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**AUTHORIZE APPROPRIATIONS FOR CERTAIN
MARITIME AND COAST GUARD PROGRAMS**

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HEARINGS

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BEFORE THE

MERCHANT MARINE SUBCOMMITTEE

OF THE

COMMITTEE ON COMMERCE

UNITED STATES SENATE

NINETY-SECOND CONGRESS

FIRST SESSION

ON

S. 981

TO AUTHORIZE APPROPRIATIONS FOR CERTAIN MARITIME
PROGRAMS OF THE DEPARTMENT OF COMMERCE

S. 1220

TO AMEND THE ACT TO AUTHORIZE APPROPRIATIONS FOR
THE FISCAL YEAR 1971 FOR CERTAIN MARITIME PROGRAMS
OF THE DEPARTMENT OF COMMERCE

S. 1223

TO AUTHORIZE APPROPRIATIONS FOR PROCUREMENT OF
VESSELS AND AIRCRAFT AND CONSTRUCTIONS OF SHORE
AND OFFSHORE ESTABLISHMENTS FOR THE COAST GUARD

MARCH 30, 1971

Serial No. 92-26

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THE HISTORY OF THE UNITED STATES
OF AMERICA

CHAPTER I
THE DISCOVERY OF AMERICA
The discovery of America by Christopher Columbus in 1492 is one of the most important events in the history of the world. It opened up a new world of opportunity and led to the development of a new continent. Columbus's voyage was the first of many that would follow, leading to the establishment of colonies and the eventual independence of the United States.

CHAPTER II
THE EARLY YEARS
The early years of the United States were marked by a period of exploration and settlement. The first permanent English colony was established in Jamestown, Virginia, in 1607. This was followed by the Pilgrims in Plymouth, Massachusetts, in 1620. The growth of these colonies led to the development of a unique American identity.

AUTHORIZE APPROPRIATIONS FOR CERTAIN MARITIME AND COAST GUARD PROGRAMS

TUESDAY, MARCH 30, 1971

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

The subcommittee met at 10:15 a.m. in room 457, Senate Office Building, Hon. Russell B. Long, (chairman of the subcommittee) presiding.

Present: Senators Long, Griffin, Hatfield, and Stevens.
Senator LONG. The hearing will come to order.

This morning, we take up three bills, each of which would authorize certain appropriations.

S. 1223, would authorize \$96.5 million for the procurement of vessels and aircraft and construction of shore and offshore establishments for the Coast Guard.

S. 1220, would amend the fiscal year 1971 authorization for certain appropriations for the Department of Commerce by providing a supplemental \$80 million.

S. 981, would authorize appropriation of slightly more than \$500 million for fiscal year 1972, for certain maritime programs of the Department of Commerce.

We will take up S. 1223, the Coast Guard authorization bill first.
(The bills and agency comments follow:)

Staff members assigned to this hearing: Emanuel Rouvelas and Loyal F. R. Snyder.

92^d CONGRESS
1st SESSION

S. 981

IN THE SENATE OF THE UNITED STATES

FEBRUARY 25 (legislative day, FEBRUARY 17), 1971

Mr. MAGNUSON (by request) introduced the following bill; which was read twice and referred to the Committee on Commerce

A BILL

To authorize appropriations for certain maritime programs of the Department of Commerce.

1 *Be it enacted by the Senate and House of Representa-*
2 *tives of the United States of America in Congress assembled,*

3 That funds are hereby authorized to be appropriated without
4 fiscal year limitation as the appropriation act may provide
5 for the use of the Department of Commerce, for the fiscal
6 year 1972, as follows:

7 (a) acquisition, construction, or reconstruction of
8 vessels and construction-differential subsidy and cost of
9 national defense features incident to the construction,
10 reconstruction, or reconditioning of ships, \$229,687,000;

1 (b) payment of obligations incurred for operating-
2 differential subsidy, \$239,145,000;

3 (c) expenses necessary for research and develop-
4 ment activities (including reimbursement of the Vessel
5 Operations Revolving Fund for losses resulting from
6 expenses of experimental ship operations), \$25,000,-
7 000;

8 (d) reserve fleet expenses, \$4,318,000;

9 (e) maritime training at the Merchant Marine
10 Academy at Kings Point, New York, \$7,300,000; and

11 (f) financial assistance to State Marine Schools,
12 \$2,200,000.

92^D CONGRESS
1ST SESSION

S. 1220

IN THE SENATE OF THE UNITED STATES

MARCH 12, 1971

Mr. MAGNUSON (by request) introduced the following bill; which was read twice and referred to the Committee on Commerce

A BILL

To amend the Act to authorize appropriations for the fiscal year 1971 for certain maritime programs of the Department of Commerce.

1 *Be it enacted by the Senate and House of Representa-*
2 *tives of the United States of America in Congress assembled,*
3 That the Act of May 13, 1970 (84 Stat. 207; P.L. 91-247)
4 is amended by striking out of paragraph (b) the figure
5 "\$193,000,000" and inserting in lieu thereof the figure
6 "\$273,000,000".

II

92^d CONGRESS
1ST SESSION

S. 1223

IN THE SENATE OF THE UNITED STATES

MARCH 12, 1971

Mr. MAGNUSON (by request) introduced the following bill; which was read twice and referred to the Committee on Commerce

A BILL

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

1 *Be it enacted by the Senate and House of Representa-*
2 *tives of the United States of America in Congress assembled,*

3 That funds are hereby authorized to be appropriated for
4 fiscal year 1972 for the use of the Coast Guard as follows:

5 **VESSELS**

6 For procurement and increasing capability of vessels,
7 \$15,446,000.

8 A. Procurement:

9 (1) design of vessels.

10 B. Increasing capability:

II

- 1 (1) repair outer wings on six HC-130 aircraft.
- 2 (2) replace center wing box beam on three HC-130
- 3 aircraft.
- 4 (3) reactivate six HU-16E aircraft.
- 5 (4) install water pollution monitoring sensors in
- 6 aircraft.

7 CONSTRUCTION

8 For establishment or development of installations and
9 facilities by acquisition, construction, conversion, extension,
10 or installation of permanent or temporary public works, in-
11 cluding the preparation of sites and furnishing of appurte-
12 nances, utilities, and equipment for the following, \$51,690,-
13 000.

- 14 (1) Newburyport, Massachusetts: rebuild Merri-
15 mac River Station;
- 16 (2) Gloucester, Massachusetts: rebuild station;
- 17 (3) Marshfield, Massachusetts: construct barracks
18 at radio station;
- 19 (4) Barnegat, New Jersey: improve station facili-
20 ties (phase II);
- 21 (5) Wildwood, New Jersey: construct barracks at
22 electronics engineer center;
- 23 (6) Yorktown, Virginia: construct barracks;
- 24 (7) Portsmouth, Virginia: relocate water main;

- 1 (8) Terminal Island, California: rebuild electronics
- 2 repair building;
- 3 (9) Port Hueneme, California: relocate station;
- 4 (10) Portland, Oregon: relocate station;
- 5 (11) Westport, Washington: rebuild station;
- 6 (12) Honolulu, Hawaii: improve base facilities;
- 7 (13) Honolulu, Hawaii: construct new radio sta-
- 8 tion;
- 9 (14) Boston, Massachusetts: improve base facilities
- 10 (phase II) ;
- 11 (15) New London, Connecticut: construct science
- 12 teaching facility at academy;
- 13 (16) Cape May, New Jersey: improve station fa-
- 14 cilities;
- 15 (17) Curtis Bay, Maryland: modernize yard fa-
- 16 cilities;
- 17 (18) Omaha, Nebraska: improve facilities at moor-
- 18 ings;
- 19 (19) Miami, Florida: improve air station facilities;
- 20 (20) San Francisco, California: improve air station
- 21 facilities;
- 22 (21) Guam, Marianas Islands: improve depot fa-
- 23 cilities;
- 24 (22) Various locations: abate pollution from
- 25 stations;

- 1 (23) Various locations: transportable pollution
2 control (oil recovery) equipment;
- 3 (24) Various locations: transportable pollution
4 control (oil slick containment) equipment;
- 5 (25) Various locations: pollution monitoring equip-
6 ment for offshore stations;
- 7 (26) Various locations: aids to navigation projects
8 on selected waterways;
- 9 (27) Various locations: automate light stations;
- 10 (28) French Frigate Shoals, Hawaii: improve and
11 modernize loran station;
- 12 (29) Various locations: modernize and improve
13 tropical Pacific loran stations;
- 14 (30) Palau Island: repair airstrip;
- 15 (31) Various locations: develop and construct loran
16 equipment;
- 17 (32) Pacific Islands: effect selected loran tower
18 maintenance;
- 19 (33) Various locations: public family quarters;
- 20 (34) Various locations: advance planning, survey,
21 design, and architectural services; project administration
22 costs; acquire sites in connection with projects not other-
23 wise authorized by law.

1 BRIDGE ALTERATIONS

- 2 For payment to bridge owners for the cost of alteration
- 3 of railroad and public highway bridges to permit free naviga-
- 4 tion of the navigable waters of the United States, \$3,000,000.

THE GENERAL COUNSEL OF THE TREASURY,
Washington, D.C., April 12, 1971.

HON. WARREN G. MAGNUSON,
Chairman, Committee on Commerce,
U.S. Senate, Washington, D.C.

DEAR MR. CHAIRMAN: Reference is made to your request for the views of this Department on S.981, "To authorize appropriations for certain maritime programs of the Department of Commerce."

The bill would authorize to be appropriated specific amounts for certain maritime activities of the Department of Commerce. It incorporates legislation proposed by the Secretary of Commerce.

The proposed legislation is not of primary interest to the Department and we have no comment to make with respect to its general merits.

The Department has been advised by the Office of Management and Budget that there is no objection to the submission of this report to your Committee and that enactment of the proposed legislation would be in accord with the program of the President.

Sincerely yours,

SAMUEL R. PIERCE, Jr.,
General Counsel.

DEPARTMENT OF THE NAVY,
OFFICE OF LEGISLATIVE AFFAIRS,
Washington, D.C., May 27, 1971.

HON. WARREN G. MAGNUSON,
Chairman, Committee on Commerce,
U.S. Senate, Washington, D.C.

DEAR MR. CHAIRMAN: Your request for comment on S.981, a bill "To authorize appropriations for certain maritime programs of the Department of Commerce," has been assigned to this Department by the Secretary of Defense for the preparation of a report thereon expressing the views of the Department of Defense.

This bill would authorize appropriations for the use of the Department of Commerce for fiscal year 1972 for ship construction and operating differential subsidies, research and development activities, reserve fleet, and Kings Point and State marine schools.

The Department of the Navy, on behalf of the Department of Defense, defers to the views of the Department of Commerce on this legislation.

This report has been coordinated within the Department of Defense in accordance with procedures prescribed by the Secretary of Defense.

The Office of Management and Budget advises that, from the standpoint of the Administration's program, there is no objection to the submission of this report to the Committee and that enactment of S.981 would be in accord with the President's program.

For the Secretary of the Navy.

Sincerely yours,

LANDO W. ZECH, Jr.,
Captain, U.S. Navy—Deputy Chief.

FEDERAL MARITIME COMMISSION,
Washington, D. C., March 29, 1971.

HON. WARREN G. MAGNUSON,
Chairman, Committee on Commerce,
U.S. Senate, Washington, D.C.

DEAR MR. CHAIRMAN: This is in response to your request for the views of the Federal Maritime Commission with respect to S. 1220, a bill

To amend the Act to authorize appropriations for the fiscal year 1971 for certain maritime programs of the Department of Commerce.

Inasmuch as the bill does not affect the responsibilities or jurisdiction of the Commission, we express no views as to its enactment.

The Office of Management and Budget has advised that enactment of the bill would be in accordance with the program of the President.

Sincerely,

HELEN DELICH BENTLEY, Chairman.

DEPARTMENT OF STATE,
Washington, D.C., April 14, 1971.

HON. WARREN G. MAGNUSON,
Chairman, Committee on Commerce,
U.S. Senate, Washington, D.C.

DEAR MR. CHAIRMAN: The Secretary has asked me to reply to your letter of March 16, 1971 requesting comment on S. 1220, a bill "To amend the Act to authorize appropriations for the fiscal year 1971 for certain maritime programs of the Department of Commerce."

The Department has no objection to the proposed legislation from the standpoint of foreign policy and would defer to the views of other government agencies more directly concerned.

The Office of Management and Budget advises that there is no objection to the submission of this report and that enactment of S. 1220 would be in accord with the program of the President.

Sincerely yours,

DAVID M. ABSHIRE,
Assistant Secretary for
Congressional Relations.

THE GENERAL COUNSEL OF THE TREASURY,
Washington, D.C. May 6, 1971.

HON. WARREN G. MAGNUSON,
Chairman, Committee on Commerce,
U.S. Senate, Washington, D.C.

DEAR Mr. CHAIRMAN: Reference is made to your request for the views of this Department on S.1220, "To amend the Act to authorize appropriations for the fiscal year 1971 for certain maritime programs of the Department of Commerce."

The bill would amend the Act of May 13, 1970 (84 Stat. 207; P.L. 91-247) to increase the authorization for appropriations for payment of ship operation subsidies for fiscal 1971 from \$193,000,000 to \$273,000,000. It incorporates legislation proposed by the Secretary of Commerce.

The proposed legislation is not of primary interest to the Department and we have no comment to make with respect to its general merits.

The Department has been advised by the Office of Management and Budget that there is no objection to the submission of this report to your Committee and that enactment of the proposed legislation would be in accord with the program of the President.

Sincerely yours,

SAMUAL R. PERRY,
General Counsel.

UNITED STATES OF AMERICA,
GENERAL SERVICES ADMINISTRATION,
Washington, D.C. May 24, 1971.

HON. WARREN G. MAGNUSON,
Chairman, Committee on Commerce,
U.S. Senate, Washington, D.C.

DEAR Mr. CHAIRMAN: Your letter of April 22, 1971, requested the views of the General Services Administration on S.1220, 92nd Congress, a bill "To amend the Act to authorize appropriations for the fiscal year 1971 for certain maritime programs of the Department of Commerce."

Inasmuch as enactment of the bill would have no effect upon the functions and responsibilities of GSA, we offer no comment upon its merits.

The Office of Management and Budget has advised that there is no objection to the submission of this report to your Committee, and that the enactment of S.1220 would be in accord with the President's program.

Sincerely,

HAROLD S. TRIMMER, Jr.,
Assistant Administrator.

DEPARTMENT OF THE NAVY,
OFFICE OF LEGISLATIVE AFFAIRS,
Washington, D.C., May 27, 1971.

HON. WARREN G. MAGNUSON,
Chairman, Committee on Commerce,
U.S. Senate,
Washington, D.C.

DEAR MR. CHAIRMAN: Your request for comment on S. 1220, a bill "To amend the Act to authorize appropriations for the fiscal year 1971 for certain maritime programs of the Department of Commerce," has been assigned to this Department by the Secretary of Defense for the preparation of a report expressing the views of the Department of Defense.

This bill would amend Public Law 91-247 (87 Stat. 204) to increase the authorization for appropriations for the Department of Commerce for payment of ship operating subsidies for fiscal year 1971 from \$193 million to \$273 million.

The Department of the Navy, on behalf of the Department of Defense, defers to the views of the Department of Commerce on this legislation.

This report has been coordinated within the Department of Defense in accordance with procedures prescribed by the Secretary of Defense.

The Office of Management and Budget advises that, from the standpoint of the Administration's program, there is no objection to the submission of this report to the Committee and that enactment of S. 1220 would be in accord with the President's program.

For the Secretary of the Navy.

Sincerely yours,

LANDO W. ZECH, JR.,
Captain, U.S. Navy—Deputy Chief.

Senator LONG. Senator Packwood?

**STATEMENT OF HON. ROBERT W. PACKWOOD, U.S. SENATOR
FROM OREGON**

Senator PACKWOOD. Mr. Chairman, I appreciate the opportunity of coming before you in behalf of increasing Coast Guard authorizations and specifically in behalf of bills S.1223 and S. 518, I introduced on February 1, 1971, and I can assure you can be easily and painlessly grafted on to Senate bill 1223, which would authorize the establishment of a Coast Guard air station at Coos Bay, Oreg., and the operation of an air unit from such station.

In addition to providing proper surveillance of the Oregon coast, this air station would supply the increased search and rescue operations desperately needed in this area. Coos Bay in recent years has become one of the most active ports on the Oregon coast with increased recreational activities as well as being an access point to the Coos County timber yield.

The Oregon coast has suffered too long because of inadequate attention to the coastal crisis. Our Coast Guard activities along the coast have literally been stretched beyond their limits, and the bill I introduced grew out of this very fact. Hundreds of Oregonians have contacted me because they felt neglected as citizens of a coastal State. During the fishing season, the calls, letters, and telegrams are even more prolific.

Justification of increased Coast Guard facilities and personnel is well established in the minds of Oregonians.

The Coast Guard prepared for me, an estimate for the proposed Coos Bay air station, and, Mr. Chairman, I ask that this estimate be made a part of my testimony and placed in the record.

Senator LONG. Agreed

(The information referred to follows:)

THE SECRETARY OF TRANSPORTATION,
Washington, D.C., October 26, 1970.

Hon. BOB PACKWOOD,
U.S. Senate,
Washington, D.C.

DEAR SENATOR PACKWOOD: This is in response to your letter of September 15, 1970 concerning increased Coast Guard surveillance off the Oregon coast.

As you know, the coasts of Washington and Oregon are normally patrolled by aircraft twice each week on random days and at random hours. During the height of this year's fishing season the patrols were temporarily increased to three a week; however, this level could not be sustained with available resources.

In addition to the aerial patrols, Coast Guard medium endurance cutters patrol the fisheries approximately 50% of the time. Usually these vessels stay with the main concentration of foreign fishing vessels. Other Coast Guard vessels such as buoy tenders and patrol boats are on the alert for fishing violations during the course of their normal duties.

Aside from the routine patrols there is a response system for reported fisheries violations. Reports from any source are evaluated and if circumstances warrant they are investigated. Of the seventeen reports of foreign fishing violations off the Washington-Oregon coast which have been investigated since July 1, 1970 none has yet been substantiated.

Further, in reference to fishing operations off the Washington-Oregon coast, there is no evidence that the Soviets tread on either the letter of international law or the spirit of international goodwill. Experts from the Bureau of Commercial Fisheries routinely accompany Coast Guard surveillance flights and photograph the foreign operations. No violations of existing international treaties or U.S. statute have been observed from these flights or by U.S. boarding parties that have been observed from these flights or by U.S. boarding parties that have made courtesy visits to the fleet. All available information leads to the conclusion that the Soviets adhere to the position, identical to that of the U.S., that an exclusive fisheries zone of twelve miles may be claimed by coastal states.

Coast Guard vessels and aircraft are multi-mission resources and are deployed to insure the most effective utilization for all our areas of responsibility. This deployment is of great concern to us and is under continual review. The decision to redeploy a unit from one location to another must necessarily be based upon evaluations of all the factors involved. In this case the data currently available does not justify redeployment of surface vessel resources from other areas to the Coos Bay Area.

Enclosed is the cost breakdown for the implementation of an air unit at Coos Bay, Oregon which you requested. Estimates are based upon the assignment of 3 light twin engine aircraft with a readiness posture of one aircraft response on immediate notice and a second or third probable depending upon pilot and aircraft availability. To man the unit at a two plane readiness posture would add approximately \$560,000 in first year and \$374,055 in recurring costs. All aircraft would be radar equipped.

If the Department of Transportation can provide any additional information or be of further assistance, please feel free to call.

Sincerely,

JOHN W. VOLPE.

Enclosure.

COST ESTIMATE FOR PROPOSED COOS BAY AIR STATION

Item	1st year costs ¹	Annual recurring costs
1. Construct new unit including barracks, hanger, office and shop spaces, fuel system equipment, etc.	\$1,700,000	-----
2. Outfitting costs:		
(a) Aeronautical engineering	150,000	-----
(b) Electronic engineering	267,000	-----
3. Aircraft procurement:		
(a) Procure 3 light twin-engine aircraft	1,275,000	-----
(b) Install Coast Guard electronics package	435,000	-----
4. Personnel costs:		
(a) 10 officers/pilots	279,750	\$173,750
(b) 38 enlisted/crew		267,630
5. Recurring operating costs		322,000
Totals	4,106,750	763,380

¹ Assumes that the unit will commence operations in the 2d year.

Senator PACKWOOD. I believe copies have been made available for your use at this time. And as you can see, the first year costs are estimated at \$4,106,750 and includes construction, outfitting costs, aircraft procurement, and personnel costs. After that, recurring costs would be \$763,380.

These estimates are based upon the assignment of three light, twin-engined aircraft with a readiness posture of one aircraft response on immediate notice and a second or third probable depending upon pilot and aircraft availability. To man the unit at a two-plane readiness posture would add approximately \$560,000 in the first year and \$374,055 recurring costs.

All aircraft would be radar equipped. It is unnecessary for me, Mr. Chairman, to take up your time with the desirability of the aircraft being radar equipped. Many times, we have been contacted by constituents about the presence of Soviet, Japanese, Korean, and even Polish fishing vessels in our waters, taking our fish. Indications are that those foreign vessels are equipped well enough for them to know when our poor Coast Guard cutter is on its way to check up on them, and they simply yank up their nets and steam away.

With present Coast Guard capability, about all that can be accomplished is for the Coast Guard and, for that matter, the whole Transportation Department, supported by the State Department, to make apologies and express sympathy.

Mr. Chairman, believe me, the fishermen along the Pacific Northwest coast want more than apologies and sympathy. Their very livelihood is being threatened as these foreign vessels continue to haul in the best of our fishery resources.

It seems to me the only way to protect our domestic fishing industry is to provide adequate Coast Guard capability. Are we going to continue the path of simple protest to the State Department which, in turn, "brings them to the attention of the appropriate embassy?" Or are we going to backup our strong words with action?

The Ecuadorians have provided a good example of getting tough. They continue to haul in one American tuna boat after another, fining them, and confiscating their catch, because Ecuador claims unilaterally a 200-mile limit. I do not agree with their right to establish such a zone, but it is obvious that they mean business.

So while we are stewing as to where and if our fishing zones are and ought to be, let us at least provide proper surveillance for what we now claim. We can continue to pass legislation to increase the penalties, and discuss legislation to increase the zone, and we can continue to "negotiate" with other governments, but when we fail to even provide adequate men and equipment to catch the violators and impose the fines we legislated and demonstrate to the foreign fishing industry that we mean what we say, then we are just wasting our breath.

Mr. Chairman, action does speak louder than words, and no where has this been demonstrated more—other than in the Biblical account—than in dealing with the foreign fishing industry.

Our domestic fishing industry deserves to see action on this issue. The fishermen of America comprise one of our oldest and most dependable industries, and they provide the seafood needs of this country.

Prof. William Wick, head, marine advisory program, sea grant, Marine Science Center, Newport, Ore. recently wrote to me, and I ask that Prof. Wick's letter in support of S.518, be made a part of the record.

In addition, I ask that a similar letter from W. V. Yonker, executive vice president, Association of Pacific Fisheries, dated February 19, 1971, be made a part of the record.

Senator LONG. Agreed.

(The letter follows:)

COOPERATIVE EXTENSION SERVICE,
OREGON STATE UNIVERSITY,
MARINE SCIENCE CENTER,
Newport, Ore. February 18, 1971.

HON. BOB PACKWOOD,
Senate of the United States, New Senate Office Building,
Washington, D.C.

DEAR SENATOR PACKWOOD: I was pleased to receive the tear sheet concerning S-518, the bill to provide for the establishment of a Coast Guard air station at Coos Bay, Oregon. I hope that this much-needed legislation is enacted. I believe that an active air station at Coos Bay will be of much help toward patrolling efficiency, enforcement, and safety on the southern Oregon Coast.

Very truly yours,

WILLIAM Q. WICK, Professor,
Head, Marine Advisory Program, Sea Grant.

ASSOCIATION OF PACIFIC FISHERIES, INC.,
Seattle, Wash., February 19, 1971.

HON. ROBERT W. PACKWOOD,
U.S. Senate, Committee on Public Works,
Washington, D.C.

DEAR SENATOR PACKWOOD: I appreciated receiving the tear sheet from the Congressional Record on the introduction of your bill S. 518 to provide for the establishment of a Coast Guard Air Station at Coos Bay, Oregon.

This positive action toward the surveillance which is necessary to enforce our treaties with foreign nationals and the USSR in particular is deeply appreciated by our members.

In general, the Department of State is able to negotiate treaties with Russia that afford protection to our fisheries of interest but the enforcement of these agreements has left much to be desired.

Sincerely yours,

W. V. YONKER,
Executive Vice President.

Senator PACKWOOD. Mr. Leon Verhoeven, executive director, Pacific Marine Fisheries Commission, told me on February 10, 1971, that he was sending a copy of S. 518 to each of the Directors of the Pacific Marine Fisheries Commission Member Agencies, as it was in close support of the commission's Resolution No. 13 which, incidentally, calls for a greater measure of jurisdiction to coastal authorities.

Mr. Chairman, I appreciate having the opportunity to discuss with you some of the problems with which Senator Hatfield and I have labored over the past 2 years. And I very deeply urge that funds for the proposed Coos Bay Air Station be authorized to demonstrate our concern about the Pacific Northwest coastal problems.

Senator LONG. Senator Hatfield has a statement on the subject.

Senator HATFIELD. Mr. Chairman, I do appreciate the opportunity this morning to address myself for a few moments in support of S. 1223, a bill to authorize appropriations for the Coast Guard activities in Oregon.

I would like to just address one or two additional points related to the great need we have for increased activity and facilities for the Coast Guard program in Oregon.

Recently, I have moved to the Oregon coast where my home now overlooks the Pacific Ocean. I live in a community called Newport in which is located a Coast Guard station, and I have become more knowledgeable of the many activities the Coast Guard performs. I would like to mention one or two things related to the search and rescue program.

During the Christmas recess and my visit home, there were a number of searches that were conducted for a lost fishing craft, including airplanes as well as surface vessels. Recently, upon another visit home, there was another fishing craft lost. And again I saw this fine search and rescue operation.

I think it is important to point out that in the 13th Coast Guard District—which comprises Oregon, Washington—the search and rescue operations in 1968 totaled 3,940. In 1969, that increased by 13 percent to 4,464.

In 1970, there was an estimated 16-percent increase to 5,200.

At Yaquina Station, which is the one operated from Newport, search and rescue operations climbed from 230 in fiscal 1968 to 305 in fiscal 1970, which was a 33-percent increase.

In Astoria, they grew from 152 in 1968 to 235 in fiscal 1970, which is a 54-percent increase.

It is obvious there is a growing use of fishing vessels, of pleasure craft, of all sorts of boats, that require additional facilities, additional manpower, for providing the search and rescue operation.

I need not go along into great detail, but I think one of the reasons we find great difficulties in reenlistments is the tremendous man-hours that are required of our personnel in the Coast Guard, particularly during the holiday seasons or the summer and recreation seasons. I know of no other group that puts in as many overtime hours—that is, hours over what would be a reasonable work week—than the Coast Guard does along our Oregon and Washington coasts.

I think, too, that the funding programs certainly have not kept pace with these requirements that are placed upon the Coast Guard in the search and rescue area or any other activity performed by the Coast Guard.

As another example, let us consider oil pollution and the problems attendant to tanker collisions and other such things. The Coast Guard has done magnificent work in reducing the pollution. If they had more such equipment they could do an even better job.

So consequently, I am most anxious to be helpful in any way possible for adding to the Coast Guard's capacity to perform these important functions.

Mr. Chairman, I would like just for the record, to ask one or two questions if it would be all right with my colleagues.

Senator Packwood, we have in your testimony reference to Coast Guard air station in Coos Bay. Just a technicality—would the site not be North Bend?

Senator PACKWOOD. The city of North Bend is actually over to the east. But as we know it, it is referred to as the Coos Bay-North Bend area.

Senator HATFIELD. Now, would you care to comment on the proposal you have made here for standby aircraft and the relation of that type of craft to the helicopters in which, I believe, our colleague from the Fourth District, Congressman Dellenback, had suggested: a multipurpose station which would utilize three helicopters. I believe that the helicopters are already in inventory and, therefore, might be more quickly available for use than waiting for fixed-wing planes that would have to be constructed. Would you care to comment on that?

Senator PACKWOOD. I have talked with Congressman Dellenback about it. And as you recall, we temporarily got a helicopter stationed there during the last fishing season. Helicopters would be very adequate as an extreme measure. And rather than waiting until we get the fixed-wing placed, I would like to have some temporary stationed helicopters.

In talking with the Coast Guard, however, they indicated for surveillance purposes, they would prefer the radar equipped, fixed-wing planes. This is not to demean the helicopters, but we can get more versatility with radar out of the fixed-wing plane.

Senator HATFIELD. Also, the budgetary differential here out of the fixed-wing plane which I believe you said would cost in the neighborhood of \$4 plus million, whereas we would be able—according to my statistics—to obtain the services of three helicopters at around \$2.5.

Senator PACKWOOD. That is correct.

Senator HATFIELD. I want to commend my colleague, because we have certainly a great concern for this problem, and he has brought in good focus the need as it relates to the southern Oregon coast.

Again, I would emphasize not only that area, but the entire coast of Oregon and Washington, does need additional men and equipment to maintain the service they have. Also, the facilities must be improved and the aircraft and other such things must be increased, as I see it.

Senator PACKWOOD. Thank you, Mr. Chairman.

Senator LONG. Thank you, gentlemen.

(The statement follows:)

STATEMENT OF HON. MARK O. HATFIELD, U.S. SENATOR FROM OREGON

Mr. Chairman, I appreciate the opportunity to address a few comments to S. 1223, a bill to authorize appropriations for Coast Guard activities. My remarks are in support of the Coast Guard in their many-faceted activities of a "people-oriented" nature.

In my opinion, the Coast Guard does a remarkable job, in view of the severe budgetary restraints under which it operates. I can appreciate the frustration that must be felt when Coast Guard officials see the mammoth appropriations directed to Department of Defense activities, some for projects of dubious merit while the Coast Guard suffers from underfunding in so many areas.

As some of my colleagues are aware, about a year ago, my family and I moved from Salem, the State capital, to Newport, on the Oregon coast. While I have tried to keep abreast of Coast Guard activities throughout my years in public service, since moving to Newport, I have been able to see first-hand the high return the public receives for each tax dollar we appropriate for Coast Guard activities. It has convinced me that we need to increase the appropriations for Coast Guard activities in a number of areas.

While I have noticed it a number of times, the search and rescue operations of the Coast Guard were dramatically illustrated this past Christmas, when I was in Newport for several days. A fishing vessel had broken up along the coast near Newport, and the SAR planes flew many patrols right in front of our house. Nearly every time I have been in Newport, I have heard, or have read in our local paper, about the fine work done by the SAR operation at Newport.

In November 1970, I had the pleasure of speaking at the dedication of a Coast Guard monument at Newport. In the preparation of my remarks for that occasion, I looked into the scope of the Coast Guard activities in SAR. In the Oregon-Washington area, it is estimated the Coast Guard SAR operations save 400 lives annually, while assisting 11,000 people. The value of property assisted is \$177 million. These impressive statistics, I am sure, could be echoed by my colleagues on this Subcommittee regarding their respective States.

During the past three years there has been a great increase in the number of SAR operations conducted along the Pacific Coast, and off the Northwest States in particular.

In the 13th Coast Guard District, for Oregon and Washington, search and rescue operations in 1968 totalled 3,940. In 1969, the total increased by 13% to 4,464. In 1970, there was an estimated 16% increase to 5,200.

At the Yaquina Station, operating from Newport, SAR operations climbed from 230 in fiscal 1968 to 305 in fiscal 1970—a 33% increase. At Astoria, they grew from 152 in fiscal 1968 to 235 in fiscal 1970, a 54% increase.

In view of the rising number of SAR missions conducted in Oregon, I am disturbed that there is no reference to increases in the number of aircraft stationed in Oregon and I call attention to the need for additional helicopters to assist in SAR. In 1970, the Coast Guard had over 100, but more are needed. I believe the number of helicopters available for SAR in Oregon and other places of demonstrated need should be increased.

I do not need to repeat to the representatives of the Coast Guard the intense feelings along the Oregon Coast generated by incursions of foreign fishing fleets. The distinguished Committee Chairman, Mr. Magnuson and my colleague from Alaska, Mr. Stevens, I know would share my sentiments.

I do appreciate the cooperation by the Coast Guard in attempting to solve this many-faceted problem. I know Senator Packwood and Oregon's two Congressmen from the Coast, Mr. Wyatt and Mr. Dellenback, share my strong feelings that increased Coast Guard activity in this area is needed.

If the Coast Guard could provide a station at North Bend, I think an increase in both surveillance of foreign fishing vessels and SAR could be accomplished. The use of helicopters would provide needed versatility. In my opinion, the coastal citizens of Oregon would like their tax dollars spent in this area.

I also have spoken in Oregon on the need for more funding for buoy tenders. In late 1970, the Coast Guard was operating 38 sea-going buoy tenders and 12 coastal buoy tenders that are over 26 years old.

The third area of Coast Guard activity I have stressed in Oregon speeches is the oil pollution protection operations. It was coincidental that one speech I gave came only a few days after the San Francisco oil collision. The fact that one ship was the "Oregon Standard" caused the incident to generate added interest in Oregon.

At this time, I was told that original Coast Guard plans were for two oil pollution containment systems—one for the East Coast and one for the West Coast. I understand that budget restraints caused only one of these to be operational—on the East Coast. I know of Coast Guard plans to expand this facet of their operations, and I welcome it.

When I have spoken on this subject in Oregon, I have itemized the Coast Guard budget and the costs for expansion of these programs. I then have compared this with the cost of the Vietnam War. I will not repeat these today, but will only point out that these "people oriented" programs of the Coast Guard must not be reduced by pressures of Department of Defense demands for Vietnam spending.

In conclusion, I applaud the activities of the Coast Guard in these areas, as well as others. Their programs deserve increased appropriations. The fine record of the Coast Guard, in the face of inadequate appropriations reflects credit on the entire Coast Guard, from the Commandant to the Coast Guardsman in Newport, Oregon.

One reason I sought membership on this Committee was so I could have a voice in determining the programs of the Coast Guard. I look forward to working with Coast Guard officials in any way I can to see that these programs receive the funding they deserve.

Senator LONG. Next, we will call on Adm. Chester R. Bender, Commandant of the U.S. Coast Guard and members of his staff.

STATEMENT OF HON. JOHN P. OLSSON, DEPUTY UNDER SECRETARY, DEPARTMENT OF TRANSPORTATION; ACCOMPANIED BY ROBERT G. PRESTEMON, DIRECTOR, OFFICE OF PLANNING AND PROGRAM REVIEW; ADM. C. R. BENDER, COMMANDANT, U.S. COAST GUARD; VICE ADM. T. R. SARGENT, ASSISTANT COMMANDANT; REAR ADM. R. E. HAMMOND, CHIEF, OFFICE OF OPERATIONS; REAR ADM. H. S. PEARSON, CHIEF, OFFICE OF ENGINEERING; REAR ADM. C. A. RICHMOND, JR., CHIEF, OFFICE OF RESEARCH AND DEVELOPMENT; REAR ADM. E. L. PERRY, CHIEF, OFFICE OF PERSONNEL; CAPT. O. W. SILER, ACTING CHIEF OF STAFF; CAPT. J. H. BRUCE, CHIEF, LEGISLATIVE AFFAIRS DIVISION; CAPT. W. H. FITZGERALD, CHIEF, BUDGET DIVISION; CAPT. J. S. GRACEY, CHIEF, PROGRAMS DIVISION

Mr. OLSON. Mr. Chairman, I have a statement that I would like entered in the record.

Senator LONG. It will be entered.

Mr. OLSSON. Thank you, sir.

Mr. Chairman and members of the committee, I am John Olsson, the Deputy Under Secretary of the Department of Transportation. I appreciate being given the opportunity to appear here today on behalf of Secretary Volpe and the U.S. Coast Guard in support of S. 1223, the bill now before you, which would authorize appropriations for the Coast Guard for fiscal year 1972.

Gentlemen, the services which the Coast Guard provides to this Nation are many and varied. Its broad purpose is to insure that our waterborne commerce moves efficiently and safely. Within this capacity, the Coast Guard supervises our ports and waterways, establishes and maintains aids to navigation, and promulgates and enforces safety regulations. Along this same line of duty, it fulfills a responsibility for search and rescue and last year carried out over 50,000 rescue missions resulting in the saving of over 3,700 lives.

Moreover, at a time when pleasure boating is one of our fastest growing forms of recreation, these services of the Coast Guard benefit not only our commercial maritime interests, but they guarantee the well-being of numerous private citizens as well.

At the same time that the Coast Guard carries out these domestic responsibilities, it plays an important role in our national defense. It provides a coastal peacekeeping and law enforcement force and also gives meaningful support to our military efforts elsewhere in the world.

For example, the Coast Guard has provided invaluable assistance in the form of military support, training, and equipment to our allies in South Vietnam.

A third and very important area in which the Coast Guard is becoming increasingly involved is that of the detection and prevention of marine pollution. At a time when the protection of our environment is of vital importance to us all, this role of the Coast Guard deserves special recognition and support.

Last year, for example, the Coast Guard assisted in the development of a national contingency plan to provide a coordinated response to marine pollution incidents. Regional response centers have been

set up to monitor incidents and to supervise containment and clean-up operations. Special pollution strike force teams are being trained and specialized equipment developed to enable a rapid response to any major incident.

Present authority allows the Coast Guard to monitor the design and construction of vessels which carry potential pollutants, as well as to establish certification and operating requirements for ship and shore personnel. These on-going programs along with other newly proposed standards—such as those governing ship-to-ship and ship-to-shore communications—are helping to enable the Coast Guard to protect our water and shoreline from being despoiled.

Mr. Chairman, the Coast Guard has a reputation for being one of the most efficient and effective units within our Federal structure. This committee has always demonstrated their belief in the merit of this reputation by your continued support of the Coast Guard. This support has indeed enabled them to perform their responsibilities in a manner of which we are all proud. As this Nation continues to develop and our needs increase, the Coast Guard must be able to adequately reflect this development and meet these needs.

We believe that the Coast Guard request for fiscal year 1972 is reflective of the responsibilities, both old and new, which the Coast Guard must shoulder; and that it is responsive to the demands which these responsibilities will create. We appreciate your past support of the Coast Guard, and we urge your assistance in assuring that the Coast Guard is able to continue and enhance its outstanding record of service.

Adm. Chester R. Bender, Commandant of the U.S. Coast Guard and his able associates will now describe, in detail, the activities of the Coast Guard, and the specific items which are included in the pending bill.

Thank you, Mr. Chairman.

Senator Hatfield (presiding). Thank you, Mr. Olsson.

I have a question before Admiral Bender gives his testimony. You mentioned in your testimony the fact that there was great progress made by the Coast Guard in what is called oil pollution containment systems. I understand there was originally planned in the budget two such systems—one for the east coast and one for the west coast—and that under budget cutbacks only one became available. And it was utilized on the east coast; is this correct?

Mr. OLSSON. I think that is essentially a correct factor. The timing has been stretched out a bit, Senator, on that point.

Senator HATFIELD. What is the position of the Department of Transportation now as far as giving its support to the realization of another such system for the west coast?

Is it a high priority matter?

Mr. OLSSON. Yes, indeed, we testified on this earlier when the matter came up at the time of the creation of the special fund to cover the cleanup expenses. It very definitely is a high priority item. As the Admiral will point out in his testimony, there is a great deal of development work that is moving very rapidly forward. And I think at the same time, equipment is being added to, in effect, flesh out this area of their operation.

Senator HATFIELD. In other words, then, it is incorporated in your budget, and you will be doing battle for it right through to the White House level; is that correct?

Mr. OLSSON. You are referring to the 1972 budget? The budget itself is, of course, completed at this point in time, and we are supporting what is now in that budget.

Admiral BENDER. If I may amplify just a little bit, it is true we will not have two complete sets in the current budget for the two coasts, but it is also true that we will have more than enough for one coast. And essentially what we will have on the west coast is pretty much the same equipment as we will have on the east coast.

We will not have all the bags in which this oil would be stored in an emergency, but we can use barges and other facilities to accomplish pretty much the same purpose and we can fly bags from one coast to the other when needed.

Mr. OLSSON. I think the recent incidents on the west coast, particularly in San Francisco, have heightened attention to this a great deal.

Senator HATFIELD. One of those ships was called the *Oregon Standard*.

I am especially concerned about this problem because it was brought into great focus through that situation in San Francisco.

Did the Coast Guard make a request in their budget in the Department of Transportation for a complete system on the west coast as it exists on the east coast?

Admiral BENDER. Initially, we had a request for two complete systems. We do feel, however, what we are getting will enable us to perform, as I have mentioned, pretty creditable service on the west coast as well as the east coast.

Senator HATFIELD. You said initially you had that request?

Admiral BENDER. Yes, sir.

Senator HATFIELD. Now, have you come to just one system in your own judgment, or from budgetary pressure from within the Department for other priorities? Has the Coast Guard backed down from its basic position that they feel two systems are necessary?

Admiral BENDER. I must correct my statement, sir. We are getting essentially what we initially requested. It would not have provided two complete sets for both coasts.

Senator HATFIELD. Why did not the Coast Guard request two complete systems?

Admiral BENDER. Well, I believe because we felt that there was sufficient flexibility in what we are proposing to get to serve the needs of the country.

Senator HATFIELD. Could you translate for me. I do not quite follow it.

Admiral BENDER. Well, sir, the whole process has been in somewhat of an experimental stage. And in particular, the bags, these storage bags, into which we would pump the oil are rather expensive. We feel that although we will not have these bags available in the numbers that we might wish that we can use barges and tanks and other tankers into which to transfer this oil and accomplish essentially the same purpose, although it will not have quite the flexibility that the air transportable bags would have.

Senator HATFIELD. In other words, is the basis for this view a particular budgetary one, or is it one of just general overall cost?

Admiral BENDER. Senator, I think it is partially an evaluation on our part to determine more accurately the feasibility and the utilization of these bags before we go so far in their procurement.

Senator HATFIELD. Then it could be a question in technology?

Admiral BENDER. Yes; it could.

Senator HATFIELD. You are not certain yet this is the ultimate technology that must be developed?

Admiral BENDER. That is correct. And we would further like to make an evaluation as to the availability of other means of accomplishing the same purpose.

Senator HATFIELD. Thank you very much, Mr. Olsson. We appreciate your being here.

Admiral Bender?

Admiral BENDER. Yes, sir. Mr. Chairman, I do have a prepared statement, a copy of which has been furnished each member of the committee. And since it is rather long, with the chairman's permission, I would offer it for the record and make a brief summary at this time.

Senator HATFIELD. That is quite all right.

Admiral BENDER. The past year has been a busy one for us with such new responsibilities as combating the threat to our environment posed by the increasing volume of hazardous cargoes, particularly oil, moving over our waterways.

In addition to enforcement of new laws designed to protect our coastal waterways, we have increased our efforts in the enforcement of laws to protect our fisheries, and realize that much more remains to be done in this area.

At a time when we are increasing our efforts to provide protection to our shorelines and our natural resources, there are two matters of major concern to me, the increasing difficulty in retaining skilled personnel in the service, and the progressive deterioration of our physical plant. The bases for the priorities of our 1972 capital improvement program may be described in terms of these three P's—protection, people, and plant.

Our total request for 1972, exclusive of \$3 million for resumption of funding for obstructive bridges, is \$96.5 million or approximately the amount of our 1971 appropriation. Because we have included no major shipbuilding projects in 1972, however, this level permits us to schedule a much greater number of personnel related projects, procurements in support of pollution control, and restorations of existing plant.

Among the highlights of the 1972 program is resumption of C-130 aircraft procurements, the first since 1967, a decision based primarily on the adaptability of this aircraft for wideranging flights in the field of pollution surveillance and fisheries patrols as well as search and rescue. A threefold increase in the volume of projects under "Shore Station and Aids to Navigation" includes nearly \$9 million in pollution prevention projects, and a substantial increase in projects to improve habitability of our stations.

We have attempted to provide essential increases in our capability to meet new responsibilities, but in so doing, we have recognized that we have an on-going responsibility to preserve the equipment, facilities, and other resources necessary to continue our traditional role of safety in the maritime environment. Not the least of these resources are our personnel, an asset without which the Coast Guard cannot continue to perform as it has over the years. I think our 1972 program reflects this evaluation.

There is one additional matter to which I should invite your attention, Mr. Chairman. Public Law 91-441, the 1971 Armed Services Authorization Act, provided that the average active duty military strength of all the armed services must be authorized annually by Congress. During hearings on the House side, we were advised that the House Armed Services Committee had waived jurisdiction over Coast Guard strength on the basis that it was an appropriate matter for consideration by our legislative committee.

We expect that the bill reported by the House Merchant Marine and Fisheries Committee will include authorization of our 1972 active duty strength. It has been deleted from H.R. 6531, which covers the Department of Defense.

This concludes my summarized remarks, Mr. Chairman. As always, I shall be happy to answer any questions you may have.

Senator HATFIELD. Thank you very much, Admiral Bender.

In your complete statement, not the summary, you alluded to the problem that you have in personnel retention. Will you elaborate a little bit on this for the record, please?

Admiral BENDER. Yes, sir; in the last year or so, our retention at the end of the first enlistment has been running only about 8 percent. In later enlistments, in succeeding enlistments, our retention goes up much higher—to about 85 percent. But this very poor retention rate at the end of the first enlistment causes many problems.

It requires a great deal more recruiting, obviously, because the people turn over more rapidly and also because of this rapid turnover, it requires more training in order to accommodate the needs of the service through the creation of the petty officer capabilities and so the needs of additional accommodations for people are greater, particularly in the training areas. And our capability to perform our duties is lessened by this rapid turnover.

Senator HATFIELD. What besides facilities? Would you comment upon pay scales and their relationship to this problem?

Admiral BENDER. Well, we do feel, Mr. Chairman, that pay scales are a very essential element in the determination as to whether or not a young man elects to remain in the service. We must acknowledge that many of the people that we get in the Coast Guard in this first enlistment do not ever intend to make the service a career and are, in fact, entering our service in lieu of one of the other services to fulfill a military obligation. Nevertheless, we feel an increase in pay scales would be a very important factor in the better retention, the improved retention, of our people.

Senator HATFIELD. Have you done any studies as to demonstrate the noncomparability of the Coast Guard pay scales to that of civilian pursuits in similar jobs?

Admiral BENDER. No, sir; the Coast Guard has not directly conducted any such studies.

Senator HATFIELD. Are you aware of how many Coast Guard members are receiving welfare checks in addition to the Coast Guard pay? As you perhaps know, we have about 50,000 in the military service today who are eligible for welfare because they qualify under the poverty definition and because we in the Congress have failed to develop a comparable pay program.

I was just curious to know if you have any surveys as to your own Coast Guard as to how many of your men are in this poverty class.

Admiral BENDER. We do not have such figures, Mr. Chairman, but I am well aware that some of our younger people are, in fact, in a poverty category.

Senator HATFIELD. What about numbers of personnel? As I indicated earlier, there is the very heavy burden on so many of these in the search and rescue area—particularly on overtime and the hours per week that they are required to serve. Is this a problem relating to retention?

Admiral BENDER. It is a very great problem. We are working our personnel currently at many of our stations over 100 hours a week. And we would like to make a substantial reduction in those areas in order to again make the service more attractive to those people and thereby retain them.

Senator HATFIELD. In your budget or any other report, do you indicate the number of increased personnel to be necessary to reduce this situation from 100-hour workweek to a reasonable workweek?

Admiral BENDER. Yes; we do, Mr. Chairman. That would occur in our operating expense, our OE budget, which, of course, does not come before this committee at this time.

Senator HATFIELD. No; but in that budget request and its support by the Department of Transportation, do you provide for these additional personnel to relieve that situation?

Admiral BENDER. In our 1972 budget, we will ask for 108 additional positions—that is, new positions in this field of manning the Coast Guard stations in order to make this a partial correction, at least.

Senator HATFIELD. So among the improved facilities which would relate to the working conditions, the better hours, a more comparable pay scale, do you feel that these are at least three of the central factors that would help this retention problem that you have brought to our attention?

Admiral BENDER. Yes, sir; I do. And another one, of course, is the facilities themselves, the housing facilities and the barracks, these things.

Senator HATFIELD. You were talking—and again referring back to your original testimony, not the summary—about modernizing some of the vessels that I believe were 35 years old. What do you project as far as the life of such a vessel—both with a modernization program and without a modernization program—as opposed to new construction?

Admiral BENDER. Yes, sir. We would hope to gain another 8 or 10 years out of these vessels, Mr. Chairman.

Senator HATFIELD. And you feel that is the best economics to modernize vessels 35 years of age rather than replacement?

Admiral BENDER. I do, Mr. Chairman, in terms of particularly the buoy tenders. They were built very sturdy in the first place and have capability of continued operation with these improvements in habitation.

Senator HATFIELD. Does the Navy operate vessels this age?

Admiral BENDER. No, sir; I believe the average age of a naval vessel would terminate at about 25 years.

Senator HATFIELD. Do you think there is a relationship, too, between the problem of retention rate and the age of your vessels to which you are assigning these men?

Admiral BENDER. Not directly in terms of age, Mr. Chairman. But rather in terms of the fact when these vessels were built back in

the 1930's, we simply did not give as much consideration to habitability as we do today. And our men today are not satisfied with the conditions that we provided at that time.

Senator HATFIELD. Admiral Bender, where are we in this project of the icebreaker that was budgeted, I believe, or approved last year?

Admiral BENDER. Well, to go back to the program itself, we propose in our long-range plans to replace six wind class icebreakers with four new icebreakers. And this would, with the addition of the *Glacier*, provide us with a total of five icebreakers for the long term.

Currently, we are operating besides the one at the Great Lakes the six wind ships and the *Glacier*. In the 1971 budget, we were provided \$60 million for an icebreaker, and we expect that we will accept bids for that icebreaker in the month of June.

There was none provided in the 1972 budget.

Senator HATFIELD. Was it anticipated there would be a second icebreaker requested in this 1972 budget?

Admiral BENDER. Yes, sir; at an early stage in the budget, there was provision for a second icebreaker.

Senator HATFIELD. What happened to that provision?

Admiral BENDER. It was dropped out between the levels for the budget, between the Department of Transportation level and that which was provided in the President's budget.

Senator HATFIELD. In other words, OMB (the Office of Management and Budget) was the responsible party here who cut this out?

Admiral BENDER. That was the level at which it was cut; yes, sir.

Senator HATFIELD. Did this same budget, 1972 budget, request some new ships to replace some of these 35 year old ones?

Admiral BENDER. In our proposed budget to the Department of Transportation, in addition to the icebreaker, we had proposed three new what we call high endurance cutters. These are 378-foot cutters. They were dropped out between the Department of Transportation and OMB.

Senator HATFIELD. So you have had the full support of the Department, but it has been at the higher level where these have been deleted? That is you have had the Department of Transportation's full backing for these requests, but it has been at the OMB level where they have been deleted; is that correct?

Admiral BENDER. The Department of Transportation felt it necessary under the allocations and the confines of their budget authority to delete the three high endurance cutters. The Office of Management and Budget, in addition, deleted the icebreaker.

Senator HATFIELD. In the past, I think this committee has had, according to my information, a list of those items which you have requested for the Coast Guard and which have either been deleted by the Department itself or later by the OMB. Would it be possible to get such a list for this committee?

Admiral BENDER. We would be very happy to provide it for the record.

(The following information was subsequently received for the record:)

DEPARTMENT OF TRANSPORTATION, U.S. COAST GUARD, ACQUISITION CONSTRUCTION AND IMPROVEMENTS

Item	Fiscal year 1972 previ- ous estimates	Department request to OMB ¹	President's budget ¹
A. Vessels:			
1. Increase capability:			
(a) High-endurance cutters increase fuel capacity and improve habitability of 327-ft. class.....			760
(b) Buoy tenders—rehabilitate and improve.....	1,314	1,291	1,290
(c) Wind class polar icebreaker restoration.....	8,000	8,000	5,250
(d) CGC Glacier—major repairs.....		1,250	1,250
(e) CGC Evergreen—upgrade oceanographic capability.....	1,450	1,450	1,450
(f) Vessel communications—modernize radio rooms.....	502	502	300
(g) Vessel communications—replace secure radio tele- type.....	850	850	850
(h) CGC Rockaway—oceanographic improvements.....	369		
Subtotal.....	12,512	13,343	11,150
2. Replacement:			
(a) Construct 1 icebreaker.....	60,000	60,000	
(b) Construct 3 high-endurance cutters to replace overage cutters.....	57,000		
Subtotal.....	117,000	60,000	
B. Aviation:			
1. Aircraft replacement and modification:			
(a) Long-range search aircraft procurement; modify fuel system and construct hangar, Miami, Fla.....	(4) 18,700	(6) 27,971	(3) 14,190
(b) C-130 center-wing replacement on 3 aircraft.....	600	600	600
(c) C-130 B outer-wing rework on 6 aircraft.....			600
(d) Aircraft for pollution surveillance—reactivate.....		(8) 1,200	(9) 900
(e) Medium range recovery aircraft—procure 6.....	12,904	12,904	13,550
(f) Modify HH3F transmission support on 22 aircraft.....	1,660	1,660	
(g) Procure 1 administrative aircraft.....	1,020	1,020	
(h) Procure 3 medium-range aircraft for pollution surveillance.....	6,600		
Subtotal.....	41,484	45,355	29,840
C. Shore units:			
1. Replace or relocate existing facilities:			
(a) Newbury Port, Mass.—rebuild Merrimac River station.....	1,625	1,452	1,400
(b) Gloucester, Mass.—rebuild station.....	1,618	1,528	1,530
(c) Marshfield, Mass.—construct barracks at Boston radio station.....		200	200
(d) Barnegat, N.J., improve station—phase II.....		392	390
(e) Wildwood, N.J.—construct barracks at Electronics Engineering Center.....	349	349	350
(f) Yorktown, Va.—construct trainee barracks.....		2,180	2,500
(g) Portsmouth, Va.—relocate watermain—new Coast Guard base.....	350	405	410
(h) Terminal Island, Calif.—replace electronics repair building.....	200	200	200
(i) Port Hueneme, Calif.—relocate station.....	1,271	1,047	670
(j) Portland, Ore.—relocate station.....	1,737	1,588	1,840
(k) Westport, Wash.—rebuild Grays Harbor station.....	1,422	1,340	1,340
(l) Honolulu, Hawaii—improve barracks at base.....	325	374	380
(m) Honolulu, Hawaii—construct new radio station.....	5,130	4,613	4,610
(n) Fort Hancock, N.J.—rehabilitate Sandy Hook station.....	3,520	2,274	
(o) Establish module repair facilities.....	1,705	1,705	
(p) La Plata, Md.—establish new eastern area radio station.....	400		
Subtotal.....	19,652	19,647	15,820
2. Improve capability:			
(a) Boston, Mass.—improve facilities at Coast Guard base, phase II.....	3,618	3,618	3,620
(b) New London, Conn.—construct academy science teaching facility.....	4,957	4,585	4,590
(c) Cape May, N.J.—expand heating plant capacity at recruit training center.....	258	210	210
(d) Curtis Bay, Md.—modernize facilities, Coast Guard yard.....	2,550	2,550	1,530
(e) Omaha, Nebr.—improve facilities at Coast Guard moorings.....	326	380	380
(f) San Francisco, Calif.—improve fuel and water systems at air station.....	314	314	230
(g) Guam, Marianas Islands—augment Coast Guard depot facilities.....	500	500	500
(h) Traverse City, Mich.—rehabilitate air station.....	2,400	2,400	
(i) Milwaukee, Wis.—construct boat moorings at Coast Guard base.....	225		
Subtotal.....	15,148	14,557	11,060

See footnotes at end of table, p. 28.

DEPARTMENT OF TRANSPORTATION, U.S. COAST GUARD, ACQUISITION CONSTRUCTION AND IMPROVEMENTS—Con.

Item	Fiscal year 1972 preview estimates	Department request to OMB ¹	President's budget ¹
C. Shore units—Continued			
3. Procurement of major equipment:			
(a) Radar simulator testing machine.....	250		
(b) Oceanographic sensors.....	320		
Subtotal.....	570		
D. Pollution Control:			
1. Abate pollution—holding tanks for Coast Guard vessels.....	4,000	3,800	3,200
2. Abate pollution for Coast Guard shore stations.....	350	360	360
3. Procure air deliverable antipollution transfer system components.....	1,500	1,000	1,600
4. Procure open water oil slick containment system.....	2,000	1,900	1,900
5. Procure pollution monitoring sensors.....	2,402	1,890	1,830
Subtotal.....	10,252	8,950	8,890
E. Aids to navigation:			
1. Waterway aids to navigation projects.....	2,000	1,900	1,400
2. Continue lighthouse automation and modernization project (LAMP).....	1,518	1,518	1,000
3. French Frigate Shoals, Hawaii—improve and modernize loran station.....	1,200	1,200	1,200
4. Pacific loran stations—replace generators/air conditioning workspace.....	1,240	644	650
5. Palau Island—repare airstrip serving loran station.....		101	100
6. Loran-C stations—develop replacement equipment; includes related construction at Wildwood, N.J.....	2,933	3,250	3,250
7. Marcus Island and Iwo Jima—restore loran towers.....	350	350	350
8. Loran-A stations—replace obsolete equipment.....	7,000	4,260	
9. Mediterranean loran stations procure replacement equipment.....	7,150		
Subtotal.....	23,391	13,223	7,950
F. Public family quarters.....	8,930	6,240	5,740
G. Property acquisition, design, and administration:			
1. Survey and design of facilities.....	2,665	2,500	1,800
2. Engineering and logistics—support of construction projects.....	6,150	4,650	4,250
Subtotal.....	8,815	7,150	6,050
H. Alteration of bridges.....	(²)	(²)	3,000
Grand total.....	257,754	188,465	99,500

¹ Specific projects determined by Coast Guard.

² Alteration of bridges was \$10,800,000 in preview estimate and \$6,400,000 in department request and was included in a separate appropriation. This separate appropriation has been merged with A.C. & I. in the President's budget.

Senator HATFIELD. The chairman has had to leave by reason of handling the bill on the floor and has asked that these materials be provided the committee.

And also, the subcommittee and Senator Stevens have questions which we would like the Coast Guard to answer for the committee in written form and I would like to give these to you at this time.¹

Senator Griffin?

Senator GRIFFIN. I was very interested in the questions and answers about the icebreakers. As you know very well, Admiral Bender, there is a great deal of interest in the Great Lakes-St. Lawrence Seaway region in trying to open that area up to year-round shipping. And the Coast Guard would play an important role in that effort.

And as you mentioned, there is only one icebreaker, the *Mackinaw*, that is available in that area. Do you have anything further that you might say for the record concerning the project to extend the shipping season?

¹ See pp. 45 and 57.

Admiral BENDER. Senator Griffin, next month, we are holding in Cleveland a seminar on this subject of the extension of the season on the Great Lakes. We will have represented there the Maritime Administration, the Department of Transportation, other Government agencies, and the operators of the vessels on the Great Lakes as well as the users of the vessels on the Great Lakes.

We hope that out of this seminar will come a good analysis and determination as to the feasibility of extending the season on the Great Lakes and, perhaps, even the degree or the amount of time by which it might be extended.

I would rather doubt that we can ever have a year-round operation on the Great Lakes, but certainly an extension of a month at least seems to be at this time entirely feasible.

Senator GRIFFIN. Thank you very much.

I have nothing further.

Senator HATFIELD. Admiral Bender, I do not think we have any further questions for you. I would just like to briefly reemphasize the points I made earlier about the vital role the Coast Guard plays in my home State, what a tremendous service it provides.

I talked to the chief here in charge of our station at Newport, along with Admiral McClelland up in Seattle, the district headquarters. We came up with the estimate that in our area, the Oregon-Washington area, the Coast Guard's search and rescue operations there alone have probably saved about 400 lives annually. This is a tremendous number of lives because we are not that heavily populated in area, as you know. Coast Guard search and rescue assisted 11,000 people yearly up there in our Northwest, and putting this in dollars, we estimate that in the property area alone, it saves about \$177 million annually.

So I think these few statistics alone should indicate to you the vital role it has in our Northwest. We appreciate the kind of backing and support you have given from your headquarters here as a commandant. I am sure you take great pride in heading up such a distinguished service as the Coast Guard.

Admiral BENDER. Indeed, I do, Mr. Chairman.

Senator HATFIELD. Mr. Olsson, thank you again for your report of this program and your presence here this morning.

Mr. OLSSON. Thank you.

Admiral BENDER. Thank you, Mr. Chairman, Senator Griffin.

(The statement follows:)

STATEMENT OF ADMIRAL CHESTER R. BENDER, COMMANDANT,
U.S. COAST GUARD

Mr. Chairman and Members of the Committee: The thirteen months which have elapsed since our last authorization hearings have been eventful ones for the Coast Guard. We have worked against such major problems as massive oil spills, an ever-mounting demand for search and rescue assistance, severe equipment damage, efficiency-inhibiting deterioration of our physical plant, and a growing shortage of skilled personnel. Most of these obstacles were foreseen and constitute the basis for the budgetary program we will discuss this morning. Many are the natural outgrowth of changes in our society, new patterns of Coast Guard activity, national technological and economic developments, and national awareness of ecological problems.

One recent event, which is well known, embraced many aspects of the problems we face. I am referring to the incident in San Francisco on the morning of 18 January 1971, in which two tankers—one inbound and the other outbound in the

dense morning fog—collided at the entrance to San Francisco Bay. Collisions have long been feared by men of the sea, who have gone to great lengths to develop elaborate precautions to avoid them. Yet they still occur. A modern dimension has been added to the usual risk to life—massive involvement of innocent and unsuspecting populations and threat to the ecology because of the great quantities of hazardous or environment-damaging materials being carried in bulk on many ships and barges plying our waters.

In the San Francisco case, thanks to the fine efforts and cooperation of the shipping companies and other agencies, some of the cargoes were contained, and clean-up activities went forward swiftly, so the full potential of the disaster did not materialize. But it was bad enough. Because the ocean currents are well known in the area and aircraft were available for surveillance we were able to keep track of the slick and to be ready when it came ashore. However, the containment and clean-up methods used were relatively primitive, a far cry from what we are seeking to develop for future use.

Fortunately, we had previously selected San Francisco as the site of two development programs which show great promise in this sort of collision/search and rescue/oil-spill situation. I am referring to test projects for marine traffic systems and Coast Guard use of air cushioned vehicles (or surface-effect machines).

Since January, 1970 the former has been providing *advisory* information on harbor traffic movement in San Francisco. Information is passed to participating ships based on radar data sent to our Harbor Advisory Unit. On the morning of the collision we had made radio contact with both ships, but after reporting departure from his mooring the one standing out apparently left the frequency, because we could not regain radio contact with him. At this time the information is advisory only and use of the communication net is voluntary. We will be coming forth with some specific requests and recommendations for expansion and firming up requirements for use of such systems in the very near future.

The second test project underway in the San Francisco Bay area proved to have merit we had not previously considered. In October, 1970 we established at our old Fort Point Station, just inside the Golden Gate, a Project to test the use of two air cushion vehicles (ACV) that we had obtained from Navy excess and had renovated. A third ACV is being operated by us for the Navy in an Arctic test. The object of these tests is to determine the applicability and utility of the unique operating characteristics of ACV's to Coast Guard missions. The results to date have been most gratifying and we have high hopes for them in our future, though we have much testing yet to do.

In the collision incident we found ACV's to be of great service in moving people and equipment rapidly to remote sites. At one point the weather precluded prompt movement of essential supervisory company personnel by helicopter to a remote point on the coast north of San Francisco where immediate clean-up was imperative. We were able to use the ACV's to move across the Bay and up the coast at speeds up to 50 knots, land on the beach, and return with ease and minimal hazard to personnel or equipment. You will be hearing more from us about this equipment.

So you see, entire new facets of our traditional roles are taking shape. And there are vast new demands coming to bear on us. But the traditional roles *do* remain and *are* becoming more complex. We are aggressively seeking new and better ways to discharge our responsibilities and to apply our unique capabilities, as I think you can see from the examples I have just described.

But two very old, perhaps mundane factors threaten our ability to perform with the high degree of expertise in which we—and I think you too—have always taken great pride.

I refer to our people and our physical plant. Because of the changing values of the American society a military career apparently does not now have the appeal it once had. Our personnel retention rates have been at a low ebb for some time, to a point where we are faced with a crisis in the form of a shortage of experienced personnel. To remedy this we must assign maximum priority to projects over the next several years which will enhance the living and working conditions of our people, to projects which will permit us to make maximum use of the people and experience we have, and to projects which will permit us to offset the lost experience with more training. Our 1972 budget request was formulated with these needs in mind.

One other factor was given top priority in assembling our FY 72 request—we *must* take a positive step forward in doing our full share in restoring and preserving the maritime environment. We *must* do more to protect people and wildlife from the potential ravages that can result from marine disasters or actions which have heretofore been considered a routine of life at sea. We *must* do more in enforcement

of laws for the protection of our fisheries. We have *done* much in the past to insure the safe transportation of hazardous cargo, including oil. That much remains to be done is evidenced in the Hazardous Polluting Substances Report and the Oil Pollution Liability Report recently submitted as required by the Water Quality Improvement Act of 1970.

So, Mr. Chairman, as we discuss the specifics of our request, perhaps it will help to think of our priorities as the 3-P's—people, plant and protection.

Our \$99.5 million request for FY 72 includes \$3 million for continuing work on two obstructive bridges under the Truman-Hobbs Act—and \$96.5 million for Coast Guard facilities. While this total is about the same as approved by the Appropriations Committees for FY 71 it involves many more projects this year. The Budget for FY 71 included \$59M for a new icebreaker, and therefore, did not contain as many individual improvement projects as this year. In view of our growing personnel retention problems, we felt it important to specify a great number of people-related projects for FY 72.

I've explained the broad problems we are attacking with our program for FY 72. Let me now touch briefly on the major expenditures we propose.

VESSELS

Last year, in proposing funding of our first new icebreaker we discussed the need for interim major restorations on 2 of our present fleet of icebreakers tentatively *NORTHWIND* stationed in Seattle and *WESTWIND* at Baltimore, Maryland. We are asking for \$5¼ million to start that 2-yr. project this year. We are also asking for \$1¼ million for major repairs to *GLACIER*, the newest and largest of our present fleet. United States surface navigation capability and national presence in polar regions depends on Coast Guard icebreakers, for the mission is entirely ours. The work proposed here is *essential* to retention of that capability.

AIRCRAFT

In 1966 you approved starting a program to update our fleet of aircraft, recognizing the essential role played by aviation in not only our search and rescue effort but law enforcement, logistics and various other programs requiring surveillance of wide areas of the maritime regions. As originally envisioned that program was to consist of a mix of long-range fixed-wing aircraft and helicopters. We have proceeded well with the helicopter program, but in 1968 there was a moratorium put on the purchase of C-130's while we reviewed the need. Their return to our budget request this year indicates we are convinced of their value to our mission and of their cost effectiveness.

The three C-130's requested this year will provide badly needed fixed-wing coverage for the Caribbean area and the Gulf of Mexico, where we must cover broad expanses of ocean in which oil pollution surveillance and search and rescue are critical. They will also provide time for fisheries surveillance, including the Alaskan fisheries. The latter will be possible as a result of adding to our fleet an aircraft model suitable for overhaul support replacement for the three C-130's in Kodiak. We are also proposing to continue helicopter procurements, adding aircraft for Kodiak and San Juan to those already in production for Annette, Alaska and Astoria, Orég.

Incidentally, in both these areas contractor production lines are in danger of closing because the major buys for DOD are finished. We are negotiating now with the helicopter manufacturer to avoid losing this vital capability and may have to suggest reprogramming later if this request is not adequate to keep the line open.

One other aviation item of interest—we are planning to reactivate some of our retired medium-range fixed-wing aircraft as a stop gap measure to provide oil pollution surveillance capability. We originally planned to buy a fleet of light aircraft specifically for that vitally important task, but have not yet found a suitable type. Reactivation of these aircraft will permit us to do the job until newer aircraft can be acquired.

SHORE UNITS

Keeping in mind the 3-P's of priority this year I think the need for these are self-evident with the possible exception of the Radio Station in Honolulu. This new radio station will complement the station you approved for San Francisco in FY 70. It is needed to provide a fully coordinated command and control net for the Pacific—one which will permit us to meet our established criteria of being

able to communicate with all Coast Guard operating units wherever they may be in the Pacific and to work 100% of the merchant vessels who meet international standards for radio equipment 85% of the time.

Mr. Chairman, this is an important point in Coast Guard history—a point where we must face up to the unpleasant truth that we can no longer invest in hardware at the expense of facilities for the health, comfort and training of our personnel. We must start now and continue over the next several years to provide the equipment and facilities needed for new and complex tasks. At the same time we must restore our ability to meet our traditional responsibilities, which are growing at a rate that is already putting a severe strain on our resources and our ability to respond properly.

At the risk of redundancy let me close by saying that the single most important asset we have had over the years has been our people, whose selfless dedication, sacrifice and expertise have given the American taxpayer as large a return for each dollar he has spent as any program I know. We must take positive action *NOW* to protect that asset, for without it the Coast Guard cannot continue to perform as it has over the years as the only organization of its kind in the world, devoted to the protection of mankind and his environment in a wide and diverse range of endeavor.

Senator HATFIELD. We will proceed with the hearing now on S. 981 and S. 1220 and authorizations for the maritime program in the Department of Commerce.

This morning, we have the Honorable Andrew Gibson, Assistant Secretary of Commerce, and Mr. Marshall Saffir. And I think both of you will be offering testimony.

First, we are very happy to have Secretary Gibson with us, and you may proceed as you wish. We will have your testimony printed in the record as written, if you wish to summarize or handle it any other way which you care.

**STATEMENT OF HON. ANDREW GIBSON, ASSISTANT SECRETARY
OF COMMERCE, DEPARTMENT OF COMMERCE; ACCOMPANIED BY
COMDR. STEVEN LAZARUS, USN, DIRECTOR, OFFICE OF POLICY
AND PLANS, MARITIME ADMINISTRATION**

Mr. GIBSON. Thank you.

Mr. Chairman and members of the committee, I appreciate this opportunity to appear before your committee with reference to our requested supplementary authorization legislation for fiscal year 1971. The proposed amendment requests authority to liquidate contract authorization for operating-differential subsidy in the amount of \$80 million.

This authorization relates to 2 important requirements for fiscal 1971, which developed subsequent to formulation of original budget estimates for the year—changes in the subsidy payment schedule in fiscal year 1971 of \$39,700,090 and liquidation requests for unpaid, accrued subsidies, fiscal year 1969 and prior years of \$40,300,000.

The Merchant Marine Act of 1970, Public Law 91-469, contains many improvements in the system by which operating-differential subsidies are determined and paid the U.S.-flag merchant vessel operators. Among these are reduction in the number of subsidizable items of expense for cargo vessels and establishment of a wage subsidy index system designed to relate subsidies to the general trend of wage increases in the country. For subsidized operators who will participate in the new subsidy program, a payment schedule for liquidation of accrued subsidies is provided which requires monthly payment of 100 percent of wage subsidies and 90 percent of all other subsidies rather than quarterly payment of 90 percent of all items as in the past.

This requires the payment of 2 months additional subsidy in fiscal year 1971. In the past, operators were reimbursed for operating-differential subsidy 3 months after the expense was incurred.

The new procedure seeks to make the payment as current as possible.

The required increase in appropriation relating to this legislative authorization of the Merchant Marine Act of 1970 is estimated at \$39,700,000. The balance of the increase in the 1971 authorization, \$40,300,000, provides for liquidation of fiscal year 1969 and prior year accruals which have remained unpaid, awaiting agreement between operators and the Government as to final subsidy rates.

Agreements have now been reached with most of the operators with respect to these final subsidy rates so that \$40,300,000 of the amount previously held back with respect to fiscal year 1969 and prior years can be paid during fiscal year 1971.

Mr. Chairman, I urge the committee's favorable consideration of this requested supplemental authorization of \$80 million which when combined with available funds is expected to provide required funding for current operations as well as to permit liquidation of a substantial portion of prior-year claims for which the Government is contractually liable.

This concludes my statement, Mr. Chairman. I will now be happy to answer any questions that you or any member of the committee have concerning this authorization request.

Senator HATFIELD. Secretary Gibson, I am sure you are familiar with Mr. Marshall Saffir's objections he has raised relating to the 1971 supplemental. Will you give us your views as to these objections he has raised?

Mr. GIBSON. Mr. Chairman, this is a matter currently before the Subsidy Board for consideration. I am a member of that Board. We are about to hold hearings on the entire matter, and I would prefer to wait until we have all the evidence in before making any judgment.

Senator HATFIELD. Do you think any action we might take on this committee would have an effect on this docket S. 243?

Mr. GIBSON. I believe if I were to comment substantively it would tend to possibly prejudge the hearings and the ruling that we will be making; yes, sir.

Senator HATFIELD. Are you suggesting that we delay any action on this until after the Subsidy Board has made its decision?

Mr. GIBSON. Well, the requirements that we are making today are twofold. The Merchant Marine Act of 1970 calls for change in the payment of subsidy, and in order to carry out the intent of the act, these additional funds are required.

Also the Government has owed these companies large sums of money for many years. We have worked very hard in the last 2 years to try and clean up this huge backlog. And these funds in my judgment are now due and payable.

These companies have other sources of funds should Mr. Saffir's claim be sustained. So I don't, in my judgment, relate funds that have in some cases been outstanding going back to 1961 to the issue being raised by Mr. Saffir. We are now in a position to make this payment, assuming the supplemental funds are provided, and I don't believe that that should be linked to any other outstanding claims.

Senator HATFIELD. Then, if I understand you correctly, can you counsel this committee one way or another as to any action we should be taking on this supplemental request prior to or following the action on the part of the Subsidy Board?

Mr. GIBSON. My judgment is that you should hear our request for this supplemental appropriation on its merit alone, and Mr. Saffirs' claim should be weighed on its merit and one should not relate to the other.

Senator HATFIELD. So if we go ahead then and authorize the funds, there would be no impact on your docket 243? Is that correct?

Mr. GIBSON. That's correct, sir.

Senator HATFIELD. All right.

It has been about 6 months since the enactment of the Merchant Marine Act of 1970. I believe from either statements attributed to you or alluded to you today, the shipbuilding program has really gotten off to a rather slow start. Can you explain to us why that has happened?

Mr. GIBSON. Yes, sir, I think I can. Prior to the enactment of the bill, we had funded a fairly large study. This was with two contractors who, in fact, were two large shipbuilders. They put together marketing teams and systems teams to determine the kind of ships that should be built under the new program.

In other words, we did not want this a Government-dictated ship type but one that the commercial market would consider viable.

An extensive study was made, and these contractors developed pro forma designs based on that study.

Following this study, the industry came forward with considerable enthusiasm and we received a large number of general applications for the type of ships that were developed as a result of the study.

The study centered around ships that were not in general operation. The new bill provided for the first time for the construction of bulk carriers, for the subsidizing of bulk carriers. And the bulk carrier designed in the program shown in this study was a relatively small size by world standards. It might be termed one of what they call "Panamax." This is the largest ship that will go through the Panama Canal. This also is the largest ship that can be accommodated in the Atlantic and Gulf Coast ports of this country.

It's quite apparent that large numbers of ships of this relatively small size cannot be warranted in world trade, and as the prospective owners more thoroughly investigated the charter market it's clear that they could only find limited applications for ships of this size.

There is no question in my mind that we will build some of this Panamax type, either tanker or bulk carrier, but it is clear to me that the larger program will involve much larger tankers than this, much larger bulk carriers that are economically viable by world standards.

So our failure was to initially identify this market coming in this quickly. We had always assumed that long before the end of the 10-year program these large bulk carriers would be a part of the American-flag merchant fleet. I think that it has now become clear that these large bulk carriers will become a part of the American-flag fleet much sooner than we had anticipated.

Senator HATFIELD. You mentioned this study that the Department carried out. Was this an intra- or in-house study? Or was this a contractor's study?

Mr. GIBSON. This was a contract study.

Senator HATFIELD. Did that study indicate the smaller ships?

Mr. GIBSON. Yes.

Senator HATFIELD. But you are telling us this morning that you feel that this is not really going to meet the world competition as much as the larger ships would meet the competition?

Mr. GIBSON. Yes, sir. I think that is quite clear.

Senator HATFIELD. What does the Department do when it gets a study like this from a so-called group of experts for which I am sure you pay a considerable amount of money and you find that your study does not bear out the judgment of the in-house experts? Would you suggest the name of that group that you contracted with—that we shouldn't contract with them any more? Or was it a poor study? Or did they start with the wrong instructions or guidelines? Or why was the study rejected?

Mr. GIBSON. Well, the market rejected the study. Remember we are talking about two major shipbuilders, one of them being Newport News, which is the largest shipbuilder in the country. Newport News had a half a million dollar contract and I'm convinced they spent another half a million dollars of their own money.

In other words, we tried to take this away from the typical, if you will, consulting firm who didn't have a vested interest. If Newport News was wrong in this study, it was their business judgment that as wrong. This was not done in a vacuum.

One reason that they were so interested in taking this contract was that they have to plan new building facilities, and obviously the question of the size of the ship is one that very directly involves their economic future.

So we tried in awarding the contract—the other contract went to Bath Shipbuilding—to find reputable shipbuilders who have a very direct stake in determining the type of ship that would be built in the future. And then they put other consulting teams together.

This was not a one-company action. They put together many. In the case of Bath, they had seven contractors. They had a major naval architect. They had a major marketing firm. We thought we had structured the study to keep it from being the kind of esoteric sort of thing that we see altogether too much of.

In spite of that, I think 6 months has proved that too much emphasis was placed on the physical limitations in this country.

As I say, I think that—and this is the only way I can account for this judgment—it was clear what the world was building. You know, there are ample statistics on the tonnage that is building, on order, has been built. The trend is clear.

But there were two indicators cranked into the study—as I say, the Panama Canal limitation, which all of the large bulk carriers, of course, have abandoned, and our own port limitations which are very severe.

However, in the case of our own port limitations I think it can be anticipated that in a matter of time they can clearly be overcome.

These are economic and technical problems in this industry. Particularly the tanker owners have ample resources to overcome both of those problems.

Senator HATFIELD. Well, I am certain, Secretary Gibson, that your explanation is a very rational and logical one, but it also points up to me an interesting phenomenon of Government. We have spent a

great number of dollars hiring experts, asking advice and counsel from commissions, private agencies, and other groups used in this kind of routine. I imagine there are probably many, many file drawers around Washington with such reports and commission recommendations that have been rejected by the superiority of the in-house expertise that we already have.

Maybe it's good to get such a report to confirm what we already thought or believed, or to be able to reject what we get, that is in contrast to what we believe.

I would like to see how many dollars have been spent. I would like to run a study on Kerner commissions, Marshall committees, Gates commissions, and other commissions that have cost quite a sum of money, and yet at the same time they have done very little to follow up with their recommendations or their advice.

Mr. GIBSON. Well, Mr. Chairman, my judgment, I'm sorry to say, is one of hindsight. I have also had 6 months to get smarter.

But we try very hard to avoid the pitfall that you properly point out, that this Government process, if you will, is sometimes predicated on meaningless studies. Most of the studies we do, involve private industry. We try very hard to get matching funds so that where our judgment may be derelict at times, private industry's judgment may be also derelict. We are using their part.

I say I think it's clear if Newport News was wrong, they spent a half a million dollars of Newport News' money to be wrong along with us.

And so it was a good study, I think, with just one major flaw: cranking in the port limitations.

Senator HATFIELD. Are you anticipating, then, that you feel these larger ships would be more competitive in the world market, by construction of such larger ships, as far as your program is concerned? And if you are, how do you plan to handle that under the restrictions or the authorizations under section 905 relating to foreign carriage?

Mr. GIBSON. Well, I think that section tends to remove the limitation on foreign. Clearly on any bulk operator in world trade it's essential that part of his business be foreign to foreign.

In the construction of an OBO—this is the ore, bulk, and oil combination carrier—the reason that an operator would spend 10 to 15 percent more to build a ship of this type is because of the great flexibility which is inherent in it, and that flexibility is so that instead of a good part of the ship's life running in ballast when it is not carrying oil, it can link up to the other dry bulk cargoes and incur much greater utilization.

But obviously a good part of that will be in foreign-to-foreign trade, and I see the act clearly provides for that, and I think this was deliberate at the time that that was put in.

Senator HATFIELD. Then, in effect, our ports are going to have to take such larger tankers?

Mr. GIBSON. Well, you know, economically there is no question about it. This country will pay a very great premium for the import of raw material. It will be increasingly at a disadvantage in export of its bulk cargoes, particularly coal.

Right now it's a seller's market. We can export every bit of metallurgical coal this country can produce, but that cannot be continued forever, and we are now doing it in relatively small ships, and people will pay for it because they have to have it.

I think that if we cannot establish a sense of national urgency to develop these larger harbors, we will be at an increasing disadvantage. Of course, we run into an ecological problem. Any time you see a super-tanker today, a great many people are upset, and you know we will hear about the *Torrey Canyon* and ships like that for many years to come.

But I think the economic problems are real and, in fact, the growth of our country at some point in time will be impaired. We have seen this happen in Great Britain. They made a decision in their steel industry to not develop their ports beyond, say, the capacity for 50,000 deadweight ore carriers. The cost of iron ore in Great Britain as a result of that decision has seriously impacted their steel industry.

As we become more dependent on raw materials, I just hope that we won't make the same mistake.

Senator HATFIELD. Mr. Secretary, how many ships have you actually contracted for in this program?

Mr. GIBSON. In this fiscal year, we have let contracts to date for three containerships built at Bath Iron Works, and we have let contracts for eight conversions. We have applications for nine more barge-carrying ships, and also applications for up to eight of the under 80,000 deadweight ton OBO's.

Senator HATFIELD. Shifting just for a moment, there has been some delay in the promulgation of the regulations and the form of agreement under the tax provisions. Why has that happened?

Mr. GIBSON. Sir?

Senator HATFIELD. I say there has been, according to our information, some delay—in fact, rather substantial delay—in the promulgation of the regulations and form of agreement under the new tax agreement. Why has this occurred?

Mr. GIBSON. We have had some difficulty in working out details with the Treasury. And I am glad to report they were finally worked out 2 days ago, so we should be ready to publish them.

Senator HATFIELD. We have some written questions that the chairman has asked me to submit to you, and we would appreciate it if you would then provide us with answers at your earliest convenience.

Mr. GIBSON. I will be pleased to.¹

Senator HATFIELD. Thank you.

Mr. GIBSON. I have got one more statement.

Senator GRIFFIN. I think most of our questions related to the second statement which you haven't given yet. I wonder if we can't go ahead and finish the questioning and have you submit your statement for printing in the record.

What is the current state of the layup of the *Savannah*? Where are we in terms of cost?

Mr. GIBSON. The *Savannah* is laid up at the Todd shipyard in Texas. There is a minimum crew on board as required by the agency regulations. We are preparing to begin deactivation of the reactor.

Senator GRIFFIN. And is it the intention to put it in mothballs completely—as part of the national defense reserve fleet? Is that the idea?

Mr. GIBSON. Yes, sir.

Senator GRIFFIN. Do you have any idea what the ultimate total cost of the layup will be?

¹ See p. 60.

Mr. GIBSON. The deactivation of the reactor has been estimated to cost between \$5 and \$7 million.

Senator GRIFFIN. With respect to the contracts for construction of new vessels, are any of these vessels going to meet the Great Lakes design?

Mr. GIBSON. We have had to date no applications for the Great Lakes design for foreign trade. As I am sure you realize, there are ore carriers for operation within the lakes now being constructed under this program. We have a number of applicants for the tax provisions to develop the reserve fund for building ships in the lakes.

Senator GRIFFIN. Mr. Gibson, in your ship development program, are you investigating the need for developing a vessel which will meet the problems and rigors of an extended shipping season on the Great Lakes?

Mr. GIBSON. Yes, sir; we are. We have recently let a contract to a Finnish firm who I believe are the foremost ice experts in the world, whose purpose is just that—to determine the extent and the amount of ice strengthening that it is feasible to incorporate in ships for the Great Lakes trades, and that has begun.

Senator GRIFFIN. There was some discussion that a Chicago office of your Administration would be opened. Has that taken place?

Mr. GIBSON. Yes, sir.

Senator GRIFFIN. It is open?

Mr. GIBSON. Yes, sir.

Senator GRIFFIN. How long—

Mr. GIBSON. This is a trade, and market development office, obviously.

Senator GRIFFIN. When was it opened?

Mr. GIBSON. About 1 month ago I believe.

Senator GRIFFIN. I don't have any further questions.

Senator HATFIELD. Thank you very much.

Would you like to have your statement that relates to the other bill printed in the record?

Mr. GIBSON. Yes, please.

Senator HATFIELD. Would you care to summarize your statement?

Mr. GIBSON. It is a fairly long statement, Mr. Chairman, and I don't have a summary.

Senator HATFIELD. We will have it placed in the record.

If you have anything further to comment or state, we will be very happy to receive additional comments at this time.

Mr. GIBSON. I have no further comments.

Senator HATFIELD. We are grateful to you for taking the time to come this morning.

Senator GRIFFIN. Mr. Chairman, one further question of the Secretary.

Senator HATFIELD. Yes.

Senator GRIFFIN. Under the Merchant Marine Act of 1970, the Congress furnished you with authority to develop uniform regulations for the administration of cargo preference, which is a bit of a problem. What is the status of these regulations? What consideration is being given to the impact of such regulations on the development of foreign trade from the Great Lakes ports?

Mr. GIBSON. We are in the process of promulgating a number of regulations pertaining to cargo preference. I am not aware of anything in those regulations that deals specifically with the Great Lakes.

Senator GRIFFIN. I am sure you are aware of the strong belief that cargo preference as it has been administered in the past has been somewhat discriminatory as far as the Great Lakes are concerned. Are you examining those concerns and considerations in the development of such regulations.

Mr. GIBSON. I am certainly very conscious of the concern of the Great Lakes because of the Cargo Preference Act, the way it is constructed, and the general lack of American-flag ships to carry those cargoes from Great Lakes ports.

Senator GRIFFIN. That's all.

Senator HATFIELD. Thank you very much.

Mr. GIBSON. Thank you, sir.

(The statement follows:)

STATEMENT OF HON. ANDREW E. GIBSON, ASSISTANT SECRETARY FOR MARITIME AFFAIRS

Mr. Chairman and members of the committee: I appreciate the opportunity to appear before your committee.

The authorization bill for 1972 includes requirements for the second year of expanded Merchant Marine activities under the Merchant Marine Act, 1970. Approval of this authorization will permit the Maritime Administration to expand its shipbuilding program at a greater rate than any time in the past 20 years; improve the operating-differential subsidy program to enable subsidies to be processed and paid more rapidly; implement the subsidy index system; and continue expansion of research and development efforts designed to produce both near-term and long-range improvements and savings in the design, construction and operation of U.S.-flag merchant vessels. These programs are essential to the Administration's commitment to revitalize the American merchant marine and restore this country to its place as a leading maritime nation. The amounts contained in the authorization bill reflect the projected funding levels required to continue implementation and expansion of the new Maritime Program announced by the President on October 23, 1969 which culminated in the Merchant Marine Act of 1970.

At the time he announced the new Maritime Program for the 1970's the President expressed the hope that it would ". . . introduce a new era in the maritime history of America, an era in which our shipbuilding and ship operating industries take their place once again among the vigorous competitive industries of this Nation . . ." I know that you, Mr. Chairman, along with the members of your committee who worked so hard to bring that program to fruition share that desire. I will now explain in some detail the various elements of the authorization bill.

Funds requested under the various appropriations, necessary to accomplish the new program, are included in the total 1972 budget request and are related to attainment of these key program objectives:

Rebuilding of the U.S. foreign trade fleet.

Reduction in the required percentage of construction subsidy.

Reduction of shipboard and port pollution.

Simplification in the determination and administration of operating-differential subsidies.

Expansion of research and development efforts, including intensification of financial participation by industry, in order to achieve increased productivity in the maritime field.

Increasing the percentage of cargo carriage by U.S.-flag ships in the Nation's essential foreign trade.

Intensification of contract compliance efforts to assure equal employment opportunity in the administration of Government contracts in the water transportation area.

The following authorizations of funding for fiscal 1972 are requested.

"(a) acquisition, construction, or reconstruction of vessels and construction-differential subsidy and cost of national defense features incident to the construction, reconstruction, or reconditioning of ships, \$229,687,000."

The 1972 request of \$229,687,000 for this appropriation provides an increase of \$42,187,000 over the 1971 appropriation of \$187,500,000. The 1972 request represents requirements for the second year of expanded ship construction for

a projected 10-year span in order to rebuild the U.S.-flag merchant marine. Contract awards for 22 ships are anticipated in 1972, an increase of 3 over the planned 1971 level. The new Maritime Program plan calls for reaching a level of 30 ships per year by 1973, and anticipates maintenance at that rate throughout the seventies to provide a total of approximately 300 new ships or their productive equivalent.

Continued efforts in the areas of standard and multiple ship procurement will be pursued in order to attain quantity production at lower unit prices. As in 1971 we plan to minimize excessive Government involvement in shipbuilding by awarding subsidy directly to the shipbuilder. Even now the operators are negotiating freely with the shipyards to arrive at minimum costs through design tradeoffs. Continued efforts will be made to encourage shipbuilders to develop efficient production and procurement methods through expanded employment of production line manufacturing techniques and prefabrication of standard components. Plans call for a decrease from the 1971 subsidy rate maximum of 45% to a 43% subsidy in 1972. We believe this to be attainable. Further decreases in 2% increments are planned to reach a maximum rate of 35% in 1976 and thereafter.

"(b) payment of obligations incurred for operating-differential subsidy, \$239,145,000."

The requested 1972 authorization for operating-differential subsidies provides for the continued payment of such subsidies to American operators to enable them to operate their ships competitively with their foreign counterparts.

The 1972 estimate anticipates the addition of some new operators and continues to reflect savings as a consequence of the reduced need for subsidy on certain trade routes where the introduction of new technology has enabled profitable operation without Government assistance.

Consistent with the new Maritime Program, improvements in the method used for determination and administration of these subsidies have been formulated. Foremost among these is the new wage subsidy index system which associates the level of subsidizable wage costs with the general level of wage increases achieved throughout the economy. Other modifications in the previous system of subsidy determination are: payment of wage subsidies on a monthly rather than quarterly schedule; determination of manning levels for future subsidized vessels prior to the time construction contracts are entered into; elimination of recapture provisions; and partial elimination of non-wage subsidies.

The total appropriation requested for operating-differential subsidies in 1972 is \$239,145,000, reflecting a \$33,855,000 decrease from the adjusted 1971 base of \$273,000,000 which consists of a \$193,000,000 annual appropriation plus a requested \$80,000,000 supplemental appropriation. This supplemental covers the nonrecurring cost of converting from a quarterly to a monthly schedule for the payment of subsidies and the partial liquidation of accrued subsidies for prior years. Thus the net decrease between FY 1971 and 1972 is simply a consequence of this nonrecurring cost.

"(c) expenses necessary for research and development activities (including reimbursement of the Vessel Operations Revolving Fund for losses resulting from repairs of experimental ship operations), \$25,000,000."

The 1972 request for Research and Development of \$25,000,000 represents an increase of \$4,300,000 over the 1971 appropriation of \$20,700,000. The program for 1972 has been planned in specific response to the President's directive to expand and redirect maritime research and development efforts with emphasis on practical application of new technology through coordination and cost sharing with the maritime industry.

The basic research and development objective is directed toward the national goal of making the U.S. merchant fleet wholly competitive through practical advances and coordination with industry. The aim is to reduce life-cycle costs of ships, improve productivity of shipyards and the shipping industry and eliminate or minimize subsidies. Priority has been placed on near-term development aimed at reducing both construction costs and operating subsidies.

Key programs are being carried out in (1) Advanced Ship Development, (2) Advanced Ship Operations, and (3) Maritime Technology. The first area is concerned with key programs to improve U.S. shipbuilding design and construction methods, develop advanced propulsion systems and advanced ship systems directed toward higher performance, longer life and more productive ships.

In the second area, Advanced Ship Operations, automated systems are being developed the objective of which is the improvement of U.S. shipping operations through marine oriented computer control systems for direct application to cargo management, vessel administrative controls and shipboard controls associated with navigation, machinery systems, communications and vessel management. Other key programs cover systems for elimination of marine pollution resulting from com-

mercial ship operations; advanced tug-barge systems which give promise of competing very effectively with foreign ships for world trade; and advanced ports and terminals to handle the new ship types or supertankers.

In the third area, Maritime Technology, key programs are geared toward advancing the state-of-the-art in maritime engineering in order to provide technological support for the more immediate developmental efforts and enhance their probability of success.

Key programs have all been chosen on the basis of their national significance and the high benefits they offer relative to their costs. The benefits are derived by analyzing the potential impact of a project on the President's 300 ship program. The evaluation process used to choose the projects for implementation takes into account the time value of money by discounting future economic benefits to the present time ("net present value") and relating these benefits to the "investment," or cost, of the project. There are many high benefit/cost ratio projects which can be included in the total R&D program. Due to fund limitations, only those have been included which bring at least a 300% return on the project cost.

"(d) reserve fleet expenses, \$4,318,000." Funds of \$4,318,000 are requested for expenses to be incurred in the preservation and custody of reserve fleet vessels. The request reflects a \$357,000 decrease from the \$4,675,000 authorized for FY 1971 incident to the declining number of ships in the reserve fleet. Included within the requested total are amounts for expenses of maintaining Marad owned warehouses used for care and maintenance of equipment for outfitting reserve fleet vessels.

"(e) maritime training at the Merchant Marine Academy at Kings Point, New York, \$7,300,000." An authorization of \$7,300,000 is proposed for the continued maintenance and operation of the U.S. Merchant Marine Academy at Kings Point, New York. The increase of \$500,000 requested over the 1971 level is required mainly to complete rehabilitation of the Mallory Pier. Additional funds are also required in order to effect compliance with Presidential Executive Orders on pollution abatement, and for mandatory pay increases.

The 1972 program anticipates continuation of the current graduation rate of about 215 merchant marine officers annually. The appropriation covers cadet costs such as uniforms and textbook allowances for which an average annual amount of \$475 is paid to each cadet, food service, etc.

Provision is also made for the maintenance, repair, and operation of the Academy; for continued modernization of Academy buildings, including improvement of cadet housing; for continued upgrading of instructional equipment for the laboratories used in the engineering, nautical science, and math and science departments; and for expenses incurred for program direction and administration and support of administrative and academic staffs.

"(f) financial assistance to State Marine Schools, \$2,200,000." The requested 1972 authorization of \$2,200,000 provides for continuation of the program of financial assistance to six State Marine Schools as authorized by the Maritime Academy Act of 1958. The six participating schools are located in California, Maine, Massachusetts, Michigan, New York and Texas. The level of graduates has approximated 400 merchant marine officers per year. The 1972 program anticipates continuation of this level.

Within the total estimate of \$2,200,000 the appropriation covers a request for funds in the amount of \$450,000 for grants to the schools, which includes a payment of \$75,000 to each school to help defray expenses. In addition, funds of \$949,000 are requested to provide payment of \$600 per annum for cadets in attendance. The amount allowed is intended to offset partially expenses incurred by the cadets relative to the costs of uniforms, textbooks, and subsistence.

Finally, funds of \$801,000 are included to cover the maintenance and repair and drydocking costs of Government-owned training vessels on loan to the schools.

This concludes my statement, Mr. Chairman. I will now be happy to answer any questions that you or any member of the Committee have concerning our 1972 request.

Senator HATFIELD. Mr. Marshall Safir. We will be happy to have your testimony printed in full in the record, and you may handle it any way you wish at this time.

STATEMENT OF MARSHALL SAFIR, KINGS POINT, N.Y.

Mr. SAFIR. Thank you, Senator Hatfield. I think since it is fairly short, sir, I would like to read it.

Senator HATFIELD. Please proceed.

Mr. SAFIR. Gentlemen, I believe you are aware that the U.S. Court of Appeals, Second Circuit, has mandated that the Maritime Administration decide whether to recover millions of dollars in subsidy funds from certain subsidized steamship lines whom the court found to have violated section 810 of the Merchant Marine Act of 1936.

Following these decisions, the Supreme Court of the United States has denied certiorari in *American Export Isbrandtsen v. Safir*, when these steamship lines appealed for relief from the binding effect of the FMC on the Maritime Administration.

The court of appeals in mandating a "considered decision" by the Administration, further warned that the agency's discretion was not "unlimited" and was subject to review. The hearing at MarAd, docket S. 243, is now in progress at the Department of Commerce.

The court of appeals, at the time of its decision in February 1970, was aware of the fact that \$80 million in backlog was available for recovery by MarAd, because the enclosed exhibit, "Appendix to the Budget for the Fiscal Year 1971," was submitted in my reply brief and was discussed in the oral argument in January 1970, which led to the signed decision in February.

The supplemental authorization bill, S. 1220, now before your committee, is accompanied by an executive memorandum from the Secretary of Commerce, stating that it is of the utmost importance that these billings be paid promptly, and bewailing the inordinate time that these funds have been withheld. But there is no mention of the prior requirement to make a "considered decision" after a public hearing on the recovery of these subsidy funds from most of these operators, some of whom are presently subsidized and others whose subsidies have expired.

At this point, Senator Hatfield, I would like to remark that in the remarks of the Secretary a few minutes ago, he took the position that this case of mine has nothing to do with the recovery—with the supplemental appropriation—and should be handled separately. But since what my position in effect is, is really an attempt to perfect a judgment, there are certain lines that were subsidized during the period of this violation who are no longer subsidized and who in some cases based on their own statements recently at the FMC hearings are in danger of going out of business, threatened with the possibilities of liquidation.

I checked and found that in one instance here, one of those companies that is so threatened is owed on this basis, \$2 or \$3 million.

Now, if a recovery was to be made in the future, the fact of the ability to disburse these funds to a firm like that would inhibit certainly my ability to get it back from them if they were either in liquidation or potential bankruptcy or something like that.

So the tying effect of this \$80 million is of considerable private interest to me, and it would be unhappy for me having this interest and standing which the courts have determined to see these funds disbursed prior to the decision that will be necessary to put me back in business.

Senator HATFIELD. Mr. Safir, may I interrupt at the point?

Mr. SAFIR. Certainly.

Senator HATFIELD. Because the word you are using I think is really sort of key to the action that we are contemplating here. You are using the word "disbursement," and that is a very accurate word because actually what we are considering here is authorization. Then the next

step is, of course, appropriation, and then the next step is disbursement through some executive agency.

Wouldn't it be more appropriate for you to bring court action—that is, I'm not telling you what to do, but I'm asking a rhetorical question. Would it be more appropriate for you to bring a mandamus action against the Administrator on the point or on the question of disbursement?

Mr. SAFIR. I'm glad you brought that up, Senator. I have been mandamusing this administration to death. I would not be in a position I am in even now were it not for a mandamus action I took 3 years ago.

The possibilities here have always been that administrative attrition would be effective against me as an individual, in the hope that while the law is specific in my situation, if you wait long enough, either the fellow is going to expire or he's going to go away or something else is going to happen, and the longer we kick it around, the better the chances are that it will just go away by itself.

While I recognize that, fortunately, under one system I have this ultimate mandamus once again on the disbursement, I wanted to bring to the attention of this committee the fact that all this would represent if you proceeded with the authorization quickly on this would be further attempts at attrition without a resolution of the problem, and that I may as well attempt to nip it in the bud rather than to go so far.

Senator HATFIELD. Just so long as the record is clear that the action of this committee, as was commented upon briefly a few moments ago by the Secretary, has no bearing or no impact upon the docket case now pending, and that your presence here is certainly welcomed—we welcome any citizen who wants to present a viewpoint—but that the action taken on authorization has no direct bearing at this time on the case pending or ultimately on the question of disbursement, except from the standpoint that we make the funds available.

You are here in a strategy move to cover your own case, which is quite appropriate. We do not fault that. But I want to make it very clear that our action is not really that much directly involved in the ultimate decision that is going to be made by the Administrator.

Mr. SAFIR. As long as I am able happily to present my views to this august body and to have the knowledge of the problem aired, I have the feeling that right will prevail.

Senator HATFIELD. Good. Thank you. Please proceed.

Mr. SAFIR. On the basis of that colloquy, I think that I should perhaps offer the rest of my statement to be put in the record and close it out at that.

Senator HATFIELD. All right. Fine. Thank you very much, sir.

Senator Stevens, do you have any questions you would like to ask at this time?

Senator STEVENS. No. I think he had some good advice from the lawyers myself.

Senator HATFIELD. Thank you very much. We appreciate your presence.

(The statement follows:)

BALANCE OF STATEMENT OF MARSHALL SAFIR

Indeed, the Maritime Administrator appears to be precipitously attempting to divest himself of the power to offset these funds—in effect, to unlock the barn door so that an \$80,000,000 horse can run away.

If recovery of the subsidy funds is required, and all indications so direct certainly disbursement of this backlog prior to the mandated decision and subsequent judicial review would be an abuse of discretion which the Congress would hardly condone.

The decisions of the Court set forth clearly and unequivocally my own personal interest in these funds once recovered or offset. The Court of Appeals in its decision of September 26, 1969 in *Safir vs. Gibson*, on page 3508, states as follows:

"The legislative history (of the 1936 Merchant Marine Act) demonstrates that termination of subsidies was not designed to be purely penal measure, although quite likely the punitive effect was considered a desirable byproduct. *The primary concern manifested was with the added burden which subsidies impose on the competitive position of the victim.* We think this concern also extends to the interest of a former victim in the recovery of subsidies improperly paid in the past to lines which are still his competitors, although here the duty of the Administrator may be less absolute than in the obligation to cease payments to current violators. *In the nature of things, few complaints of violations will be received and acted upon until after some further payments have already been made. Recovery of such payments imposes an added cost on the violators and thus will partially make up to the victim for the burden which the earlier payments indirectly imposed on him.*"

On page 3509 the Court once again states:

"Since we find that Section 810 was designed to promote the competitive interest of a victim by authorizing the recovery of subsidies improperly paid in the past, it follows that this interest is legally protected, see *Hardin vs. Kentucky Utilities Co.*, 390 U.S. 1, 5-7 (1968), and that disregard of it is a 'legal wrong' within the meaning of section 10(a) of the Administrative Procedure Act, 5 U.S.C., section 701. While Sapphire (Steamship Lines) is not presently competing with the AGAFBO lines, we deem that irrelevant in the circumstances of this case. Sapphire was forced out of business by the violation of Section 810 and plaintiff *Safir* stated in an affidavit that he desired to return to the shipping business as soon as possible . . . we hold that an interruption of operations like that here does not sufficiently alter the victim's interest to take it out of the protection of Section 810 with regard to raising the issue of the Administrator's refusal to seek recovery of past payments."

Later, on page 3510, the decision states:

"While the Maritime Administrator may have some discretion in connection with the recovery of past subsidies, as distinguished from payments to current violators, the discretion is not unlimited. Cf. *American Mail Line, Ltd. vs. Gulick*, 411 F. 2d 696 (D.C. Cir. 1969); *Moore-McCormack Lines, Inc. vs. U.S.*, 38 U.S.L.W. 2112 (Ct. Cl. July 16, 1969). Specifically, he may not refuse to proceed against the AGAFBO lines without at least considering the interest of the victim, about which the Congress was so concerned."

It can be seen, therefore, that there is considerable question as to whether or not any of the subsidized steamship lines who were subsidized during the period of violation are entitled to any of these offset funds at all.

I favor the authorization in S. 1220 in its present form *only* to those subsidized lines who were *not* violators of Sec. 810 in the Sapphire Case. The Supplemental Appropriation Bill should be amended, however, to authorize the appropriation but not the disbursement of the remainder of the \$80,000,000 until both administrative and judicial determinations are made as to whether these funds are to be used by the Maritime Administrator to reestablish me as a United States Flag common carrier by water in the foreign and domestic trades of the United States. If S. 1220 will be amended with suitable language to cover this important change, I believe that the bill should be passed by your Committee. If, however, it is to remain in its present form, I believe that it should be tabled.

[From the Appendix to the Budget for Fiscal Year 1971, p. 256]

Status of unfunded contract authority.—The computation and approval of final subsidy rates and audit of annual accountings will make it possible to pay 100% of subsidy payable on account of operations prior to December 31, 1964. The \$143 million unpaid subsidy as of June 30, 1971, represents the balance due operators under the formula for calendar year 1970; estimated amounts earned in the final quarter of 1971 for which vouchers will not be presented or paid during that year; plus a backlog of \$80 million for calendar years 1965 through 1969 withheld pending final audit and rate determinations.

Senator HATFIELD. Are there any other persons wishing to be heard at this time?

(No response.)

If not, the hearing is adjourned.
 (Whereupon, at 11:33 a.m., the subcommittee adjourned subject to the call of the chairman.)

STATEMENT BY HON. JOHN DELLENBACK, U.S. REPRESENTATIVE FROM THE
 FOURTH DISTRICT OF OREGON

I submit the following statement in support of including funds in S. 1223, the Coast Guard Authorization Bill, for construction and operation of a United States Coast Guard Air Station at North Bend, Oregon. I ask that you increase funds for the Coast Guard by \$2.5 million for this air station. This amount consists of \$1.2 million for a hangar, administration building and maintenance facility; \$800,000 for barracks and mess facilities and \$500,000 for equipment to operate the helicopters. The annual recurring cost is estimated to be \$1.4 million.

The establishment of this Coast Guard air station is essential for the Southern portion of the Oregon coast for three important reasons: to affect search and rescue operations; to patrol against foreign fishermen's violations of United States territorial waters; and, to guard against possible pollution of the Oregon coast.

First, a helicopter air station would allow for effective search and rescue operations to be carried out. The speed with which helicopters can be dispatched and reach the site of a boating mishap would mean a great reduction in the loss of life and the destruction of property. The crucialness of the need for the air station cannot be over emphasized. Both the recreational boater and the commercial fisherman need the safety such a facility would insure.

Second, a Coast Guard air station would allow for a more thorough patrolling of the territorial waters of the United States. The rapid depletion of fish resources off the Oregon coast make such patrols necessary. There are now no doubt many violations of U.S. territorial waters by foreign fishermen—violations which could be drastically curtailed if the Coast Guard had an effective means of surveillance. An air station would provide this effective means of surveillance.

Third, a Coast Guard air station could serve as a guard against possible pollution of the Oregon Coast. Helicopter patrols could uncover possible pollution hazards in time for preventive measures to be taken. The recent oil spills from both offshore drilling and sinking oil tankers vividly emphasize the desirability to limit and if possible stop this form of ecological destruction.

It should be noted that the basic equipment, the three HH 52 helicopters, for this proposed air station are already in the Coast Guard inventory. Thus, the cost of this item is not a part of the air station and therefore should be a further incentive to act favorably on this request now.

In conclusion let me say that the versatility of the North Bend Coast Guard air station make it a desirable undertaking. The pressing needs for effective search and rescue operations, patrolling United States territorial waters, and guarding against pollution of Oregon's coast make the installation of the North Bend air station desirable. The three necessary helicopters being in Coast Guard inventory make this helicopter air station economically desirable. I hope that you will act favorably on authorizing funding for a United States Coast Guard air station at North Bend, Oregon so that construction and operation can begin in Fiscal Year 1972.

(The following information was referred to on p. 28)

S. 1223 Coast Guard Authorization.

QUESTIONS OF THE SUBCOMMITTEE AND THE ANSWERS THERETO

VESSELS

Question. With respect to the high endurance cutters program, what progress is being made in replacement of these vessels?

Answer. A minimum of 15 378-foot class vessels has been determined as being required for sole Coast Guard missions and these 15 will replace the aging 311-foot sea plane tenders. 12 of these replacement vessels have been funded, 9 are presently operational and 3 are being constructed. They will be operational in FY 72.

Question. If funds were available, what priority would faster replacement have?

Answer. Of the projects dropped from the FY 72 budget, the 378' replacement vessel construction ranks second in priority, just after the icebreaker construction. If funds were available, they would be allotted in that order.

HIGH ENDURANCE CUTTERS—INCREASE FUEL CAPACITY AND IMPROVE HABITABILITY
ON 327-FOOT CLASS

Question. How substandard are the habitability characteristics of these ships?

Answer. There are 6 vessels in the 327-foot class, and with the request in this year's budget for improvements to the sixth ship, improvements will have been made to the entire class. Prior to these improvements, men had 18 square feet of living space each and slept in 3-tier bunks in compartments that were not air conditioned. The improvements provide 2-tier bunks, air conditioning, and an increase in living space to 25 square feet.

Question. How many days annually do they operate on the average?

Answer. They average 192 operating days annually. They spend an average of 217 days annually away from their home port (operating days plus shipyard availability.)

Question. After refitting, these cutters will still have a personnel complement of 151 men. How is it possible to provide an improvement in berthing space and still keep the authorized complement at the same size?

Answer. Two additional areas will be utilized as berthing compartments in order to provide for the improvement in berthing space. A new compartment is being added as an extension of the deck house on the main deck level and will be utilized as sick bay. The former sick bay will be converted into berthing for petty officers. The other additional area is an underutilized compartment being converted to berthing use. Through this rearrangement, crew living space has been enlarged from 4006 square feet to 4944 square feet, an increase of 23 percent; and berthing space alone has been enlarged from 2362 square feet to 3258 square feet, an increase of 39 percent.

WIND CLASS POLAR ICEBREAKER RESTORATION

Question. To what extent is the present program of icebreaking in support of commercial transportation requirements?

Answer. Very little. Of the present 1260 ship days annually, only about fifty five days is clearly and unequivocally in support of commercial transportation requirements. There is a great deal of Search and Rescue standby time which the icebreakers contribute while operating on other missions, but of course this Search and Rescue time is potentially available to anyone in need.

Question. Has any attention been given to developing a means to charge the users of the icebreaking services for the operating costs and their share of the capital expenses?

Answer. Yes, and we may implement a user charge system in FY 1973 based on charging users for marginal operating costs. Charging for the full operating cost could leave the Coast Guard with crews but no funds to pay them with, if other agencies choose not to buy icebreaker time. If the charge is for marginal costs, then we can continue to pay salaries with Coast Guard funds. We are exploring the feasibility and desirability of trying to recover capital costs.

Question. What has been the impact on your icebreaker needs projections of the delay in the decision about Alaskan oil pipeline? Are there any plans to begin year-round use of ice locked waters in Alaska to move oil in the immediate future?

Answer. Our projection that four new ships could replace six WINDs did not consider Alaskan oil pipelines or Northwest Passage tankers, and is therefore unaffected. As to the second part of the question, there are no such plans that we know of.

Question. If so what impact will that have on your future icebreaker requirements?

Answer. Future icebreaker requirements involved with the Alaskan oil discoveries will depend largely on whether the icebreaking supertankers are built. If none are built, and a pipeline is built instead our icebreaking requirements will increase nonetheless but less so. A pipeline will require a surface transportation system, which in turn will increase the need for vessel assistance.

Question. What progress is being made with your icebreaker replacement program?

Answer. We have funds for the first ship and bids have been invited. We hope to fund the second ship in FY 73.

Question. Will the restoration project proposed for the two WIND class breakers keep this program on schedule?

Answer. No. The restoration extends the life of two WINDs five years and is a stopgap measure, to tide us over while the new ships are being built. If the new ships are delayed, the renovated ships will be kept in service longer, and at the same time, the national icebreaking capability will drop seriously in FY 1976 to

about 870 ship days (from the present level of 1260 days). Any further delay will probably require further restoration to the two WINDs to keep them operating longer.

Question. On act 17 of your program the CG indicates that the present capability of the CG is 1260 annual operating days spread over six WIND class breakers and Glacier. It is stated that without the restoration of these two WIND class breakers that there will be no vessel of this class in service after 1976. Is it correct then to understand that your present plans for 1976, assuming that the restoration program is funded, is to retire the remaining WIND class breakers?

Answer. Yes. The ships will be over thirty years old then, and we can barely keep them running today. We anticipate that the unrenovated WINDs will become unseaworthy in the FY 1974-1975 time frame.

Question. By 1976 what will the CG capability be in terms of annual operating days? What percent of this time will be service from WIND class breakers?

Answer. If nothing changes from the situation today, we expect that two renovated WINDs will be operating in 1976, plus the first new ship and the Glacier. This will produce 870 ship days, of which the renovated WINDs will produce 420 days or half the ship time available.

BUOY TENDERS—REHABILITATE AND IMPROVE

Question. What is the geographic distribution of the 133' Class WLM's and the WLR's and the average number of buoys within the Coast Guard district to which they are assigned?

Answer.

Ship class	C.G. dist.	Number of ships of class in dist.	Average buoy in in dist.	Average buoy per ship	Average other aids per ship
133' WLM-----	1	3	2,850	283	0
	5	1	2,060	324	10
	7	1	1,450	96	256
	13	1	710	164	2
	17	1	450	46	139
WLR-----	2	25	9,000	360	140

Question. What effect on Coast Guard requirement for buoy tenders will the present buoy replacement program have?

Answer. Envisioned for the near future is the replacement of up to 20% of our buoys with structures and, beginning at a later date,—the replacement of steel buoys with plastic.

The replacement of buoys with structures should allow a reduction in the number of large tenders required to service them, but will require a larger number of small units to service the structures.

A changeover to plastic buoys should allow buoys to be overhauled on board the tender and greatly reduce the frequency of buoy reliefs. This should allow some reduction in the number of tenders required, although the characteristics of the tenders which will service these plastic buoys will have to be developed over a period of time.

COMMUNICATIONS

Question. What has been the retention experience for communications personnel vis a vis other personnel? Has the deficiency in equipment played any role in this situation?

Answer. The Radioman rating presently ranks tenth out of a total of thirty rates with a current annual reenlistment rate of 10.3% for first reenlistments. A recent survey of all CG Radiomen indicated that of 541 Radiomen who stated they did not intend to reenlist, 11.2% cited poor working conditions (antiquated equipment, long hours, etc.) as the primary factor that influenced their decision not to reenlist.

VESSEL COMMUNICATIONS

Question. What is the present state of communications readiness in the entire ocean going Coast Guard fleet?

Answer. The installation of single sideband equipment aboard our larger cutters (70% complete) along with routine replacement programs has greatly enhanced our communications capability and communications readiness. How-

ever, aboard the 19 smaller ocean going cutters planned for communication modernizations, the equipment is obsolete and not compatible with other units.

With the Navy shift to the multi-channel broadcast and planned phase out of the single channel broadcast (equipments for the two are not compatible), our major cutters will not have the required compatibility or normal means for receiving classified traffic. Present planning calls for implementation of this capability on about 40 major cutters over the next four years. Smaller cutters are included in the single sideband program, but are not required to have a broadcast receive capability.

VESSEL COMMUNICATIONS—MODERNIZE RADIO ROOMS

Question. On those vessels without 100 words per minute radioteletype, how are routine communications handled?

Answer. Ship/shore communications presently are handled on those vessels primarily by Morse CW which is not only slow and tedious for long messages, but also places a burden on shipboard as well as radio station personnel. A limited amount of traffic is passed via voice.

Question. Assuming that this program is funded, will all vessels which spend much time away from port have RATT capability when the program is completed. If not what additional sums would required to provide this capability?

Answer. If this program is funded as planned, all Coast Guard vessels which routinely spend much time away from home port will have a radio teletype capability.

AVIATION

Question. Your AC & I program indicates that you plan: to obtain 3 C-130's from new procurement and extend the life of 9 C-130's by major wing modifications, to reactivate 6 HU16E aircraft, and to procure 6 new medium range helicopters. Where will this work probably be done?

Answer. The C-130 aircraft are to be procured from Lockheed Aircraft Corporation, Marietta, Ga., with the wing modifications on the aircraft being performed by the same company. Work on the reactivated HU16E aircraft will be performed by Hayes Aircraft Corporation, Dothan, Alabama. The helicopters will be procured from Sikorsky, a division of United Aircraft Corporation.

Question. I note that the CG has increased responsibilities in the marine environmental protection area. Is this aircraft program sufficient to meet CG needs to enforce existing laws?

Answer. The degree of impact of new environmental programs on CG aviation resources is under study. Our previous planning concentrated on search and rescue with very limited resources being made available for other mission areas. The request in this budget for C-130's and H-3's is predicted on this planning. Further, the reactivation of HU16E aircraft is only an interim measure to provide a timely response to surveillance requirements. These aircraft will provide a planned mission capability only until such time as a reasonable replacement program can be formulated.

The development of an optimal cost effective mix of multimission aircraft to cover present and forecast mission requirements has been initiated. As definitive inputs for mission requirements are established, a program developed from a quantitative base will be undertaken.

Question. If the administration's ocean dumping legislation is enacted, the CG would have added responsibilities in that area. What type of aircraft would be most suitable for this mission?

Answer. A medium range, fixed wing type of aircraft is believed to possess the best operational capabilities for monitoring and observing increased activity in the ocean dumping area. The HU16E is the medium range aircraft currently in our inventory. However, its age and technological obsolescences precludes its use for more than that time required to develop a replacement aircraft. The current study of the optimal mix of multimission aircraft is addressing the problems of the type of aircraft required for overall CG use in this field.

Question. During FY 1971 did any search and rescue missions have to be delayed due to the unavailability of aircraft?

Answer. During FY 1970 and the first half of FY 1971, no search and rescue missions have been documented as being delayed due to the unavailability of aircraft. The relocating of aircraft was, however, occasionally necessary to insure continued availability for immediate search and rescue response.

AVIATION—ADMINISTRATIVE AIRCRAFT

Question. There is no administration request for the additional executive transport aircraft for the CG provided for in the House. Does that indicate that the existing craft are sufficient to provide the transportation necessary for CG official use? How many of these craft are now in service and how are they used?

Answer. Existing executive aircraft are not able to fully provide the transportation necessary for official CG use, although utilized to the fullest extent practicable (note minimal FY 70 "other administrative travel" shown below). While a request for a third executive aircraft, Grumman Gulfstream I (VC-4), was included in the FY 72 budget submission to OMB, it had to be deleted in order to provide for higher priority projects requiring the funds ultimately provided in the President's Budget.

Two aircraft are presently in service, a Grumman Gulfstream I (VC-4) and a Gulfstream II (VC-11). Use of the aircraft is as follows:

OPERATING HOURS

[Not including training, test, and ferry flights]

	Secretary and commandant and other government officials	Other Coast Guard administrative travel
Fiscal year 1967.....	2,088	1,973
Fiscal year 1970.....	3,407	615

AIRCRAFT FOR POLLUTION SURVEILLANCE

Question. With respect to the six Grumman fixed wing amphibious (HU16E) aircraft, will these planes be adequate for the marine environmental surveillance programs you plan for them?

Answer. Reactivation of 6 HU16E aircraft is a stop gap measure to provide surveillance capability in the marine environmental area. Utilizing obsolete aircraft, with ever increasing maintenance problems and associated costs, it is not the most efficient way to provide such surveillance. It will, however, provide a timely solution to this program and the aircraft will be adequate for the time they are required to be in service until they can be replaced.

Question. If new procurement were to be utilized, rather than rehabilitation of retired planes, what type of plane would be preferred? What would be the appropriate cost comparisons taking into consideration operating expenditures, overhaul and repair down time, etc?

Answer. Should new procurement be utilized, a fixed wing aircraft equipped with sensory and location equipment would be required. Considerable reductions in overhaul and repair down time would result, with maintenance and operating costs decreasing proportionately. Information from the aircraft industry puts a price of \$1-\$2 million per aircraft, fully equipped.

CONSTRUCTION MORATORIUM

Question. The FY 1970 Moratorium resulted in delays to about 14 million dollars of construction. What is the status of the projects delayed as of this date?

Answer.

Project	Status	Thousands
Cape May helicopter pad.....	Obligated.....	\$114
Panama City, Fla.....	Completed.....	100
Mobile, Ala.....	Obligated.....	100
New London, Conn.....	Reprogramed.....	1,387
Port Aransas, Tex.....	Obligated.....	90
Port Angeles, Wash., fuel facility.....	Canceled.....	55
Waterways aids to navigation.....	Obligated.....	73
Alteration of bridges.....	Contracted.....	985
Military family housing.....		2,730
Cape Charles, Va.....	Awarded.....	
Hyde Park.....	Purchased.....	
San Francisco.....	Award May 1971.....	
Cape May, N.J.....	Award June 1971.....	
Lighthouse automation.....	Obligated.....	292
San Francisco radio station.....	Awarded, except BEQ to be awarded May 1971.....	1,004
St. Petersburg air station.....	Awarded.....	179
Cape Charles, Va., station.....	do.....	431
Houston, Tex., station.....	Awarded June 1971.....	1,884
Boston, Mass., base.....	Awarded May 1971.....	1,300
San Francisco, Calif., base.....	Awarded.....	53
Mayport, Fla., base.....	Delayed due to dredging.....	242
Baltimore, Md., CG yard.....	Obligated except \$310,000 to be awarded June 1971. \$152,000 in reserve.....	687
New London, Conn., academy library.....	Awarded.....	2,080
Yorktown, Va., fire station.....	do.....	382
Mobile, Ala., flight trainer building.....	Award June 1971.....	194
Total.....		14,362

Question. Was any of the work authorized in the FY 71 budget deferred for any reason? If so please provide a detailed statement about the circumstances.

Answer. The FY 1970 construction moratorium extended into the first two months of FY 1971. This fact, plus the general constraints of operating under a continuing resolution, have limited the number of projects authorized in FY 1971 which could be started so far this year. However no specific project has been actually deferred.

CONSTRUCTION PROJECTS

Marshfield, Mass.—Construct Barracks at Boston Radio Station

Question. Will the new barracks with the older facility provide the minimum Coast Guard and DOD habitability standards?

Answer. Yes.

Question. What will be the typical layout in terms of room and space available for each man?

Answer. The new layout will provide for: Chief Petty Officers—1 man per room; permanent party enlisted men—2 men per room; and watchstanders—4 men per room. Enlisted berthing will now provide for 120 square feet per man. Watchstanders will have 60 square feet per man. Overall living space—berthing, messing, head, etc.—will be 295 square feet per man.

Rebuild Merrimac River Station

Question. The deterioration of the CG facilities at this station appears to be the result of a major engineering failure. To what extent was the CG involved in the construction of the jetty which resulted in the shore erosion which caused the collapse of the facilities there?

Answer. Following renovation of the jetties at the entrance to Merrimac River in March 1969 which increased the elevation of the north jetty and filled the voids in the south jetty, erosion commenced along the south river shoreline at this station. The Coast Guard was involved in the project only to the extent that after the erosion commenced, we asked the Corps of Engineers to make a study of the situation in an attempt to find a solution to the erosion problem. As a result of the study, the south jetty was extended inland along the area of erosion. However, this additional measure failed to resolve the problem and the erosion continued, forcing evacuation of the station.

Question. Was the Army Corps of Engineers solely responsible for the project?

Answer. Yes, however the Coast Guard requested a study of the erosion problem and the Corps of Engineers extended the south jetty following completion of the study.

Question. To what extent was the jetty responsible for the resulting collapse of the structures?

Answer. Noticeable erosion commenced only after renovation of the jetties by the Corps of Engineers. Three severe storms in February, 1969, may have contributed to the problem, however the erosion continued after their passing. The jetties, therefore, are believed to have been primarily responsible for the erosion.

Honolulu, Hawaii—Improve Existing Barracks at Base

Question. How long will the barrack program planned at Honolulu improve the habitability of these facilities which are located in the flight path to the airfield?

Answer. The present barracks is basically of open construction to allow natural ventilation and cooling. This arrangement results in extremely high noise levels inside the barracks during aircraft take-offs and landings. Acoustic protection will be provided by structural changes for sound-proofing and substituting air conditioning for natural ventilation. Air pollution inside the barracks will also be reduced by these changes. New furnishings and semi-private berthing areas will be provided by partitioning the open berthing space.

Question. Is there evidence that the interior sound levels will be sufficiently reduced by the proposed program?

Answer. Sound-proofing and some structural changes to this concrete building will reduce the interior 115-120 decibel level during aircraft over-flights to an acceptable 70-80 db.

Question. Is the alternative of complete relocation of the barracks an open question?

Answer. The entire base on San Island, Honolulu is within the aircraft flight path. The barracks could not be relocated to provide protection without building at a site away from the Base—and there is not enough available real estate in downtown Honolulu to do that even if it were otherwise feasible.

Public Family Quarters

Question. What percent of the funds requested for FY 72 for public family quarters will be available to officers?

Answer. 13.1%.

Question. What percent of the currently owned public family quarters is occupied by officers, grades O-4 and above? By enlisted personnel grades E-7 and above?

Answer. Officers O-4 and above occupy 9.7% of CG owned housing. Statistics on enlisted grade E-7 and above are not available but the total population of enlisted in CG owned housing is 77%.

Question. What priorities are used in the assignment of these quarters?

Answer. With the exception of Flag Officers, a few Commanding Officers and a small number of enlisted Officers-in-Charge where housing is identified by billet, all housing is assigned on a first-come first-served basis, subject to the following refinements:

a. Housing lists are maintained according to the following pay grade categories: (1) Captains; (2) other senior officers (O-4 and O-5); (3) junior officers (O-1 thru O-3 and W-1 thru W-4); (4) enlisted.

b. Housing lists are also maintained in accordance with bedroom requirements for the family. The following Minimum Bedroom Requirements Table is used in making this determination.

Minimum bedroom requirements table

Number of dependents excluding wife:	Number of bedrooms
None	1
1	2
2, same sex, neither over 12 years	2
2, opposite sex, neither over 5 years	2
2, opposite sex, one over 5 years	3
2, same sex, one over 12 years	3
3	3
4, none over 12 years	3
4, one over 12 years	4
5 or more	4

Question. What consideration is given to the inability of the Coast Guardsman to obtain adequate housing considering his base pay and allowances and his housing allowance together?

Answer. We have established the Housing Referral Program to assist members in locating housing within the civilian community. The primary requirement placed upon this office is to obtain information on adequate housing in all price ranges so as to be responsive to personnel of all grades. Additionally the leasing program is utilized in high cost areas. Under this program the Coast Guard leases privately owned houses and apartments in the civilian community and then assigns these units to personnel with a housing entitlement in the same manner they would be assigned to government owned public quarters. Members forfeit only their BAQ in exchange for basic shelter and all necessary utilities. Passage of HR 6531 will increase the BAQ rate for members in all grades, significantly reducing the difficulties experienced by our personnel in obtaining private housing.

EFFECT OF VIETNAM ON COAST GUARD VESSEL INVENTORY

Question. Since February 1970 has the decision been made to turn any additional Coast Guard craft over to the government of South Vietnam? Please list all craft turned over to date, the date of construction of each such vessel and approximate replacement cost.

Answer. Since February 1970, no decision has been made to turn over any additional Coast Guard vessels to the South Vietnamese.

The following vessels have been turned over to South Vietnam:

Vessel	Construction date	Replacement cost	Vessel	Construction date	Replacement cost
Yakutat.....	1942	\$15,950,000	PT Banks.....	1961	\$532,000
Bering Strait.....	1944	15,950,000	PT Gammon.....	1962	532,000
PT Caution.....	1960	532,000	PT Welcome.....	1962	532,000
PT Young.....	1960	532,000	PT Ellis.....	1962	532,000
PT Glover.....	1960	532,000	PT Marone.....	1961	532,000
PT Arden.....	1961	532,000	PT League.....	1960	151,000
PT Garnet.....	1961	532,000	PT Partridge.....	1960	151,000
PT Clear.....	1961	532,000	PT Jefferson.....	1960	151,000
PT Mast.....	1961	532,000	PT White.....	1961	151,000
PT Comfort.....	1961	532,000	PT Stocum.....	1961	151,000
PT Orient.....	1961	532,000	PT Kennedy.....	1961	151,000
PT Lomas.....	1961	532,000	PT Hudson.....	1961	151,000
PT Grey.....	1961	532,000	PT Grace.....	1961	151,000
PT Dume.....	1961	532,000	PT Cypress.....	1961	151,000

Question. If any vessels turned over to South Vietnam will be replaced by the Coast Guard, please indicate the replacement program planned.

Answer. The vessels turned over to South Vietnam have either already been replaced or replacements are under construction. The two High Endurance cutters turned over are being replaced by new 378 foot High Endurance Cutters. The twenty-six 82 foot patrol boats have been replaced by a combination of similar 82 foot patrol boats and smaller 44 foot patrol boats.

POLLUTION ACTIVITIES GENERALLY

Question. What type of research has resulted in the proposed sensing program? What testing has indicated that this will prove to be a useful project? What types of contaminants will be detected by these devices?

Answer. In order to improve its oil slick detection capability the Coast Guard has established a research and development project to produce an all-weather airborne surveillance system that will be able to detect an oil slick, map its extent, and measure its thickness from existing Coast Guard aircraft types. Over the past two years fundamental research has established the optical properties of oil films, and the capabilities of various techniques for oil slick detection have been determined. Techniques examined include sensors utilizing the ultraviolet, visible, and infrared portions of the electromagnetic spectrum, passive microwave radiometers, and radar detection systems.

The capabilities of each technique were tested in both the laboratory and the field. Some of the field tests were performed during real pollution incidents, such as the grounding of the tanker ARROW off Nova Scotia and the Chevron offshore oil platform spill in the Gulf of Mexico.

The Coast Guard is also directing its attention to detection and measurement of pollutants other than oil. A major study has identified approximately 117

different measurements and parameters which indicate or affect water quality. Probably no monitoring program can deal with this entire list; however, certain pollutants are sufficiently well known that they require immediate attention. In addition to oil, these include chlorinated hydrocarbons (pesticides), heavy metals (mercury, arsenic), oxygen-demanding pollutants, and pollutants concentrated in sediments and by biological processes. Since the source, dispersion, and eventual fate of these pollutants is a key factor in our program, studies of the marine circulation will also be conducted utilizing current meters, temperature probes, and airborne remote measurements. A special panel of the National Academy of Sciences Committee on Oceanography is presently completing a study to recommend a set of key elements for the Coast Guard program.

Question. What portion of the inland and coastal waters will be protected by sensing devices?

Answer. The geographic coverage of this detection and monitoring program will include the major estuaries and waters over the continental shelf up to 50 miles offshore. Under special circumstances the open ocean will also be investigated along the routes of our Ocean Station Vessels when sailing to and from their home ports. To a large extent the observations will be obtained during the routine activities of Coast Guard cutters and aircraft which are involved.

Question. What would present planning indicate as the likely expenditures for this program over the next five years?

Answer. At this time it is very difficult to estimate future expenditures by the Coast Guard for its Maritime Environmental Protection program. Much will depend upon the outcome of research and development work now in progress. Our fiscal year 1972 budget request includes direct costs of approximately \$25-million for this program, and we anticipate comparable funding levels in future years.

Question. What experience have you had in recouping capital and operating costs of cleaning up oil spills from those whose actions caused the spills?

Answer. So far the Coast Guard has had only limited experience in recovering the costs of cleaning up oil spills from the parties responsible for causing the spills, partly because in the past the Coast Guard has had very few funds for conducting oil spill cleanup. Coast Guard costs totaling \$9,500 have been recovered in two pollution cases, and claims are pending in four more cases totaling \$142,000. Now that funds for the oil spill cleanup revolving fund authorized by P.L. 91-224 have been appropriated, Coast Guard on-scene commanders at pollution incidents will be able to use this fund to remove spilled oil whenever the spiller fails to do so. The law makes the spiller liable to the government for the costs of oil removal, and it is anticipated that in the future many more claims will be filed against spillers.

POLLUTION ABATEMENT IN COAST GUARD VESSELS AND STATIONS

Question. The Water Quality Improvement Act of 1970 requires civilian vessels to meet the standards set by the Secretary of the Interior. Will the Coast Guard apply the same standards to its vessels? When will all CG vessels be in compliance?

Answer. The Coast Guard will apply the same standards to its vessels as those to be set for civilian vessels under the Water Quality Improvement Act of 1970. Once standards are promulgated, compliance by all Coast Guard vessels should be readily attained within two years for new vessels and five years for existing vessels as required by the Act, provided funding and state-of-the-art equipment is available.

Question. Is all new construction being planned so that it will conform to the standards?

Answer. In the interim, all new Coast Guard construction has been provided for centralized sewage collection, limited retention, and capability to discharge wastes ashore from vessels over 65 feet long, and portable water closets that can be serviced ashore for vessels smaller than 65 feet.

Question. Please provide for the committee the general schedule of costs and expected completion dates for conversion of all appropriate vessels to meet the standards.

Answer. The general schedule for the interim conversion of all the larger vessels to permit collection of all secondary drainage (sewage) systems into central locations within the vessel hulls, limited retention, and capability to discharge wastes ashore:

FY 1972, \$3.2M. 73 vessels over 65 feet long.

FY 1973, \$4.2M, and FY 1974, \$24.4M. The remainder of the approximately 370 larger vessels, and all of the approximately 560 vessels under 65 feet long.

Question. Present plans provide for meeting the standards of Executive Order 11507 at three shore stations. When will all CG shore stations conform to the standards established by the President?

Answer. Individual shore station projects except for the Coast Guard YARD are expected to be completed by June 30, 1973.

Question. Please provide a general schedule of costs and expected completion dates for all shore activities.

Answer. The general schedule for meeting the applicable standards is:

FY 1972, \$3.35M for stations.

FY 1973, \$2.915M for stations.

FY 1974, \$0.460M for CG YARD. (The municipality will not be prepared to receive CG YARD wastes prior to FY 1974.)

See question 4 above for completion date.

ANTI-POLLUTION TRANSFER SYSTEM

Question. Thus far the Congress has provided \$1,270,000 to develop and test an air deliverable transfer system to allow the removal of oil and other potentially hazardous substances from a vessel which is in danger of sinking. What is the present status of this program?

Answer. The development of an operational prototype of an emergency Air-Deliverable Anti-Pollution Transfer System (ADAPTS) has been completed, and four full-system tests have been conducted, along with various subsystem tests. Full-system testing is continuing and is expected to be completed this fiscal year.

Question. If the requested funds are provided, where will the program be at the end of FY 72?

Answer. If the requested funds are provided, the Coast Guard plans to have one each main ADAPTS system at its Elizabeth City, North Carolina, and San Francisco, California, air stations by the end of FY 72. There will also be several partial systems consisting mainly of high-speed pumps located at other air stations for short-range delivery by helicopter. This will provide all the coverage which is now anticipated to be necessary.

Question. I understand that it is planned to locate one of these systems in San Francisco. What are the possibilities for servicing Alaskan oil tankers which encounter difficulties in the waters of Puget Sound from San Francisco? Could this be better done from Seattle?

Answer. The Puget Sound area can be serviced by the main ADAPTS to be located at San Francisco Air Station. In addition, a partial system consisting mainly of high speed pumps may be located in the Puget Sound area. The development of oil tanker traffic from Alaska will be closely monitored to determine whether additional ADAPTS equipment is required at Puget Sound or in Alaska in future years.

Question. What shore based equipment is needed to use the system?

Answer. Deployment of the system requires use of Coast Guard C-130 aircraft and HH-52 or HH-3 helicopters. Special equipment will be needed to load the ADAPTS into the aircraft, and some facility will be required to store it when not in use. After the ADAPTS has been air-delivered to the locale of a stricken vessel, Coast Guard vessels will be needed to tow the oil-filled storage bags to a safe anchorage for unloading the oil. For the most part existing Coast Guard aircraft and vessels can be used to deploy the ADAPTS; standard Coast Guard aircraft types will be fitted with special equipment to carry it.

Question. When do you plan to have the system available on both coasts?

Answer. It is anticipated that ADAPTS systems will be available on both coasts by the end of FY 72.

OPEN WATER OIL SLICK CONTAINMENT SYSTEM

Question. Thus far the Congress has appropriated \$2,570,000 for the development and testing of your proposed system to develop an air deliverable oil containment system. How does the proposed system work?

Answer. The barrier will consist of a curtain of 48-inch segments on inflatable floats which are linked and strengthened by an external tension line. It will float on the surface of the water, conforming to the shapes of passing waves, and can be used to encircle an oil slick or prevent it from drifting.

Question. Where will the system be based if funds are authorized?

Answer. If the funds requested for FY 72 are authorized, barrier systems of various lengths will be placed at about 11 locations of greatest hazard around the country. The exact locations are still under study.

Question. How mobile is the system?

Answer. The system is designed to be delivered to the scene of an oil spill within four hours of notification. For rapid delivery it is designed to be carried by Coast Guard C-130 aircraft, and when it is fully developed the Coast Guard will be able to drop it by parachute directly to the scene of a pollution incident. It can be carried by truck and carried or towed by Coast Guard vessels.

Question. How often and with what success has the proposed system been tested?

Answer. During the design competition and prototype development, theoretical studies and sub-scale model tests were conducted to insure that the barrier will have adequate strength, wave conformance, and oil retention capability. The test results indicate that the system will be able to contain oil effectively in 20-mile-per-hour winds, 2-knot currents, and 5-foot waves. The prototype is now being constructed and will be tested beginning in May 1971. Calm seas tests will be held to determine barrier stability, rough seas tests to verify barrier strength, and moderate seas tests to measure oil containment capability.

Question. What is the expected cost of multiple basing of the system?

Answer. The cost of developing a lightweight air-transportable barrier system is about \$3 million. The purchase cost will depend upon the extent of coverage desired; tentatively we are planning to request about \$6 million over the next three fiscal years to purchase these systems.

Question. What amount of shore based equipment is necessary to make the system operable?

Answer. Coast Guard C-130 aircraft and vessels will be needed to deploy the system. For the most part existing Coast Guard aircraft and vessels will be able to perform this task when a pollution incident occurs. Some special equipment to load the barrier into the aircraft will also be required, along with a shore facility to clean and refurbish the system after each use.

Question. What is the current plan for deployment of the system to both coasts and to the areas of the most hazard?

Answer. Several barrier systems will be placed on each coast in fiscal year 1972. The exact sizes and locations of these systems are still under study, but some will probably be placed at Coast Guard air stations from which they can be rapidly flown to areas where no barrier system is maintained locally. Over the next three fiscal years our planned acquisition program will provide these systems at a larger number of locations, thus shortening the average response time and eliminating the need to transport the equipment over long distances. Selection of the locations will be based upon previous history of oil spillage.

ALTERATION OF BRIDGES OVER NAVIGABLE WATERS

Question. Have you considered requesting bridge funds separately from AC&I?

Answer. Yes. Having bridge payments included with funds for improving or adding to the Coast Guard plant puts an unfair strain on internal priority judgments and distorts assessment of the true CG funding picture.

Question. In FY 70 and 71 how much money was disbursed to private bridge owners?

Answer.

Disbursed:	Millions
Fiscal year 1970.....	\$6.652
Fiscal year 1971.....	4.796
Total.....	11.448
Billing due.....	.400

Question. Does the Coast Guard recommend the continuation of a federal contribution to the cost of these alterations?

Answer. Yes.

Question. How many notices of alteration are now pending in terms of work not yet having been authorized?

Answer. 8.

Question. Your budget request indicates only a small portion of total known need for bridge alteration is being funded at this time. How are the decisions made as to which bridges should be altered first?

Answer. Priority is given to those bridges which will provide the greatest benefit to navigation vs. cost to the government. This judgement is tempered with subjective considerations such as:

1. Type of cargo (hazardous, perishable, etc.).
2. National defense considerations.
3. Consideration for the needs of land transportation.

Question. Please provide a listing of the projects which will remain unfunded, assuming that your FY 72 request is approved. (See enclosed list.)

Answer.

Bridge:	Millions
Cape Fear River, SCL RR., Wilmington-----	\$1. 25
Illinois River, CB&Q RR., Beardstown-----	4. 2
Calumet River, Elgin, Joliet & Eastern, Chicago-----	5. 3
Elizabeth River, Norfolk & Western RR., Norfolk-----	5. 7
Chattahoochee River:	
South Western RR-----	1. 0
SCL RR-----	2. 8
U.S. Highway 84-----	1. 5
Gulf Inter-Coastal Waterway, Florida State Highway Gulf Beach---	1. 1
Mississippi River, Chicago, Milwaukee, St. Paul & Pacific RR., Hastings-----	4. 4

LORAN-C DEVELOPMENT AND RELATED CONSTRUCTION

Question. What is the CG's long range plan with respect to Loran A & C coverage in the Atlantic and Pacific Oceans?

Answer. The Coast Guard is planning to implement Loran C as the National Radionavigation System. Present coverage will be expanded to provide ¼ mile accuracy at least 200 miles to sea from the East, West, and Gulf Coasts, the Gulf of Alaska and the Great Lakes. Expansion should be completed by 1978. In conjunction with this plan, a low cost receiver is being developed to improve system utilization by the maritime community.

We plan to continue operating the Loran A system as long as a valid requirement for it exists and while we expand the Loran-C system over the next several years. Specifically our plan is:

- a. Turn over the operation of foreign-based stations to the host nations.
- b. Maintain current reliability and accuracy until system termination.

Question. If the Congress were to set a priority on the completion of the rehabilitation and modernization program, how much money would be required to complete the system in five years?

Answer. Rehabilitation and modernization of the Loran C system will cost \$60 million over the next five years. Electronic equipment procurement and installation is estimated at \$57 million and station renovation at \$3 million. Systems expansion for coverage over U.S. contiguous waters will cost an additional \$41 million over the next five years.

Question. To what extent does the World Merchant Marine depend upon the U.S. Loran systems? What is the estimated percentage of all vessels which operate in the offshore areas which are equipped with Loran receiving devices?

Answer. The extent of the foreign merchant fleet's dependence on Loran is unknown. A 1968 survey showed however that of the total U.S. fleet operating in coastal or transoceanic service 80% use Loran regularly. Further, we estimate there are a minimum of 15,000 Loran receivers in use on U.S. ships and boats.

Question. What indication is there regarding the actual usage of Loran?

Answer. In addition to the use indicated above, a sizable percentage of U.S. (and foreign) fishing fleets (primarily trawlers and others fishing on or near the bottom) depend on Loran to return to known fishing grounds. Receiver sales to pleasure craft owners have shown a sizable increase. The civil air community uses Loran extensively as a primary aid or backup for doppler radar. Nearly all Loran Stations are required to meet ICAO regional plans. Finally, U.S. sales of Loran charts total over 1 million.

Question. What importance is the system to the armed forces? Do they contribute anything to its cost? Explain briefly the differences between Loran A & C. Can vessels make use of each with existing equipment? Are there significant differences in the reliability of Loran A & C?

Answer. The DOD has documented, in their Master Navigation plan, a requirement for Loran C until at least 1980. The specific reasons are classified. The presently stated DOD requirement for Loran A will terminate 31 December 1974. In addition to the DOD's requirements, NASA depends heavily on Loran C during Apollo missions and deep space probes. The signals are used to synchronize time between their tracking stations. This is possible because several stations are now locked in time to the U.S. Naval Observatory standard.

DOD funds the construction, relocation, and first year operating costs of stations required to meet their needs. In addition they have also contributed the major development funds for such uses as Precise Timing and Time Interval

(PTTI), high speed communications on Loran C, and TRANSLOC, the transportable Loran C system.

Loran A is a medium baseline, hyperbolic radionavigation system with a fix accuracy of 2 miles and daytime range of 700 miles. Loran C is a more precise system with an accuracy of $\frac{1}{4}$ mile and a daytime range of 1,200 miles.

A variety of receivers, in a wide price range, are available that operate on Loran A, Loran C or both.

Presently Loran A availability (percent useable time) is slightly higher than Loran C in most cases but both are available better than 98% of the time. The major cause of this difference is the greater time required to maintain the larger Loran C towers. The implementation of Loran C as the National Navigation System includes development of a low maintenance antenna and provides for an overall boost in availability to over 99%. Also, the performance of Loran C receivers has been troublesome in the past but recent design and improved specifications for a low cost receiver should drastically increase the receiver's mean-time-between-failures. This prospect is borne out by the good reliability of newer receivers in use in S. E. Asia. The new generation solid state Loran C equipment being developed is designed to improve reliability significantly and to measurably reduce maintenance and operating costs.

LIGHTHOUSE AUTOMATION AND MODERNIZATION PROJECT (LAMP)

Question. What is the present status of the LAMP program?

Answer. We are currently working on the automation of 54 lights for which \$25,081,000 has been appropriated since FY 1968 when LAMP began. Ten light-stations have been completely automated thus far. Of the 34 lights in progress, 11 are scheduled for completion in FY 71, 15 in FY 72, and 8 in FY 73. Work has been delayed due to equipment delivery and engineering design problems but conversions are now proceeding on or near our revised schedule.

Question. Is this program advancing as rapidly as possible, not considering fund limitations?

Answer. There are two basic constraints affecting progress in this program.

a. Technical: More sophisticated fog detection equipment must be developed before all stations can be fully automated.

b. Fiscal: Some modest acceleration could be realized with the addition of funds, but to a limited degree.

Question. What is the annual savings resulting from the conversion of one lighthouse on the average?

Answer. The average annual savings from an automated lighthouse is \$25-30,000. Equally important, however, is the benefit of being able to withdraw crews from arduous, lonely, often unpleasant duty stations.

Question. If additional unrestricted funds were made available to the Coast Guard, would they be spent on this program?

Answer. The LAMP program is one of our perennial high priority efforts. As such it always receives a share of our appropriated funds. Whether we would apply additional unrestricted funds to accelerate it or not would depend on the amount of additional funding given us and what other projects had been deferred to meet budgetary ceilings at the time.

QUESTIONS SUBMITTED BY SENATOR STEVENS

Question No. 1.—What is the present condition of the Coast Guard icebreaker fleet? Did you request additional icebreakers which were subsequently deleted during the administrative review of your budget for FY 1972? Can you indicate what plans you have under consideration to replace the obsolescent icebreaking tonnage which you now have?

Answer.—The total United States polar icebreaker fleet consists of six WIND-class ships and the GLACIER. All of the WIND-class were commissioned between 1944 and 1947. The GLACIER, based on the WIND-class design, but somewhat larger and more powerful, was commissioned in 1955. All six WINDS are rapidly approaching the end of useful service. They are already unreliable. Of the six, we plan to decommission four by the end of 1975.

The first replacement icebreaker was funded in fiscal year 1971. The second was requested in the Coast Guard's 1972 budget but was administratively deleted in the budgetary review process. A replacement icebreaker is included in the Coast Guard's planned budget in fiscal year 1973.

Our original plan for icebreaker replacement was to construct four ships to replace the six WINDS and to retain GLACIER at least through 1980. Through

increased efficiency and vastly improved reliability we expect the four new ships to provide greater service than the six WINDS.

As a stopgap, we plan to rehabilitate two of the WIND-class ships by replacing most major machinery components and effecting extensive hull repairs. By this method we plan to keep these two ships in service for about five additional years each.

This approach is dictated by necessity. It is relatively expensive and still leaves us with basically an old ship with new engines.

In 1976 we expect to have the following icebreakers in service: 2 rehabilitated WIND-class ships, GLACIER, and one new icebreaker funded in fiscal year 1971.

Question No. 2.—What is your present capability to patrol and enforce U.S. territorial waters to prevent foreign fishing incursions? I am especially interested in the Coast Guard's ability to protect the contiguous zone off the coast of Alaska. In this connection, are there any present plans to station additional patrol craft in Alaskan waters?

Answer.—The Coast Guard conducts regular vessel and aircraft patrols along our coasts both to deter violators of our fisheries zone and territorial sea and to apprehend those found to be in violation. In addition, all Coast Guard units are ready to respond to reports of violations from other sources.

Enclosure (1).

In Alaska two vessels, the *STORIS* and *CONFIDENCE*, are used as primary patrol units. There are eight buoy tenders also able to patrol in addition to their aids to navigation mission. These vessels will spend a total of 470 days on fisheries patrol during 1971. In addition, vessels from other west coast districts will spend approximately 110 days patrolling in Alaskan waters during the summer months. Aircraft from Kodiak and Annette, three HC-130 H's and two HU-16E's, will patrol about five million square miles during 1971. These vessels and aircraft possess the endurance and surveillance capabilities for effective patrolling of both territorial waters and the contiguous zones.

At present there is no plan to station additional patrol craft in the Alaskan area.

Question No. 3.—Does the Coast Guard have any present plans for locating a new station on the Aleutian Chain?

Answer.—No, the Coast Guard has no current plans to open new units in the Aleutian Chain.

Question No. 4.—What steps is the Coast Guard taking to protect crab pots belonging to Alaskan fisherman from foreign fishing activity off the Alaska coast?

Answer.—Agreements between the United States and the governments of Japan and the Soviet Union provide that no fishing with mobile gear may be conducted in certain high seas crab pot areas. These agreements also specify that each government will apply the measures of the agreement to its own nationals and vessels. Therefore, since the sanctuary areas are considered by the United States to be on the high seas, and the agreements do not provide for coastal state enforcement, the Coast Guard's role in this regard is to conduct surveillance of the areas, investigate reports of non-compliance and collect information to support appropriate action through diplomatic channels. Recently, after numerous violations of an Alaskan crab pot sanctuary, Coast Guard and National Marine Fisheries Service representatives arranged for a meeting with the Soviet fleet commander. During the meeting the fleet commander gave verbal and written guarantees that there would be no further violations of the crab pot sanctuary for the duration of the agreement.

Any foreign vessel fishing in a crab pot area within the contiguous fisheries zone or within the territorial sea would, of course, be seized and subject to the provisions of 16 U.S.C. 1091-1094 and 16 U.S.C. 1081-1084, respectively.

Question No. 5.—How can a C-130 aircraft stationed in Miami, Florida, assist Alaskan mariners?

Answer.—With regard to the utilization of C-130 aircraft, I want to assure you that no aircraft assignment has been planned or modified in a manner that would move one from Kodiak to Miami. Our Air Station at Kodiak is authorized three long range aircraft. Using the accepted standard criteria to provide the necessary support (overhaul, routine unavailability, extended repair periods and such) to ensure the full complement of Kodiak, a fourth aircraft was part of the procurement plan, but did not survive the budget process. Of the three new C-130 aircraft in our present budget request (FY 72), the first to be delivered is intended to fill this support need thereby relieving the shortage generated when onboard aircraft become unavailable for reasons of overhaul, repair and scheduled maintenance. This will make it possible to keep the Air Station Kodiak authorized allowance filled and enhance more effective mission accomplishment.

Question No. 6.—What will the Coast Guard do if the Navy further curtails its operations at Kodiak?

Answer.—a. Assuming that the Navy enters into agreement with the State of Alaska to operate the air field at Kodiak then Coast Guard plans are to remain at Kodiak.

b. Coast Guard communications needs are part of this plan. Coast Guard communications facilities are collocated with the Naval Communications Station, Kodiak and are totally dependent upon Navy support. Coast Guard alternatives cannot be developed until the level of future Navy support is ascertained. Under any circumstances, the Coast Guard plans to maintain their present level of Distress and Search and Rescue communications capability in the Gulf of Alaska insofar as practicable.

Question No. 7.—With merchant marine commerce increasing at a rapid rate in the North Pacific, what plans does the Coast Guard have for providing additional navigational aids in this area?

Answer.—A proposed Loran-C expansion program will provide an increase in high accuracy Loran-C for the U.S. Mariner along the North Pacific/Alaskan Coastal area.

The new Canadian Loran-A Station at Grey Point will provide two (2) additional rates for use in the Gulf of Alaska. We are partners in one of these new rates by a tie in with our Loran-A Station at Sitka, Alaska. With this station there will be complete Loran-A coverage from Attu, Alaska to the US/Mexico border.

We are continually reviewing the surface aids to navigation systems as technology and user needs change. Aids in the Cook Inlet area were improved upon in 1970 and will be upgraded again in 1971. Plans have been developed to enhance the marking of Prince William Sound should tanker traffic become a reality. A project has been approved for Puget Sound to provide for the increase in size and draft of the tankers utilizing that port. Along the North Slope of Alaska a number of towers will be erected in strategic locations and outfitted with transponder Radar Beacons prior to this seasons tug and barge traffic.

Question No. 8.—Does the Coast Guard have any present plans for facilitating and policing the movement of oil by tanker from Valdez if the Trans-Alaska Pipeline is built?

Answer.—We are now analyzing the environmental impact of increased tanker traffic in the North Pacific region as a result of the proposed Trans-Alaska Pipeline. At the moment, while we do have a project to improve the navigational aids in the Straits of Juan de Fuca to facilitate tanker traffic, we have not made plans to police the movement of oil by tanker from Valdez. Presently the Coast Guard has very little authority to police tanker movement except under the emergency provisions of the Magnuson Act. The Ports and Waterway Safety Bill now pending before Congress seeks to place this authority on a more permanent basis. However, our review of the impact of oil transport in the region will consider any additional means to mitigate the environmental hazards related to such transport beyond the navigational aids noted above.

The 1973 Budget provides for a Port Safety Unit for Valdez to provide supervision of cargo handling operations at Valdez. In addition, the Commander, Seventeenth Coast Guard District, has been consulting with the Alyeska Pipeline Service Company in determining the aids to navigation requirements for the tanker route through Prince William Sound. While these latter plans are not firm at this date, we are confident that all necessary aids can be in operation before oil shipments begin.

Question No. 9.—Does the Coast Guard have any present plans for further assisting navigation in Cook Inlet?

Answer.—Nothing new which transcends Loran-C unless Cook Inlet becomes the vehicle for large oil shipments. Then a Marine Traffic System (MTS) for that area would be considered. This MTS would include Harbor Advisory/Control Radar.

a. In addition to the recently installed (Nov. 1970) Point Woronzof range lights, plans are nearly completed to establish several new lights and increase the range of many of the existing lights in Cook Inlet. Barring unforeseen problems these improvements should be accomplished by summer of 1972.

b. We are presently considering the feasibility of placing one west coast ice-breaker in a ready standby status to be responsive to icebreaking needs in Cook Inlet.

Question No. 10.—I note that your authorization provides no funds for new vessels. What will be the impact in FY 1972 of the Coast Guard's failure to move ahead with its high endurance cutter replacement program?

Answer.—The failure to fund the remaining three HAMILTON class cutters will mean that the last three old, ex-AVP class, cutters in service as general ocean station vessels, will have to remain in commission. The alternative would be to decommission the old ships without replacement which would impose an additional load on the remaining fleet whose operational schedule already exceeds desirable standards.

(The following information was referred to on p. 37)

S. 981 and S. 1220 Merchant Marine Authorizations.

THE QUESTIONS OF THE SUBCOMMITTEE AND THE ANSWERS THERETO

Construction Differential Subsidy

Question 1. With respect to each contract awarded for construction differential subsidy during fiscal years 1970 and 1971, please provide the following information: (a) the name of the shipowner, (b) if the shipowner is a corporation the majority of whose voting stock is held, directly or indirectly, by another corporation listed on a national securities exchange (a "parent corporation"), the name of the parent corporation, (c) the type and size of ship which is the subject of the contract, (d) the nature of the project, e.g. construction, reconstruction, conversion, (e) the amount to be paid by the Government pursuant to the contract, exclusive of national defense features, (f) the percentage of the total cost of construction or reconstruction which (e) represents, (g) the name of the shipyard which is the primary contractor and that of its parent corporation, if any, (h) whether the contract was arrived at through competitive bidding or negotiated procurement.

Answer 1.

Shipowner/shipbuilder	Parent companies CDS contracts	Number of ships	Vessel type	Length overall, gross tonnage	Original contract costs	
					Estimated total cost	CDS rate (percent)
NEW CONSTRUCTION CONTRACTS						
Fiscal year 1970						
United States Lines, Inc. Sun Shipbuilding & Dry Dock Co.	Walter Kidde & Co., Inc. Sun Oil Co., MA/MSB-88 dated Sept. 3, 1969; Competitive bid contract	2	C7-S-68e containership	700.5 feet, 19,700 long tons	\$17,881,000 17,881,000	44.8 8,010,688 8,010,688
Fiscal year 1971						
American President Lines, Ltd. Litton Systems, Inc.	Natomas Co., 51.10 percent. Litton Industries, Inc., MA/MSB-93 dated Feb. 2, 1970; Fixed price based on prior competitive bid contract for 3 ships. Contracted Freightways, Inc. (51.01 percent stock ownership):	1	C6-S-85b container and unitized cargo vessels	668.5 feet, 18,500 long tons	35,762,000 22,500,000	16,021,375 10,450,000
Pacific Far East Line, Inc.	Contracted Freightways, Inc. (51.01 percent stock ownership):	1	C7-S-88a containerships	719.0 feet, 24,000 long tons	25,257,500 25,257,500	46.5 11,760,500 46.5 11,760,500
Bethlehem Steel Corp.	MA/MSB-90 MA/MSB-92 dated Feb. 20, 1970; competitive bid contract; Bethlehem sole bidder.	1				
Total						
Fiscal year 1971						
American Export Isbrandtsen Line, Inc.	American Export Industries, Inc.	3	C5-S-73b containership	610 feet, 17,000 long tons	16,993,333 16,993,333 16,993,333	41.6 7,083,333 7,083,333 7,083,333
Bath Iron Works Corp.	Bath Industries, Inc.; MA/MSB-100 dated Oct. 20, 1970; Competitive bid contract.	1				
Total						
Total number of new ships; award of contracts fiscal years 1970 and 1971.						
					50,979,999	21,249,999

Shipowner/shipbuilder	Parent companies CDS contracts	Number of ships	Vessel type	Length overall, gross tonnage	Original contract costs	
					Estimated total cost	CDS rate (percent)
RECONSTRUCTION CONTRACTS						
Fiscal year 1970						
Lykes Bros. Steamship Co., Inc. Todd Shipyards Corp., Galveston, Tex.	Lykes-Youngstown Corp. MA/MSB-96 dated May 5, 1970: Competitive bid contract.	9	C5-S-37e break bulk container (formerly C3-S-37a).	592.5 feet, 11,700 long tons.	\$3,404,458 X9	45.4 \$1,547,458 X9
Total.....					30,640,122	13,927,122
Fiscal year 1971						
American Mail Line, Ltd.	American President Lines, Ltd. (92.96 percent stock ownership) APL stock ownership; Natomas Company 91.10 percent	2	C6-S-1x containerships (formerly C4-S-15).	668.7 feet, 11,700 long tons.	8,398,000	36.0
Bethlehem Steel Corp., San Francisco, Calif.	MA/MSB-98 dated July 27, 1970: Competitive bid contract. MA/MSB-102: Competitive bid contract	1			8,398,000	3,028,000
Total.....					16,796,000	6,056,000
American President Lines, Ltd.	Natomas Co. 51.10 percent stock ownership.				8,748,000	38.6
Todd Shipyards Corp., Seattle, Wash., Los Angeles, Calif.	MA/MSB-104 dated Mar. 15, 1971: Competitive bid contract.	5	C6-S-69c containerships (formerly C4-S-69a).	663.9 feet, 13,000 long tons.	6,493,375 X5	41.5 2,694,751 X5
Total.....					32,466,875	13,473,755
Total.....					53,364	22,146
Total.....					32,520,239	13,495,901
Total number of ships for reconstruction; award of contracts fiscal year 1970 and 1971.		17				

Question 2. With respect to each pending application for construction-differential subsidy received during fiscal year 1971, please provide the following information: (a) the date of such application, (b) the name of the shipowner and that of its parent corporation, if any, (c) the type and size of ship which is the subject of the application, (d) the nature of the project and its estimated total cost, (e) the name of the shipyard which is the primary contractor and that of its parent corporation, if any, (g) whether the contract between the shipowner and shipyard has been or is to be arrived at through competitive bidding or negotiated procurement.

Answer 2. Pending Applications for Construction-Differential Subsidy.

Date of application	Shipowner	Parent company	Number and type of ships	Size of ship	Nature of project	Estimated total cost	Name of shipyard	Parent company	Competitive bidding or negotiated procurement
Fiscal year 1970:									
Apr. 14, 1970	Central Gulf Steamship Corp.	None	3 LASH	30,500 gross tons.	New construction.	\$83,400,000	Avondale Shipyards, Inc.	Seatrain Lines, Inc.	Negotiated procurement.
June 11, 1970	Haan Shipping Corp.	Seatrain Lines, Inc.	1 tanker	226,818 d.w.t.	do	47,250,000	Seatrain Shipbuilding Corp.	do	Do.
Do.	do	do	do	do	do	47,250,000	do	do	Do.
Fiscal year 1971:									
July 24, 1970	Delta Steamship Lines, Inc.	TCO Industries, Inc.	3-6 LASH	26,400 gross tons.	do	117,494,856	Avondale Shipyards, Inc.	do	Competitive bidding.
Jan. 6, 1971	Waterman Steamship Corp.	U.S. Freight Co. and Waterman Industries Corp.	3 LASH	30,500 gross tons.	do	84,000,000	Not determined	do	do
Do.	Amerigo, Inc.	None	2 OBO	80,200 d.w.t.	do	49,000,000	do	do	do
Jan. 7, 1971	Marine Carriers Corp.	Alpine Geophysical Associates, Inc.	do	77,500 d.w.t.	do	57,000,000	National Steel & Shipbuilding Co.	do	Negotiated procurement.
Do.	do	do	2 tankers	120,000 d.w.t.	do	58,000,000	Bethlehem Steel Corp.	do	Do.
Do.	Starboard Shipping, Inc.	None	OBO	78,000 d.w.t.	do	55,000,000	Not determined	do	Do.
Jan. 8, 1971	Columbia Steamship Co.	Columbia Nymatic Systems, Inc.	do	77,500 d.w.t.	do	57,000,000	National Steel & Shipbuilding Co.	do	Do.
Do.	Great Republics Transport, Inc.	None	3 OBO	79,000 d.w.t.	do	90,000,000	Todd Shipyards Corp.	do	Do.
Do.	T. J. Stevenson & Co., Inc.	do	4 OBO	77,500 d.w.t.	do	114,000,000	National Steel & Shipbuilding Co.	do	Do.
Do.	United States Lines, Inc.	Walter Kiddle & Co.	do	do	do	114,000,000	Not determined	do	Do.
Do.	Waterman Carriers, Inc.	U.S. Freight Co. and Waterman Industries Corp.	do	78,000 d.w.t.	do	110,000,000	Bethlehem Steel Corp.	do	Do.
Jan. 12, 1970	Penn Navigation Co.	U.S. Industries, Inc.	1 OBO	80,200 d.w.t.	do	27,500,000	Not determined	do	Do.
Jan. 15, 1971	Victory Carriers, Inc.	None	4 OBO	78,000 d.w.t.	do	112,000,000	Bath Iron Works Corp.	Tenneco, Inc.	Do.
Jan. 18, 1971	Steuart Investment Co.	do	3 tankers	do	do	68,250,000	Newport News Shipbuilding & Dry Dock Co.	do	Do.
Do.	Vancor Steamship Corp.	Vantage Steamship Corp.	1 OBO	do	do	27,500,000	Bethlehem Steel Corp.	do	Do.

See footnote at end of table, p. 64.

Date of application	Shipowner	Parent company	Number and type of ships	Size of ship	Nature of project	Estimated total cost	Name of shipyard	Parent company	Competitive bidding or negotiated procurement
Fiscal year 1971—Continued									
Feb. 8, 1971	Waterman Steamship Corp.	U.S. Freight Co. and Waterman Industries Corp.	7 LASH	30,500 gross tons.	do	196,000,000	Not determined		
Feb. 12, 1971	American President Lines, Ltd.	Natomas Co.	3 freighters.	15,033 d.w.t.	Conversion to container ships.	19,500,000	do		
Feb. 15, 1971	Marine Tankers Corp.	None	2 tankers.	206,000 d.w.t.	New construction.	84,000,000	Delaware Valley Shipyard.		Do.
Mar. 10, 1971	Penn Navigation Co.	U.S. Industries, Inc.	2 OBO	160,000 d.w.t.	do	82,000,000	Not determined		

¹Bid price for 6 ships.

Question 3.—With respect to each formal indication of interest you have received during Fiscal Year 1971 for subsidized construction of a new vessel, please provide the following information: (a) the name of the shipowner and that of its parent corporation, if any, (b) the size and type of vessel.

Answer 3. Formal Indications of Interest in Subsidized Construction of New Vessels Excluding Those on Which Applications for Construction Subsidy Were Filed—Fiscal Year 1971.

Shipowner	Number, Size and Type of Vessel
Keystone Shipping Co.....	1—69,000 dwt. OBO
Keystone Shipping Co.....	1—120,000 dwt. OBO
Atlantic Maritime Enterprises Corp....	1 or more Tankers—size not specified
San Diego Gas & Electric Co.....	5—52,500 dwt. Liquid Natural Gas Carriers
Haleyon Steamship Company, Inc....	2—70,000 dwt. OBO
United Tanker Corp.....	1—70,000 dwt. Tanker
Energy Corporation of America.....	3—165,000 dwt. OBO
Maritime Overseas Corp.....	1 or 2 Very Large Crude Carriers (Tankers) size not specified
Western Agency, Inc.....	2 or 3 OBO—size not specified
Avon Steamship Co., Inc.....	2 to 4—70,000 to 80,000 dwt. OBO

OPERATING DIFFERENTIAL SUBSIDY

Question 4. Last year, during the hearings on the fiscal year 1971 authorizations, the Committee was advised that the sum authorized for operating differential subsidy included funds for some new operators. Were any new ODS operators brought into the program during fiscal year 1971?

Answer 4. No new operators have been brought into the ODS program thus far during F.Y. 1971. Processing continues on applications from one liner operator, Waterman Steamship Corporation, and from several bulk operators under the new Maritime program.

Question 5. The requested authorization for operating differential subsidy for fiscal year 1972 reflects a substantial increase over the 1971 level (excluding non-recurring items). Please provide a more detailed statement of what has resulted in this increase.

Answer 5. The requested authorization of \$273.0 million for operating-differential subsidy in F.Y. 1971 includes "non-recurring" items amounting to 80.0 million.

Of the 80.0 million, 39.7 million relates to provisions included in the Merchant Marine Act of 1936, as amended by Public Law 91-469, which have materially accelerated the payment schedule for liquidation of accrued operating-differential subsidies for those operators who elect to modify existing ODS contracts to conform to the provisions of the new legislation. For such operators, a payment schedule for liquidation of accrued subsidies is provided which requires monthly payment of 100% of wage subsidies and 90% of all other subsidies rather than quarterly payment of 90% of all items as in the past. This requires the payment of 14 months subsidy accrual in F.Y. 1971 (11 months of F.Y. 1971 accruals and 3 months of F.Y. 1970 accruals). Heretofore, 12 months of ODS accruals had been liquidated each year, covering the final quarter of the prior fiscal year and the first three quarters of the current fiscal year. The 39.7 million, therefore, is, in fact, a non-recurring expense directly attributable to the conversion to the provisions of the new legislation.

The balance of the 80.0 million, or 40.3 million, is required to partially liquidate accruals of unpaid subsidies applicable to F.Y. 1969 and prior years which were previously withheld pending the conclusion of final subsidy rates with the affected operators. As agreements have now been reached with most of the operators with respect to final subsidy rates, 40.3 million of the amount previously held back with respect to F.Y. 1969 and prior years can be paid during F.Y. 1971. However, the balance of the hold-backs, totaling 25.6 million, is projected to be paid in F.Y. 1972. To this extent, payments applicable to F.Y. 1969 and prior periods cannot strictly be termed a "non-recurring" item as they will actually be liquidated over a two-year period.

In summary, the requested authorization of 239.1 million for F.Y. 1972 represents an increase of 46.1 million over the F.Y. 1971 authorization, less non-recurring items (80.0 million), of 193.0 million. Of the 46.1 million increase, 25.6 million is attributable to payments which will be made applicable to F.Y. 1969 and prior years as discussed above. The balance of the increase, 20.5 million,

can be attributed to an increase in the number of ship years of operation in F. Y. 1972 over F. Y. 1971 (213 vs. 207) and to the anticipated escalation in the cost of the various subsidizable items of expense.

Question 6. For each of fiscal years 1970-72, please provide the number and types of vessels that were or are expected to be the subject of operating differential subsidy contracts.

Answer 6. For Fiscal Years 1970-72, the number of ship years of operation, by vessel type, which were or are expected to be covered under operating-differential subsidy contracts are as follows:

Fiscal year	Passenger vessels	Cargo vessels	Combination-type vessels	Total
1970.....	6.7	219.3	4.0	230.0
1971.....	5.2	199.9	2.0	207.1
1972.....	2.0	210.8	212.8

Question 7. Have any operating differential subsidy contractors elected to amend their contracts to reflect the amendments made by the 1970 Act? Please provide the date of expiration of the operating differential subsidy contract of each contractor who has not elected to so amend his contract.

Answer 7. All of the existing operating-differential subsidy contractors have given indications of their intention to make application to amend their contracts to incorporate amendments made by the 1970 Act, but to date only Farrell Lines, Incorporated has made a written request for such amendment.

The expiration dates of the existing operating-differential subsidy contracts for the other operators are as follows:

Company	Expiration Date of Existing Operating-Differential Subsidy Agreement
American Export Isbrandtsen Lines, Inc.....	December 31, 1979
American Mail Line Ltd.....	December 31, 1978
American President Lines, Ltd.....	December 31, 1976
Delta Steamship Lines, Inc.....	December 31, 1977
Prudential-Grace Lines, Inc.....	December 31, 1977
Gulf & South American Steamship Co., Inc.....	December 31, 1978
Lykes Bros. Steamship Co., Inc.....	December 31, 1977
Moore-McCormack Lines, Inc.....	December 31, 1977
Pacific Far East Lines, Inc.....	December 31, 1978
States Steamship Co.....	December 31, 1977

Question 8.—With respect to each research and development contract awarded during fiscal years 1970 and 1971, please provide the following information: (a) a brief summary of the purpose of the project, (b) the party to whom the contract was awarded, (c) the amount which the government has paid or will pay pursuant to the contract, (d) the date on which the contract was entered, (e) the date on which the contract was or is to be completed.

Answer 8.—In the attached, a list shows the FY 1970 and 1971 contracts awarded to date and provides the name of the contract awardee, the contract amount, starting and completion dates, and the purpose of the project.

In addition, prior to the close of FY 1971, a substantial number of projects are in process and are planned to be awarded. The major projects in this category are listed below with a brief summary and the expected contract values:

ADVANCED MARINE TRANSMISSION SYSTEMS—\$4,000,000

This project is the development of planetary gearing transmission on an industry sharing basis. Development of two standardized transmission systems, one a 40,000 shaft horsepower two-stage system, and the other a 60,000 SHP contra-rotating system is to be undertaken by Curtiss-Wright with their costs approximating \$3,000,000.

VIBRATION ANALYSIS AND DEVIATION CONCEPT VIDECON (MAINTENANCE & REPAIR)—\$441,000

Contractor is Litton System, Inc. The objective is to develop technology and systems to eliminate unscheduled ship down-time due to equipment failure.

AUTOMATED SHIPS—SHIPBOARD AUTOMATION—\$1,705,000

This developmental program involves the shipboard application of centralized digital computer systems in support of ship operational requirements. The goal of this program will be to provide greater safety of ship operations and improved productivity of overall shipping systems by the integration of advanced data and process control functions into a shipboard computer system.

SHIPPING OPERATIONS INFORMATION SYSTEM—\$475,000

This program is directed towards the adaptation of advanced computer and data handling concepts in the management and operation of U.S. flag shipping systems. The goal of this program is to consolidate and define to prospective shippers the U.S. flag cargo movement capability by the consolidation of select intermodal transport profiles and shipping system configurations. Further advances are concurrently anticipated in areas of fleet management, cargo documentation and the required administrative reporting of carriers.

SHIP CONTROL SIMULATOR (CONTRACTOR TO BE DETERMINED)—\$3,550,000

The ship control simulator program is an integral part of a broader program directed towards operational research in the field of advanced ship operations and ship control systems development.

The goals of the program are the development of ship systems which will provide improved control and surveillance capabilities for ship operations with attendant reduction in accidents, grounding, and potential pollution, particularly with the projected growth of ship population in the port and harbor confluence areas over the next decade.

TUG BARGE SYSTEMS—\$700,000

Two projects are planned. One is a cost-sharing full scale instrumentation test to verify forces and motions in the largest most powerful tug-barge built to date. This is the Ingraham Corporation's newly built system whereby the tug and barge are joined using the rigid connection concept. The second project is a hydrodynamic test program to reduce the current hydrodynamic inefficiencies of tug-barge combinations.

SHIPBUILDING IMPROVEMENT PROGRAM (FACILITIES)—\$300,000

This is a joint cost sharing project with the shipbuilding industry, the objective of which is to improve the U.S. shipbuilding efficiency and reduce costs and subsidy through facility improvements.

FISCAL YEAR 1970

Contract No.	Contractor	Amount	Starting date	Completion date	Purpose
MA-4858	Opinion Research Corp.	\$36.4	October 1969	February 1970	Passenger survey of travel aboard the SS "United States."
C-0-24049	Naval Ship Research and Development Laboratory	20.0	June 1970	December 1970	Development and testing of a skewed propeller (initial funding, see fiscal year 1971).
46-0160	U.S. Merchant Marine Academy	55.0	January 1970	June 1970	Ship operations and human engineering research.
MA-4936	Webb Institute of Technology	40.0	do	do	Increase in productivity, reduction of life cycle costs and subsidy through R. & D.
MA-2710	Massachusetts Institute of Technology	14.5	December 1968	February 1970	Seakeeping design manual.
C-0-33466	do	20.0	June 1970	May 1972	Ship motion prediction and control (initial funding, see fiscal year 1971).
70-156	Federal Communications Commission	6.4	July 1969	June 1970	Radio and electronic equipment and use thereof for merchant ships.
70-143	National Academy of Science	100.0	September 1969	September 1970	Maintain surveillance over broad maritime problems and provide guidance on same.
70-143	Naval Ships Systems Command	135.0	July 1969	June 1970	Research in hull structures with objectives of reducing cost of ship construction.
C-0-23842	Center for Naval Analyses	107.5	July 1970	January 1971	Role of merchant ships in wartime defense missions.
C-0-35500	State University of New York Maritime College	20.0	June 1970	December 1970	Vibration analysis and deviation concept (initial funding, see fiscal year 1971).
MA-4882	Newport News & Shipbuilding Co.	505.0	November 1969	May 1970	Ship definition, design, and procurement plan.
MA-4883	Bath Iron Works	516.4	do	January 1971	Foreign trade data interrogation system.
70-502	General Electric	87.5	March 1970	January 1971	Foreign trade data interrogation system.
70-379	Robert Reebie & Associates	9.6	February 1970	March 1970	Carriage Railway's operation of international trade services.
70-499	University of Pennsylvania	18.6	March 1970	December 1970	Negro employment in the shipbuilding industry.
MA-4917	States Lines	109.9	January 1970	July 1970	Structural test of propeller and hull vibration on SS "Michigan."
70-483	Brewer Engineering Co.	4.0	March 1970	June 1970	Strain measurements on deck strength of the SS "Michigan."
70-142	Naval Ship R. & D. Center	87.5	September 1969	August 1970	High performance propeller model testing.
MA-4845	Marderg Corp.	30.4	do	February 1970	Contra-rotating propeller design research.
C-0-35510	General Electric	4.012.5	June 1970	June 1975	Marine gas turbine development.
MA-4152	Cuno Engineering	49.3	do	December 1970	Oil-water separator.
70-503	Acqua-Chem/Gulf Oil	20.0	May 1970	April 1971	do.
C-0-35467	Hydronautics, Inc.	50.0	June 1970	August 1971	do.
70-551	U.S. Navy R. & D. Laboratory	30.0	May 1970	June 1971	Shipboard test and analysis of oil-water separators.
MA-3880	First Atomic Ship Transport, Inc.	1,750.0	do	do	Experimental commercial operation of NS "Savannah," Facilities and support of NS "Savannah," "Savannah."
MA-2206	Todd Shipyards	1,284.3	do	do	Nuclear training of crews, NS "Savannah."
46-0123	U.S. Merchant Marine Academy	120.0	do	do	Nuclear training—NS "Savannah."
70-246	U.S. Public Health Service	5.0	October 1969	December 1971	Nuclear training of crews, N.S. "Savannah."
70-222	First Atomic Ship Transport, Inc.	250.0	do	do	Nuclear training and development program for a consolidated nuclear steam generator, phase I.
MA-4918	Babcock & Wilcox	70.9	August 1969	April 1970	Engineering and development program for a consolidated nuclear steam generator, phase II.
MA-4989	do	97.7	February 1970	September 1970	Engineering and development program for a consolidated nuclear steam generator, phase I.
MA-4890	Westinghouse	41.5	November 1969	August 1970	Safety analysis of maritime nuclear steam generator design.
MA-4850	do	75.0	October 1969	March 1970	Feasibility of converting NS "Savannah" to an oceanographic vessel.
C-0-35505	Stanwick Corp.	30.0	June 1970	July 1970	Merchant marine crew skills and disciplines (initial funding, see fiscal year 1971).

		FISCAL YEAR 1971			
70-515	Department of Transportation	20.4	March 1970	September 1970	Maritime mobile satellite requirements.
C-O-35504	Stanley Works	50.0	June 1970	December 1970	Utilization of Reserve Fleet vessels in urban and commercial applications.
MA-4903	Matson Research Co.	99.4	February 1970	September 1970	Impact of containerization on U.S. economy, phase I.
MA-4832	J. J. Henry Co.	72.5	December 1969	July 1970	Guidelines for protection of cargo in deck-stowed containers.
FISCAL YEAR 1971					
C-O-24049	Naval Ship Research and Development Laboratory	22.0	June 1970	July 1971	Development and testing of a skewed propeller.
46-0030	U.S. Merchant Marine Academy	225.0	July 1970	June 1971	Increase in productivity, reduction of subsidy through lower life cycle costs.
MA-4956	Webb Institute of Technology	125.0	do.	do.	Increase in productivity, reduction of life cycle costs and subsidy through R. & D.
46-0200	Department of Commerce (NOAA)	100.0	January 1971	do.	Gathering ocean and atmospheric data on merchant ships of opportunity for weather routing and ocean science and prediction information.
C-O-35466	Massachusetts Institute of Technology	132.0	May 1970	May 1972	Ship motion prediction information.
C-O-35498	National Academy of Science	196.0	July 1970	June 1971	Implement a ship information service.
46-0274	Office of Naval Research	107.8	October 1970	September 1971	Maritime Act: determine University and institutional program, research, and requirement for nuclear merchant fleet.
C-I-35487	University of Michigan	57.4	January 1971	do.	Cost benefit analysis model for Great Lakes ships with ice transiting capabilities.
46-0339	Corps of Engineers	10.0	March 1971	June 1971	Deicing Bubbler system for Duluth, Minn., Harbor.
C-I-35067	Liton Industries	195.3	do.	December 1971	Commodity form change—movement of bulk commodities in different physical form.
C-I-35494	Manalytics	162.0	February 1971	February 1972	Impact of containerization on the U.S. transportation system.
C-I-35402	Newport News Shipbuilding and Dry Dock Co.	896.8	October 1970	January 1972	Standard shipbuilding improvement.
C-I-35030	Babcock & Wilcox	651.0	June 1970	June 1971	Consolidated nuclear steam generator competitive design and engineering, phase III.
C-I-35058	Booz-Allen	98.6	January 1971	April 1971	Competitive marine propulsion systems analysis.
C-O-35505	Stanwick Corp.	67.9	June 1970	June 1971	Merchant marine crew skills and disciplines.
C-O-35500	State University of New York Maritime College	35.6	do.	February 1971	Vibration analysis and deviation concept.
C-I-35059	Liton Industries	25.1	September 1970	do.	Vibration analysis and deviation concept.
C-I-35016	U.S. Lines—International Telephone & Telegraph	33.0	do.	September 1971	Satellite navigation test.
C-I-35410	AEL & WDS	377.4	November 1970	May 1972	Advanced coming system design, and installation.
C-I-35057	Applied Information Industries	192.0	do.	August 1971	Marine data communication system design and demonstration.
46-0261	Federal Communications Commission	6.4	July 1970	June 1971	Radiom and electronic equipment and use thereof for merchant ships.
C-I-35049	Esso Research	245.0	October 1970	December 1971	Pollution control and prevention.
C-O-35467	Hydronauts, Inc.	182.0	April 1970	April 1972	Oil-water separator.
MA-3890	First Atomic Ship Transport	700.0	July 1970	June 1971	Operation, NS "Savannah."
46-1123	U.S. Merchant Marine Academy	75.0	do.	December 1970	Nuclear Training, NS "Savannah."
MA-6145	AEL	770.0	November 1970	September 1971	Ship husbanding, NS "Savannah."
MA-2206	Todd Shipyards	4, 015.6	July 1970	June 1972	Facilities and support, deactivation and decontamination, NS "Savannah."
MA-2239	Nuclear Fuel Service	45.0	October 1971	April 1972	Nuclear fuel shipment, cask rental—NS "Savannah."
	U.S. Navy	500.0	July 1970	June 1971	Joint surface effect ship program.
	Various contracts	355.7	do.	August 1971	Agency support for R. & D. programs.

Question 9. Please provide a more detailed summary of the purpose of any of the research and development contracts listed in answer to question 8 above which are related to prevention or abatement of oil spills.

Answer 9. The Office of Research and Development has completed or has underway the following principal projects in the prevention and abatement of oil spills in FY 1970 and 1971:

(a) *Contract MA-4152, CUNO Engineering*—Contractor has completed the development and land tests of an oily water separation system using "off the shelf" equipment designed to be self cleaning and maintenance free. High separation efficiency was obtained but only with the unit installed on the suction side of the pump and oil was injected into the water stream. Under simulated ship conditions, high flow velocities and small droplet size caused breakthrough reducing separator effectiveness. It is planned to test this device as a pre-separator during tests of the Esso coalescer system. This project was funded and started June 1970 and completion date was December 1970.

(b) *Contract 70-503, Aqua-Chem/Gulf Oil*—Aqua-Chem, Inc. requested MarAd assistance for installation and shipboard test of an in-house developed oily-water separator. After witnessing its laboratory operation, a contract was negotiated with the Gulf Oil Corp. for installation aboard a coastal tanker, the S. S. GULFKING, and support of ship tests. The unit has high separation efficiency but waxes in the crude oils reduce element life. A de-waxer for eliminating the wax problem has been installed to eliminate this problem and continue the testing of this promising equipment. Contract started in May 1970 and will be completed April 1971.

(c) *Contract C-0-35467, Hydronautics, Inc.*—The contractor is developing a novel concept for removing oil from oil-water suspensions. This concept involves the re-cycling of an oil absorbing filter media, in slurry form, through the contaminated stream. Saturated media would be processed and either burned or re-cycled until completely spent. This system offers advantages of being compact, low cost and capable of continuous operation. Filter media tests and ballast water characterization have been completed leading to design, construction of a land prototype system which is now being tested. This contract started in June 1970 and completion date is June 1971.

(d) *Contract 1-35049, Esso Research & Eng'g*—A cooperative pollution control and prevention program has been initiated with the contractor on a 50%/50% cost shared basis encompassing several broad sub-tasks aimed at defining, quantifying and solving the pollution problem resulting from tanker operation. Included is a study aimed at assessing the economics of a segregated ballast system in a new tanker design, tests of instrumentation and chemicals to make the "load on top" procedure more effective, evaluation of various equipments to reduce ship pollutant discharge, and sea tests of anti-collision systems to prevent catastrophic oil spills. Tests include discharge surveys, determining tank profiles, test and evaluation of infra-red and ultra-violet detection instrumentation, separator tests using flocculents and coalescers. The project started in October 1970 and completion date is December 1971.

Question 10. Please provide a more detailed summary of the purpose of any of the research and development contracts listed in answer to question 8 above which are related to nuclear propulsion.

Answer 10. *Introduction*—The application of new technology, including nuclear technology, to ocean-borne commerce is critically dependent upon proof of operational utility. Because of the high capital cost involved in marine transportation systems, major changes have to be proven by sea experience before they can become accepted for widespread use.

The SAVANNAH has accomplished this mission completely and the ports of the world have been opened to nuclear ship traffic. Essentially, the SAVANNAH has not only demonstrated the peacetime uses of marine reactors but has also operated in a wholly safe and routine fashion as compared with normal shipping operations. Operational and technical feasibility has been proven, necessary first steps to economic feasibility—our ultimate basic goal.

Continuance of the SAVANNAH program will not serve this basic goal inasmuch as the SAVANNAH was never designed for economic operation. Hence, continuance of the program would serve only to divert funds from further steps to obtain a commercial capability. Plans are being made, therefore, to deactivate the SAVANNAH in FY 1972.

Currently, MarAd is deep within the next phase of its program to advance the American Merchant Marine. Within this framework it has become apparent that for many reasons—increasing trade volume, the emergence of high productivity transportation systems, advanced service features such as high speed ships and new operating domains at sea—that there has been a major shift to higher ship horsepower. The number of commercial vessels entering the 40,000 to 100,000 shaft horsepower class and higher has markedly increased in recent years, and the trend shows no sign of abatement. Such a trend influences our selection of efficient high horsepower marine propulsion units such as the marine gas turbine. Similarly, the marine reactor assumes new importance and new economic value.

The economic attractiveness of nuclear power plants increases as the required horsepower level increases. The nuclear installations themselves become more efficient from an economic standpoint as the size of the power plant increases and the relative competitiveness with fossil-fueled systems is also enhanced as more and more of the ship's costs become attributable to fuel. In short, the higher capital cost of the nuclear reactor is compensated by its fuel savings.

The Maritime Administration recognizes that the emergence of any reactor system based on new nuclear technology is a difficult and costly affair involving many years of development and prototyping. It therefore has concentrated on improvement of current reactor technology rather than on the evolution of new but untried systems. Work is underway to reduce the cost of the systems similar to those now in use but specifically adapted to the high-power sea environment. The results of initial studies and efforts are encouraging even at this time and further investigations should ultimately lead to specific applications. Our approach at this time is extremely hard-headed and our viewpoint of nuclear power plants, like any other, is that they must fulfill all conditions required for economic and competitive sea operations.

Projects—The two major projects contracted with the above analysis in view are the (a) "Competitive Nuclear Propulsion Systems" project and the (b) "Competitive Marine Propulsion Systems Analysis" project. Each is described below:

(a) *Competitive Nuclear Propulsion Systems Project*—Following a major reassessment of MarAd's previous FY 1970 nuclear activities, Contracts MA-4918 and MA-4989, a contract (1-35030) was awarded to the Babcock & Wilcox Co. in July 1970 to develop an improved version of their CNSG reactor. Our objectives under this project are to define the role of nuclear propulsion in merchant shipping and to develop one or more standardized nuclear propulsion systems, adaptable to a variety of ship applications, which will afford superior economic performance relative to competing fossil fueled propulsion systems.

Primary emphasis is placed on reduction of capital cost through standardization and value engineering of the basic design, followed by industrial engineering to identify additional cost reductions achievable in series production. Babcock & Wilcox, assisted by George G. Sharp, Inc. for naval architecture-marine engineering, has proceeded on the basis of a letter contract since July 1970; negotiations toward the execution of a definitive prime contract are continuing.

The first phase of the on-going project, reported by B & W at the mid-year review in January, indicates considerable promise for economic superiority (i.e., nuclear more than competitive) over a fossil fueled steam turbine propulsion system in the high power range. The second half of the project, to be completed July 1971, is expected to reveal further improvement in the competitive position of nuclear versus fossil fueled propulsion as the results of the value engineering and industrial engineering phases are incorporated. A key task in the current project is directed toward defining the essential R & D which remains to be accomplished before the CNSG nuclear propulsion system can be made available to the maritime industry on a fixed price procurement basis. The cost of the essential R & D is expected to be considerable lower than previous estimates because the current design draws heavily on design concepts and components developed and proven in the central station nuclear industry in the past decade. The contract is scheduled for completion in September 1971.

(b) *Competitive Marine Propulsion Systems Analysis Project*—This project, initiated in-house near the close of FY 1970, solicited bids during the first quarter of FY 1971 for a comprehensive study entitled "Competitive Marine Propulsion Systems Analysis" covering a wide spectrum of propulsion types, including nuclear. Ten proposals, representing team efforts of 25 firms, were received and clearly indicated keen interest in the project by the naval architecture-marine engineering community. The contract (1-35058), which

was awarded January 21, 1971 to Booz-Allen Applied Research, Inc. with J.J. Henry Co., Inc. and United Nuclear Corporation assisting as sub-contractors, authorizes Phase I only (\$98,580 CPFF) and gives the Government the option to award Phase II (\$126,440 CPFF) on or before April 12, 1971.

In Phase I of the project contract, the Booz-Allen/J.J. Henry/United Nuclear team is performing a "General Marine Propulsion Systems Evaluation to identify world-wide requirements for marine transportation in terms of numbers of ships, service category, size, speed and propulsion system power level, and year of expected entry into service. Later in Phase I, the contractor will perform a "Technology Projection and Economic Opportunity Assessment" to develop information on the contribution of the propulsion system to the life-cycle costs of ships in all power ranges and to identify service benefits achievable through the development of improved propulsion systems. The Phase I results will provide a basis for determination of the relative priority which should be assigned to the development of one or more standardized propulsion systems. New propulsion system projects are expected to evolve and lead to award of outside R & D contracts later in the fiscal year when the Phase I results are evaluated. Phase I is scheduled for completion July 1971.

Phase II provides for an in-depth effort concentrating on the high power range (over 100,000 SHP), one of the four power ranges evaluated in Phase I. In Phase II the contractor would identify and evaluate in depth the requirements for competitive propulsion systems advanced beyond current state-of-the-art systems. The Phase II scope of work is viewed as an essential step in coordinating MarAd's various activities on high powered ships. Approval to proceed with Phase II, which would be completed January 1972, has not been received from the Maritime Administrator.

Question 11. You have stated that because of fund limitations you have pursued only those Research and Development projects which have a benefit/cost ratio of 300 percent of project cost. Please provide: (a) an explanation of how you arrive at that estimate, (b) the estimated benefit/cost ratios of each of the projects listed in answer to question 8 above, (c) a specific summary of how the estimated benefit/cost ratio was arrived at in the most expensive contract listed in answer to question 8 above.

Answer 11. A general introduction to our benefit/cost method is believed desirable and is presented here. Specific answers follow.

Introduction.—A project evaluation method was devised in late FY 1970 to be applied to the FY 1972 MarAd R&D Program formulation and budget request. The process was not available for analyzing the FY 1970 funded programs except for the major contract of the year, "Competitive Marine Gas Turbine", awarded to the General Electric Company in June 1970.

The evaluation process consists initially of a first order analysis to eliminate from consideration those candidate projects which have low benefit/cost ratios. This was done, first, by establishing priorities as follows:

(a) First priority was given to programs which will specifically support the President's Maritime Program so as to improve, on a near-term basis, the current shipbuilding and shipping operations of the U.S. Merchant Fleet and contribute toward reducing subsidies.

(b) Second priority was given to programs designed for farther out advances and time periods and directed toward evolving shipping systems which will pioneer new markets for American shipping and which will have higher performance and capabilities.

(c) Priority was also given to maintaining an appropriate level of effort in the filed of fundamental marine technology so as to support the near-term and farther-term programs with corresponding advancements in the state-of-the-art.

Secondly, these priorities were weighted numerically and projects in each of the three priority categories were assigned a probability of success. Benefits were estimated over the next thirty year period and costs over the development period. From these the benefit/cost ratios were derived.

Parallel to the first order approximation of benefit/cost ratios, a more precise, computerized program analysis scheme was devised for evaluating the FY 1972 R&D program. This then could be referred to as a second order analysis. This system was used to evaluate some of the key FY 1972 programs for which system analysis and adequate detailed benefit and cost data could be developed in time for the budget request. The second order evaluations generally confirmed the results of the first order analysis. In the para-

graphs immediately following, the program analysis, or evaluation, process is described briefly, followed by the answers to Questions 11(a), 11(b), and 11(c).

The objective of the analysis is to provide a rational basis for application of the R&D financial resources in the most effective way to improve the competitive posture of the U.S. Merchant Marine. This necessarily demands that the analysis be conducted such that economic benefits resulting from planned efforts, the means for effectively implementing the results and the program costs all be considered and quantified.

The economic basis for the program analysis was to consider the cost of a program development as an investment by the government on which a return should be expected. This return may be the result of reduced ship construction costs and therefore reduced construction subsidy, or reduced life cycle costs of ships which bring operating savings to the shipowner and reduced operation subsidy from the government. The return can result from advanced, more productive ships, from automated ships which bring about savings in crew size, or provide better navigation for safety and collision avoidance, from shipboard pollution abatement devices which result in savings from penalties and delays, or from special hydrodynamic advancements which reduce drag, increase propeller efficiency and therefore bring more economical ship performance.

The criteria, "Net Present Value" (NPV) and "Net Present Value Index" (NPVI) are used in analyzing a program. Each considers benefits and costs discounted to their present value by using a nominal interest rate. The NPV of a program is the present value benefit reduced by the probability of success of the program, less the present value cost. The NPVI is the NPV divided by the present value cost and represents a percentage return on investment.

Candidate program modules are defined by the research and development staff to the degree required for adequate program cost estimating on a five year planning basis. This "stream" of projected cash flows is then stored in remote data files easily accessible through computer time sharing services.

In order to assess program benefits, a generalized "baseline" description of the U.S. Merchant Fleet is developed over time. This "baseline" fleet of 300 ships is associated with the Merchant Marine Act of 1970. Using a "supply/demand" philosophy, measures of future cargo flow requirement are estimated along with the 300 ship fleet mix of standard ships (CMX derivatives) to provide adequate market penetrations in a macro-analytic sense. Finally, assumed ship contractual and delivery schedules and trade routes are utilized to depict the dynamics of fleet development.

This "baseline" fleet will be modified whenever changing requirements develop as a result of future analyses.

From the resulting "baseline" fleet, and its associated cost structure as projected from the current technological state-of-the-art, program benefits are estimated for each candidate program module over a thirty year planning basis. Such benefits are defined separately for three components of the maritime community-government, industry, and shipper. The resulting "stream" of projected cash flows is then also stored in remote data files as mentioned above.

Using the projected program costs and benefits for a candidate program module in combination with a probability of success, discounted cash flow analyses are undertaken with computer assistance to produce measures of economic desirability in terms of net present values and net present value indices. Variable discount rates may be utilized for each component of the maritime community to reflect particular costs of capital and fiscal resource constraints.

Candidate program modules can be ranked automatically according to priority by either of the two criteria and a total R & D program can be structured using this array as a basis.

11a. *Derivation of the 300 Percent Estimate*—The estimate refers to the structuring of the FY 1972 program. Candidate programs were analyzed to determine their NPVI either by the first order analysis or, wherever adequate system analysis and economic data could be established in time, by the second order analysis.

Programs equivalent to a total cost of \$36.450M for FY 1972 indicated NPVI values of at least 3.00 or 300%. Figure 1 shows the benefits plotted against FY 1972 costs for these programs after they were arrayed in descending NPVI values. The bend in the curve for a FY 1972 total cost of \$36.450M was the point at which programs no longer had a high payoff. The requested budget of \$27.1M for FY

1972 represented a minimum point between the FY 71 budget and the "knee" in the curve of Figure 1 which could still give a balanced and viable R & D program, one which adequately considered the near-term and mid-term priorities and goals established for the MarAd R & D program without neglecting the furtherance of advanced maritime technology.

FY '72 R&D PROGRAM CRITERIA

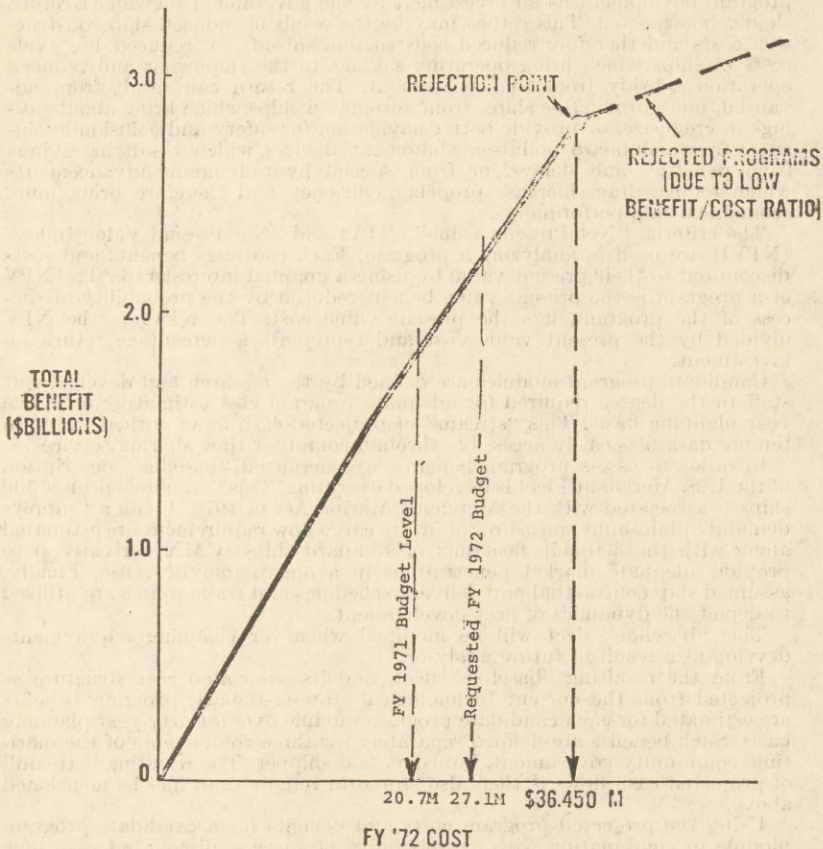


FIGURE 1

11b. *Benefit/Cost Ratios*—As pointed out in the Introduction above, the formal benefit/cost analysis was applied primarily to program modules of the FY 1972 MarAd R&D program: by the time the evaluation system was devised, the FY 1970 and 1971 programs had already been budgeted and were underway. However, the largest program in the FY 1970-71 period, namely, the development of the marine gas turbine, was analyzed and the results are shown in section (c) below. Also, as some of the FY 1972 program modules were extensions of or carry-on programs from FY 1971, these were also analyzed.

It must be kept in mind that the analysis used costs not only of contracts which may be shown in the answer to Question 8, but contracts which may follow and are extensions of these for five years ahead. That is, a given contract, by itself, may not result in any economic benefits, but will bring information or test results to go on to the next phase of a system development. Thus, the pro-

gram modules shown may consist of several of the contracts shown plus the cost of others still to be executed in the future before economic payoff can result.

Program:	NPVI
Commodity Form Change.....	131.7
Offshore Terminals.....	30.0
Crew Skills & Disciplines.....	20.0
Reserve Fleet Applications.....	14.1
Ship Maintenance & Repair.....	12.2
Contra-Rotating Propellers.....	11.9
Ship Pollution Abatement.....	5.0
Standard Shipbuilding Improvement.....	4.3
Marine Gas Turbine.....	4.7

11c. *Summary of NPVI Derivation for the Marine Gas Turbine Development Program*—This program was formulated in FY 1970 and contracted to the General Electric Company in June 1970. The total cost of the program over five years is \$8,024,000 shared on a 50%/50% basis with the contractor. The objective is to develop an industrial type gas turbine for marine application to those classes of ships for which such a propulsion system will be cheaper to install and operate than present systems.

The analysis is summarized in Figure 2. The first step is an investigation of the "baseline fleet" of 300 ships in the President's shipbuilding program to determine those classes of ships to which the gas turbine can be applied, their numbers and the years they will be built. Sixty such ships were identified. Benefits are considered as the capital cost savings resulting from using the gas turbine and the annual operating cost savings. These savings are projected over 25 years. The cost of the program is \$8,024,000 programmed as shown in Figure 2. The 25 year benefits are the sum of the total capital cost savings and operating cost savings, totalling \$200,050,000. Discounted to the present time and also multiplying by a "probability of success" factor of 47% the net present value (NPV) turns out to be \$32.21M and the NPVI becomes 4.72, i.e., a 472% return on the total investment. The "probability of success" factor itself is the product of three factors, namely, the probabilities of technical achievement, of economic impact, and of actual operational implementation.

EVALUATION OF INDUSTRIAL GAS TURBINE PROGRAM

OBJECTIVE: POWER PLANTS CHEAPER TO BUILD, INSTALL, OPERATE

MARKET	BENEFITS		R&D COSTS		
	CAPITAL COST SAVINGS	ANNUAL OPERG. COST SAVINGS	YEAR	GOV'T (\$'000)	INDUS. (\$'000)
10 TWIN SCREW CONTAINERSHIPS FY '79	\$17,800,000	\$1,380,000	1	329	329
20 SINGLE SCREW CONTAINERSHIPS FY '77, '80	\$23,600,000	\$1,380,000	2	835	836
30 SINGLE SCREW BARGE CARRIERS FY '76, '77, '79	\$35,400,000	\$2,170,000	3	842	842
			4	1103	1103
			5	902	902
TOTAL	\$76,800,000	\$4,930,000	SUBTOTAL	4012	4012
25 YEAR TOTAL	\$76,800,000	\$123,250,000	TOTAL	\$8,024,000	

CONCLUSIONS:

NPV = \$32.21M (47% PROBABILITY OF SUCCESS)
NPVI = 4.72

FIGURE 2

Question 12. Please provide the numbers and types of vessels in each of the National Defense Reserve Fleet sites and an estimate of how many of these vessels will be sold for dismantling in the remainder of fiscal year 1971 and in fiscal year 1972.

Answer 12. The numbers and types of vessels in each of the National Defense Reserve Fleets are listed hereinafter. It is estimated that 47 additional vessels from the Fleet will be sold for dismantling in the remainder of fiscal year 1971. It is further estimated that an additional 200 vessels shall be sold in fiscal year 1972. Location of ships offered for sale will depend upon market conditions.

[The following text is extremely faint and largely illegible. It appears to be a continuation of the answer, possibly listing vessel types and counts, but the details are obscured by low contrast and bleed-through from the reverse side of the page.]

EVALUATION OF INDUSTRIAL GAS FIBRE PROGRAM

PERCENTAGE POWER PLANTS OPERATING IN 1971

PLANT TYPE	1971		PLANT TYPE	1972	
	NO.	PERCENT		NO.	PERCENT
STEAM	100	100	100	100	
HYDRO	0	0	0	0	
NUCLEAR	0	0	0	0	
TOTAL	100	100	100	100	

[Faint text at the bottom of the page, likely a footer or page number, which is mostly illegible.]

ATTACHMENT TO ANSWER 12
MAR 300-8—MARITIME ADMINISTRATION, DIVISION OF RESERVE FLEET—SHIPS IN THE NATIONAL DEFENSE RESERVE FLEET

Design	Retention list 414		Special program candidates	Scrap candidates	Total	Location			SB	Oly
	CDC	Mil. aux				CM	JR	Mo		
Tanker (over-age)										
C1-A Diesel	5	1		1	1				1	
C1-B Diesel	1			4	10				2	
C1-B Turbine	6	1		17	24				11	
C1-M-AV1 & (R)		4	3	26	35				9	10
C2-S-A1		14		14	28				10	4
C2-S-B1 & (R)		1		1	2				1	
C2-F Cargo		3		5	8				5	
C2-Cargo & (R)		6		3	9				6	
C2-S-AJ1, AJ3		1		1	2				1	
C2-S-E1				2	2				2	
C2-SU(R)				2	2				2	
C2-T Cargo				1	1				1	
C3-C3E-C3M Cargo				1	1				1	
C3-P & C				4	4				4	
C3-INV(P&C)C3-P(P&C)				4	4				4	
Pass & Cargo (C3-type)				5	9				1	5
C3-S-A1, A2, A3		3		1	4				1	
C4-S-B2		1			1					
EC2 M-8078f'8g'8a.		18	1		19				29	1
EC2 S-C1				3	3					
EC2 S-22a				7	229				54	1
N3-M-A1		10		1	11				5	1
P2-S2-R2		8		8	16				7	1
P2-SE2-R1		6	2	4	12				4	1
R1-M-AV3		2		2	4				1	
R2-S-BV1										
S4-SE2-BD1				1	1				1	
S4-SE2-BE1				3	3				1	
T1-M-BT1		1			1				1	
T2-A		5		2	7				4	
T2-SE-A1		3		2	5				2	
T2-SE-A2		7		1	8				3	1
T3-S-A1		1		1	2				2	
T3-S2-A1		2			2				2	
V4-M-A1		16	4		20				16	8
V62 S-AP2		117	10		127				63	13
V62 S-AP3		21		3	24				5	3
V62 S-AP5		45	20	49	114				30	2
Z-EG2 S-C2				17	17				8	
Z-EG2 S-C5				2	2				1	
Z-ET1 S-C3 (conv.)				1	1					

Question 13. Please outline the policy of the Maritime Administration with respect to the sale of reserve fleet vessels for dismantling by non-United States nationals.

Answer 13. The Maritime Administration invites foreign participation only in those cases where the ships have been first offered exclusively to United States citizens without the receipt of bids or acceptable bids. Domestic bidders may again participate in bidding on ships offered for scrapping abroad.

Question 14. With respect to each vessel sold for dismantling out of the reserve fleet in fiscal years 1970 and 1971, please provide the following information: (a) the site from which the vessel was sold, (b) the type of vessel, (c) the name of the purchaser and that of the purchaser's parent corporation, if any, (d) the Nationality of the purchaser, (e) the price at which the vessel was sold, (f) if the answer to (d) is other than U.S. and any bid was received on such vessel from a U.S. bidder, the amount of the highest such U.S. bid.

Answer 14. The requested information of vessels sold for dismantling in fiscal years 1970 and 1971 is as follows:

VESSEL SOLD FOR DISMANTLING IN
FISCAL YEAR 1970

Ship	Site	Type	Purchaser/parent corporation ¹	Nationality	Sales price	Highest U.S. bid received
Marine Collier Castor (AKS-1)	Mobile Japan	Bulk Carrier C2 - Cargo	Mr. Mogens Olesen Mitsui & Co., Inc.	Denmark Japan	\$85, 100.00	None None
Pellux (AKS-4)	do	C2 - F	do	do	550, 000.00	
Elihu Thomson	Hudson River RF	EC2 - S-C1	Union Minerals & Alloys Corp	United States	40, 261.54	
Leonidas Merritt	do	EC2 - S-C1	do	do	40, 261.54	
Matthew T. Goldsboro	do	EC2 - S-C1	do	do	40, 261.54	
Moses Rogers	do	EC2 - S-C1	do	do	40, 261.54	
Percy E. Foxworth	Mobile RF	EC2 - S-C1	do	do	40, 121.54	
Stevenson Taylor	do	EC2 - S-C1	do	do	40, 121.54	
William A. Richardson	do	EC2 - S-C1	do	do	40, 121.54	
Shingle Hitch	Beaumont RF	C1 - M-AV8	Mr. Carnes W. Weaver	do	161, 255.00	
Monrovia (APA-31)	Portsmouth, Va.	C3 (P&G)	Portsmouth Salvage Co., Inc.	do	73, 330.00	
William Pepperell	Suisun Bay RF	EC2 - S-C1	American Ship Dismantlers, Inc.	do	40, 888.88	
William Paca	Mobile RF	EC2 - S-C1	Pinto Island Metals Co.	do	40, 600.00	
Stephen Leacock	do	EC2 - S-C1	Southern Scrap Material Co., Ltd	do	40, 000.00	
Alexander B. Gray	do	EC2 - S-C1	do	do	40, 000.00	
James G. Bancroft	Hudson River RF	EC2 - S-C1	Union Minerals & Alloys Corp	do	40, 102.54	
Francis J. A. Siscox	Mobile RF	EC2 - S-C1	do	do	40, 102.54	
William Eley	Suisun Bay RF	EC2 - S-C1	Zidell Explorations, Inc.	do	40, 102.54	
Bayfield (APA-33)	San Diego, Calif.	C3 - S-AZ	Levin Metals Corp.	do	41, 601.00	
Cavalier (APA-37)	do	C3 - S-AZ	do	do	41, 601.00	
Cimmaron (AO-22)	do	T3, S2-A1	do	do	2417, 107.00	
Mathews (AKA-96)	do	C2 - S-B1	do	do		
Bucyrus Victory	San Pedro, Calif.	V2 - S-P2	do	do		
Clarence H. Watson	Olympia RF	EC2 - S-C1	Union Minerals & Alloys Corp.	do	151, 000.00	
Robert Lowry	do	EC2 - S-C1	American Ship Dismantlers, Inc.	do	45, 000.00	
F. Marion Crawford	Mobile RF	EC2 - S-C1	do	do	45, 000.00	
Benjamin Bourne	Beaumont RF	EC2 - S-C1	Southern Scrap Material Co., Ltd	do	41, 700.00	
Thomas B. Robertson	do	EC2 - S-C1	do	do	44, 700.00	
John S. Sargent	Hudson River RF	EC2 - S-C1	Union Minerals & Alloys Corp.	do	44, 700.00	
Elihu Root	do	EC2 - S-C1	do	do	41, 218.54	
Samule Blatchford	do	EC2 - S-C1	do	do	41, 218.54	
Angus McDonald	Olympia RF	EC2 - S-C1	Zidell Explorations, Inc.	do	43, 216.54	
George D. Prentice	do	EC2 - S-C1	do	do	45, 000.00	
John H. Quick	do	EC2 - S-C1	do	do	45, 000.00	
Hugh M. Smith	do	EC2 - S-C1	do	do	45, 000.00	
Cape Junction	do	C1 - B	do	do	205, 000.00	
Louis Sullivan	Japan	EC2 - S-C1	Mitsubishi International Corp.	Japan	202, 800.00	None
James Gunn	Mobile RF	EC2 - S-C1	Pinto Island Metals Co.	United States	44, 600.00	
Christopher Gadsden	Beaumont RF	EC2 - S-C1	Southern Scrap Material Co., Ltd	do	40, 000.00	
Oliver Loving	do	EC2 - S-C1	do	do	40, 000.00	
Cape Saunders	Japan	C1 - B	Kanematsu-Gosho (USA) Inc.	Japan	210, 500.00	None
George Gale	Olympia RF	EC2 - S-C1	American Ship Dismantlers, Inc.	United States	41, 001.00	

African Lagoon	Suisun Bay RF	C2-S-B1	National Metal & Steel Corp.	do	70,129.32	None
Chapman	do	C1-B	do	do	42,738.19	None
Pvt. Sadao S. Munemori	Olympia RF	VC2-S-AP2	Zidell Explorations, Inc.	do	56,002.00	None
T. E. Mitchell	do	EC2-S-C1	do	do	43,002.00	None
Nathaniel Crosby	do	EC2-S-C1	do	do	43,002.00	None
William Black Yates	Mobile RF	EC2-S-C1	Union Minerals & Alloys Corp.	do	43,223.54	None
Jane A. Delano	do	EC2-S-C1	do	do	43,223.54	None
Norwich Victory	Japan	VC2-S-AP2	Kanematsu-Gosho (U.S.A.) Inc.	Japan	246,450.00	None
Jacob Chandler Harper	James River RF	EC2-S-C1	Eckhardt & Co., G.m.b.H.	Germany	133,333.00	None
Robert Ellis Lewis	do	EC2-S-C1	do	do	65,130.29	None
Charles Buifnuch	Hudson River RF	C2-SU(R)	Marine Salvage Co. Ltd.	Canada	119,110.25	52,212.54
Sea Serpent	do	EC2-S-C1	do	do	88,366.00	1,228.00
Robert Neighbors	do	EC2-S-C1	Steel Factors, Ltd.	do	84,600.00	None
Jeremiah M. Rusk	do	EC2-S-C1	do	do	84,600.00	None
James Fergus	do	EC2-S-C1	do	do	84,600.00	None
Irvine MacDowell	do	EC2-S-C1	do	do	95,323.00	None
Alcor (AK-259)	Charleston, S.C.	VC2-S-AP3	Lotti S.P.A.	Italy	44,000.00	40,106.00
Wendell L. Wilkie	Mobile RF	EC2-S-C1	Pinto Island Metals Co.	United States	44,000.00	None
Lyman Abbott	do	EC2-S-C1	do	do	43,800.00	None
Richard K. Call	Hudson River RF	EC2-S-C1	Union Minerals & Alloys Corp.	do	41,273.54	None
Roger Moore	do	EC2-S-C1	do	do	83,623.08	None
James Turner	do	EC2-S-C1	do	do	87,000.00	None
M. E. Commerford	Olympia RF	EC2-S-C1	Zidell Explorations, Inc.	do	43,680.54	None
John Dockweiler	do	EC2-S-C1	do	do	41,860.54	None
Joseph H. Kibbey	Suisun Bay RF	EC2-S-C1	Union Minerals & Alloys Corp.	do	44,200.54	None
Lew Wallace	do	EC2-S-C1	do	do	31,173.54	None
Nathaniel J. Wyeth	do	C1-M-AV1	do	do	40,100.00	None
Coastal Viking	Hudson River RF	EC2-S-C1	Zidell Explorations, Inc.	do	42,100.00	None
James T. Fields	Olympia RF	EC2-S-C1	do	do	39,906.00	None
Darrel Dudley Field	do	EC2-S-C1	do	do	39,906.00	None
Jarrett M. Huddleston	James River RF	EC2-S-C1	S.p.A. Cantieri Navali "Santa Maria"	Italy	32,206.00	None
Zebulon B. Vance	do	EC2-S-C1	do	do	32,206.00	None
Thomas Le Valley	do	EC2-S-C1	do	do	470,500.00	None
W. S. Jennings	do	EC2-S-C1	do	do	84,500.00	None
George F. Patten	do	EC2-S-C1	Dongkuk Steel Mill Co., Ltd.	Korea	84,500.00	None
Sam Cree	do	EC2-S-C1	do	do	41,888.88	None
Sidney H. Short	Beaumont RF	EC2-S-C1	Southern Scrap Material Co., Ltd.	United States	66,168.00	None
USS Shasta (AE-6)	Potomouth, Va.	C2-T	Mr. Isaac Varela	Spain	211,037.00	45,677.77
USS Tanner (AGS-15)	Bremerton, Wash.	S4-S2-BE1	Zidell Explorations, Inc.	United States	66,168.00	None
Jean Ribaut	Hudson River RF	EC2-S-C1	do	do	41,212.54	None
Daniel H. Lowndsdale	do	EC2-S-C1	Union Minerals & Alloys Corp.	do	41,212.54	None
Charles M. Schwab	do	EC2-S-C1	do	do	106,800.00	1.00
Frank Joseph Irwan	do	EC2-S-C1	Hierros Arades, S. A.	Spain	169,100.00	1.00
Marline Bend	do	C1-M-AV1	do	do	106,800.00	1.00
Theodore Foster	James River RF	EC2-S-C1	do	do	106,700.00	None
Charles Nordhoff	do	EC2-S-C1	Revalorizacion de Materiales, S. A.	do	105,400.00	None
Josiah Tatum	do	EC2-S-C1	do	do	106,500.00	None
Thomas A. McKinley	do	EC2-S-C1	do	do	131,400.00	None
Mormedark	do	C2-B	do	do	28,578.00	None
George Pomutz	do	EC2-S-C1	N. V. Innershita	Netherlands	203,600.00	None
William G. MacKoo (AVS-3)	do	EC2-S-C1	do	do	203,600.00	None

See footnotes at end of table, p. 86.

Ship	Site	Type	Purchaser/Parent corporation ¹	Nationality	Sales price	Highest U.S. bid received
Surprise	Hudson River RF	C2-SU(R)	N. V. Intershitra	Netherlands	231,600.00	None
Alcoa Partner	James River RF	C1-B	Agular Y Peris, S.L.	Spain	143,500.00	None
Alcoa Pioneer	do	C1-B	do	do	143,400.00	None
Fomalhaut (AE-20)	Hudson River RF	C1-A	Boston Metals Co	United States	52,666.67	
Aram J. Pothier	Beaumont RF	C1-B	Luria Brothers & Co., Inc.	do	43,880.00	
Ransome A. Moore	do	EC2-S-C1	do	do	41,280.00	
Ina Coolbrith	James River RF	EC2-S-C1	Northern Metal Co.	do	40,400.00	
Fisher Ames	Hudson River RF	EC2-S-C1	Union Minerals & Alloys Corp.	do	82,455.08	
Henry McAlleton	do	EC2-S-C1	do	do	41,227.54	
Pierre Laclede	do	EC2-S-C1	do	do	43,165.54	
William Phips	Mobile RF	EC2-S-C1	do	do	43,165.54	
Kenneth A. J. Mackenzie	do	EC2-S-C1	do	do	43,165.54	
Cornelius Gilliam	do	EC2-S-C1	do	do	43,165.54	
Jonathan Trumbull	do	EC2-S-C1	do	do	43,165.54	
Justo Arsenmena	Olympia RF	EC2-S-C1	do	do	43,165.54	
John T. McMillan	do	EC2-S-C1	West Waterway Lumber Co.	do	43,572.00	
Jonathan Grout (trooper)	Mobile RF	EC2-S-C1	Zidell Explorations, Inc.	do	43,000.00	
Alfred J. Dupont	do	EC2-S-C1	Southern Scrap Material Co., Ltd.	do	2 63,777.76	
Stephen Furdak	do	EC2-S-C1	do	do	2 61,202.08	
Isaac M. Singer	do	EC2-S-C1	Union Minerals & Alloys Corp.	do	43,217.54	
Samforth	do	EC2-S-C1	do	do	252,800.00	
Jamestown (AGTR-3)	Japan	Z-EC2-S-C5	Mitsubishi International Corp.	Japan	269,500.00	None
Oxford (AGTR-1)	do	Z-EC2-S-C5	Chin Ho Fa Steel & Iron Co., Ltd	do	49,400.00	None
Lincoln Steifens	James River RF	EC2-S-C1	Northern Metal Co.	United States	43,500.00	
Joaquin Miller	Mobile RF	EC2-S-C1	Pinto Island Metals Co.	do	43,182.54	
John Wise	do	EC2-S-C1	do	do	41,227.54	
H. H. Raymond	Hudson River RF	EC2-S-C1	Union Minerals & Alloys Corp.	do	41,227.54	
Henry Baldwin	do	EC2-S-C1	do	do	41,227.54	
Thomas B. King	do	EC2-S-C1	do	do	41,227.54	
Excallency	do	EC2-S-C1	do	do	61,999.00	
Sinnet	Suisun Bay RF	C3-E	National Metal & Steel Corp.	do	41,227.54	
Baylor Victory	Hudson River RF	C1-M-AV1	North American Smelting Co.	do	281,000.00	
Baltimore (AGTR-4)	Japan	VC2-S-AP2	American Ship Dismantlers, Inc.	do	100,393.93	
Memrose (LPA-212)	Baltimore, Va	VC2-S-AP3	The Boston Metals Co.	do	50,100.79	
Shelby	Bremen, Wash	VC2-S-AP3	Zidell Explorations, Inc.	do	46,400.00	
Willie Be Beran	Hudson River RF	C1-M-AV1	Modern Transportation Co.	do	40,500.00	
John Paul Jones	James River RF	EC2-S-C1	Northern Metal Co.	do	40,500.00	
Charles J. Golden	Mobile RF	EC2-S-C1	Pinto Island Metals Co.	do	40,661.54	
Edward D. White	Hudson River RF	EC2-S-C1	Union Minerals & Alloys Corp.	do	40,661.54	
Sawwaged	do	EC2-S-C1	do	do	43,212.54	
Susitna	Mobile RF	C1-M-AV1	do	do	2 67,500.00	
Tanana	Olympia RF	C1-M-AV1	American Ship Dismantlers, Inc.	do		

VESSELS SOLD FOR DISMANTLING IN FISCAL YEAR 1971 THROUGH MARCH 31

Carlos J. Finlay	Beaumont RF	E2-S-C1	Luria Brothers & Co., Inc.	do.	41,388.00	None
Harold I. Pratt	do.	E2-S-C1	do.	do.	40,888.00	None
James E. Howard	Hudson River RF	E2-S-C1	North American Smelting Co.	do.	2 82,796.00	None
Searcher	do.	Z-E2-S-C5	do.	do.		
Jacob S. Mansfield	Mobile RF	E2-S-C1	Tampa Dismantling Co., Inc. Trustee	do.	43,678.99	None
Kenyon L. Butterfield	Hudson River RF	E2-S-C1	Union Minerals & Alloys Corp.	do.		
Joseph W. Folk	do.	E2-S-C1	do.	do.	2 160,646.16	None
John Fiske	do.	E2-S-C1	do.	do.		
Joshua B. Lippincott	do.	E2-S-B1	do.	do.	53,000.00	None
Winged Arrow	Mobile RF	E2-S-C1	do.	do.	40,312.54	None
William Moutrie	Olympia RF	E2-S-C1	Zidell Explorations, Inc.	do.		
William D. Hoxie	do.	E2-S-C1	do.	do.	201,161.91	None
Henry S. Santord	do.	E2-S-C1	do.	do.		
Edward Delamy	do.	E2-S-C1	do.	do.		
Winslow Fomer	Hudson River RF	E2-S-B1	Aguiar Y Peris, S. L.	Spain	138,460.00	48,500.00
American Pioneer	do.	Z-FTL-S-C3	do.	do.	95,389.00	None
Norman O. Pedrick	James River RF	E2-S-C1	Eckhardt & Co., G.m.b.H.	West Germany		None
Albert S. Burleson	do.	E2-S-C1	do.	do.	225,235.00	None
Flommar	do.	E2-S-C1	do.	do.		
Marymar	do.	E2-S-C1	do.	do.	222,222.00	None
Mormacreed	do.	C3-TUR	Lothi S.p.A.	Italy	111,623.00	31,206.00
Mormayork	do.	V2-S-AP3	do.	do.	181,823.00	61,666.66
Range Tracker	Suisun Bay RF	V2-S-AP3	American Ship Dismantlers, Inc.	United States	62,777.00	
Exton	do.	E2-S-C1	Levin Metals Corp.	do.	40,300.00	
Johan Printz	James River RF	E2-S-AW1	Northern Metal Co.	do.	40,000.00	
Marine Shipper	Mobile RF	E2-S-C1	Southern Scrap Material Co., Ltd.	do.	40,000.00	
Egbert Benson	Hudson River RF	E2-S-C1	Union Minerals & Alloys Corp.	do.	40,161.54	
John E. Ward	do.	E2-S-C1	do.	do.	40,161.54	
John McLoughlin	do.	E2-S-C1	do.	do.	41,227.54	
Santa Cruz	do.	C1-A	do.	do.	2 52,180.54	None
Floyd Bennett	Suisun Bay RF	E2-S-C1	do.	do.	80,323.08	None
T. A. Johnston	Hudson River RF	E2-S-C1	do.	do.		
Herbert C. Croy	Olympia RF	E2-S-C1	Zidell Explorations, Inc.	do.	2 32,911.99	None
William Tighman	do.	E2-S-C1	do.	do.		
James McHenry	do.	E2-S-C1	do.	do.		
Aistede (AF-48)	James River RF	R2-S-BV1	Desguaces Maritimos, S.A.	Spain	223,724.00	None
George Wythe	do.	E2-S-C1	Hierros Ardes, S.A.	do.	102,666.25	None
Louisa M. Alcott	do.	E2-S-C1	do.	do.	102,666.25	None
Clara Barton	do.	E2-S-C1	I.C.E. Chemicals, Inc.	United States (scraps Turkey)	124,599.00	None
August Belmont	do.	E2-S-C1	do.	do.	113,099.00	None
Cape Friendship	Hudson River RF	C1-B	N. V. Intershitra	Netherlands	194,001.00	None
Santa Clara	do.	D2-S1-DG2	do.	do.	171,301.00	None
Henry D. Lindsley	James River RF	E2-S-C1	do.	do.	287,001.00	None
Salamonie (AO-26)	do.	T3-S2-A1	do.	do.	287,001.00	None
Georgetown (AGTR-2)	do.	Z-E2-S-C5	do.	do.	183,001.00	None
Irish Splice	Hudson River RF	C1-M-AV1	Revalorizacion de Materiales, S.A.	Spain	2 124,520.00	None
Salmon Knot	do.	T3-S2-A1	do.	do.	282,667.00	None
Kaskaska (AO-27)	Philadelphia, Pa.	C1-M-AV1	Tung Ho Steel Enterprise Corp.	China	50,839.72	None
True Knot	Hudson River RF	E2-S-C1	Weeks Stevedoring Co., Inc.	United States	90,500.00	None
John H. McIntosh	do.	E2-S-C1	Eckhardt & Co., G.m.b.H.	Germany		

See footnotes at end of table, p. 86.

Ship	Site	Type	Purchaser/Parent corporation 1	Nationality	Sales price	Highest U.S. bid received
Harold Dossett	do	EC2-S-C1	Eckhardt & Co., G.m.b.H.	Germany	90,500.00	1,228.00
Cyrus T. Brady	James River RF	EC2-S-C1	do	do	94,202.00	None
Rufus Chéate	do	EC2-S-C1	do	do	94,202.00	None
John W. Foster	do	EC2-S-C1	S.p.A. Cantieri Navali "Santa Maria"	Italy	216,000.00	None
Winfield S. Stratton	do	EC2-S-C1	do	do	do	do
Jose Bonifacio	Olympia RF	EC2-S-C1	American Ship Dismantlers, Inc.	United States	42,000.00	do
Rebecca Lukens	James River RF	EC2-S-C1	Horton Industries, Inc.	do	41,330.00	do
Hawaiian Retailer	Suisun Bay RF	C3-S-A2	National Metal & Steel Corp.	do	71,528.73	do
Frederic Remington	Mobile RF	EC2-S-C1	Pinto Island Metals Co.	do	42,800.00	do
Pere	do	EC2-S-C1	Tampa Dismantling Co., Inc. Trustee	do	41,522.69	do
Jesse H. McCallif	Hudson River RF	EC2-S-C1	Union Minerals & Alloys Corp.	do	2160,646.16	do
Inalcoon M. Stewart	do	EC2-S-C1	do	do	do	do
James Whitcomb Riley	do	EC2-S-C1	do	do	do	do
Charles Carroll	do	EC2-S-C1	do	do	do	do
Mar War	do	EC2-S-C1	do	do	do	do
Augustine B. McManus	do	EC2-S-C1	do	do	do	do
Bayer Hermann	do	EC2-S-C1	do	do	do	do
Cornelius Ford	do	EC2-S-C1	do	do	do	do
James Monroe	do	EC2-S-C1	do	do	do	do
George H. Pendleton	Mobile RF	EC2-S-C1	do	do	do	do
Anatarko Victory	do	EC2-S-C1	do	do	41,119.54	do
Eugene Skinner	Suisun Bay RF	VC2-S-AP2	do	do	51,119.54	do
William Carson	Olympia RF	EC2-S-C1	Zidell Explorations, Inc.	do	56,970.54	do
James Barbour	do	EC2-S-C1	do	do	41,270.00	do
Prince L. Campbell	Hudson River RF	EC2-S-C1	do	do	41,270.00	do
Anson Mills	do	EC2-S-C1	Hierros Ardes, S.A.	Spain	2430,120.00	None
Cape Lookout	do	EC2-S-C1	do	do	do	do
Pvt. William H. Thomas	do	C1-B	do	do	do	do
Pvt. Elden H. Johnson	do	C2-S1-A1	Tung Ho Steel Enterprise Corp	China	2746,667.00	None
Exchange	do	C2-S1-A1	do	do	do	do
Examiner	do	C3-TUR	do	do	do	do
Jerry S. Foley	do	C3-E	do	do	do	do
William Beaumont	Beaumont RF	EC2-S-C1	Reman Shipping Co., Inc.	United States	42,001.00	do
David Starr Jordan	do	EC2-S-C1	do	do	42,001.00	do
Charles D. Poston	Mobile RF	EC2-S-C1	Union Minerals & Alloys Corp.	do	41,121.54	do
Leif M. Olson	do	EC2-S-C1	do	do	41,121.54	do
Norman E. Mack	do	EC2-S-C1	do	do	282,243.08	do
Normarswen	do	EC2-S-C1	do	do	do	do
John Marshall	Hudson River RF	C2-Cargo	Hierros Ardes, S.A.	Spain	2251,362.00	None
Francis A. Wardwell	do	EC2-S-72a	do	do	do	do
Terry E. Stephenson	do	EC2-S-C1	Industrial Commercial de Levante, S.A.	do	2346,000.00	None
J. Sterling Morton	do	EC2-S-C1	do	do	do	do
Thomas Todd	do	EC2-S-C1	do	do	do	do
Clytie	do	C3-S-A2	Isaac Varela	do	507,500.00	None
George W. Goethals	do	C3-IN	do	do	do	do

VESSEL SOLD FOR DISMANTLING IN
FISCAL YEAR 1971 THROUGH
MARCH 31—Continued

Ship	Site	Type	Purchaser/Parent corporation ¹	Nationality	Sales price	Highest U.S. bid received
Blue Ridge Victory	Suisun Bay RF	V02-S-AP2	National Metal & Steel Corp.	United States	68,299.29	None
Exermont	do	V02-S-AP2	do	do	65,387.19	None
Henry Meiggs	Mobile RF	E02-S-C1	Union Minerals & Alloys Corp.	do	41,152.54	None
East Point Victory	Suisun Bay RF	V02-S-AP2	do	do	47,423.54	None
French Creek	Vietnam	T2-S-E-A1	Tung Ho Steel Enterprise Corp.	China	352,120.00	None
Lone Jack	do	T2-S-E-A1	do	do	351,100.00	None
Monterey	James River RF	C1-B(T)	Hierros Ardes, S.A.	Spain	\$ 172,500.00	42,660.00
Benjamin H. Hill	do	E02-S-C1	do	do	\$ 152,010.00	None
Benjamin Stillman	do	E02-S-C1	do	do	\$ 152,010.00	None
Julien Poydras	do	E02-S-C1	do	do	\$ 152,010.00	None
Lawrence D. Tyson	do	E02-S-C1	do	do	\$ 152,010.00	None
Maria Mitchell	do	E02-S-C1	do	do	\$ 152,010.00	None
Maria Mitchell	do	E02-S-C1	do	do	\$ 152,010.00	None
Pratt	do	E02-S-C1	do	do	\$ 152,010.00	None
Herriman	do	E02-S-C1	do	do	\$ 152,010.00	None
Henry M. Teller	do	E02-S-C1	do	do	\$ 152,010.00	None
Big Ship	Olympia RF	C1-M-AV1	American Ship Dismantlers, Inc.	Spain	74,950.00	None
Boat	do	C1-M-AV1	do	United States	33,155.51	None
Coastal Adventurer	do	C1-M-AV1	do	do	32,200.00	None
Croatian (T-AKV-43)	Beaumont RF	C3-S-A1	Marine Power & Equipment Co., Inc.	do	95,888.88	None
Chourre (ARV-17)	Suisun Bay RF	E02-S-C1	Southern Scrap Metal Co., Inc.	do	53,209.54	None
Schwylzer	Olympia RF	E02-S-C1	Union Minerals & Alloys Corp.	do	54,385.95	None
Capt. Arlo L. Olson	do	C1-M-AV1	Zidell Explorations	do	35,105.00	None
Reef Knot	do	C1-M-AV1	American Ship Dismantlers, Inc.	do	37,800.00	None
Flemish Knot	do	C1-M-AV1	Marine Power & Equipment Co., Inc.	do	31,683.00	None
Andromeda (AKA-15)	do	C2-S-B1	American Ship Dismantlers, Inc.	do	69,400.00	None
Will Rogers	Mobile RF	E02-S-C1	Marine Power & Equipment Co., Inc.	do	44,100.00	None
Murray M. Blum	do	E02-S-C1	Pinto Island Metals Co.	do	44,100.00	None
Kula Gulf (T-AKV-8)	Beaumont RF	Cargo ship, air-craft ferry	Southern Scrap Metal Co., Ltd.	do	108,888.88	None
Point Cruz (T-AKV-19)	do	do	do	do	108,888.88	None
George Read	James River RF	E02-S-C1	Union Minerals & Alloys Corp.	do	40,137.54	None
Edward Bruce	do	E02-S-C1	do	do	40,137.54	None
Augustus P. Loring	do	E02-S-C1	do	do	40,137.54	None
Helen Hunt Jackson	do	E02-S-C1	do	do	40,137.54	None
William McKinley	do	E02-S-C1	do	do	40,137.54	None
Thomas Sumner	Mobile RF	E02-S-C1	do	do	41,165.54	None
James Bennett Moore	do	E02-S-C1	do	do	41,165.54	None
Montague (AKA-98)	Olympia RF	C2-S-B1	West Waterway Lumber Co.	do	69,724.00	None
Jupiter (AVS-8)	do	Aviation supply ship	Zidell Explorations, Inc.	do	65,101.00	None

¹ This information is not available as it is not required by bidders since sales are by cash.

² Lump sum.

Question 15. Please provide a more detailed statement of the manner in which the \$7.3 million requested for the Merchant Marine Academy at Kings Point will be expended.

Answer 15.

Cadet Costs

Uniform and textbook allowance.....	\$384
Cadet travel.....	131
Laundry.....	18
Food service.....	594
Library books.....	38
Medical and dental supplies.....	15
Athletic program supplies.....	6
	<hr/>
	1, 186
	<hr/>
<i>Maintenance, repair and operating requirements</i>	
Maintenance staff.....	641
Protection and security staff.....	126
Contract maintenance.....	270
Supplies, materials, utilities and equipment.....	417
	<hr/>
	1, 454
	<hr/>
<i>Modernization program</i>	
Buildings (including cadet housing).....	253
Waterfront.....	535
Other support facilities (physical education, medical, etc.).....	125
	<hr/>
	913
	<hr/>
<i>Improvement of instruction equipment</i>	
Engineering.....	257
Nautical science.....	90
Math and science.....	15
	<hr/>
	362
	<hr/>
<i>Program direction and administration</i>	
Executive direction.....	103
Regimental staff.....	188
Administrative staff.....	614
Training.....	4
Travel.....	18
Superintendent's fund.....	2
	<hr/>
	929
	<hr/>
<i>Instructional programs</i>	
Faculty.....	1, 876
Supporting.....	419
Professional.....	77
Supporting.....	55
Training.....	15
Travel.....	14
	<hr/>
	2, 456
	<hr/>
	7, 300

NOTE.—All amounts in thousands.

Question 16. Why have you proposed a reduction in the level of funding for State marine schools?

Answer 16. The reductions represent a determination to tailor Federal support more to the normal, pre-Vietnam needs of the industry rather than to a State school enrollment steadily growing in the face of drastically reduced job opportunities for graduates. A further influence is the projection of a surplus of officers over the foreseeable future even when the full impact of the new building program is taken into consideration.

Question 17. When were the State marine schools informed of the proposed reduction?

Answer 17. The schools were advised at a meeting on November 20, 1970 that beginning with the classes entering in 1971 freshmen would not be paid the student allowance. By letter dated January 19, 1971 this reduction was modified to an extent authorizing payments to freshmen to the level of the number of freshmen entering the schools in FY 1965, the last year prior to the Vietnam escalation.

Question 18. Please provide per-student comparative cost data for Kings Point and the State marine schools.

Answer 18.

Schools:	Fiscal year 1970
California.....	\$5, 790
Maine.....	4, 370
Massachusetts.....	4, 665
Michigan.....	*11, 880
New York.....	6, 789
Texas.....	6, 588
U.S. Merchant Marine Academy.....	6, 835

*Average enrollment was only 10 students. As enrollment increases this figure will decrease.

NOTE.—The figure for the State schools reflect Federal funds, State funds, student funds and miscellaneous receipts. FY 1970 is the most recent year for which complete figures are available.

Question 19. Based on the fiscal year 1972 request what is the Federal Government's per-student cost for Kings Point and for each of the State marine schools.

Answer 19.

Schools:	Fiscal year 1972
California.....	\$1, 645
Maine.....	1, 025
Massachusetts.....	1, 002
Michigan.....	1, 200
New York.....	1, 019
Texas.....	2, 738
U.S. Merchant Marine Academy.....	7, 644

Question 20. Section 505 of the Merchant Marine Act, 1936, as amended by the Merchant Marine Act, 1970, authorizes the incorporation of foreign components in the construction of a vessel built with construction differential subsidy upon a finding by the Secretary that certain circumstances exist. Do you now foresee any products or components for which such a finding may be required and, if so, please provide an explanation?

Answer 20. The Maritime Administration does not presently foresee any products or components for which a finding may be required. At the present time, shipboard equipment appears to be available to meet normal shipyard schedules.

Question 21. Pursuant to the amendments made by the 1970 Act, it was your intention to adopt a simplified system of three two-party contracts in the construction of a vessel built with construction differential subsidy. What progress have you made in this regard?

Answer 21. Substantial progress has been made toward completion of new CBS contract forms suitable for use under Title V of the 1970 Merchant Marine Act. On March 27, 1971, notice was published in the Federal Register announcing the availability of the most recent contract drafts and inviting comment on those drafts by all interested parties. Deadline for comment is April 26, 1971 and the final contract forms, incorporating the substance of any meritorious comments, will be completed and ready for adoption shortly thereafter. Since members of industry and the general public will have had two formal opportunities to comment on the contract forms, no additional public distribution of the forms is anticipated prior to adoption of final forms by the Subsidy Board.

The drafts made available to the public on March 27, 1971 consist of three two-party contracts, a departure from the prior practice of dealing with all contractual relations in one three-party contract. Several provisions have been incorporated in the new drafts which vary substantially from provisions in both the prior CDS contracts and the prior drafts circulated for comment:

(1) *Changes.*—A new procedure is specified for handling of change orders, the net effect of which is to require agreement between shipyard and shipowner as to the cost and delay attributable to a change before work on the change commences. The only exceptions to the prior agreement requirement apply when the change involved is either necessary to remedy a substantial design defect or necessary to comply with a newly adopted law or regulation.

(2) *Disputes*.—The disputes clause has been eliminated from the two-party contract between shipyard and shipowner so that the role of the Maritime Subsidy Board as dispute adjudicator has been substantially narrowed.

(3) *Rights to design and engineering data*.—A provision has been added to the drafts requiring that ship design and engineering data developed or used in connection with a particular CDS contract be made available to the Board for use in connection with other CDS contracts. The purpose of this new provision is to facilitate the Board's goal of standardizing ship design and construction.

(4) *Documents and data to be furnished to the board*.—The draft contract between the shipyard and the Board requires the shipyard to provide to the Board specified documents and data sufficient to permit the Board to develop a complete and accurate file on the construction of each vessel built with CDS funds.

(5) *Value engineering*.—The clause relating to value engineering proposals by the shipyard has been modified to eliminate the penalty to the shipowner for failure to adopt a Board-approved value engineering proposal when adoption would cause any delay in delivery of the vessels.

(6) *Role of subsidy Board as an adjudicator*.—The role of the Subsidy Board as an adjudicator of such matters as time extensions and guarantee deficiencies has been eliminated. These matters are now subject to agreement or other resolution between the shipyard and shipowner.

Each of these changes, and several more not discussed, are aimed at simplifying the administration of the CDS contracts. Maximum effort has been made to streamline the gathering of relevant information and to encourage the resolution disagreement arising during the construction stage by agreement rather than by litigation.

Question 22. Section 607 of the Merchant Marine Act, 1936, as amended by the 1970 Act, provides certain tax benefits beginning in taxable years starting after December 31, 1969. However, in the six months since enactment of the 1970 Act, no regulations or forms of agreement have been published. Please provide an explanation of what has caused this delay including projected dates by which you expect the regulations and agreements to have been published.

Answer 22. With respect to the regulations and forms of agreement under section 607, the "delay" has resulted from the complexities of the statute with its associated regulations, and the need to coordinate these matters with the Department of the Treasury. In this last respect, we refer to the administrative delays inherent with coordinating work with another agency; meetings, memoranda and the like, rather than any intransigency on either side.

So far as our work at the Maritime Administration is concerned, we anticipated the eventual passage of the legislation and began work on the implementation of the tax deferred aspects in early July of 1970. During this development stage, it became evident that the regulations, to be issued by the Secretary of Commerce, and the joint regulations, to be issued by the Secretaries of Commerce and the Treasury, would take considerable time to complete so we decided to proceed with the development of the agreements as the primary objective. This will leave the many more difficult issues for the regulations and so long as the agreements afford signatories an opportunity to withdraw in the event of dissatisfaction with the final regulations or joint regulations, we believe this is the best and most rapid way to get the program started.

Between July and the enactment of the legislation on October 21, 1970, considerable progress was made within the Maritime Administration. In fact, by October 19, 1970, a fourth draft of the agreement form representing the "inhouse" efforts of the Maritime Administration have been prepared. Satisfactory progress continued until the end of the year at which time we decided we had made sufficient progress to move ahead jointly with the Department of the Treasury. Since the first of the year, we have been engaged actively in continuing discussions with Treasury attempting to move forward with both the joint regulations and the agreements. By the end of March we had resolved enough of the technical problems so as to permit more rapid progress.

Because the work on the agreements and regulations has proved to be lengthy and extremely complex, we have decided to proceed with an interim agreement while work on the permanent agreement and the regulations continues. This procedure will enable us to get the program under way more promptly without obligating the operator or the Government with respect to the permanent agreements. In other words, there is no obligation on the part of either side to convert

an interim commitment into a permanent agreement. The interim agreement was published for comment on April 6, and should be available for execution about the beginning of May.

The permanent agreement and all the associated regulations will take considerably longer. We should be publishing the permanent agreement for comment some time in May with a final form completed about the middle of summer. Some of the essential regulations under Commerce jurisdiction will be published in temporary form for use with the interim agreement. Others will be processed in the normal rule-making type procedure, but by fall, we should have substantially all these regulations in final form. The joint regulations will no doubt take longer since they do involve intricate tax questions interlaced with Maritime considerations. It appears that the joint regulations will be available toward the end of this year.

Question 23. Please provide the number of preliminary applications you have received under section 607 and the number and types of ships which you anticipate will be constructed based on those preliminary applications.

Answer 23. The Maritime Administration has received about 120 inquiries regarding the establishment of Capital Construction Funds. A great number of these inquiries were from fishing vessel operators who point out that this provision of the Act will permit them to replace vessels which are obsolete. With more modern vessels the earning capabilities of those engaged in the fishing industry should be improved. None of the inquiries have related to vessels to be used in the Great Lakes overseas trades but several of the Great Lakes operators have expressed a desire to use the Fund to construct Great Lakes bulk carriers and to reconstruct (modernize) existing ships. Although it is too early to quantify the numbers and types of vessels to be constructed under this program, inquiries received as to status of negotiations which will lead to the issuance of the necessary regulations and the agreement form lead us to believe that it will be used extensively by all segments of the industry.

Question 24. Section 804 of the Merchant Marine Act, 1936, as amended, required, in effect, that a person wishing to avail himself of certain grandfather rights must file a listing of his foreign flag activities within 90 days after enactment of the 1970 Act. With respect to each carrier who made such a filing, please provide the following information: (a) the name of the carrier and that of its parent corporation, if any, (b) the number, type and flag of the foreign flag vessels in which it has an interest, (c) whether such vessels are owned or chartered by the carrier, (d) the names of the affiliates of such carrier, if any, by which the vessels are owned or chartered or from which the vessels are owned or chartered.

Answer 24. Attached (pages 91-94.)

ANSWER NO. 24: SECTION 804 OF THE ACT AS AMENDED—STATEMENTS FILED REGARDING FOREIGN-FLAG ACTIVITIES

Name of company which filed statement under section 804	Type of interest in foreign-flag ships	Parent, subsidiary, or related company or companies	Number of ships (by flag and type)	Flag of registry	Type of ships
American Bulk Carriers, Inc.	Agent only.	None.	1	Liberia	Tanker.
American Steamship Co.	Owms 50 percent interest in Leadale Shipping Ltd.	Leadale Shipping Ltd. (Owner).	2	Panama	Do.
Atlantic-Richfield Co. (parent company)	Charter directly and through subsidiaries.	do.	1	British	Dry bulk carrier.
		Chartered directly by parent company	1	Canada	Do.
		Tanker Transport Inc. (wholly-owned subsidiary)—charterer.	4	Norway	Tanker.
		San Marino Tankers, Inc. (wholly-owned subsidiary)—charterer.	4	Liberia	Tankers.
		Marvin Steamship Corp., owner.	4	do.	Do.
Bethlehem Steel Corp. (parent company)	Subsidiary companies own, charter and operate		2	do.	Dry bulk carriers.
		Interocean Shipping Co., owner.	3	do.	Ore/oil carriers.
		Interocean Shipping Co., charter.	3	do.	Do.
		do.	1	do.	Dry bulk carrier.
		Interocean Shipping Co., operator.	11	do.	Do.
		do.	6	Italy	Do.
		do.	5	Norway	Do.
		do.	2	British	Do.
		do.	1	Norway	Ore/oil carrier
		Venore Transportation Co., owner.	1	Norway	Dry bulk carrier
		Venore Transportation Co., operator.	2	Liberia	Do.
		do.	2	do.	Do.
		Venoil Inc., owner.	1	Chile	Do.
		Venpet Inc., owner.	1	Liberia	Tanker (under construction).
Consolidated Mariners, Inc.	Owner.	None.	1	do.	Do.
Cosmos Steamship Corp.	Associated company acts as agent only.	Cosmos Carriers Trading Corp. (associated company), agent	1	Panama	Tanker.
		do.	1	Liberia	Dry bulk carriers.
		do.	1	do.	Tanker.
		do.	1	Greece	Do.
El Paso Natural Gas Co. (parent)	Subsidiary company is owner.	El Paso Marine Co., owner.	2	Liberia	Liquid natural gas carriers (under construction).
GATX-Armco-Boothie	Owner.	Parent companies—General Transportation Corp. and Armco/Boothie Corp.	1	do.	Tanker.
Hendy International Co.	Operator.	None.	7	do.	Ore carriers.
		do.	2	Norway	Auxiliary carriers.
		do.	2	Liberia	Bulk carriers
		do.	2	do.	Tankers.
Ingram Corp. (parent company)	Subsidiary companies own and operate foreign-flag ships, tugboats, crewboats and barges.	C. Rowbotham & Sons, Ltd., owner.	9	United Kingdom.	Do.
		Ingram Contractors S.A., owner.	8	Panama	Tugboats.
		do.	4	do.	Barges.
		do.	1	do.	Crewboats.
		Marine Equipment S.A., owner.	2	do.	Tugboats.
		do.	2	do.	Barges.
		P.T. Ingram Contractors, Indonesia owner.	1	do.	Do.
		Ingram Contractors, Australia owner.	1	Australia.	Do.

2 British----- Liquid tetraethyl lead carriers.

Chemical Trader (Bahamas) Ltd.,
owner.
Marine Transport Lines, Inc. a sub-
sidiary of GATX and the Marine
Oswego Group operates all of the
above listed ships. Also Marine
Transport Lines operates the follow-
ing ships not owned by the Marine-
Oswego Group:
Marine Transport Lines, Inc.,
operator.

Ogden Marine, Inc.----- Operates and acts as agent for foreign-flag
ships owned by its subsidiary companies.

-----do-----
Ogden Corp., parent company, subsidiaries
of Ogden Marine, Inc.:
Universal Bulk Carriers, Inc., owner.
Oriental Transport, Inc., owner.
Amerasia Transport, Inc., owner.
Ogden Amazon Transport, Inc., owner.
Ogden Thames Transport, Inc., owner.
Ogden Nelson Transport, Inc., owner.
Ships owned or chartered by subsidiaries
of Overseas Shipholding Group, Inc., and
operated by Maritime Overseas Corp.:
Philon Special Shipping, S.A., owner.
Global Bulk Carriers, Inc., owner.
-----do-----
Global Tankers, Inc., owner.
International Seaways, Inc., owner.
Trader Shipping Corp., owner.
OSG International, Inc., owner.
Transoceanic Tramp Ships, Ltd., owner.
United Steamship Corp., owner.
United Steamship Corp., charterer.

Overseas Shipholding Group, Inc. (parent)----- Owns and charters foreign-flag ships
through subsidiary companies
Maritime Overseas Corp. and Continental
Grain Co. have some common share-
holders and directors with Overseas Ship-
holding Group, Inc.

Ships operated by Maritime Overseas
Corporation:
Maritime Overseas Corp., operator.
-----do-----
-----do-----
Ships owned by El-Yam Bulk Carriers, Ltd:
Maritime Overseas Corp., operator.
-----do-----
-----do-----
Ships owned by a subsidiary of Continental
Grain Company: Oregon Steamship Co.
(Ltd.), owner.
Nauta Corp., owner.
Neptune Corp., owner.
Royal Transport and Trading Co., Ltd.,
owner.

-----do-----
Mercantile Navigation Corp., owner.

Penn Navigation Co. (parent company)----- Owns foreign-flag ships through subsidiary
companies.
Samuel Wang/Gloria Wang.----- Indirectly own foreign-flag ships.

2 Liberia----- Liquid petroleum gas/ammonia
tankers.
1 -----do----- Cresote tanker.
Bulk carrier.

1 -----do----- Do.
1 -----do----- Do.
1 -----do----- Do.
1 -----do----- Do.
1 -----do----- Do.
1 -----do----- Do.

1 Greece----- Bulk carrier.
2 Liberia----- Oil/bulk/ore carriers.
1 -----do----- Bulk carriers.
1 -----do----- Tankers.
1 -----do----- Bulk Carrier.
4 -----do----- Do.
2 -----do----- Ore carriers.
2 -----do----- Bulk carriers.
1 -----do----- Do.
1 -----do----- Tanker.

5 -----do----- Tankers.
3 -----do----- Bulk carriers.
1 -----do----- Oil/bulk/ore carrier.

6 Israel----- Bulk carriers.
4 -----do----- General purpose cargo ships.
4 -----do----- Refrigerated cargo ships.
3 British----- Dry cargo ships.

1 Liberia----- Dry bulk carrier.
2 -----do----- Tanker.
1 -----do----- Do.
1 -----do----- Do.

ANSWER NO. 24: SECTION 804 OF THE ACT AS AMENDED—STATEMENTS FILED REGARDING FOREIGN-FLAG ACTIVITIES—Continued

Name of company which filed statement under section 804	Type of interest in foreign-flag ships	Parent, subsidiary, or related company or companies	Number of ships (by flag and type)	Flag of registry	Type of ships
Sea-Land Service, Inc.	Time charters foreign-flag ships.	Sea-Land Service, Inc., charterer.	7	West Germany	Container-ships.
		do.	1	Panama	Container-ships.
		do.	1	Liberia	Do.
		do.	4	Norway	Container-ships.
		do.	2	Japan	Do.
		do.	1	Italy	Container-ships.
		do.	1	do.	Container-ship (under construction).
Seatrain Lines, Inc. (parent company)	Owns, operates and charters foreign-flag ships through subsidiary companies. All ships listed are operated by Commodity Chartering Corp., a subsidiary of Seatrain Lines, Inc.	Cia. Naviera Asiatic, S.A., owner.	1	Panama	Tanker.
		Cia. Naviera Topocilla, S.A., owner.	2	Liberia	Tankers.
		Seatrain International, S.A., owner.	1	do	Dry cargo.
		Cia. Naviera Marlena, S.A., owner.	1	do	Tanker.
		Cia. Naviera Lucretia, S.A., owner.	1	do	Do.
		Cia. Naviera Romano, S.A., owner.	1	do	Do.
		Seatrain International, S.A., charterer.	2	do	Containdrrship.
		Cia. Naviera Tocopilla, S.A., charterer.	2	do	Dry cargo.
		Cia. Naviera Asiatic, S.A., charterer.	2	British	Tanker.
		do.	1	Norway	Oil/bulk/ore carrer.
		do.	1	Liberia	Tanker.
Starboard Shipping Inc.	Operates foreign-flag ships.	Starboard Shipping Inc., operator.	3	do.	Tanker (under construction).
States Marine International, Inc. (parent company, Global Bulk Transport Inc.)					Dry bulk carriers.
T. J. Stevenson & Co., Inc.					
Waterman Steamship Corp.	Owns foreign-flag ships through subsidiary and related companies. United States Freight Co., a related company, owns foreign-flag ships through subsidiary companies.	Western Pacific Shipping Corp., owner.	2	do	General cargo ships.
		Madison Shipping Corp. (related company), owner.	1	do	Do.
		Coordinated Caribbean Transport, Inc., owner.	2	Panama	Ro/Ro trailer ferry.
		Alco Operators, Ltd., owner.	1	Liberia	Do.
		Universal Alco, Ltd., owner.	1	Panama	Barge.
		Tropigas Tankers, Inc., owner.	2	Liberia	Liquidified petroleum gas tankers.
		Freeport Cruise Lines, Inc., owner ² .	1	do.	Passenger ship.

¹ Statement is identical to that filed by Isthmian Lines, Inc.

² United States Freight Co. owns a 41.6-percent interest in Freeport Cruise Lines, Inc.

Question 25. The 1970 Act provided the Secretary with new authority over the administration of section 901 of the Merchant Marine Act, 1936. Please provide a summary of your activities and conclusions to date under this provision.

Answer 25. In response to question 25 of your March 31st memo on the above-noted subject, we delineate below our rule-making actions to date under authority of Section 901(b)(2) of the Merchant Marine Act, 1970:

1. January 15, 1971—Published Notice of Proposed Rulemaking (See Attachment A) on Cargo Preference Reporting System that would require data on all preference cargo movements to be submitted to Marad on freighted bills of lading within 10 working days of on-board date. After study of response to Notice and meetings with interested parties, lessened data and time requirements and allowed reporting formats other than bills of lading. Final Rule to be published within next few days, requiring reporting formats of shipper agencies to be submitted for Marad approval by April 30th. Rule to be effective July 1, 1971, (See Attachment B). Cargo preference data submitted will be processed by Bureau of the Census and printouts in a variety of formats and frequencies (See Attachment C) will allow us to monitor cargo preference administration, acting to correct U.S.-flag participation imbalances and other apparent inconsistencies, and to report to the Congress a comprehensive and detailed picture of cargo preference activity.

2. March 11th, 1971—Published Notice of Proposed Rulemaking dealing with "fair and reasonable participation" by U.S.-flag carriers in the carriage of preference cargoes to be measured not only in terms of the gross tonnages involved, but taking into account the freight revenues and the ratabilities of the cargoes carried (Attachment D). We are now studying the response to this Notice and will draft a final rule, applicable to participation in linear parcel carriage only, for publication and enactment by April 30th. Data from the Cargo Preference Reporting System will enable us to keep track of U.S. versus foreign flag participation in terms of tonnage, freight revenues and ratabilities of the cargoes.

3. March 17, 1971—Our third proposed Rule was published on this date and stipulates that the minimum U.S.-flag portions of preference cargo shipments be booked before any cargoes are allocated to foreign bottoms (See Attachment E). This will insure full U.S.-flag participation in programs where tonnages are unexpectedly reduced or where the transaction is suddenly curtailed. Marad is still receiving response to this proposal, and a final rule will be drafted after consideration of the comments of interested parties.

4. March 31, 1971—Notice of Proposed Rulemaking was published on this date concerning earned freight and freight payments on preference cargo (See Attachment F). Under this Rule, preference cargo freight is considered earned and 90% payable upon loading, with the remaining 10% payable within 45 days of completion of discharge. This Rule will relieve shipowners of the unnecessary burden of waiting months for freight revenue. Comments on this proposal are required to be submitted before April 30th and a final Rule should be promulgated shortly after consideration of the response.

5. Further rule-making proposals are being drafted concerning standardization of charter parties, public tender and bidding procedures for shipload fixtures, public announcements of preference cargo availabilities, a uniform interpretation of vessel "availability", transshipment situations, etc.

Question 26. Section 905 of the 1936 Act as amended by the 1970 Act, in effect, provided the Secretary with new authority to determine in regulations the amount and type of foreign-to-foreign carriage which would be permitted for vessels built with construction differential subsidy. Have proposed regulations been developed yet and, if not, what progress is being made in this regard?

Answer 26. Regulations with respect to Section 905 have been drafted and it is expected that industry will be given the opportunity to comment on the draft within the next month.

Question 27. With respect to each application for Title XI mortgage insurance on new construction received during fiscal year 1970 and 1971, please provide the following information: (a) the date of application, (b) the name of the shipowner and that of its parent corporation, if any, (c) the type and size of vessel involved, (d) the amount to be insured by the Government, (e) the name of the shipyard which is the primary contractor and that of its parent corporation, if any.

Answer 27. Attached table (pages 96-99)

Date of application and applicant	Parent	Number of Ships	Type and size	Amount of mortgage	Building Yard	Parent	Mortgagee	Disposition
NEW CONSTRUCTION, FISCAL YEAR 1970								
July 3, 1969: NWS Chemical Corp.	National Marine Service, Inc.	3	Barges, 30,000 bbl.	\$596,000	St. Louis Shipbuilding Division of Pott Industries, Inc.	Pott Industries, Inc.	Boatmans National Bank.	Approved Oct. 17, 1969.
Intercity Barge Co., Inc.	do.	2	do.	333,000	do.	do.	do.	Do.
Asphalt Barge Co.	do.	1	do.	197,000	do.	do.	do.	Do.
		2	Towboats, 1,350 hp	649,000	Maine I.W., Houma, La.	do.	do.	Do.
July 3, 1969: National Marine Service, Inc.		8	Towboats and barges.	1,500,000				Pending.
Nov. 6, 1969: Ingram Ocean Systems, Inc.	Ingram Corp.	1	Tug, 11,000 hp	2,629,000	Alabama Dry Dock Co.		1st Trust Co. of St. Paul.	Approved May 27, 1970.
Dec. 16, 1969: Wilson Marine Transit Co.	Litton Systems, Inc.	1	Barge, 33,000 bbl.	5,410,000				Pending, Letter application only.
		2	Ore carriers	43,750,000				Approved Oct. 23, 1970.
June 18, 1970: 652 Leasing Co.	Sun Shipbuilding & Dry Dock Co.	1	Tanker, 80,000 d.w.t.	18,000,000	Sun Shipbuilding & Dry Dock Co.	Sun Oil Co.		
Total		21						
RECONSTRUCTION								
July 7, 1969: Waterman Carriers, Inc.	Waterman Steamship Co.	2	Reconversions, 15,000 d.w.t.	4,115,000	Albina Engine & Machine Works, Portland, Ore.		Manufacturers Hanover Trust Co.	Approved Sept. 19, 1969.
July 21, 1970: Ocean Transportation Co.	Overseas Shipholding Group, Inc.	1	Tanker, 39,300 d.w.t.	6,414,000	Beth-Sparrow Point and Key Highway Yard.	Bethlehem Steel Co.	Chase Manhattan Bank.	Approved Apr. 29, 1970.
Total		3						
May 22, 1970: Lykes Bros. Steamship Co.		17	9 frigates and 8 clippers to finance 3 sea barge carriers and recon-	50,000,000	Beth-Quincy Yard, Todd-Galveston Yard.		Marine Midland Bank of New York.	Approved Dec. 15, 1970.

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Jan. 16, 1970: United States Lines.....	5	Construction of 9 frigates to containerizers.	32,000,000	Sun Shipbuilding & Dry Dock Co., Beth-Sparrows Point Yard, Norfolk Shipbuilding & Dry Dock Co., Todd-Galveston Yard, Todd-Brooklyn Yard.	Chase-Manhattan Bank.	Approved Mar. 18, 1970.
Total	22					
Total, fiscal year 1970	46					
NEW CONSTRUCTION, FISCAL YEAR 1971						
Aug. 7, 1970: Seabulk Tanker Co.....	4	4 Tugs, 6,500 hp; barges, 30,000 bbl.	25,854,000	Sun Shipbuilding and Drydock Co.	Sun Oil Co.	Pending, letter application only.
Aug. 13, 1970: 650 Leasing Co.....	1	1 Roll-on/roll-off, 14,200 d.w.t. container.	21,000,000	J. Ray McDermott & Co., Inc.	Guardian Life Insurance Co. of America.	Approved Jan. 15, 1971.
Aug. 24, 1970: General Marine, Inc.....	1	1 Tug, 3,000 hp.	945,300	Erie Marine Division of Rust Engineering Co. (Barge only).	Litton Industries, Inc.	Approved Dec. 2, 1970. Pending, incomplete application.
Sept. 10, 1970: Litton Industries Leasing Corp. Litton Industries, Inc.....	2	2 Tug, 14,000 hp; barge 30,000 bbl.	20,125,000	Southern Shipbuilding Co. (Log, Levingston Shipbuilding Co.)		Do.
Oct. 21, 1970: Ingram Ocean Systems Inc.....	2	2 Tug, 11,000 hp; barge 33,000 d.w.t.	9,746,625	Sun Shipbuilding and Drydock Co.	Sun Oil Co.	Approved Feb. 4, 1971.
Nov. 9, 1970: 653 Leasing Corp.....	1	1 Tanker, 80,000 d.w.t.	18,500,000	St. Louis Shipbuilding Division of Pott Industries, Inc.	Pott Industries, Inc.	Pending, incomplete application.
Nov. 24, 1971: Wisconsin Barge Line.....	1	1 River tow, 6,650 hp.	1,285,819	Consolidated Leasing Co. of America.		

Date of application and applicant	Parent	Number of Ships	Type and size	Amount of mortgage	Building yard	Parent	Mortgagee	Disposition
NEW CONSTRUCTION, FISCAL YEAR 1971—Continued								
Dec. 14, 1970: Alter Co.		1	Tow, 3,200 hp.	497,950	Superior Boat Works, Greenville, Miss.			Pending, incomplete application. Do.
Dec. 14, 1970: A.G.S. Chartering Co.		14	Box barges	1,102,500	Dravo Corp.			Do.
Dec. 1, 1971: Lone Star Navigation Co.		1	River passenger boat	6,000,000				Do.
Jan. 19, 1971: Interstate Material Transport, Inc.		1	Tug, 5,600 hp.	1,500,000	Maine Iron Works, Hama, La.			Do.
Interstate Towing Co.		1	Barge, 31,000 gross tons	4,000,000	Beth-Braunmont Yacht			Do.
Feb. 16, 1971: Kinsman Marine Transit Co.	American Ship Building Corp.	2	Ore carriers, 19,000 d.w.t.	21,962,500	American Ship Building Corp.			Do.
Feb. 24, 1971: Steuart Investment Co.		1	Tanker, 78,000 d.w.t.	14,000,000	Newport News Shipbuilding & Drydock Co.			Do.
Feb. 25, 1971: American Export-Isbrandtsen Lines.		3	Containerships	38,235,000	Bath Iron Works			Do.
Feb. 25, 1971: Central Gulf Steamship Co.		3	LASH, 19,000 d.w.t.	36,000,000	Avondale Shipyards.			Do.
		600	Barges, 375 d.w.t.	18,000,000				
		1	Towboat, 1,054 g.t.	1,675,000				
Mar. 5, 1971: Mid-South Towing Co.		71	Barges, 620 g.t.	4,725,000	Jeffboat, Incorporated & St. Louis Ship, Division of Poit Industries, Inc.			Approved Apr. 1, 1971.
		1	Chemical tanker, 34,400 d.w.t.	20,540,000				Pending, incomplete application. Do.
Mar. 16, 1971: PFG Industries, Inc.		1	Tanker, 120,000 d.w.t.	30,417,625				Do.
Mar. 22, 1971: Interseas Tanker Corp.		1	Dry bulk carrier, 26,000 i.t.	11,025,000	Manitowoc Co., Inc.			Pending, letter application only.
Mar. 17, 1971: American Steamship Co.								
Total		718						

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Aug. 31, 1970: American Mail Line Ltd.....	3	3 cargo ships to finance reconstruction of 3 existing ships.	9,750,000	Beth-San Francisco Yard.	-----	Approved Jan. 5, 1971.
RECONSTRUCTION						
Oct. 7, 1970: American President Lines.....	11	Various sizes and types to container-ships.	30,540,000		-----	Pending, incomplete application.
Total fiscal year 1971.....					<u>732</u>	

Question 28. On January 4, 1971, Chairman Magnuson wrote Secretary Stans inquiring what steps the Maritime Administration is taking to see to it that tankers built with construction differential subsidy or with the benefit of Title XI Mortgage Insurance were equipped with all reasonable anti-pollution precautions and devices. By letter of February 12, 1971, the Secretary informed the Chairman that construction incorporating "Load-on-Top" procedure had been made a precondition for receiving construction subsidy or mortgage insurance. What additional requirements have since been added or do you anticipate adding in the foreseeable future?

Answer 28. In addition to the enforcement of the "Load-on-Top" procedure as a requirement for receiving either Title XI or construction differential subsidy government assistance, the Maritime Administration will promote the concept of clean ballast tankers by encouraging operators to modify the cargo piping systems so that specific cargo tanks could be isolated for use as dedicated clean ballast tanks. As an alternative arrangement, all oily ballast overboard discharges will be required to be processed through a full capacity oily water separator, in order to permit the effluent to meet the legal purity standards established by the Environmental Protection Agency for U.S. waters, and the International Standards for the open seas. Based on recent international agreements reached by the Intergovernmental Maritime Consultative Organization (IMCO), the Maritime Administration will ask for the adoption of tank size limitations on large tankers by limiting the amount of oil released from tanks breached by collision or grounding. Additional antipollution features for tankers will include shore connections on deck to enable oily bilge and ballast to be discharged to shoreside treatment facilities and an emergency cargo transfer system capable of removing oil from breached tanks to other available tanks to minimize the release of oil to the sea.

Supplemental question. Please provide a more detailed statement of the purposes for which the \$40,300,000 supplemental appropriation for liquidation of obligations incurred prior to fiscal year 1969 is to be used, including: a) the name of each operator to be paid, b) the amount to be paid such operator, c) the fiscal years involved, d) a brief statement of the matter or matters that were at issue and which have now been resolved.

Answers. Supplemental (a), (b), (c) and (d).

MARITIME ADMINISTRATION, OPERATING DIFFERENTIAL SUBSIDY—CALENDAR YEAR 1968 AND PRIOR YEARS
(Dollar amounts in thousands)

Company	Period during which it is anticipated that bills will be presented for payment										Total		
	Payments made July 1, 1970 to Feb. 18, 1971		Bills on hand Feb. 18, 1971		Feb. 19—Mar. 31, 1971		April 1971		May 1971			June 1971	
	Year of obligation	Amount	Year of obligation	Amount	Year of obligation	Amount	Year of obligation	Amount	Year of obligation	Amount		Year of obligation	Amount
American Export Island Steamship Lines.	1966-1967	\$875	1964	\$2,195	1967	\$3,510			1968	\$5,099			
	1962	1,260	1965	1,269									
	1963	1,422	1966	1,259									
		3,557		4,823		3,510				5,099		\$16,969	
American Mail Line.	1962	3,333						1966	\$203	1967	384	1968	\$284
	1963	4,575											
	1964	2,506											
	1965	2,747											
		2,161							203		384		284
American President Lines.	1968	4,473	1965	1,717	1967	1,443							
	1966	4,500	1966	1,328	1968	1,535							
	1967	1,647											
	1962	21,606											
	1963	21,399											
	1964	21,665											
	1968	121,092											
	7,382		3,045		2,978								
Bloomfield Steamship Co.			1965	121									121
									1965	43	1966-1968	1,255	1,258
Delta Steamship Co. Farrell Lines.	1968	179			1968	1,304							
	1966	2,918											
	1967	2,104											
	2,111				1,304							3,415	
Gulf & South American SS Co.	1965	727	1966	1,386					1963-1965	283	1966-1968	101	384
			1967	1,758					1968	2,925			6,796
		727		3,144						2,925			

See footnotes at end of table, p. 102.

MARITIME ADMINISTRATION OPERATING DIFFERENTIAL SUBSIDY—CALENDAR YEAR 1968 AND PRIOR YEARS—Continued

(Do not amounts in thousands)

Company	Period during which it is anticipated that bills will be presented for payment						Total			
	Payments made July 1, 1970 to Feb. 18, 1971		Bills on hand Feb. 18, 1971		May 1971					
	Year of obligation	Amount	Year of obligation	Amount	Year of obligation	Amount				
Moore-McCormack Lines										
Oceanic Steamship Co.	1968 and prior	1,329	1965	394	1964	1,006	347	1966-1968	331	1,684
Pacific Far East Line	1960-1961 P.L.	52	1965-1967 G.L.	423	1966	432	606	1967	510	2,271
Prudential-Grace Lines	1962-1963 P.L.	244		43	1964-1965	464	41	1966-1967	114	985
	1962-1963 G.L.	1,886			1967 G.L.	1,562			1967 P.L.	15
	1968 G.L.	1,500			1968 G.L.	1,309			1968 P.L.	50
	1964 G.L.	2,744								
	1964 P.L.	397								
	1965-1967 G.L.	12,240								
	1968 G.L.	13,266								
States Steamship Co.		5,579		466	2,018	2,871	902	1964-1965	65	10,999
United States Lines					1962	383	147	1964-1968	468	2,180
					1962	517		1964-1968	1,652	2,316
Total		21,606		11,993	11,086	5,550	10,630		4,780	65,885

¹ Represent 90% and 95% Billings.

² Paid subject to agreement by company that payment of 90% voucher for Third Quarter of FY 1971 will be reduced by this amount and balance will not be paid unless or until supplemental appropriated funds for FY 1971 are available.

Above amounts do not include the effect of recent actions by the Secretary of Commerce which allowed contributions to Union Funds for medical center and hiring hall expenses and payments to seamen for First Class travel as eligible for operating-differential subsidy rate-making and payment purposes.

d. In the past year we have completed for all items of expense for all operators except one, final subsidy rates permitting 100% payment of subsidy accruals. In all cases these rates covered multiple years—in a number of instances from 1962 through 1968. The backlog of rate finalization was caused primarily by dissatisfaction of the operators with the subsidy rates proffered by the Board, principally with respect to crew wages and protection and indemnity insurance. Dissatisfaction with crew wages arose from a number of sources, such as manning disagreements, foreign wage costs, and Board disallowances of U.S. cost items. Protection and indemnity insurance disputes stemmed primarily from disagreement as to appropriate foreign flag premium rates and crew claims deductible averages, particularly where Marad had employed the wage subsidy rate complement in lieu of doubtful foreign costs for determining the applicable P&I subsidy rates and deductibles. To resolve these differences, which in several cases resulted in statutory hearings under Section 606(1) of the 1936 Act and/or court litigation, prolonged negotiations with the operators were required. All the outstanding issues relating to these subsidy rates have now been resolved, the matters in dispute settled with the operators, and the pending litigation withdrawn from the courts with prejudice.



