asked for with reference to high endurance cutters? How many would you have asked for?

Admiral SMITH. Mr. Chairman, I would like to say that in our preview estimates for this particular item we had planned to ask for five. There is one thing that has happened here. Although we only have one in this authorization request, one of the reasons that we only

have one is that in lieu of a high endurance cutter we are asking to build an oceanographic cutter for 1968.

Senator BARTLETT. Let's say that that makes up for one. What happened to the other three?

Admiral SMITH. Mr. Chairman, in the budget process, when we had to reevaluate our requirements in the light of the budgetary possibilities, the other three had to be sacrificed to keep a balanced program throughout the different areas of the Department.

Senator BARTLETT. Did the Coast Guard do that reevaluation or was it done elsewhere?

Admiral SMITH. I would like to speak to that for a moment and then ask Mr. Betts to supplement it.

Actually I think our budgetary process is one that is probably common to most of our Departments. We start out with discussions with our Department and then later on these evaluations go on to the Bureau of the Budget. Figures are established within which the Department, and finally the different agencies within the Department, have to form their budgets. Then they determine their priorities within the moneys that will be allowed within the budget.

Mr. Betts?

Mr. BETTS. The admiral has covered very well the general procedure. At the time the preview estimates are submitted by the Coast Guard there is no budgetary restraint or constraint on these figures.

The preview is reviewed in the Secretary's Office along with all the other Bureaus and Offices in the Department. It then goes to the Bureau of the Budget where conferences are held between the Secretary and the Director. A target planning figure is provided by the Budget Bureau, so a restraint first appears along about summer.

By the time the official budget is submitted on September 30 to the Budget Bureau there is a further restraint. It was in this process that three of these high endurance cutters dropped out.

The target given for Treasury as a whole was insufficient to permit the allocation of all of the Coast Guard's requests.

Senator BARTLETT. How many high-endurance cutters did the Treasury Department approve?

Mr. BETTS. The request that went to the Budget Bureau was for two high endurance cutters. As the Admiral indicated, later the Coast Guard elected to substitute the oceanographic vessel in lieu of one of the high endurance cutters.

Senator BARTLETT. So the Budget Bureau didn't make any reduction. It was done in the Treasury Department.

Mr. BETTS. No, sir. The reduction in this year occurred before the Treasury's budget went forward to the Budget Bureau, but it was operating within a total figure which the Budget Bureau had already set.

Senator BARTLETT. With the coming of one more summer and the passage of the swallows to the south in the succeeding fall, is there going to be anything left for the Coast Guard? We had hoped here, very frankly, as you all know, through the successive legislative hearings before this subcommittee and the corresponding subcommittee in the House, that we would be able to be of some assistance to the Coast Guard in modernizing its establishment. I think there is

unanimous agreement that this is needed, called for, desirable, and essential for the welfare of the Nation. But instead of moving in that direction we seem to be cutting back every year.

Mr. BETTS. The authorization request before you, Senator, is in about the same amount as for the current year. So that there is some retrenchment in the vessel program. However there are some increases in some of the other areas.

I might add that the total dollar increase which Treasury was permitted to request the Congress this year was only \$45 million for all of the Treasury. One-third of that was allocated to the Coast Guard. The Coast Guard elected, however, because of operational requirements, to use that increase in their operating funds and to keep the capital account at the same level as in 1967.

Senator BARTLETT. Let's turn to aircraft, the total bill for which would be, according to the Budget figures, \$25,475,000.

Admiral Smith, you propose to acquire nine medium range recovery aircraft, to replace nine overaged medium range search airplanes at a cost of close to \$14 million. What are those medium range search airplanes? Are those the Albatross?

Admiral SMITH. They are the HU-16, the Albatross, which comprises really the backbone of our aircraft fleet in the fixed wing category. These aircraft are becoming overage. By 1970 most of the fleet would be overage.

Senator BARTLETT. What is going to happen to them, have you any idea? It is one of the greatest airplanes ever built.

Admiral SMITH. No, sir. As a matter of interest, Mr. Chairman, we are conducting some tests right now on the center section to determine whether it is retaining all of its structural integrity. We are doing this in cooperation with the Air Force and Navy. We are hopeful that if the airplane is still structurally sound, there may be a possibility of extending the life for a period of time.

Senator BARTLETT. Do you have as a substitute an aircraft that is entirely satisfactory for the purposes and needs of the Coast Guard?

Admiral SMITH. No, sir, we do not at the present time. There is no U.S. construction of any amphibian aircraft of the size that would be appropriate for our use. We will probably be forced to look in two directions. One, toward the use of helicopters with improved performance, and the other land-based aircraft that have no sea landing capability.

Senator BARTLETT. These nine replacements will be land-based planes?

Admiral SMITH. Yes, sir.

Senator BARTLETT. What type?

Admiral SMITH. We are not quite sure of this. They will either be twin-turbine helicopters or they will be an adaptation of a medium-weight land plane.

Senator BARTLETT. What will these 12 short-range recovery aircraft be?

Admiral SMITH. They are helicopters of the same design as we are presently using, the HH-52, a single engine turbine helicopter presently used at our station and also used with our polar icebreakers.

Senator BARTLETT. You do have some long-range, land-based aircraft at the present time; don't you?

Admiral SMITH. That is correct. We have 12 of the C-130, the Hercules aircraft.

Senator BARTLETT. How are they performing for your needs?

Admiral SMITH. Mr. Chairman, they are doing very well. We are particularly pleased with their ability to handle jobs where long range is required, maximum safety, bad weather operating conditions. We found them a very versatile plane that can be used effectively for logistic support of some of our remote areas, as well as search and rescue missions.

Senator BARTLETT. What is their range?

Admiral SMITH. About 3,000 miles fully loaded.

Senator BARTLETT. Are you satisfied, Admiral Smith, with the dollar amounts allowed you in reference to various construction projects?

Admiral SMITH. Are you talking about the total figure, Mr. Chairman?

Senator BARTLETT. Yes. Going down into the construction.

Admiral SMITH. That is a rather difficult question for me to answer. I must say that we certainly could effectively utilize additional funds to carry out the long-range plans that we have prepared and have cleared and submitted to the committee.

Senator BARTLETT. Admiral, I have read the transcript of the House hearings. It was clear that several Members over there thought the Coast Guard wasn't aggressive enough in making its requests, despite the limitations and inhibitions that might be imposed by the Budget people and the Treasury, and the Budget Bureau.

It is said that the other military services had no such inhibitions. I should say that the Coast Guard ought to be in the same situation with perfect freedom to speak out wherever you think that you have been damaged too severely by cutbacks. We all recall what happened last year. The authorization committees gave much more than you wound up with. I think the Secretary of the Treasury wrote an urgent letter, rather a precedent making one to the committees, urging them not to authorize more or appropriate more—I guess appropriate more—than the Budget figures. I think it was followed up by a statement by even a higher official that if we appropriated more it wouldn't be spent.

Is it not true that in all of this process the Coast Guard is being subjected to what one House Member terms "slippage?"

Admiral SMITH. Mr. Chairman, we have experienced some slippage in our plans. We made a good deal of progress, too I think that as we keep our plans under review and keep them up to date that we have found areas where we were able to make some reductions in what had originally been our end requirements. These kept the plan a little more in perspective.

As far as the Coast Guard taking an aggressive position, I think that within the framework of our Department, and the Bureau of the Budget, we have very fine relations. I think we make our position as strong as we can with them. I don't think that we have been placed in any secondary position.

Senator BARTLETT. Nevertheless you are not getting the money to modernize the Coast Guard in accordance with these plans, are you?

Admiral SMITH. I didn't hear you.

Senator BARTLETT. You are not getting sufficient money to modernize the Coast Guard as recommended by these various plans that have been developed and presented.

Admiral SMITH. Mr. Chairman, it is true that we are not getting enough money to do this at the rate that we projected in the plan. We are making substantial progress in improvement of our plans.

Senator BARTLETT. I know Senator Griffin later on wants to ask you some questions about Vietnam, the Coast Guard operations there, so I won't dwell upon that to any great extent.

I want to ask you this: When the time came when the Navy wanted those 82-footers, did the Navy say to the Coast Guard give them to us or was there a negotiation process?

Admiral SMITH. There was a negotiation process, Mr. Chairman.

I would like to ask Admiral Trimble to speak to this, since he was here at the time and can tell you exactly what transpired.

Admiral TRIMBLE. Mr. Chairman, for the first 17 cutters of course you recall, the Congress authorized and provided funds for replacement. We are getting delivery of the first 17 replacements already.

For the second batch of nine we had a negotiation process also. We had to weigh the timing as to how we might best meet the boating season which would be upon us. When the request for the second batch came in, it was in the fall. Had we sought additional funds for replacement of the nine at that time, we wouldn't have gotten delivery until a year and a half to two years later which would not have helped us for the boating season for the next summer.

We considered alternatives. We already had a new boat, our 44 footer which we are very proud of, which has proved considerably better than even our highest most optimistic expectations. We therefore considered alternatives of using that boat and some 40 footers to fill the holes immediately. We can build these boats much faster than we can build replacements of the 82 footers.

Funds were given us for additional people and for replacement of these boats. We had the holes filled by the beginning of the boating season last year. As a result it was not necessary for us to ask for replacement of the 82 footers.

I am not aware that we have had any problems or complaints as a result of this way of handling the situation expeditiously and at a saving of several million dollars to the taxpayers.

Senator BARTLETT. How many 82 footers in Vietnam?

Admiral SMITH. Twenty-six.

Senator BARTLETT. How many are left here?

You can supply that for the record.

Admiral SMITH. Of course we are in the process of building and getting delivery of the 17 replacements that were authorized. Most of them will be completed by the end of this year or early next year. We will supply it for the record. The exact number of boats in service outside Vietnam is 31; 13 are still under construction.

Senator BARTLETT. It is your expectation but not sure knowledge that those 17 will be used in domestic service?

Admiral SMITH. That is correct, they will be used in domestic service.

Senator BARTLETT. Have you lost any of the 82 footers there?

Admiral SMITH. No, sir. We had one near casualty but we have had no complete loss. The boat that was badly damaged has been repaired and placed back in commission.

Senator BARTLETT. Any other Coast Guard craft in Vietnam?

Admiral SMITH. The 82-foot patrol boats are the only craft. Occasionally we dispatch one of our buoy tenders into the South Vietnam area to help with some of the aid to navigation placements in the harbors.

Senator BARTLETT. Is it true that the 44 footers are performing so well that you may not seek full replacement of the 82 footers?

Admiral SMITH. We have this under consideration at the present time, Mr. Chairman. We now feel that we do have certain areas and certain types of operation where the 44 footer can adequately carry out the same type of duties that we would assign to an 82 footer were it there.

Senator BARTLETT. I have several more questions, but I am going to defer for a while so other members can query you.

Senator MAGNUSON. I have another question, Mr. Chairman.

Last year we passed an amendment to the inspection laws on cruise ships, giving greater power to the administration, the Coast Guard being the agent to carry it out, than previously. Has there been any change in your inspection procedures during this last season?

Admiral SMITH. As you will recall, Mr. Chairman, the effective date of the provision—I assume you are talking about the passenger ship safety legislation?

Senator MAGNUSON. Yes.

Admiral SMITH. The effective date of that is November 1968, when the requirements for the fire readiness of the vessel became effective.

We have already drafted—

Senator MAGNUSON. That is what I want to get at. If there is no change, you have some plans?

Admiral SMITH. Yes. We are prepared to carry this out completely. The first step of course is the disclosure regulation, which will be taken up by the Merchant Marine Committee in the House at their present session and will become effective in May of this year.

Senator MAGNUSON. Of course if the international agreements are changed, it may be that you will not have to make many changes in your own inspection.

Admiral SMITH. We anticipate now, Mr. Chairman, that if this proceeds in an orderly fashion in the international field, that before 1968 all the foreign cruise vessels that are operating in our waters will be in compliance with the U.S. law, which is precisely the same as the recommended changes to the Convention which were approved by the Assembly in November.

Senator MAGNUSON. I think the Committee on International Safety at Sea was going to resolve something, or meet in December, is that right, in London?

Admiral SMITH. There was a meeting in London in November. They did approve the recommendations of the Maritime Safety Committee which will amend the Convention to establish within the Convention the same requirements as we have established within our U.S. law for safety.

Senator MAGNUSON. So there is progress being made with the international agreements of safety at sea, despite the fact that the bill was passed.

Admiral SMITH. Yes, sir; very decidedly. I think perhaps the passage of the bill with this clear intent of the United States—

Senator MAGNUSON. I hoped you would say that.

Admiral SMITH (continuing). Will help to persuade the other nations to go along with it.

Senator MAGNUSON. Mr. Chairman, we didn't talk about this prior to the meeting, either.

I hoped he would say that because we had some dire results of what would happen if we passed the law, and that that would foul up the negotiations. But they are coming along all right.

Thank you.

Senator BARTLETT. Senator Griffin?

Senator GRIFFIN. Mr. Chairman, I am a new member of this committee, and a member of the subcommittee. To the extent that you can do it briefly, I would like to know about the role and the mission of the Coast Guard in Vietnam. Can this be done in open hearing?

Admiral SMITH. Senator, I think I can very briefly summarize what our present responsibilities are here.

The 26 82-foot patrol boats are engaged in the market time operation which is under Navy command and has as its purpose the searching out and interdicting, stopping the supply of men, ammunition, materials from North Vietnam to South Vietnam in the coastal waters.

Our 82-footers are one part of this market time force. There are not only some South Vietnamese naval vessels involved but also Navy vessels both smaller than our 82-footers and some larger vessels.

In addition to the market time operation we are presently operating four loran stations in southeast Asia. They are not all located in Vietnam. Three are in Thailand and one is in Vietnam. They give navigation coverage to the area over South Vietnam. This is a requirement of the Air Force primarily, but other military services use it as well.

We also have supplied two explosive loading teams that are assisting in advising with respect to the supervision of the handling of explosives that are being shipped into Vietnam. This involves the safety factors that must be observed in removing the material from a ship to shore and handling it during the process.

We also are providing some inventory services and some materials with respect to the aids to navigation requirements in new ports that are being built by our forces in Vietnam.

One of the latest fields that we have become involved with is the matter of merchant marine safety. This has involved the assignment of an officer to the office presently of the commander, MSTTS in Saigon, to assist him with respect to handling of the disciplinary cases and other problems that we have been running into there regarding merchant seamen that are operating out of Saigon.

Senator GRIFFIN. Have the responsibilities of the Coast Guard increased since the request was made for \$107 million for a similar authorization bill for the fiscal year 1967?

Admiral SMITH. Not in this particular field, Senator. There have been no appreciable changes in our Vietnam situation during the past year. Some minor adjustments.

Senator GRIFFIN. What was the authorization for the Coast Guard for similar purposes for the fiscal year 1966?

Admiral SMITH. Senator, you asked for the authorization figure?

Senator GRIFFIN. As I understand it, for fiscal 1967 there was authorized \$126 million; is that right?

Admiral SMITH. That is correct.

Senator GRIFFIN. And you are requesting \$107 million this time?

Admiral SMITH. That is correct.

Senator GRIFFIN. Now I am trying to get back to 1 year behind that.

Admiral SMITH. 1966?

Senator GRIFFIN. I am trying to see whether you are going up or down in view of your Vietnam responsibilities.

Admiral SMITH. I have the appropriation figure here, but I will have to get the authorization figure from our records; \$120 million was authorized in 1966.

Senator GRIFFIN. What was the appropriation figure?

Admiral SMITH. \$115 million.

This \$115 million for that year didn't include the replacement of these 82-foot patrol boats that we shipped to Vietnam.

Senator GRIFFIN. That was an additional item that was specially provided for?

Admiral SMITH. Yes, sir.

Senator BARTLETT. Was that about \$6 million?

Admiral SMITH. A little over \$6 million, sir.

Senator GRIFFIN. I think I have no further questions, Mr. Chairman.

Senator BARTLETT. Admiral Smith, in your prepared statement you note the request for \$1.5 million in additional funds for contract design services for prototype replacement for polar icebreaker. Last year \$1 million was authorized for this project. Is that correct?

Admiral SMITH. That is correct, Mr. Chairman.

Senator BARTLETT. Who has been doing the design work up to this time?

Admiral SMITH. The preliminary design work for the polar icebreaker has been handled and coordinated within our own Office of Engineering. I would like to ask Captain Latimer to give you a brief rundown as to what outside groups entered into this preliminary design.

Captain LATIMER. There have been quite a number of contracts involved in this, Mr. Chairman. I will touch upon some of the major ones.

The real key contract was one that we refer to in house as a feasibility study. This was awarded to a firm called NUS, a corporate name, formerly Nuclear United Services. They had two subcontractors working with them, one firm of naval architects known as Hydro-nautics, Inc., and New York Ship, the commercial New York shipyard was also a subcontractor on that.

There were several other major combinations of firms that have the major part of the know-how who responded to this invitation for proposal.

There was a rather extensive study involving a comparison of various types of powerplants that might be used for icebreakers over a range of sizes. That work is mostly completed. This contract is still going on.

In addition to that, a contract was awarded on the basis of an invitation to make a study of the operational problems involved. I would say this study in particular was partly a matter of buying man-hours, people who had time to go around and discuss with other Government agencies and tabulate and get, in a understandable manner, the best predictions we could make as to our icebreaker requirements, over the period of the next 30 years, that these ships were servicing.

This contract was awarded to a corporation by the name of Vitro, which happens to be in the Washington area. I believe they had some subcontract assistance. At the moment I don't remember who the subcontractor was.

That study has largely been completed and it is in the process of being digested and further looked at by our people in-house. We had quite a hand in following that particular contract as well as the nuclear feasibility contract at the time all of this work had been in progress.

In addition to this, in a more purely engineering sense, we have had quite a number of studies underway. These are being pursued by people at the University of Michigan, Stevens Institute of Technology, MIT, Rosenblatt, Naval Architect Firm, Southwest Research, and several others who worked with the Army Cold Weather Laboratory and the Naval Electronic Laboratory which has an ice tank. There are a few other smaller contracts. These have been directed at various facets of the problem of the mechanics of breaking the ice, what kind of ship is needed, what kind of structure is needed, and many things that are purely engineering aspects of the design of an icebreaker.

Those are some of the high points of it, Mr. Chairman. If you have other questions I could perhaps fill in some details.

Senator BARTLETT. Captain, what is an ice tank?

Captain LATIMER. This would be a large tank equipped with machinery for freezing and forming a layer of ice on it so that the behavior of a small ship model could be studied in the ice. You could study other aspects of the icebreaking problem.

Senator BARTLETT. Is it intended that the appropriation of \$1.5 million if made will be sufficient to complete the design work?

Captain LATIMER. We cannot say with certainty that it will, Mr. Chairman. If a decision is made to build a conventionally powered ship for this amount of money in accordance with our present best estimates, it would be adequate for preparation of contract drawings and contract specifications; in other words, finishing up the work that will be left when we finish what we have been doing this year.

If a decision is made that it is in the best interests of the United States to build one or more nuclear-powered icebreakers, this money will probably not quite do it. We will probably have to be looking for a reprogramming, or money from some other source.

Senator BARTLETT. Have your studies developed any viable comparisons between nuclear and fossil fuel icebreakers with regard to performance?

Captain LATIMER. They have developed several interesting things. In some ways these studies have documented rather precisely some things that some of us who have been following this business have known.

The nuclear icebreaker, of course, has a large advantage in that it does not have to come out of the ice for refueling. It can go in and do a

heavy icebreaking job and it can stay on that job for a long period of time. The importance of this, of course, depends upon the mission, what jobs you have to do with the icebreaker. And the foreseeable missions, as I mentioned, we are being given very careful scrutiny.

The nuclear icebreaker initially is more expensive than the conventionally powered icebreaker. But the fuel cost is much, much less. So when you get into the large type of icebreaker, when you balance off the fuel cost and also include the additional training of personnel, the additional safety monitoring team that would be involved, when you balance all of these things off, if you are building large ships, and especially several of them, there is about a trade-off in overall cost over a period of 30 years.

Senator BARTLETT. Would the new icebreaker be about the same size as the existing ships of that type?

Captain LATIMER. This is the difficult decision area, Mr. Chairman. And it is being looked at very carefully. Our analysis of this thing indicates, frankly, that we need some larger icebreakers to be doing the job that we think these things are going to be doing over their lifetime. The present thinking—and this has not been firmed up—the present indications are that the most economic value would probably come from two sizes of icebreakers, maybe two or three large ones that can do most any work that needs to be done. I'm speaking of ships on the order of capability of some of the large Russian ships, and perhaps a number of smaller ones.

Senator BARTLETT. The Russians have one nuclear-fueled icebreaker?

Captain LATIMER. They have one that we are very certain about. We understand from various trade journals and this sort of thing that they have two more under construction. I could not say that specifically, sir. That information might be available somewhere.

Senator BARTLETT. The ship we know about is named *Lenin*, is it not?

Captain LATIMER. That is correct.

Senator BARTLETT. How does it compare in size with our largest icebreaker?

Captain LATIMER. The *Lenin* is a 40,000-horsepower nuclear-propelled ship, of about 17,000 tons displacement. She is a big ship.

The U.S. fleet of icebreakers consists of the so-called wind class built during World War II. These ships are between 5,000 and 6,000 tons and 10,000 horsepower. We have one additional ship, the *Glacier*, very similar to the winds except larger, that was built by the Navy in 1955. The *Glacier* is about 8,000 to 9,000 tons, and 20,000 horsepower. She has considerably more capability than the wind class but much less capability than the *Lenin* and also several large diesel-propelled icebreakers that the Russians have.

Senator BARTLETT. Do we have any performance capabilities on the *Lenin*?

Captain LATIMER. We have picked up what we can, Mr. Chairman. We have made inquiries of people who would know something about it. We think that she has done quite well. We think that they have had maybe some problems with her, but we think, by and large, the ship gets serviced and is a capable vessel, capable of going into most of the ice areas one would have occasion to go into.

Senator BARTLETT. I have heard it said that two nuclear ships might be able to develop the performance of three conventionally fueled ships. Is there any verity to this?

Captain LATIMER. This, Mr. Chairman, depends upon the operational mission and the dispersion of ships required to perform the various jobs that we have to do. As background to that, we have at present three icebreakers working in the Antarctic, all working in different areas of the Antarctic, and overlapping that, we have requirements in the Arctic.

As to two nuclear powered ships doing what three conventionally powered ships would do, if you had a very heavy icebreaking mission lasting a long period of time, then the nuclear ships would be able to go in and stay and expend vast amounts of horsepower without coming out to refuel, and perhaps could do what three conventional ships would do. But operationally, frankly, this situation is not likely to exist. So I think it is a little misleading to compare these ships with that particular ratio, Mr. Chairman.

Senator BARTLETT. If my memory serves me, the Coast Guard informed this subcommittee last year that a nuclear icebreaker would cost about \$15 million more than one conventionally fueled.

Captain LATIMER. That is about correct, Senator.

Senator BARTLETT. And the figures would be what, in terms of dollars?

Captain LATIMER. This depends upon how big the ship is going to be. If we are talking about something that would have the capability of the *Lenin*, we would probably be talking at least for the first nuclear ship which would involve a lot of nonrecurring costs, probably talking \$70 to \$75 million for a nuclear ship, versus probably \$60 million for a conventional ship.

If we are talking about a ship much smaller, a smaller type of icebreaker, of course those figures are considerably scaled down, sir.

Senator BARTLETT. What if you were able to build three for four nuclear icebreakers under a single contract instead of just the one. Would that represent a substantial saving?

Captain LATIMER. There are always very substantial savings in building ships on multiple contracts. I could give you some approximate figures on that if you are interested in going to that detail. It would represent substantial savings.

Senator BARTLETT. We are, and I wish you would submit those for the record, if you are not prepared to do so now.

Captain LATIMER. I would be pleased to submit them for the record. (The information referred to follows:)

COAST GUARD EXPERIENCE IN SAVINGS IN SHIPBUILDING COST THROUGH MULTIPLE PURCHASES

These cost figures relate to construction of Coast Guard vessels in the categories of small tugs and buoy tenders through high endurance cutters in the shipbuilding market that has prevailed for the last few years. They are general trends based upon analysis of bids. The base used at arriving at the percentages that will be given is cost of construction (shipyard contract) plus cost of main propulsion machinery, irrespective of whether the latter is included in the contract or provided as a government furnished item.

There are three broad areas of savings in multiple procurement, namely: lower costs from procurement of material and equipment in large quantities; distribution of shipyard non-recurring, or start-up cost, over a greater number of

units; and savings in production man-hours resulting from repeat operations. In the categories of ships under discussion, our recent experience indicates that total savings per ship in lots of two, three, four, and five are in the order of 8%, 11%, 13%, and 14% respectively, as compared with the cost of a single ship procurement. Savings per ship increase in small increments after the fifth ship.

Bid results indicate savings somewhat greater than the averages shown for the larger, more complex ships, and somewhat less for smaller, less complex vessels. This is due in part to the fact that the start-up cost of planning, scheduling, and procurement research is relatively greater for the larger ship and at the larger, more highly organized shipyard. Distribution of this relatively larger, non-recurring start-up cost over several ships results in higher savings than are obtainable at the smaller yard building in the simpler ship.

Insofar as we can observe, labor savings through repeat production tend to be about the same at the small and large shipyards. Typical figures on direct labor man-hour savings are 10% on the second ship of a class, an additional 5% on a third, with decreasing increments thereafter. A typical breakdown of a shipyard's material and labor cost is 55% and 45% respectively. Therefore, these man-hour figures relate to approximately half the total contract cost.

The savings that have been given do not include the design work involved in producing a set of working drawings to be used by shipyard personnel in the construction. These may be furnished to the builder of the first ship of a class, or may be prepared by him as a part of the construction contract. An average cost of working drawings for ships under discussion is 15% of the contract cost of a single vessel. (This figure can be much higher for a complex vessel requiring a great amount of design effort and capability.) Distribution of this cost over several ships, as contrasted with one, substantially increases the savings previously quoted; however, a set of drawings can be used in future procurements of ships of the same class; hence, the inclusion of their cost in multiple-ship production savings tends to distort the shipyard's purely production cost.

Senator BARTLETT. At this time are you contemplating the use of a Navy reactor or a commercial reactor?

Captain LATIMER. Our thinking trends very definitely toward a commercial reactor.

Senator BARTLETT. Why is that?

Captain LATIMER. In order to skirt around certain classified aspects of the Navy reactor subject, I will say here that we have looked at this thing very carefully. I will point out a few of the positive things for going the commercial reactor route. Going the commercial reactor route actually we have the benefit of a larger technology. This is getting to be big business for shoreside marine generating plants. We can ride along with this technology and utilize much of this development cost.

This relates not only to buying the reactor, it relates to servicing it, refueling it at various intervals when it has to be refueled, and that sort of thing.

Going the commercial reactor route, we avoid having a classified piece of equipment on the ship. The icebreakers operating in the Antarctic are operating there in accordance with international agreement, whereby everybody's facilities are open to everybody else. So this is a decided advantage.

Senator BARTLETT. If the merchant vessel *Savannah* were to be built today instead of when it was built, the advance in technology has been so great that the powerplant could be much smaller and much lighter, is that right?

Captain LATIMER. That is true, sir.

Senator BARTLETT. Under the present state of the art, how long could a nuclear powered ship stay at sea?

Let me rephrase the question. How often is it necessary to refuel?

Captain LATIMER. Actually, Mr. Chairman, this would depend upon the design of the nuclear reactor. And it depends upon the

operating tasks that you assign the ship. You would normally think of refueling these things about every 3 years. You can design and buy reactors in which this quantity is variable and can be tailored to fit your particular needs. I don't profess to be an expert on the subject of nuclear reactors, Senator.

Senator BARTLETT. You are doing all right.

Captain LATIMER. These figures are approximate.

Senator BARTLETT. Is this an expensive process, refueling?

Captain LATIMER. Not extremely so. It involves special facilities and some special precautions. The cost of these facilities, of course, that have to be maintained for this sort of thing tend to make the price higher than it otherwise might be. The actual job itself is not an extremely complicated one.

Senator BARTLETT. Thank you very much, Captain.

Admiral Smith, effective February 24 of this year, certain functions of customs were transferred to the Coast Guard. While this is a matter which is not covered by the authorization before us, it has raised several questions which you might answer by explaining the purpose of this transfer and its planned implementation.

Admiral SMITH. Mr. Chairman, the transfer of certain functions from the customs to Coast Guard came about as a result of a study that was made within the Treasury Department in which both customs and the Coast Guard participated in connection with the establishment of the new Department of Transportation.

Under the law establishing the new Department, it was clear that functions that related to transportation matters should largely be grouped in the new Department. I think our Assistant Secretary thought this was an appropriate time to review those other functions in Treasury that had an impact on marine transportation and make a determination whether they should appropriately be transferred to the Coast Guard before the Coast Guard became a part of the new Department.

The study identified the areas that you mentioned and these functions have been transferred to the Coast Guard prior to our going over to Transportation.

With respect to carrying them out, we see no special difficulty. Nor do we see any dramatic changes. We hope that as many as possible of the employees of customs who have already been engaged in these fields will come into the Coast Guard and work for us.

Senator BARTLETT. They will become civilian employees of the Coast Guard?

Admiral SMITH. As civilian employees of the Coast Guard; that is right, Mr. Chairman.

I might just mention that the port security functions and the admeasurement functions are not new concepts. These have been suggested for inclusion in the Coast Guard a number of times.

Senator BARTLETT. A number of Customhouse brokers have expressed fear over delay in documentation in filing of mortgages because of this transfer. Is this a possibility?

Admiral SMITH. Mr. Chairman, I do not believe this is a problem or possibility. The Coast Guard is very alert, I think, to the difficulties attendant in a transfer such as this. We intend to take special precautions to see that the service to the public is not disturbed by the transfer.

Senator BARTLETT. It has been suggested that not everyone from customs will want to transfer and there may be a multitude of retirements. If this should occur, it will be necessary for you to replace them, naturally, with personnel not experienced. Do you expect any such mass resignations?

Admiral SMITH. I am sure that a certain number of people will not want to transfer and perhaps there will be some retirements. We feel, in the field of port security, in the field of admeasurement, we feel our people are well qualified to undertake these duties where necessary and do the same things previously done by customs. In the field of documentation, which will be a relatively new area for us, we are hopeful we will be able to get enough of the customs expertise, by transfer of personnel, that we will be able to continue functioning without difficulty.

Senator BARTLETT. Have you had a meeting on this yet as to the number of customs people who are ready and willing to move over, and those who are not?

Admiral SMITH. Mr. Chairman, I would like to ask Admiral Trimble to speak to that. Or perhaps Admiral Whalen. Admiral Whalen, who is our Chief of Staff, has been working directly with the Commissioner of Customs in this program from its very beginning. So he is intimately familiar with the details of where we stand on this.

Senator BARTLETT. We will listen to you, Admiral, with interest.

Admiral WHALEN. Mr. Chairman, I think there are two basic points to make on this transfer, but the prime thing was assurance of continuity of operations. This has been resolved in that there is an existing agreement between the Commandant of the Coast Guard and the Commissioner of Customs.

In those areas wherein employees were doing these functions—but not to the degree which called for the position, under Civil Service Commission regulations, to be transferred—there will be a detail by the Commissioner to assist us to carry out these functions until such time as we can physically provide a body to do so.

There are a gross of 144 positions which have been transferred from the Bureau of Customs to the Coast Guard. As regards the specific number of personnel, or numbers of bodies that went with the positions, I cannot give you the figure. But in contacts we have had in the field, both through our Coast Guard district commanders, and the nine regional directors of the customs, the trepidation initially surrounding a possible wholesale “not going” even though the position was transferred, has not proved to be true.

The districts that we have contacted, even as recently as the 24th of February, indicate that the functions are being performed. The operations are being continued, and we feel quite confident that the particular picture now being presented is valid without any diminution of continuity of operations.

Senator BARTLETT. Thank you very much.

As a postscript, if I were to add this, would I be correct: that in these beginning days and weeks of the transfer, the Commissioner of Customs has detailed a staff to the Coast Guard and that if there are resignations you nevertheless are cognizant of this detail and will have knowledgeable people around long enough so that if subsequently they leave, your own people will be trained?

Admiral WHALEN. That is correct, sir. And I think we could maybe take one example as a case in point which will show this very clearly. The senior position in the area of documentation right here in Washington, the job description was such that it would not come over under Civil Service Commission regulations. However, the Commissioner of Customs has this particular gentleman assigned to the Coast Guard at the present time to render all the necessary guidance and counsel at the top in the field of documentation physically in our building at the present time, sir.

Senator BARTLETT. Thank you very much.

Admiral Smith, Senator Scott, a member of this committee, has received a letter from a constituent who is concerned that the transfer of the function of admeasurement will enable the Coast Guard to implement inspection and licensing requirements with respect to tugboats that otherwise would have required congressional approval. Senator Scott would like your comments on this.

Admiral SMITH. If I understand the question Mr. Chairman, he feels there is some connection between the present inspection laws, perhaps, and that the admeasurement would extend to an additional class of vessels?

Senator BARTLETT. I think it would be better if I give you a copy of the letter, and you can place the answer in the record.

Admiral SMITH. Thank you, Mr. Chairman. We would appreciate that.

(The letter and answer referred to follow:)

INTERSTATE OIL TRANSPORT CO.,
Philadelphia, Pa., February 28, 1967.

Mr. SIDNEY M. BAILEY,
Legislative Aide to Senator Hugh Scott,
U.S. Senate, Washington, D.C.

DEAR MR. BAILEY: Thank you very much for your prompt attention to the admeasurement issue which I had discussed with you. You have asked me to give a full statement of views and I feel that most tugboat operators will join with me in expressing the fears which we have concerning the ultimate results of the recent administrative changes made by Mr. Joseph Barr.

The transfer of the responsibilities for the admeasurement of vessels was recently brought about by the Treasury Department just prior to the new administration changes which move the U.S. Coast Guard administratin into the Office of Transportation. At first sight this move would be logical and economic in that the Coast Guard now inspects, establishes manning scales and licenses U.S. Merchant Marine officers. The admeasurement then simply becomes another function of this organization already set up to deal with merchant vessels.

However, in 1965 about ten days of Hearings were held of the Committee on Merchant Marine and Fisheries, discussing the proposed Bills H.R. 156 and H.R. 723; To Require The Inspection of Certain Towing Vessels, and H.R. 7491; To Provide for the Licensing and Certificating of Officers of Certain Vessels. By far most members of the towing industry who appeared there expressed their dissatisfaction with the Bills as written and proposals to alter the Bills were noted.

Present law provides that seagoing towing vessels of over 300 gross tons are to be built under the inspection of the U.S. Coast Guard. Certain tugboat operators have a great fear that this current transfer, affected without any consultation of industry, might be a means of circumventing some of the actions of Congress. We feel that the U.S. Coast Guard administration of the admeasurement functions should be defined. Industry leaders feel that it might now be possible for the Office of Transportation, via the U.S. Coast Guard, to make sudden changes in the rules for the admeasurement of vessels which would cause vessels to come under Coast Guard inspection.

Therefore, it is appropriate to know just what, if any, changes in tonnage deductions and exemptions are envisioned by the admeasurers and specifically, will the Coast Guard aim at bringing certain towing vessels under inspections by controlling their admeasurements.

Industry not having been consulted about these moves deserves a full explanation and, furthermore, the Congress might want to watch carefully any developments in this particular area in order that its authority is not side-stepped by decree.

Very truly yours,

RALPH W. HOOPER.

MARCH 17, 1967.

Hon. H. L. BARTLETT,
U.S. Senate,
Washington, D.C.

DEAR SENATOR BARTLETT: During the Authorization Hearings on 3 March 1967, you brought to the attention of the Commandant a copy of a letter from a Mr. Ralph W. Hooper, Interstate Oil Transport Company of Philadelphia, Pennsylvania, addressed to Mr. Sidney M. Bailey, Legislative Aide to Senator Hugh Scott of Pennsylvania. The letter expressed concern over the transfer of certain marine functions from the Bureau of Customs. Mr. Hooper is specifically concerned with the function of admeasurement.

I am enclosing for your background information a copy of the Treasury Department Order together with a copy of a Treasury Department press release on the subject.

The transfer in question is consistent with the findings of past management studies which have been made by both the Bureau of Customs and the Coast Guard. Based on these findings we are satisfied that the transfer which became effective 24 February 1967 will result in more effective government administration and will occasion little, if any, inconvenience to the public. The function of admeasurement will continue to be carried out by Customs employees transferred to the Coast Guard supplemented as required by technically trained Coast Guard personnel. The admeasurement of vessels is governed by laws which are quite specific and appropriate amplifying regulations. I anticipate no immediate or substantial change in either the regulations or procedures governing the admeasurement function. With this in mind, it is quite clear that Mr. Hooper's allegation that the transfer could be a means to circumvent the wishes of Congress is without foundation.

At the time the above studies were conducted there were consultations with a number of persons from affected industries. We, thus, had the benefit of the comments of the representatives of a number of these industries on a transfer such as the one now being carried out.

It is hoped that this information has been sufficiently responsive to Mr. Hooper's inquiry. It has been a pleasure to be of service to you in this regard.

Sincerely yours,

P. E. TRIMBLE,

Vice Admiral, U.S. Coast Guard, Acting Commandant.

DEPARTMENT OF THE TREASURY

OFFICE OF THE SECRETARY

TREASURY DEPARTMENT ORDER NO. 167-81

Identification of certain functions performed by the Bureau of Customs as functions relating to the Coast Guard; delegation of such functions to the Coast Guard

By virtue of the authority vested in me as Secretary of the Treasury by law, including Reorganization Plan No. 26 of 1950 and section 301, Title 5, United States Code, it is hereby ordered that:

1. Functions that the Commissioner of Customs has been authorized to perform under prior delegations of authority which are "functions * * * relating to the Coast Guard," within the meaning of section 6(b)(1) of the Department of Transportation Act (Public Law 89-670), are hereby identified as those functions pertaining to:

- a. Admeasurement of vessels;
- b. Documentation of vessels and preparation and publication of merchant vessel registers;
- c. Registration of stack insignia; and
- d. Port security.

2. The functions identified in section 1 of this order as functions "relating to the Coast Guard" are hereby transferred to the Commandant, United States Coast Guard. This transfer shall be effective February 24, 1967. The functions herein delegated to the Commandant may be delegated by him to subordinates in such manner as he shall direct.

3. Such positions, personnel, funds, records, and equipment as are determined by the Assistant Secretary, who has supervision over the activities of the United States Coast Guard and the Bureau of Customs, and the Assistant Secretary for Administration to be necessary to perform the functions hereby transferred to the Commandant, United States Coast Guard, shall be transferred to the United States Coast Guard as of February 24, 1967.

JOSEPH W. BARR,
Under Secretary of the Treasury.

TREASURY DEPARTMENT

Washington, D.C., February 2, 1967.

TECHNICAL MARINE FUNCTIONS TRANSFERRED FROM BUREAU OF CUSTOMS TO
COAST GUARD

Under Secretary of the Treasury Joseph W. Barr announced today that he had signed an order transferring to the Coast Guard certain technical marine functions presently being performed by the Bureau of Customs. The transfer will take place on February 24, 1967.

This action will also call for a transfer of a small number of Customs personnel and some funds to the Coast Guard.

The functions involved include admeasurement of vessels, documentation of vessels and preparation and publication of merchant vessel registers, registration of stack insignia and port security.

The objective of these functions is to classify vessels for regulatory and safety purposes, and to establish the official bases for vessel identification and control. They also relate to discharge of responsibilities under the law for the search and surveillance of shipping under certain conditions.

The transfer of these functions from the Customs Bureau to the Coast Guard is consistent with findings of a Coast Guard Roles and Missions Study in 1962, and a Customs Mission Organization and Management Study in 1964. These studies recommended simplification of these marine functions and the transfer of appropriate responsibilities to the Coast Guard.

The Coast Guard will soon leave the Treasury Department to become a part of the new Department of Transportation pursuant to the provisions of the Department of Transportation Act.

Senator BARTLETT. Referring to the oceanography cutter, is this the ship that the special budget analysis is referring to on page 139 which states a new Coast Guard ship equipped for polar research is included in 1968?

Admiral SMITH. Mr. Chairman, the proposed oceanographic cutter in this authorization will not be an icebreaker as such. It will be strengthened for operations in the North Atlantic, up to say the edge of the icepack, but she will not be an icebreaker. She is designed for oceanographic research to first of all replace our cutter *Evergreen* which presently does all of our oceanographic research in connection with ice patrol, and also to provide an additional capability to participate in the oceanographic program.

Senator BARTLETT. This refers to the special budget analysis that was submitted to the Appropriations Committee by the Department of Transportation. You may have no familiarity with this. I surely don't. But they did say, and I quote: "A new Coast Guard ship equipped for polar research is included in 1968."

Will you inquire into that and submit a statement for the record?

Admiral SMITH. Yes, sir, we will.

This vessel has not been properly defined. We found one other document that had originated in the Marine Sciences Council which had referred to it as a polar research vessel. This document has been corrected. While the vessel will be equipped to operate near the polar regions there is no intention of making it an icebreaker or polar research vessel.

Senator BARTLETT. On page 36 of that same group analysis, reference is made to the planned construction of a new oceanographic ship and increased oceanographic survey program. Can you supply the committee with more detail of the activities it is proposed to assign to the new polar research ship, where it will be based, and the area in which the ship is expected to be assigned initially at least, and also information on the extent of the increased oceanography survey program?

Admiral SMITH. First of all, Mr. Chairman, I would like to point out that this is not, as we mentioned before, a polar research ship. The oceanographic vessel that we are proposing would first of all replace our oceanographic vessel *Evergreen*, which is a converted buoy tender. The vessel that we use for our oceanographic data collection in connection with the North Atlantic ice patrol, and she does other oceanographic work as well.

The ship we are proposing here, which would replace her, would take over the duties presently performed by the *Evergreen*, in addition will be involved in duties directly connected with the international ice patrol and will be available for general oceanographic assignments.

Senator BARTLETT. Thank you, Admiral.

Admiral SMITH. We would expect her to be based on the east coast of the United States.

Senator BARTLETT. And she would be working in the North Atlantic principally at the outset?

Admiral SMITH. Principally in the North Atlantic in connection with the International Ice Patrol. Although during the time of the year that she was not involved with this, and this would take somewhat less than half of her time, she would then be available for assignment anywhere where her service were required.

(Statement on proposed oceanographic ship follows:)

SUMMARY OF INFORMATION CONCERNING PROPOSED COAST GUARD OCEANOGRAPHIC RESEARCH SHIP

In his letter of 12 November 1966, the Vice President summarized the feelings of the members of the Vice President's Council on Oceanography as regards the Coast Guard's proposed oceanographic Research Vessel. He stated that the vessel should meet the following four basic requirements: (1) It should be an Oceanographic Research Ship; (2) It should be equipped to operate near the Polar Regions; (3) It should be equipped so as to best support the objectives of the National Oceanographic Program; (4) The very latest engineering developments should be incorporated into it.

The concept of operations may be summarized as follows: (1) Its basic peacetime tasks will be to conduct oceanographic research in support of International Ice Patrol, to conduct investigation of water mass interchange in support of Navy ASWEPS program and to conduct multi-discipline oceanographic research in support of National Oceanographic Program. (2) It shall operate approximately 240 days/year on oceanographic research missions, and take part in non-related missions only in emergencies when other Coast Guard facilities cannot effectively complete the mission. (3) Ship will operate under Augmented Operating Crew Concept and all personnel will take their leave while ship is underway. The ship will sail with a usual complement (operational plus scientific) of 6 officers, 3

warrant officers and 68 enlisted men. Accommodation would also be provided for up to 15 additional Scientists (military or otherwise).

General characteristics of ship: (a) Minimal maintenance; minimal manning. (b) Maximum seakeeping capability; passive roll stabilization; directional control at zero speed; and quiet ship operation. (c) Be able to handle oceanographic buoys and other over-the-side oceanographic equipment of large bulk. (d) Large, easily accessible deck areas and laboratory spaces for scientific work. (e) Be very flexible from standpoint of conversion for many varied oceanographic missions. (f) *Projected Displacement*: 2,500-3,000 tons. (g) *Maximum speed*: 20 kts. (h) *Maximum Sustained Speed*: 16 knots required (18 knots desirable) (i) *Range*: 13,000 n.m. at 12 kts; 5,000 n.m. at Maximum Sustained Speed. (j) *Ice Strengthened per ABS standards*. (k) Helicopter facilities to accommodate 1 (one) 10,000 lbs. helicopter and necessary fuel and equipment. (l) A 1.3/1.0 ratio of operational crew to scientific crew. (m) Possible capability to support a research submersible.

Evergreen Characteristics—Converted 180' buoy tender; displacement-1,000 tons; maximum sustained speed-13 knots; laboratory-120 sq. ft.; accommodations for 2 scientists and 6 technicians; single screw; no bow thruster or active rudder; no passive roll stabilization; oceanographic capabilities limited by available power.

Senator BARTLETT. In your prepared statement, you refer to large navigation buoys to avoid costs of lightship in certain locations.

Reference is also made to unmanned super buoys. What success have you had with buoy operation?

Admiral SMITH. We have the single buoy mentioned here in the final stages of construction. It should be completed by April or May of this year. We are very hopeful that we have something here that can take the place of certain lightships, perhaps not all of our lightships. It will be more economical than either a fixed structure offshore or the lightship itself and will provide the necessary services for mariners.

This first one will be evaluated during the coming year or year and a half as a replacement for the Scotland lightship of New York entrance. Then we will have a better idea as to how efficient and effective the buoy is as an aid. We hope to go ahead with the program for some additional buoys of this same type as replacements for lightships in other areas.

Senator BARTLETT. The committee must assume, therefore, that you are convinced that you have developed reliable power sources for such unmanned buoys.

Admiral SMITH. Mr. Chairman, we have, and I would like to ask Captain Moreau to give you a very quick briefing on this.

Captain MOREAU. Mr. Chairman, we are using in this buoy four gasoline engines that are converted to the use of propane. This is an engine generator that will charge a bank of batteries so that the signal package will be using the bank of batteries as the engine generator cycles. We are hopeful that this will be—we expect this to be a very reliable package and, after the evaluation this next winter, we plan to continue to use this package and also study other possible sources for a power package for subsequent use if there are further improvements that can be made with reliability.

Senator BARTLETT. How often do you expect to have to go out to refuel?

Captain MOREAU. We anticipate an annual recharge of this Scotland buoy.

Senator BARTLETT. Thank you very much. Admiral Smith, with reference to expanding oceanographic activities, you note that they are combined with increased use of aircraft for infrared temperature

surveys over the Continental Shelf for migratory fish studies by the Department of the Interior. Where are these studies being conducted?

Admiral SMITH. At the present time, Mr. Chairman, they are being conducted over the Continental Shelf on both the east and the west coast of the United States. The exact areas where we patrol are given to us by the Bureau of Fisheries. The purpose of this is to examine water temperatures and to make some records of these to relate to the movements of the migratory fish and to see if we can, as I understand it from the Fisheries people, can develop some useful information for the fishermen.

Senator BARTLETT. How long ago did you start this?

Admiral SMITH. Mr. Chairman, Captain Branson has been working directly with this program. I would like to ask him to describe it.

Captain BRANSON. Mr. Chairman, this program was started about 4 years ago.

Senator BARTLETT. That answers that question.

Has the use of aircraft for infrared temperature surveys been useful, practical, and successful?

Captain BRANSON. Yes, sir. The Bureau of Sports Fisheries and Wildlife, and the Bureau of Commercial Fisheries, both inform us that this is a successful program in predicting marine life migrations. The information, I might say, also goes to the Navy for its ASWEPS antisubmarine warfare program and is useful to them also.

Senator BARTLETT. Is there any intention on the part of any agency to expand this program?

Captain BRANSON. This Coast Guard hopes to be able to provide more flights in the future, Mr. Chairman, at such time as aircraft time is available. We are not covering the entire coast of the East and West. There are some gaps in the program.

Senator BARTLETT. That, of course, comes back to the authorization bill—as soon as more aircraft are available.

Thank you, Captain Branson.

Admiral Smith, is there going to be any substantial increase in the work of the Coast Guard relating to the extension of the fisheries zone in the limit of the territorial waters from 3 miles to 12 miles?

Admiral SMITH. Mr. Chairman, I think that what might happen here is going to be partially dependent upon the willingness of the foreign fishing fleets who are operating on our side of the ocean to voluntarily comply with the new law. We are hopeful, and our observations thus far indicate that for the most part we can anticipate this.

It is a little bit difficult for us to tell right now just how much impact this will finally have on our surveillance of the fisheries area. I am sure that if we run into a large number of violations or special problems that we will need to use more of the vessel time and aircraft time to maintain the surveillance that will be required to insure compliance with the law. But it is a little early for us to know yet, Mr. Chairman, just how much impact it will have on our operation.

Senator BARTLETT. We know, of course, that one nation has said that it would not recognize the 12-mile zone because the belief of this Nation is that under international law a unilateral arrangement of this kind cannot be made.

I recall very well when Admiral Trimble came up for promotion, I asked him if the Coast Guard intended to enforce the law of the

United States in respect to the 12-mile fishery zone. His reply was short and positive. He just said "Yes."

Coming down to the local situations, local pertaining to Alaska, I would like to call to your attention, Admiral Smith, that the Kenai Alaska Chamber of Commerce is very anxious to have some Coast Guard facilities in that area. This request was made on account of a particular incident that occurred there. Admiral Scullion, Commander of the 17th Coast Guard District, has answered the president of the Kenai, also the Homer Chamber of Commerce. I am sure you have copies of those. I just ask you to keep that information in mind.

Admiral SMITH. Mr. Chairman, I am familiar with the exchange of correspondence and the recommendations, and we have received some recommendations from our commander, 17th District, with respect to the Cook Inlet area generally, which we have now under consideration.

Senator BARTLETT. Also I received a series of letters from Ketchikan, Alaska, alleging that quarters that should be made available for enlisted men on Annette Island are instead being given to officers in disproportionate numbers.

My correspondent feels very strongly about this matter and says the enlisted men who should be living in some of these new quarters are instead required to exist in hovels. I wish you would look into that.

How is the new cutter, the new medium endurance cutter *Confidence*, which went into service last year and was assigned to Kodiak, performing? Have you had any reports?

Admiral SMITH. We have had some reports. As with any brandnew ship, and particularly a new-type ship, she had some modest machinery problems when she first went into operation. But the latest report that I have had about her performance is that it has been satisfactory. She is operating in accordance with the Commander, 17th District, plan. She has participated in a very large number of operations.

I think one of the most interesting was when she served as the base of operations for our helicopter in the rescue up the Kenai Peninsula.

Senator BARTLETT. If she hadn't been there with that helicopter, those men would have died. Many tributes were made to the Coast Guard in Alaska on account of that heroic rescue.

You are familiar with the problems besetting the airport at St. Paul Island, are you not, Admiral Smith? If you aren't, I wouldn't be surprised, because you have a multitude of matters to engage your attention.

Apparently this airport is used principally by one commercial airline, and by the Coast Guard on this Pribilof Island, the home of the fur seals, whose lives are dedicated to making it possible for American women to have beautiful coats.

Reports reaching me are to the effect that this landing field is in a deplorable condition and isn't entirely safe for aircraft of any type. I am wondering if you have any knowledge of this, and if you know of any plans that are being made for improvement, and if the Coast Guard will participate in any improvements that might be thought necessary.

If you don't care to answer that series of questions now, I wish you would place a statement in the record.

Admiral SMITH. Mr. Chairman, of course, as you know, we do use the strip there to support our loran station on the island. Captain Ing, who is here this morning, has actually landed at St. Paul. I would like to ask him to briefly express his comments.

Captain ING. Mr. Chairman, it is true that the conditions of the field are not the best for aircraft operations—extensive operations. Mostly because of the character of the field. It is something which probably should be taken into consideration for the use of C-130 aircraft when they get up there.

We have looked into it before to see if at least the Department of Interior would be interested in joint funding. This was unsuccessful at the time. Probably efforts will be continued.

Senator BARTLETT. Joint funding with the Coast Guard?

Captain ING. Yes, sir.

Senator BARTLETT. I shall talk with the Department of Interior likewise.

Do you need a longer field for the bigger plane?

Admiral SMITH. The length is not controlling in that case.

(Statement on St. Paul Airport follows:)

ST. PAUL AIRPORT

The unpaved runway operated and maintained by the Bureau of Commercial Fisheries on St. Paul Island is considered operationally usable although some degree of damage to propellers, under belly surfaces and possible ingestion in turbines may occur. These conditions are inherent with all unpaved runways. I might point out that we and Reeves Aleutian Airways are presently using the runway.

Although we can accept this operational risk, negotiations with the Bureau of Commercial Fisheries will continue for surfacing of the runway.

Senator BARTLETT. I landed there 2 years ago in an Albatross, after 3 days of effort to do so. There is a little fog around the island occasionally.

Admiral Smith, let us assume a situation, leaving the House of Representatives aside entirely; from reading the transcript of their hearings over there I came to the irrevocable conclusion they had some very positive ideas about the amount of money the Coast Guard should be receiving.

Putting that aside, let me ask you this question. Despite my personal best efforts to adhere without deviation to the recommendations of the Bureau of the Budget as to authorizations for appropriations for these three areas, if I was overwhelmed by the other members of the subcommittee and by the full Committee on Commerce who insisted that another \$20 million be authorized. Where would you recommend that \$20 million be placed?

Admiral SMITH. Mr. Chairman, we considered this very carefully. I would like to ask Admiral Trimble to speak on this. He has a list here of the items that we feel would have the next consideration should we have additional money.

Vice Admiral TRIMBLE. Mr. Chairman, if the committee finds itself in this position that you outline, we would recommend that one additional cutter within a \$20 million range—

Senator BARTLETT. High endurance?

Vice Admiral TRIMBLE. High-endurance cutter, \$14.5 million. And we have one other project that was not included in our initial request for this year that has developed since that time. It involves our

gymnasium at Cape May Training Station. Because of the actual condition of this facility, which was built many years ago, we have had to close it for use because it is unsafe. Our engineers have recently inspected the facility and we have had to close it.

Before we would not let people in when there was a hurricane or storm with high winds in that vicinity. This project was not included in our initial budget request. But if the committee were to feel it was in a position to increase our authorization by \$20 million, this is an urgent project that we are concerned with.

Senator BARTLETT. What would a new gym cost?

Vice Admiral TRIMBLE. \$2,700,000. It is a very expensive project, but it is an important item in our Cape May training facility.

Senator BARTLETT. You may have some money left over. You can go beyond the \$20 million.

Vice Admiral TRIMBLE. Then we would recommend, if we were going beyond the \$20 million, we would start out with two additional high-endurance cutters, because we are running behind. This would help make up some of the slippage.

Senator BARTLETT. These are of the highest order priority?

Vice Admiral TRIMBLE. Yes, sir.

Finally, one other item that we are very interested in is the public family quarters. The amount that we asked for initially for this year was \$8 million. So there would be almost another \$2 million in that category.

Senator BARTLETT. Where would those quarters be placed?

Vice Admiral TRIMBLE. These quarters would be placed probably either San Francisco or New York, at Governors Island. We have one project included in our housing project this year for Annette Island, which would help overcome the problem which you mentioned. It will complete the housing program at Annette Island.

The two areas right now for higher priority are Governors Island, N.Y., and also San Francisco.

Senator BARTLETT. I want to remind you, if I may, that a project very close to the heart of Mrs. Roland, wife of the former Commandant, was the establishment of a situation on St. Paul Island in the Pribilofs, whereby quarters would be made available so that officers and men could take their wives there. I know you are keeping that very much in mind on account of the passionate pleas for that project made by Mrs. Roland.

Admiral SMITH. Mr. Chairman, we haven't overlooked that project. I think you are well aware there are many difficult problems involved with not only the cost of construction, but also the matter of schools and so forth, and medical facilities as well. It is not an easy one for solution as far as getting all of our dependents on the island.

Senator BARTLETT. We have a doctor there. We have a school there. All we need is permission and facilities.

There will be placed in the record at this point a statement made by a member of this committee who has a greater interest than ever before in the Coast Guard. I refer to Senator Monroney, of Oklahoma, whose interest has been heightened by the entrance of the Coast Guard into the Arkansas River area. That statement will appear now.

(Senator Monroney's statement follows.)

STATEMENT OF SENATOR A. S. MIKE MONRONEY, OF OKLAHOMA

Mr. Chairman and members of the committee, I appear before you today in support of S. 1060, a bill to authorize appropriations for the procurement of vessels and aircraft and construction of shore establishments for the United States Coast Guard.

As you know, I have supported similar legislation in the past; however, this is the first time in the history of Oklahoma that I have had an opportunity to endorse a Coast Guard request for authorization to construct fixed base facilities specifically for and in the State of Oklahoma.

For the information of the Committee, I would like to review briefly past legislation in connection with the overall Arkansas River project. The Rivers and Harbors Act of 24 July 1946, as modified by the Flood Control Act of 17 May 1950, calls for improvement of the Arkansas River and its tributaries to provide a navigable channel from the Mississippi River to Catoosa, Oklahoma, or 443 miles of navigable river, canals, reservoirs, and connecting locks. The schedule calls for opening the first 46.5 miles of navigable water by June 1967 and then extending navigation up-river in annual stages until the project is completed in 1970.

The Coast Guard in taking steps to plan for the establishment, operation, and servicing of aids to navigation to mark the Arkansas River for maritime commerce, which will use the improved waterway being constructed by the U.S. Army Corps of Engineers, requests that funds be authorized to be appropriated for fiscal year 1968 for the construction of manned moorings; for the construction of a 75-foot river tender and barge; and for aids to navigation.

Thus, Oklahoma's first Coast Guard station—a 15-man unit to be based at Fort Sallisaw, about 6 miles southwest of the City of Sallisaw on the shore of the Robert S. Kerr Reservoir—will protect shipping and recreation craft along 134 miles of the Arkansas River navigation channel.

One of the two river tenders which would be authorized in this bill is to be assigned to the Oklahoma Coast Guard station. It will have a total crew complement of 12 men and its construction cost is in the vicinity of \$761,000. The 75-foot diesel-powered pusher tender and barge will be equipped with boom and ancillary equipment for servicing floating and fixed aids and will be of shallow draft design especially adapted to river operations. The crew will patrol the river and maintain approximately 300 buoys, 150 shore lights and 33 daymarks.

Authorization is also included in this bill for the construction of mooring facilities and the procurement of necessary electronic and aids to navigation servicing equipment. The depot, located on a one-acre site, will consist of an administration building and storage building and will be manned by 4 men. The crew will have a truck and trailer mounted buoy boat to use to help service aids. The depot is estimated to cost \$127,000 to build and \$27,000 annually to operate. The total authorization request contained in the bill for mooring facilities and equipment and aids to navigation amounts to \$392,000, and for construction of the river tender and barge the amount is \$761,000.

In conclusion, I would remind the committee that one of the primary functions of the Coast Guard is to establish, maintain and operate aids to marine navigation. Funds are required by the Coast Guard so that these aids may be established coincidentally with the completion of river improvements by the Corps of Engineers. In addition, marking of anchorage, danger, and other special or restricted areas established in accordance with law, marking of changes in channels caused by storms, etc., and the improvement of the existing aids system must be performed annually.

Therefore, I strongly recommend and urge that the Committee approve the authorization request before it. I thank you for the opportunity of appearing before you and hope that my comments will be of value during your careful consideration of the bill.

Senator BARTLETT. Admiral Smith, gentlemen, the committee is very grateful to you for your patience, for your interest, for telling us all you have this morning.

On account of your appearance here, we are much better equipped than we were before to reach a reasonable judgment upon the authorization request.

Thank you.

The committee will be in recess subject to the call of the chair.

(Whereupon, at 12:10 p.m., the subcommittee was recessed.)

(A letter subsequently sent by Senator Bartlett with the Department's reply follows:)

MAY 5, 1967.

Admiral W. J. SMITH,
Commandant, U.S. Coast Guard,
Washington, D.C.

DEAR ADMIRAL SMITH: In connection with the Subcommittee's deliberations on S. 1060 and H.R. 5424, bills to authorize appropriations for the use of the Coast Guard, it would be most helpful if you could supply me with your comments and views upon each of the changes adopted by the House of Representatives in passing H.R. 5424.

Additionally, with particular reference to the language added to H.R. 5424 by Representative Bow that vessels authorized shall be procured from United States shipyards and facilities, I am concerned as to the application of that language to design and research work on the icebreaker program. I am aware that considerable expertise in the icebreaker field exists beyond the shores of the United States. Your advice as to whether that expertise is presently being drawn upon by the Coast Guard in connection with its icebreaker research and design studies and the future need to rely upon such expertise would be appreciated.

Also, please supply for the record a full statement of the current status of the icebreaker program with particular emphasis upon the feasibility and possibility of the development of a nuclear icebreaker. We are aware of decisions within the Coast Guard since the completion of our hearing that have direct bearing upon this subject and I desire to make this a part of the record.

Sincerely yours,

E. L. BARTLETT,
Chairman, Subcommittee on Merchant Marine and Fisheries.

U.S. COAST GUARD,
DEPARTMENT OF TRANSPORTATION,
May 18, 1967.

HON. E. L. BARTLETT,
Chairman, Subcommittee on Merchant Marine and Fisheries, U.S. Senate, Washington, D.C.

DEAR SENATOR BARTLETT: I refer to your letter of 5 May 1967 concerning changes adopted by the House of Representatives in passing H.R. 5424 and the current status of the Coast Guard icebreaker program.

The changes adopted by the House were in three major areas; vessel replacement, icebreaker design and housing for Coast Guard personnel. With reference to the Vessel replacement program, H.R. 5424 increased the authorization for construction of high endurance cutters from one to five. This action, if coupled with an increased appropriation, would serve to accelerate the replacement of our present high endurance cutters built during World War II or before. An example of this type of ship is the former seaplane tenders built for the Navy early in the war; five of these Coast Guard operated ships have just arrived in Vietnam for duty in the Market Time operation.

While we would prefer that the language added to H.R. 5424 requiring procurement of vessels authorized in the bill at United States shipyards and facilities not be included, this language does not present a problem to us within the time frame involved in the authorization bill. The Coast Guard presently conforms to the requirements of the "Buy American Act," and will comply with those requirements in all ancillary matters in connection with vessel procurements. This does not prevent our capitalizing on the icebreaker design and construction expertise developed in other countries.

With reference to the icebreaker program, extensive preliminary analysis indicates that an initial class of improved conventionally powered icebreakers is needed to carry out military and scientific missions currently established. Engineering and design work on this class of vessels is continuing and is expected to be completed in 1968. However, a larger class icebreaker, perhaps nuclear powered, may also be required to provide prolonged deep penetration of the polar areas. The Coast Guard has recommended referral of certain aspects of

the question of priorities of deep polar exploration in relation to the national oceanographic program to the Chairman of the National Council on Marine Resources and Engineering Development. Once our assessment is completed, and other pertinent information is developed, a second class of icebreakers can be considered, along with the type of propulsion—nuclear or conventional. Pending this determination, the one million dollars in design funds added by H.R. 5424 to the \$1.5 million included in the draft bill will not be required.

Your continuing interest in Coast Guard programs is appreciated.

Sincerely yours,

P. E. TRIMBLE,
Vice Admiral, U.S. Coast Guard, Acting Commandant.



the question of plans of deep water exploration in relation to the marine geologic program to the Chairman of the National Council on Marine Resources and Engineering Development. Some of the work to be done in the geologic program is to develop a second class of geologists and other pertinent information is developed along with the type of program which should be considered along with the type of program which should be considered. Further the department of the one million dollars in cost that will be required. H.R. 3421 to the \$1.5 billion included in the bill will be required. Your containing letters in Coast Guard program is appreciated.

Sincerely yours,
 P. H. Tamm
 Vice Admiral, U.S. Coast Guard, Navy Department